

**POWER AND IDENTITY**  
**IN**  
**THEORY-PRACTICE RELATIONSHIPS :**  
**AN EXPLORATION OF TEACHERS' WORK**  
**THROUGH QUALITATIVE RESEARCH**

by

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## DECLARATION

I hereby declare that this thesis is my own original work, and has not been submitted previously for a degree in any other university.



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**SUPERVISOR : Professor B.F. Nel, University of Natal, Durban**

## ABSTRACT

This thesis provides two interwoven sets of detailed descriptions with narrative lines. The first relates to five case studies involving secondary school teachers in schools in and around Durban during 1993 and 1994. This account focuses on the relationships between the teachers' thinking about knowledge and learning and their classroom practice.

The second account describes the processes and difficulties involved in qualitative research incorporating case study and participant observation methodologies - from gaining access to schools and developing a task to access teachers' thinking about knowledge to acquiring skills for observation, writing lesson descriptions, conducting interviews and completing different levels of analysis. In essence, this account traces the development of the researcher during the course of this project and also highlights both the strengths and the weaknesses of qualitative research as a mode of social inquiry.

Analysis of theory/practice relationships in each of these descriptions is centred around issues of power and identity, the data collected during the course of the fieldwork being used to develop grounded theory. The work of George H. Mead, Michel Foucault and Thomas Popkewitz provide the basis for the concept of power identity. The relational and shifting nature of power and its role in identity and theory/practice relationships - both in the work of the five teachers work and in qualitative research - is explored.

In the former, seven interrelated components of power are identified and the ways in which these strengthen and limit teachers' power identities are described. In the latter, the connections between epistemology and research methodology and the similarities between qualitative research and local criticism are highlighted together with the critical roles played by contradiction, language and reflexivity. Finally, the insights gained about theory/practice relationships and power identity are extended to provide possibilities for conceptualising rationality and teacher education.

The thesis is structured so as to capture both the contradictory elements and the shifts and developments that occurred during the study - those in the work of the participating teachers during the period of collaboration and those related to my personal epistemology and my practice as a qualitative researcher.

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## **Section A**

# **LOCATING THE STUDY**

## **Chapter One**

### **INTRODUCTION TO AND MOTIVATION FOR THE STUDY**

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This chapter provides the rationale for this research project, introduces the key questions addressed and defines those concepts that have guided the study. I introduce the study and my motivation for embarking on it by examining its origins as well as its connections to other areas in my life and to the broader research context. Finally, an outline of and explanation for the structure of the dissertation and a brief summary of each of the chapters is provided.

#### **THE ORIGINS OF THE STUDY**

Ballenger writes that “an important part of the research project is examining where a particular research question comes from in one’s own life - why it seems important to the teacher-researcher. In many cases, this is a matter of investigating one’s own socialisation, a kind of self-reflection that becomes an important part of the investigation” (1992: 201).

Since much of the work of this project has involved “a kind of personal hermeneutic” (Lincoln & Guba quoted in Quicke 1992 : 323), I have chosen to describe the origins of this study through a brief examination of three interrelated areas of my life - my professional contexts prior to and during the time that I worked on this research project, the early theoretical influences that shaped my thinking and the influence of my personal experience and interests.

## My professional contexts

The focus of this project arose out of my own experience and evolving identity as a secondary school teacher and, later, a teacher educator also engaged in formal postgraduate study. After completing a Bachelor of Arts degree (English and History) and a Higher Diploma in Education, I taught in a variety of secondary schools - two 'white' state schools<sup>1</sup> in suburbs close to Durban, a semi-rural mission school<sup>2</sup> for African children outside Mafikeng in the former Bophuthatswana<sup>3</sup> and a private 'open' school<sup>4</sup> situated centrally in Durban. During this time I had become increasingly interested in the learning process and, in particular, why it was that certain children failed to learn.

In the five years prior to embarking on this project I had studied for a Diploma in Specialised Education (Remedial Education) as well as two post-graduate degrees - a Bachelor in Education and a Master's in Education (Social Theory). I felt that the theoretical knowledge that I gained during these studies enabled me to better identify my own views and theories about knowledge and learning and to examine my classroom practice in the light of these. I thought that being able to identify some of the inconsistencies and contradictions between my thinking and practice helped me to focus my attention on aspects of my teaching that I wanted to develop or change. It seemed to me that achieving coherence between one's theory and one's practice - or, at the least, being able to articulate the contradictions between these in an attempt to understand and

- 
- 1 Prior to 1992 state schools in South Africa were categorised according to race. White children attended schools which were historically privileged under the apartheid government.
  - 2 Mission schools in South Africa have catered almost exclusively for African pupils. Although they received state subsidies, these schools were also supported by churches, both nationally and internationally. While still poorly resourced, many of these schools offered better facilities than those found in state run schools for black pupils.
  - 3 Bophuthatswana was one of several 'independent states' set up by the former Nationalist government in South Africa during the apartheid years. Although it was represented as a self-governing state, it was heavily supported by the South African state - both economically and politically. Bophuthatswana has since been reincorporated into South Africa.
  - 4 Private schools in South Africa were state-subsidised but were allowed to admit pupils from all race groups. Although an 'open' admission policy was followed, the majority of pupils in these schools were white pupils whose parents could afford the school fees which were substantially higher than those in state schools.

resolve them - was an empowering process. Not only did I grow in confidence as an educator, I was able to describe and to justify my practice which was sometimes seen by others as unconventional and without educational foundations. This position was very different to merely feeling instinctively (as I think many teachers do) that what I was doing in classrooms was right.

During the twelve years that I taught in secondary schools I began to shift from a more traditional and authoritarian approach to teaching to one where I encouraged my pupils to take greater responsibility for their own learning. These developments occurred over time and, I believe, were not necessarily inevitable. In fact, I doubt that they would have happened - or, at least, would have constituted such a powerful experience - without the period of formal study during which time I both broadened and deepened my theoretical understanding of knowledge and learning. So, for me, theoretical knowledge had been a powerful force in the process of my professional development - both in terms of my classroom practice and my identity as a teacher.

Later, as a teacher-educator at a technikon<sup>5</sup>, I began to question the success of initial teacher education programmes - particularly their success in enabling student teachers' to develop strong personal epistemologies on which they could base their classroom practice. I knew that many teacher-educators believed that entering the realm of epistemology with undergraduate students was a futile business. While I understood and sympathised with this point of view, in my own work I struggled to find ways in which I could introduce student teachers to what I considered a complex but vital study. My choice to do so was clearly a reflection of my own experience and development as described above and my resultant belief in the empowering effects of theoretical knowledge.

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5 In South Africa teacher education programmes are offered in universities, at colleges of education and at technikons. The latter offer a Higher Diploma in Education for secondary school teachers in the economic sciences, home economics, art and technical fields. Universities offer post-graduate degrees and diplomas for secondary school teachers while colleges of education, the chief providers of teacher education programmes, prepare teachers for both primary and secondary schools in all subject areas.

It was at this time that I began wonder to what extent other teachers' classroom practice was influenced by their thinking about knowledge and learning, and so my research question emerged. Put simply, it is: What are the relationships between teachers' theories of knowledge and of learning and their classroom practice? This question remains the chief focus of this study.

As I developed yet another aspect of my own identity during the course of this project - that of researcher - my interests in the field of theory/practice relationships broadened and I began to focus on the relationships between epistemology and research methodology. This focus lead me to develop a second question which is addressed throughout this thesis. This question is: What are the relationships between epistemological perspectives and research practices and processes?

It was my increasing interest in this second question that was largely responsible for my resignation from my post as a teacher-educator and my decision to work as an independent social scientist and research consultant.

### **My early theoretical studies**

In as much as the questions that gave rise to this study were "true questions" (Majo 1994) in that they arose out of my own personal experience as a teacher, a teacher educator and a researcher, they were also closely connected to my studies as a post-graduate student where I had become fascinated with 'theory' and, later, with 'research'.

In particular, it was through my studies in the philosophy of science that I began to develop an understanding of the various approaches to rationality and to connect these to views of knowledge and to educational theory and practice. While my understanding of these issues deepened and my personal epistemology shifted as a result of my engagement in this project, it was my early studies in critical theory that shaped the epistemological

and methodological questions that became crucial in my work as a qualitative researcher. These questions are: What counts as knowledge? and What counts as research?

Critical theory's contribution to rationality through its critique of instrumental rationality and positivist knowledge helped me to understand the way in which research methodologies impact upon knowledge-claims constructed during the research process and the way in which the researcher's theoretical understanding influences her/his methodological choices. The emphasis given by critical theorists to the social shaping of experience, the social construction of reality, to human agency and creativity were to be significant in many of the decisions I made in this project.

My early studies in critical theory had focused on the central values of the Frankfurt School - in particular, its commitment to penetrate the world of objective appearances to expose the underlying social relationships they often conceal. In adopting such a perspective, the Frankfurt School not only broke with all forms of rationality that wedded science and technology into new forms of domination, it also rejected all forms of rationality that subordinated human consciousness and action to the imperatives of universal laws.

I became interested in criticisms of the positivist view which separates facts from values, argues for objectivity that undermines critique, and which loses sight of the notion that essence and appearance may not coincide. According to critical theorists, positivist rationality and its technocratic view of science pose a threat to subjectivity and critical thinking. Positivism, in not recognising the factors behind the "fact", freezes both human beings and history. An important and primary task of critical theory, therefore, is the understanding the structural shaping of experience in order to effect change. Only in this way can one "possess the key to the historical situation, the right social theory" (Horkheimer quoted in Giroux 1983 : 17).

As a result of my readings in critical theory I came to identify the influences of instrumental rationality on teacher education programmes and educational theory and practice both in South Africa as well as in other countries. Educational theory influenced by instrumental rationality is constructed around a discourse and set of practices that esteem the immediate, measurable and methodological aspects of learning. Rather than viewing the classroom as “a cultural terrain where a heterogeneity of discourses often collide in an unremitting struggle for dominance, schooling is often encountered in these programmes as a set of rules and regulative practices which have been laundered of ambiguity, contradiction, paradox and resistance. Schools are presented as if they are free of all vestiges of contestation, struggle and cultural politics. Classroom reality is rarely presented as socially constructed, historically determined and mediated through institutionalised relationships of class, gender, race and power” (Giroux & McLaren in Popkewitz 1987 : 273). Student teachers are taught to view their own cultural capital and lived experiences as constituting some kind of standard cultural and political reference against which student meanings are objectified and measured.

Reflecting on my own experiences in the light of critical theory, I recognised teacher education programmes which positioned the teacher as a classroom manager and which served to reproduce the technocratic and corporate ideologies that characterised the dominant class in South Africa. In addition, I recognised utilitarian teaching perspectives where teaching was separated from its ethical, political and moral roots. I found myself in situations where the technique of teaching had become an end in itself rather than a means towards some articulated, reasoned educational purpose.

I came to realise that for student teachers in such teacher education programmes, knowledge is something that is detached from the human interactions through which it is constituted and by which it is maintained. These programmes do not provide student teachers with opportunities to develop the power to reflect upon the specific ideological and material conditions within and outside the schools and how these shape and constrain what is offered in the curriculum. As a result becoming a teacher requires solely mastering

the particular corpus of knowledge and the associated skills that are distributed through the rituals of teacher education.

Accordingly, the message that is communicated to prospective teachers is that being a teacher means identifying knowledge that is certain, breaking it into manageable bits and transmitting it to students in an efficient fashion. Being a student means acquiring this knowledge and learning how to use it in a context which does not include criticism and has little patience with analysis. In essence, this is the form of pedagogy that characterises transmission teaching and learning.

I believed that exposure to and knowledge of critical theory, starting as it does from a critique of ideology, could offer teachers the opportunity to become self-consciously aware of distorted knowledge. I understood self-conscious awareness of knowledge distortion as enlightenment, a necessary precondition for individual freedom and self-determination. An individual could become emancipated when, on the basis of his or her enlightenment, he or she took freeing action that changed the social system to permit the realisation of his or her unique human potential. Underlying the process of critique is the concept that existing social structures and beliefs are socially constructed and therefore changeable through social action.

I was particularly interested in the way in which some critical theorists (notably Carr and Kemmis) have shifted the level of the practitioner's attention from the local to the structural, from classrooms to social class. Here, the task is to raise action researchers' levels of consciousness beyond classroom or school concerns in order to intervene critically in all patterns of action which fragment communities and isolate individuals.

I learned of the connections between critical theory - with its interest in critique, reflection and emancipation and action research, which could be used as a vehicle for both criticism in classrooms and for initiating change in broader social practice. The democratic principles underlying action research, which seeks to enable those who are traditionally the

objects of enquiry to develop the capacity to examine their own practice, influenced my choice to work collaboratively with the teachers who participated in this project. I hoped that they would be encouraged to study their own practice and work out their own solutions to their own problems employing their own language and concepts rather than those of 'experts'. I saw action research as offering participants the opportunity to gain greater control over their own lives.

A more comprehensive outline of my theoretical studies and their influences on the methodological aspects of this project is provided in Chapter 8 together with a description of the changes in my personal epistemology that occurred during the course of the project. These changes constituted both shifts and developments in thinking and practice as I began to confront issues relating to local criticism, contradiction, representation, representivity and a discourse of 'truth'. The puzzles and challenges I faced in the course of the research journey served to deepen my understanding of the processes of research and to qualify and refine my views on rationality.

### **My personal experience and interests**

While the focus of this study arose out of my professional contexts and theoretical studies, my personal experience and interests were also influential in shaping aspects of the project. In addition, the connections between these three areas are clear. For example, I had become an English teacher because of my love of writing and reading and it was this interest in language and literature that shaped aspects of the design and the processes that I followed in this project. There were also close connections between my past experience as an English teacher and my interest in the way in which language is used in both structuring and interpreting experience and thought. My theoretical interest in discourse analysis as the key to developing an understanding of science as a social activity and scientific knowledge as a social construction made sense in the light of my previous work on the use and power of language in advertising and propaganda with secondary school pupils.

The combination of my interest in language and literature and my interest in the social construction of knowledge influenced my preference for biographical and narrative approaches in the research process. This, in turn, influenced my decisions relating to the final structure of the thesis as well as the style in which it is written. (Further comments in this regard are made at the end of this chapter.)

As the study progressed, I became increasingly aware of the extent to which some of the chief concerns of this project - theory/practice relationships, development and change, power and identity - connected with and reflected concerns in other areas of my life. In her book, *Lifting the Veil - The Feminine Face of Science*, Linda Shepherd writes of her realisation that her research pointed to psychological issues that had been the substance of her Jungian analysis for years (1993 : 119). Shepherd believes that the link with the psychological issue provides the psychic energy for the research work.

The study coincided with a crucial period of reevaluation in my life and I suspect that some of the results of the research project impacted on decisions I made to change other aspects of my life. Certainly, the fact that I had resigned from my post as senior lecturer in the Department of Education at a tertiary institution, opened my own research consultancy and made various personal life-changing decisions including relocating to another city were not purely coincidental.

In explaining the origins of my research questions, I have demonstrated that although these focus on theory-practice relationships in other teachers' classrooms, they also reflected aspects of my personal struggle to critically examine my own thinking and practice as a teacher, teacher educator, researcher and human being. The following subsection locates this project within the broader South African context and highlights wider contextual influences on the key questions and concerns.

## THE RESEARCH CONTEXT

The project spanned five years at an important juncture in South African history. I began the initial planning and reading for it in 1992 and collected the empirical data in schools during 1993 and 1994. Much of 1995 involved the organisation of this data and the initial stages of analysis while the final stages of analysis and documentation were completed in 1996.

With the release of Nelson Mandela in 1990, South Africa entered a period of transition. After the advent of the Government of National Unity in April 1994, programmes of reconstruction and development were formulated in many areas, including that of education. 'Transformation' became a key word reflected both in National Party documents - such as the *Education Renewal Strategy: Discussion Document* (CHED 1991) - and those drawn up by the African National Congress - such as the *National Education Policy Investigation Reports* (1993). 'Transition', 'reconstruction' and 'transformation' were also key concepts in conference themes where delegates began "to search to develop education policy and practice which would contribute to realising the changes promised by the new political order" (Kruss & Jacklin 1995).

While many of the initiatives for reconstruction and development were slow in getting off the ground, teachers in classrooms in the former 'white' state schools, which had been historically privileged during the apartheid era, soon began to feel the effects of change. For many of these teachers, this period of transition and reconstruction has proved to be a difficult and uncomfortable time and one that is frequently characterised by uncertainty. Still entrenched in the habits of the past, they are required to face and struggle with a variety of changes that are occurring in their classrooms. These changes include the admission of pupils who have been historically disadvantaged and who still carry the burdens of that disadvantage, widespread teacher retrenchments in the move to achieve equity in schools on a national basis, as well as the introduction of new curricula and new forms of school governance.

Few teachers in classrooms in 1993 and 1994 - the years during which I collected the empirical data for this study - had been trained to deal with the realities currently overtaking them. In spite of their past relatively privileged education and despite their teaching experience in 'white' schools, many of these teachers felt inadequate when facing the tasks that confronted them. In effect, they felt that they were being asked to play new roles without the necessary knowledge and skills.

The significant role played by schools and - by implication - teachers in the maintenance of apartheid has been well documented (e.g. Kallaway 1984, Davidoff & van den Berg 1991). Schooling was an instrument of the state and teachers were trained to promote the views of the former Nationalist government. Given the past system of separate development in South Africa, it is not surprising that education in South Africa mirrors the conflicts and the anomalies found in the wider society. There are important differences, too, in teacher education programmes, particularly in terms of the curricula offered to different race groups in different institutions. Parker and Deacon offer a comparison of three models of teacher education programmes in South Africa - the traditional model, the vanguard model and the critical model (1993). Although it is possible to identify such differences, two trends common to these programmes are of significance.

The first is the control exercised by the state over both the form and the content of teacher education programmes through the legislation of certification requirements for prospective teachers. The second is the influence of instrumental rationality on teacher education programmes - in particular, those programmes which have been informed by the conception of rationality, truth, knowledge and authority embedded in the "science" of Fundamental Pedagogics. According to Parker and Deacon approximately 80% of South African teachers are inculcated into Fundamental Pedagogics (1993 : 132).

The weaknesses of and dangers associated with educational theory which is informed by instrumental rationality have already been highlighted in this chapter. In addition,

Fundamental Pedagogics served as a form of social reproduction in South Africa in that teachers were trained as civil servants to operate in the interests of the state and to sustain and legitimate the status quo. The epistemic conservatism inherent in Fundamental Pedagogics and the teacher education programmes offered at historically black colleges of education and at some universities and technikons confirmed the early views that student teachers encountered in conservative and authoritarian schools as pupils.

The more 'liberal' teacher education programmes (notably those offered at historically 'white' universities) have provided a more critical view of schooling; however, the impact of these more critical programmes on teachers' classroom practice and on their professional development is questionable. My experience as a teacher educator reflected the results of Larry Cuban's study which examined the pedagogical practice of United States elementary and secondary school teachers. Cuban found that it was "remarkably impervious to the kind of pedagogy urged upon them as part of their teacher education" (Labaree 1992 : 139). He comments that while the dominant ideology of teacher education in the period under study has been to promote child-centred pedagogy in classrooms, teachers (especially those in secondary schools) persisted in conducting their classes in the traditional teacher-centred manner. He concluded that pedagogical tradition carries more weight than research-based evidence on effective teaching techniques and that this tendency is reinforced by student teachers' immersion in the realities of school after graduation. The learning acquired about teaching in teacher education programmes is easily shrugged off once newly qualified teachers close the classroom door.

My work with student teachers also pointed to the need to find ways to increase the impact of their learning on their classroom practice. I saw this as closely connected to the wider debates emerging in the post-apartheid era in South Africa. Debates which focus on the future of teacher education give emphasis to rationality, educational theory, teachers' knowledge and empowerment. An important question facing teacher-educators is: "How can teacher education programmes provide for teacher empowerment?"

While this research project does not engage directly with these wider debates, they serve to locate the focus of this study. To date, the debates has focused on macro issues, but there is acknowledgement that the transformation of education will require more than state strategy. For example, although a unified Department of Education at national level now exists, changes of policy and structure will not necessarily alter forms of classroom practice at the micro level. I believe that since it is these forms of practice that impact upon pupils' beliefs, attitudes and behaviour, research that includes teachers' perspectives is vital in that it will contribute to our understanding of the challenges and difficulties that they face in classrooms. Teachers' roles and their associated identities are central concerns in collaborative investigations.

In conceptualising this project, I hoped that, in addition to investigating theory/practice relationships in teachers' work, it would provide the participating teachers with the opportunity to explore new roles for themselves, forge new professional identities and alter the terms - including those relating to their personal epistemologies - on which they based their classroom practice. I believed that the focus on the role of the personal epistemologies of individual teachers would illuminate their influence on what their pupils learn in classrooms and how they apply this knowledge to their actions and interactions in society.

## **KEY QUESTIONS AND CONCEPTS IN THIS STUDY**

The working title of this project reflected my initial interests and concerns as described above. It was: *An investigation of teachers' theories of knowledge and theories of learning with reference to the influence of such theories on teachers' decisions in classroom practice.*

The key questions of the study can be summarised as below:

1. Do teachers' personal theories about knowledge and learning influence their classroom practice?
2. Do teachers recognise contradictions between their theories and their classroom practice?
3. What are teachers' perceptions of the causes of dissonance between their theories and their practice and how do they deal with these contradictions?
4. How does collaborative engagement in research projects empower teachers?

I hoped that the answers to these questions would contribute to the wider debates relating to both rationality and teacher education programmes.

In time, as my theoretical interests shifted and developed, and I began to interpret and analyse the empirical data, the title of the thesis changed to *Power and Identity in Theory/Practice Relationships: An exploration of teachers' work through qualitative research*. While some of the key concepts in this title had been central at the initial stages of the study, others emerged during the course of the project. A brief explanation of these concepts and this process follows.

### ***Theory/practice relationships***

Theory/practice relationships was and remained the central concern of this project. The term theory/practice relationships in the title of this dissertation refers to both the five participating teachers' and to me, the researcher. The theories, therefore, are articulated by specific individuals in connection with their practice - teaching and research - rather than as grand theory in isolated contexts.

My own experience as a teacher and a teacher-educator had lead to my construction of classroom teachers as having choices and making decisions. These decisions related to what to teach and how best to teach it. In addition, they faced decisions regarding assessment, organisation and management as well as discipline. It was as a result of this construction that I set out to ascertain to what extent teachers' decisions have their roots in or are expressions of personal epistemologies - teachers' own, often unexamined beliefs and assumptions about knowledge and the acquisition of knowledge. Again, it was my own experience as a teacher and teacher-educator that lead me to believe that personal epistemologies evolve over time as teachers "grow into their own truths" about teaching (Brookfield 1990 : xvii). I saw these "private truths" as helping teachers "develop a trust - a sense of intuitive confidence - in the accuracy and validity of (their) judgements and insights" (Brookfield 1990 : 12). I understood teachers' personal epistemologies as being influenced by a combination of "personal hunches, assumptions, established traditions, textbook contents, teachers' guides, research reports, and explicit theories" (Brause & Mayher 1991 : x).

This focus on individual teacher's personal conceptions of knowledge and learning does not deny or overlook the importance of social epistemologies. The study includes an investigation of social influences - historical and current - on the development of each teacher's personal epistemology. In addition, the socio-economic and political constraints each teacher faces in the course of her classroom practice are considered. In developing an understanding of the theories of each of the five teachers in the case studies, I have viewed each teacher as both an individual agent and as a product of her socialisation. In this way I have tried to understand the individual's capacity to recognise and face constraints and to challenge these and, thus, influence her social context.

This view of theory is found in much of the work of critical theorists for whom any understanding of the nature of theory has to begin with a grasp of the relationships that exist in society between the particular and the whole, the specific and the universal. It is in

the relations between theory and the wider society that meaning is given not only to the constitutive nature of a fact but also to the very nature and substance of theoretical discourse.

In addition, the notion that if theory is to move beyond the positivist legacy of neutrality it must develop the capacity of meta-theory has been significant to this study. I have understood this to mean that the value-laden interests represented in theory need to be acknowledged before one is able to reflect critically on both the historical development or genesis of such interests and the limitations they may present within certain historical and social contexts. This view of theory connects with the notion of self-criticism - a precondition for human freedom - which reveals the power of human activity and human knowledge as both a product of and a force in the shaping of social reality.

My conception of theory/practice relationships was also influenced by the challenge levelled by critical theorists and action researchers against the more traditional view where theory and practice are seen as distinct, the former being applied to the latter. In the traditional view, the insights and concepts of certain disciplines such as psychology or sociology are drawn upon to explain, inform or direct practice. Critical theory and action research urge the fundamental indivisibility of theory and practice arguing that theory is grounded in practice and that “all action is an expression of theory” (Griffiths & Tann 1992 : 70).

The complex relationships between knowledge and society are reflected in critical theory's conceptualisation of the relationships between theory and practice. Although the goal of theory is emancipatory practice, it requires a certain distance from such practice. Giroux describes theory and practice as representing “a particular alliance, not a unity in which one dissolves into the other” (1983 : 21) and describes the value of theory as lying in its ability to establish possibilities for reflexive thought and practice. Experience, alone, he argues, does not necessarily generate the insights necessary to make it transparent to the self.

I came to understand the importance of contradictions and consistencies in theory/practice relationships both through personal experience and as a result of my theoretical studies. As recounted earlier in this chapter, I had come to believe that identifying contradictions in my own theory/practice relationships lead me to work towards developing more consistent relationships. In addition, my studies in critical theory had highlighted that conflict and contradiction are endemic to social life. I was particularly interested in the notion that it was in the contradictions of society that one could begin to develop forms of social inquiry that analysed the distinction between what is and what should be. Interestingly, it was in struggling with the contradictions that emerged in this project that fostered a deeper understanding, and indeed a different conceptualisation, of the role of contradiction.

### ***Research as investigation***

While my interest in research methodology had been present even before I embarked on this project, this area of interest grew and developed to such an extent that it became an important second focus of the study. It was in relation to this aspect of the study that questions relating to the relationships between researcher, conceptions of knowledge and research practice were raised.

Interestingly, my initial proposal made no mention of the term ‘qualitative’ research but referred to my intention to conduct a “close study” of five selected teachers and to include observations of and discussions on their classroom practice. I believe that it was as a result of resolving the difficulties involved in the empirical work of this project that I began to develop a deeper understanding of many of the issues of qualitative research. These difficulties and the solutions I tried are highlighted in the thesis and their contribution to my understanding is described.

## ***Power and identity***

Once again, the absence of any direct references to power and identity in my initial proposal is interesting. Although there are references to “the empowerment of the participating teachers” who would be given opportunities to “co-author” the project by “telling a story of their own experiences”, I did not use the concepts of power and identity in connection with theory/practice relationships. It was only during the course of my analysis of the data collected that I began to articulate my interpretations around these issues and began to examine the work of Michel Foucault and Thomas Popkewitz in this light.

The terms power and identity in the title of this thesis also refer to qualitative research, the second focus of the project. As I began to learn about its processes and difficulties and to address the questions raised during data collection and analysis, I sought stronger theoretical foundations for my arguments relating to the power and identity of qualitative research. Here again, I drew on Michel Foucault - in particular, his concept of local criticism.

## **THE STRUCTURE OF THIS THESIS**

The thesis has a somewhat unusual structure but one that reflects important elements within the project.

### **An overview of the nine chapters**

There are three sections to the thesis. In Section A, Chapter 1 locates and contextualises the study both from a more personal perspective as well as within the wider educational debates that emerged in South Africa between 1990 and 1996.

Section B comprises five chapters which relate to the five case studies completed for this study. Each of the five case studies consists of two closely interwoven stories. The first of these stories has as its focus one of the five teachers in the study and the other deals with myself as researcher.

I have chosen to present these two stories in this fashion for a number of reasons. The first is because this structure most accurately reflects the historical contingency and the reality of the time I spent in classrooms and of the time I later spent organising and then analysing the data. This structure locates me, the researcher, within the research settings and phases rather than presenting me at a distance. This structure also allows me to merge the story of the research processes more intimately with the stories of the teachers.

The second reason, closely connected to the first, relates to my commitment to 'tell it all' as a means of opening up and making clear the lines of inquiry and the processes of research involved in these case studies. This structure also reflects and facilitates the developmental nature of the study by presenting a history of myself, the researcher in practice.

The third reason is that, quite simply, I believe that this choice has made for both more exciting writing and reading of this thesis. It has allowed me to make the most of the research design - in particular, its exploratory nature - as well as the more unexpected findings. In addition, it has allowed me to play in a more creative way with the data and its analysis in the final presentation - an exercise that proved both a challenge and a delight.

A more traditional position is taken in Section C. Each of the three chapters in this section centres around issues of power and identity - either in teachers' work or in qualitative research. The influences of both Glaser and Strauss, who argue for grounded theory (1967), as well as Michel Foucault who argues for archaeology as methodology (in Gordon 1980) are evident in this development of theory from empirical data.

Chapter Seven introduces the concept of teachers' power identities by defining power and identity and linking these definitions to those used by selected theorists. Seven factors that influence the development of teachers' power identities are defined and described. Each of these is grounded in the data collected in the five case studies. In this chapter each teacher's power identity is illustrated with reference to the theory/practice relationships in her work and to her professional development during the period of our collaboration.

The philosophical issues underpinning and relating to methodological decisions form the basis of the discussion in Chapter Eight. In this chapter I trace the changes in my epistemological position during the course of the project and clarify the research design and the practices and processes used. In addition, this chapter offers a power identity - a profile of the strengths and limitations - of qualitative research.

The final chapter, Chapter Nine, briefly summarises the study highlighting the various foci and the connections between them before opening up possibilities for conceptions of rationality and teacher education programmes. These possibilities are grounded in the theory developed around power identity and theory/practice relationships in Chapters 7 and 8.

After the bibliography and references are four appendices: Appendix A contains the pilot questionnaire and Appendix B the questionnaire and task finally used. Selected copies of lesson descriptions are presented in the Appendix C and D.

### **The style of writing in this thesis**

As described earlier, there are strong narrative and biographical elements in this study. Over time, in drafting the initial chapters of this document, I evolved a particular style of writing which accommodated both these elements.

In each of the chapters in Section B I employ four voices which enable me to move between the two stories - those of the teachers and that of mine, the researcher - in a fluent manner. The distinctions between these voices are best understood in the following ways.

The first voice is that of **the researcher**. I use this voice to describe elements of the research process as well as the difficulties that I grappled with during the collection, organisation and analysis of the data. This voice is most frequently to be found in the earlier chapters in Section B since it was in the first two case studies, in particular, that I experienced the most difficulties as I learned to cope with the demands of the research design.

It is the researcher's voice that reveals the soft underbelly of the research process and that traces my own development during the five case studies. In writing the final draft of this section of the thesis, I drew on the extensive fieldnotes I had written, the videotapes I had made during lessons and my memories of my experiences in the field - memories frequently jogged by the questions asked by others as I discussed the empirical work with them. I also made use of a conference paper entitled *Negotiating the Difficulties of Qualitative Research : A Reflection on Self and Process* (Wickham 1994b). This paper was not so much a description or an explanation of the research methodology I had used in investigating the relationships between teachers' thinking about knowledge and learning and their classroom practice, as much as a description of the by-products of the research project - its problems and possibilities, difficulties and developments.

The writing of this paper had essentially been an exercise in reflexivity and the information it contained related to my decisions and actions during the first four case studies as well as to the circumstances surrounding these. I had written this paper at a time when I was beginning to develop greater confidence in myself as a qualitative researcher but before my sensitivity to many of the problems associated with the research design had lessened and become blunter.

The second voice is that used to describe my observations of each teacher's classroom practice and to convey her thinking about and explanations for this practice. This **narrative voice** also makes extensive use of the teachers' voices - used in both their classroom interactions and in interviews with me. Our voices often intermingle distinguished only by quotation marks around the teachers' words. These quoted words are presented together with the pauses as well as the emphases in the teachers' discourse.

While the first person singular serves to introduce the researcher's voice, the narrative voice is usually introduced by naming the teacher in the study. Although each of the teachers claimed to be happy to be named and thus identifiable - and, indeed, each must be acknowledged for her participation in and contribution towards the study - I decided to assign each a fictitious name. The reason for this decision will become clear in the unfolding of their stories.

One of the main goals of the narrative voice is to paint an authentic picture of the school settings, the teachers and their work with the pupils. The descriptions relayed in this voice were influenced by my additional roles of teacher and teacher educator since the classroom practice I observed was filtered through these lenses and interpreted in relation to my own previous teaching experiences and preferences. The anxieties I experienced concerning the selective nature of these descriptions, the writing of fieldnotes and the positioning of the videocamera in classrooms as well as subsequent rewriting and editing are explored in the case study chapters and then again discussed in Chapter 8.

The narrative voice provides a chronological account of my interaction with each of the teachers and sequential descriptions of their work, thinking and development. Once again, such an account most accurately reflects the reality of the fieldwork for this study allowing me to trace the development both of the teachers and myself during the course of our time of working together. In this way, the beginnings of the process of semi-analysis is highlighted.

The third voice is that which engages in semi-analysis of the relationships between teachers' theories and their classroom practice. This **analytical voice** introduces the more traditional discourse of scientific research, for example, the use of the passive voice. This voice also highlights some of the main themes which are covered in greater depth in Chapter 7.

The fourth and final voice is that of the **authorial or thesis voice** which alerts the reader to the structure employed in the telling of the stories and, especially, to the disruptions in the chronology of the presentations of the stories. It is this voice that acts as the omniscient presence aware of the way in which mysteries in earlier chapters in Section B are solved in the later ones. It is also this voice which sometimes provides the reader with explanations of difficulties and solutions to problems before I, the researcher, was aware of them while researching of the case. At other times, I use the authorial voice to suspend explanation, asking the reader to travel with the researcher towards greater understanding in the subsequent case studies.

I believe that a successful blending of each of the voices described here is vital in working towards a richer notion of rationality. The researcher's voice deconstructs the interpretations of the analytical voice. The teachers' voices reported in the descriptive voice are seen to be partially constituted by the researcher's voice as well as being key features in the constructions presented in the analytical voice. The thesis voice structures the other voices, sometimes interrupting them in order to facilitate a clearer rendering of the complexities involved in reporting the case studies. The use of these different voices also highlights the craft required in both the analytical and writing processes.

Where these four voices do not blend easily, the dissonant moment is itself of value and I reflect on the lack of harmony and its possible causes. No doubt, there are other similar moments of which I am unaware but which readers will recognise and puzzle over. My

suggestion is that these moments are further examples of inevitable contradictions in scientific and rational processes and products.

While Section C does not lose sight of the biographical aspects of the project, a stronger analytical voice is used in these chapters. In Chapter 7 this voice is used in further developing the theoretical aspects of the semi-analysis found in Section B. Similarly, in Chapter 8 the analytical voice predominates as I highlight issues relating to the identity and power of qualitative research in the construction of scientific knowledge.

In entitling Chapter 9 “Concluding comments - opening up possibilities”, I ‘float’ questions and suggestions rather than couch these in definitive terms. The notion of ‘possibility’ informs the more tentative analytical voice used in this conclusion which serves to illustrate the ways in which grounded theory can be related to broader contexts.

## **Section B**

**FIVE CASES -**

**THE EMPIRICAL STUDY**

## OVERVIEW

Section B comprises five chapters which relate to the five case studies completed for this project. In each of these case study chapters, I begin by explaining the selection process before introducing the participating teacher and her school context. Since the context of teachers' thinking is important, this introduction briefly describes the schools in which the teachers worked during the period of observation and provides some information about the teachers themselves.

The initial interview, reported on in the following section, provided baseline data on aspects of teachers' thinking at the commencement of the study as well as the initial foci for observation. My own fears at this point in the study as well as my responses to the teachers' comments on the task I had set for them to complete in the initial interview are included.

The bulk of each of the case studies focuses on the theory/practice relationships that I identified in the three weeks of each study. Rather than providing detailed accounts of each lesson and the subsequent discussions of these in interviews, I briefly describe the topics or contents of the lessons and then highlight the common trends in practice relating these to teachers' views explored in interviews.

Finally, each case study is also a study in self-development - that of the teachers and of myself. Since aspects of the teachers' practice and theoretical conceptualisations were affected by their participation in the study, these changes are described and analysed in terms of their development. I also monitor the changes in my own research theory and practice over the course of the case studies - the observation and analysis of the theory/practice relationships in others' work. Furthermore, since 'me-search' became an integral part of this project, personal changes as well as professional changes are presented.

## **Chapter Two**

### **CASE STUDY ONE - LYNN**

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#### **PREPARATIONS FOR CASE STUDY ONE**

##### **Selecting the teacher and gaining access to the school**

When planning the research design for this study, I decided that the selection of teachers would best be facilitated by asking groups of teachers at particular schools to complete a questionnaire which contained a task. I pretested a pilot questionnaire with students studying towards higher diplomas in a variety of educational fields at the technikon where I worked before finalising the one used in the study. Copies of the pilot questionnaire and the final questionnaire can be found as Appendix A and B and a fuller description of the rationale behind these in Chapter 8.

The task which formed the focus of the final questionnaire required teachers to analyse two teachers' lesson introductions. I hoped that in completing this task, they would reveal their own preferences for approaches to teaching and learning as well as some of their ideas relating to knowledge. I expected an analysis of these interviews to provide me with some baseline data about teachers' theories and some initial foci for observation in their classroom practice.

One of the dilemmas I experienced at the time of gaining access to schools was how to characterise the study and how much of it to tell principals and teachers. Although committed to democratic and collaborative processes, I was worried that telling potential participants I wanted to find out more about their theories and how these influenced their

classroom practice would be threatening. I decided to provide a simple but not too simplistic or patronising an explanation of my interest. I explained that I was interested in the way in which teachers taught as well as their thoughts about knowledge and the learning process and the connections between these areas. I then concentrated on what the study would demand from the teachers - my observation of their teaching, their reading and then commenting on my fieldnotes and answering questions during interviews and when watching playbacks of videotaped material of their lessons. I stressed, firstly, that the object of the study was not to criticise their teaching or their thinking and, secondly, that they would have access not only to my fieldnotes but also to any papers written for conferences as well as the final thesis.

Lynn, the teacher with whom I worked in the first case study, was not my first choice. My first choice had been an African woman who taught in a township school outside Durban and who, at that time, was registered as a part-time education student at the technikon at which I then lectured. She had completed the initial questionnaire and had agreed to participate in the study. I had arranged for two weeks' leave which, situated as it was immediately after the Easter break at the technikon where I worked, provided me with a total of three weeks for lesson observations and discussions. As there was no finance available for technikon locum replacements at this time, I had chosen a period when many of the students I taught would be in schools for teaching observation and practice and I had prepared work for those who would continue to attend normal lecture sessions.

No sooner had I finalised all these arrangements than the assassination of Chris Hani in April 1993 led to considerable disruption in local schools, especially D.E.T. (the former Department of Education and Training) schools in the townships. The teachers in the school I had initially chosen were uncertain as to whether lessons would continue. Furthermore, they felt that my safety in the township was at risk.

Rather than put all my carefully laid plans on hold the week before the first case study was due to begin, I approached the acting principal at a school in which I had previously

taught. She agreed to speak to the teachers on my behalf and to ask if anyone was interested in participating in the study. Four teachers volunteered and I interviewed each of these. After transcribing and analysing these interviews within a week, I chose a young science teacher as I was interested in the extent to which she was able to implement many of her very interesting ideas but, once again, circumstances intervened. Subsequent to being interviewed, she found that she was pregnant and was reluctant to embark on a project that she thought might be more time-consuming and exhausting than she felt she was able to commit to.

Lynn, my third choice, agreed to participate in the study just days before my leave was due to start.

### **Introducing Lynn and her school**

Founded almost 100 years ago, the school at which Lynn taught - a private, all-girls' school - is situated in an affluent suburb in Durban overlooking the city. Although no nuns taught in the school, close links with the Catholic Church were maintained, and religious activities and education formed an important aspect of the pupils' everyday lives.

The school admitted pupils from the pre-primary level to standard ten with the largest numbers of pupils situated in the primary school. Having been open to all races and creeds since its inception, the school was characterised by a strong family atmosphere which was encouraged by the staff. The main buildings themselves conveyed a sense of history and tradition. It was commitment to the personal and individual aspects of pupils rather than to academic achievement and competition that best characterised the school.

At the time of the study, classes were relatively small and pupils were predominantly white. Lynn's largest class contained thirteen pupils and her one drama class had only three pupils in it.

Although teaching in a private school, the teachers did not have access to the same quantity and type of equipment as teachers in schools administered by the N.E.D. (the former Natal Education Department). For example, Lynn mentioned that she did not have easy access to an overhead projector for teaching purposes. While the school received a state subsidy, this amount covered only a percentage of staff salaries and the onus was on the parents to provide for other necessities.

A drama and English language teacher, Lynn had taught at the school for approximately five years prior to the observation period. She had started teaching at the school while I, myself, had been a teacher there so we already knew each other fairly well. Prior to working at this school, Lynn's twenty-three years' teaching experience had included lecturing in a teacher training institution as well as teaching drama privately. Still an occasional performer in NAPAC (Natal Performing Arts Council) productions, Lynn had an intimate knowledge of the theatre. As the drama teacher, she was responsible for school productions and she also gave extramural drama classes.

Lynn's physical presence was imposing; she was a large, but graceful, woman and had a strong and eloquent voice.

### **The initial interview with Lynn**

The main goals of the initial interview were to facilitate selection of the participating teachers and to identify both a framework for their thinking about issues relating to knowledge, to learning and to classroom practice and some initial foci for observation and investigation during lessons.

As already suggested, the first goal of the questionnaire was not entirely fulfilled; selection of Lynn was based on circumstances rather than choice. In retrospect, I think I was lucky to have had her contributions at the beginning of the project since her approach to teaching, although complex, was reasonably familiar to me since I, myself, had taught

English language for many years. I believe the success of the first case study rested on this serendipitous chance of selection which counterbalanced the difficulties I encountered with the demands of the research design.

The questionnaire used in the initial interview was useful in fulfilling the second goal of the initial interview; later, however, I was to identify a weakness in the task included in this questionnaire. Interestingly, both its strength and its weakness lay in the use of somewhat stereotypical teachers in this task. I present my analysis of its strengths at this point in the thesis but, in fact, I only gained greater clarity about these issues at the beginning of the third case study when its weaknesses were highlighted by the responses of the participating teacher. I report on these weaknesses as they emerged for me, the researcher, in Chapters 4 and 5.

The strength of the task was that teachers were able to recognise the stereotypes inherent in Teacher A and Teacher B's lesson introductions and to respond to them easily and fluently. This reduced my need to question teachers more specifically after asking them if they thought "good teaching" was happening in each of the lesson introductions. During these initial interviews, I encouraged the teachers to structure their own responses by focusing on any aspects of the lessons they chose but, at times, I prompted their thinking and responses by asking questions such as "If a teacher taught as Teacher A does in this lesson, how do you think such a teacher would think learning happened?" and "What sort of relationship do you think Teacher B has with her pupils?" as well as "If a teacher encouraged her pupils to learn as this teacher does, what do you think she thinks about knowledge?"

I had developed the task some months previously as a section in a conference paper (Wickham 1992) to illustrate the role of teachers' personal epistemologies in the social construction of pupils' knowledge. I had included Teacher A and Teacher B's lesson introductions as two possible approaches to classroom practice and then suggested possible consequences for pupils' social learning in these classrooms.

Lynn's response to this task is detailed in the following section in this chapter. I did not engage in argument with her (or, indeed, with the following four participating teachers) at this stage of the study because I did not want to appear critical of her thinking which might have been construed as threatening. Neither did I want to appear to favour any particular approach to knowledge or learning. While it is likely that my personal preferences for Teacher B's more democratic and learner-centred approach to classroom practice was revealed in my facial responses to Lynn's criticisms of Teacher A and her comments of approval of Teacher B, I avoided giving any verbal indications of these preferences.

After transcribing the initial interview, I analysed and summarised the contents in terms of the categories presented below. The following analysis is very similar to that completed at the time of the study, copied and given to Lynn for confirmation and modification. Later, I followed this pattern with the other four teachers in this study.

In analysing the initial interviews and in writing these analyses, while attempting to provide an holistic view of teachers' thinking, I separated the content into categories for easier manipulation. The categories were closely related to the main areas of focus of the study, i.e. knowledge, learning, classroom practice as well as aspects of their practice teachers wanted to change. I attempted to make use of all the information provided in the interview - even that which I found difficult to understand.

In attempting to understand Lynn's meaning and point of view around many of the more complex issues in her discourse, I found it helpful to draw flow charts and diagrams as I organised and ordered her explanations for analysis. While I found such exercises helpful in clarifying my thinking, I could not help but wonder to what extent this act of organisation and ordering in some way changed the views that had been expressed by Lynn. It was at this point that I became aware of the dangers inherent in this interpretive act and the relative power of the primary researcher. Later in the study I needed to face my increasing anxieties about this issue and come to some resolution.

## **Analysis of the initial interview with Lynn**

### ***Views on knowledge***

In her critique of Teacher A's lesson introduction, Lynn distanced herself from conceptions of knowledge based on "facts". For her, the mere accumulation and memorisation of facts - "encyclopaedic knowledge" - was "useless unless the person who is supposed to be taking it in knows why it is important and can learn how to use it". Information, she said, needed to be used "to explore life . . . and to cope with life". In this way she revealed her preference for knowledge which was both relevant and functional in the complex act of living.

During this interview, Lynn described knowledge as "culturally-based", "both sexually and socially". In explaining these ideas, she recalled aspects of her own classroom discourse. She distinguished between knowledge and values saying that in her work she "talked about universal values" which she described as "concepts based on knowledge and experience". While Lynn was uncertain as to whether knowledge and experience could be separated or whether they "actually go hand in hand", she said that although experiences could be "universal", "people chose different knowledge structures or knowledge forms to come to terms with those sorts of experiences". These choices, according to her, were subjective although the results of these choices would be widely experienced and understood.

While I recognised the theoretical standpoint of Lynn's description of knowledge as "culturally-based", I found it difficult to follow her distinction between knowledge and values which seemed incomplete and lacking in clarity. It appeared that she believed in different "knowledge forms" or "structures" for dealing with "universal experiences". Ultimately, these would give rise to "universal values".

Although Lynn did not provide a definition of education during this interview, her criticism of Teacher A's view of education as "knowing things are right or wrong" followed unproblematically from her conceptualisation of knowledge as culturally based..

### ***Views on learning***

Lynn's ideas on learning and classroom practice were more clearly and strongly expressed than her ideas on knowledge or definitions of education. In describing the learning process, she emphasised the importance of pupil motivation. She described teaching practice where the teacher uses "too many instructions" as "anti-teaching" and condemned teaching for examination purposes as "a form of bribery" since pupils are expected to learn only in order to get good marks. This practice, she said, "misses the point" that "the best of learning occurs when pupils *want* to learn".

Lynn characterised learning as meeting "challenges" presented by the teacher; consequently, good classroom practice would present pupils with many challenges including social challenges. The latter would encourage pupils to "cope with other opinions", to "argue", "select" and "negotiate". In addition, pupils would be learning about each other as people - "to know who they can depend on", who the leaders are and who can "help" and "guide" others. In this way, she believed "personal understanding" developed. Lynn believed that it is group work that facilitates the inclusion of social challenges as well as the development of personal growth in classroom situations.

### ***Views on classroom practice***

While Lynn felt that there were aspects of Teacher A's classroom practice that emphasised important aspects of the learning process - "concentration", "learning to work quickly" and "learning to pinpoint important issues" - she believed that this teacher was "one of those rote people" - although "not one of the worst kinds - and that there was an over-reliance on "note-taking", "worksheets" and "a lot of quantitative things".

In this interview Lynn stated that a good teacher would “clearly define” the “learning area” but would not dictate the answers. In justifying this argument, she said that pupils needed to “have the confidence to know that within the area there are the answers”. Lynn believed that different pupils would need to find these answers “in their own ways” and that these ways should challenge the whole person and not merely “academic thinking”.

Lynn liked the idea of the “verbal report-backs” used by Teacher B in her classroom practice. Not only did she feel that this activity encouraged pupils to take “responsibility” both for their own opinions and those of others in their group but that it also made for teaching that was “much more lively, exciting, efficient and effective”.

Lynn’s discourse suggested that she thought that a teacher’s view of and relationship with pupils would influence her teaching practice. For example, she described Teacher A as “the authority figure in her classroom, the one who knows, the one who has all the answers” while she saw Teacher B as having “a greater respect for her pupils as individuals”. As a result, Lynn said, Teacher B encouraged her pupils to come up to her level and “not to stay in an inferior position”. Lynn believed that a good teacher would strive to make pupils independent - “I must get my pupils to a point where they don’t need me”, where they can “go out there and do it themselves”. Lynn suggested that Teacher A would not be able to adopt this view because she lacked “confidence” and because it did not matter to her whether her pupils reached “beyond her”.

Lynn’s further criticism of Teacher A extended to the likely learning outcomes of her pupils. She felt the these pupils would “judge the world in quantitative terms”. She gave as an example of this - “the person who’s got the highest marks is the better person . . . no matter how they got those marks”. She remarked that it was the “social learning” that was more likely to happen in Teacher B’s lessons that would “make those kids so much different in their approach to life and how they live it and relationships with other people”.

### ***Areas of classroom practice identified as requiring change***

One of the last questions on the questionnaire - not directly related to the task already described - asked teachers to identify those areas of their practice that they would like to change and to explain why they felt that they would like to effect these changes.

Lynn felt that she would like to “move away from assessment-orientated teaching” and to “work more effectively across the curriculum into a holistic approach”. After identifying these two aspects of her classroom practice as areas she would like to change, Lynn added that she wanted “more doing, seeing, hearing and applying”. She believed that the necessity for “examinations and marks” inhibited her ability to achieve this. Lynn hoped that changing these two aspects of her classroom practice would enable her to “develop enquiring minds not automatons” and would lead to her pupils being “excited by what they learn”.

### ***Initial foci for observation and investigation***

In addition to a consideration of the two aspects of classroom practice Lynn felt she would like to change, I identified the following as the initial foci for observation and investigation: Lynn’s concern with values, her conception of knowledge as culturally constructed and her need for school knowledge to be relevant - in particular, to enable pupils to cope with life. I also hoped to clarify the connections and differences between Lynn’s references to different knowledge structures and universal experiences and values. In addition, I planned to examine her classroom practice for evidence of challenges - both academic and social -and of pupil motivation and independence. I expected that an investigation of the “learning space” Lynn provided for “personal understanding” and her relationships with pupils would provide additional foci.

In this way I hoped to develop both a theoretical profile as well as a description of Lynn’s classroom practice and to compare the relationships between the two.

At this point in the study I noted Lynn's own willingness to participate in the study and her suitability for participatory research work. This was evident in her stated belief that "it is always necessary for a teacher to evaluate her strategies, objectives, goals and needs in reference to her teaching". She added that this research project could help her in this process. In addition, I believed that her interest in social learning and co-operative efforts in knowledge construction would make her a very suitable co-researcher as well as a research subject.

I gave Lynn a copy of my analysis of the initial interview to read. In a follow-up interview, she confirmed the above analysis as an accurate reflection of her thinking and we made arrangements for me to observe four lessons during the following week.

## **WEEK 1**

### **Fieldwork - framework, practice and reflections**

I began writing my fieldwork diary the night before my observation of the first lesson. I wrote of my disappointment about not being able to work with the science teacher and of my concern that my previous working relationship with Lynn would 'contaminate' the study in some way. I wrote, "While Lynn and I have discussed quite a bit in the last few days and I know that she is interested in this research, I'm worried about the extent to which our agendas match and the extent to which we can be completely open with each other given the fact that we were once colleagues. On the other hand, I'm sure that she would do nothing to jeopardise the study."

My concerns in this regard were balanced by a degree of confidence in another. I had taught at this school for five years and had visited there for both professional and personal reasons since leaving three years previously so I felt that I would be on familiar ground.

Interestingly, at that time there is little recorded concern about my ability to meet the demands of the challenges inherent in the research design. Having read widely and refined the research design over the previous year, I felt relatively confident in embarking on the reality of being a qualitative researcher. Little did I realise the hazards that awaited me! It was only later that I came to understand that at that point I was poised to begin a journey - a rite of passage into qualitative research methodology - that would lead me from a point of theoretical knowledge where I understood and was able to use the jargon associated with the philosophies and perspectives underlying qualitative research towards a degree of comfort and ease with the demands of the practicalities of the work. Nor did I then realise that in putting my theoretical and philosophical understandings to the 'reality test', I, myself, would be tested, too. Least of all did I expect this project to be the very powerful emotional experience that it has been.

The activities that I had planned for the following three weeks were not limited to classroom observation. I wanted to write extensive fieldnotes during and after the observed lessons and to discuss these with each of the teachers after they had read them. I also planned to watch videotaped material of the lessons with the teachers and to use these to elicit their comments on and explanations for their classroom practice. This last idea grew out of the practice of using videocameras in microteaching classes at the technikon where I worked in teacher education. Student teachers recorded the lessons they taught to small groups of pupils one week and then analysed these in class groups with their lecturers the following week. I hoped that the skills I had developed during these sessions would be useful in this study, too.

I expected to begin the process of analysis during the observation sessions and to continue this while writing descriptions of the lesson as well as in the interview sessions with teachers. I hoped to begin transcribing the interviews during the three weeks I spent in the school and to complete transcriptions soon after leaving the field. This plan, I imagined, would lead me into the final stage of analysis of the theory/practice relationships in each teacher's work. While the skeleton of this design did not change to a large degree during

the course of the five case studies, my understanding of the processes involved in it developed in ways I could not have imagined at that time. This understanding has fleshed out the initial skeleton so that I now have a deeper appreciation of the complexities of the design and its processes - in effect, a different understanding of the nature of qualitative research. The changes in this understanding are presented in Chapter 8.

During the first week in the field, much of my time and energies were taken up with the decisions I needed to make relating to classroom observation. Many of these decisions were technical in nature - the best position to sit in the classroom, the best position for the camera. While I was less obtrusive at the back of the classroom, I found that the microphone attached to the camera was ineffective from this position. Fortunately, most of the classes at this school were small but I made a mental note that I would need to make other arrangements for future case studies where classes were larger.

Initially I was uncertain about the number of hours per day and the number of days per week that I should spend in classrooms. I was also unsure as to how much footage to capture on camera during each lesson and the extent of the fieldnotes I should attempt to write during the lessons. As most lessons were double periods of about 70 minutes duration and as the camera's battery lasted only 45 minutes before needing recharging, I switched the camera off during periods when pupils worked on written work or when the patterns of interaction in the lesson became repetitive. I hoped to record the major trends and patterns in Lynn's classroom practice as well as any innovative strategies she might employ.

Prior to commencing the first case study, I had read of the need for researchers to judge 'extinction time' - the time when those being observed would begin to work and respond in a more natural fashion during observation periods. During the first case study I found that pupils very quickly forgot about my presence after Lynn had introduced me and had briefly explained my interest in her lessons to them. While Lynn, herself, appeared to be more aware of my presence, there were times during lessons when I felt that she, too, had

forgotten about me and my camera. During an informal discussion, she confirmed this but commented that she thought that it might be more difficult for other teachers to ignore my presence.

My earliest notes written in the classroom were very sketchy and by the end of the first week I realised that I needed to watch the videotapes again to refresh my memory in order to provide the detail I wanted to include in these descriptions. The videotapes acted as permanent records of evidence allowing me to check back to get the feel of and relive classroom experiences again. Rewriting these lesson descriptions initially took me up to ten hours per lesson - much longer than originally anticipated and I found the exercise exhausting. I decided that I could not cope with more than three double periods a week so my questions about the number of observation periods were settled pragmatically.

By the end of the first week I had also learned that the more I was able to capture in the fieldnotes during the lesson itself, the easier it was to write up a detailed description at a later stage. In order to create “thick description” (Geertz 1973 : 3) and to “write lushly” (Ely 1991 : 80), I needed to concentrate very carefully throughout the lesson. Continual close attention and speedy shorthand were taxing but critical and I soon discovered that I could easily miss an important detail - a teacher’s turn of phrase or choice of words or a teacher’s ignoring a pupil’s raised hand. I became aware that it was often the minutiae of classroom life that offered puzzles for questions in interviews and that proved the most telling in understanding teachers’ thinking. Fine-tuning my skills of observation involved making myself explicitly aware of what was happening in classrooms.

In this way, I came to understand the danger of “connoisseurship” (Eisner 1991 : 63). After my own twelve years of classroom experience and a further five years as a teacher-educator, there was much that was familiar to me in classrooms. Indeed, it would be cause for concern if this had not been the case but the danger of this connoisseurship was that I often felt that I understood why it was that Lynn adopted a particular approach; consequently, I did not always ask her questions about certain aspects of her practice but

merely assumed her reasoning and justifications for her practice to be the same as mine. I learned to remind myself that my assumptions needed to be made clear and then offered to Lynn for authentication. In this way I made a conscious attempt to problematise my own thinking a lot more than I had initially done.

Before embarking on this case study, I had been concerned that I would feel a strong desire to 'do the teaching' and that this would distract me from the tasks of observing and describing. In reality I was so busy worrying during the first lesson observations, I had no time to think about wanting to teach! Instead I found that I became overwhelmed by the richness and complexity of the lessons and was often overwhelmed, too, by the number of decisions I had to make during this time and my anxieties relating to them. Although, in retrospect, I fussed over some trivial and unimportant details, as a novice researcher I was not in a position to judge the relative importance of many of the problems I faced. My fieldnotes reflect that I sometimes lost focus and forgot what it was I was trying to do in the study.

While I followed the suggestions I had read relating to recording one's difficulties and anxieties in the fieldnotes, I did not find this exercise particularly helpful at this stage. It was only towards the end of the second case study that I was able to re-read these earlier notes and notice the extent to which I had mastered some of my initial difficulties.

In addition to writing up full and detailed lesson descriptions using the fieldnotes jotted down in lessons and the videotaped material, I also needed to attend to other technological demands including recharging the battery for the camera, transferring footage from master tapes to storage tapes, labelling these and keeping records of the data collected in this way. These were daily chores during this first week and required discipline and setting new routines. My attention on these, I did not always have sufficient time to devote to writing detailed descriptions of lessons or to reading and analysing these.

At the end of the first week of observations, I again watched the videotaped lessons and rewrote the lesson descriptions with stronger analytical comments. During this time one of my greatest anxieties became clearer. This related to the effect that my prior knowledge and personal teaching preferences might have on the descriptions I wrote and, consequently, the knowledge-claims I constructed. While I was aware that observation is neither objective nor value-free and that an observer's vision is skewed by her own subjectivities - observation being simultaneously an exercise in selection and exclusion as opposed to 'immaculate perception' - I found myself wanting to write descriptions that were descriptive without being too evaluative. It was only later in the study that I accepted that rich, descriptive language contains evaluative elements and that it is difficult to divorce the two. At that stage, however, grappling as I was with the practicalities of writing fieldnotes and descriptions, I found little comfort in the theoretical knowledge I had gained from my previous readings. This, in turn, made me begin to question one of the major assumptions underlying this study - that theoretical knowledge facilitates better practice!

During the course of this week, I revised one aspect of my plans - that which had included watching videotaped material with the teachers and discussing this with them. I had hoped that this exercise would stimulate discussion which would be audiotaped and then transcribed. I soon discovered that setting up and working within this scenario was difficult. I needed to advance book the school's one (very popular) television room, set up the video machine and tape recorder and then co-ordinate the technology. This required switching off the video machine - or, at least, turning down the sound - when I wanted Lynn to comment on a particular aspect of the lesson. I found that while watching the videotaped material she made fewer spontaneous comments than she did when she read the lesson descriptions. When I questioned her about this, she told me that she found the lesson descriptions far more interesting to read. It appeared that the lesson descriptions, which contained my comments and interpretations as well as questions relating to my observations, served as a reflective mirror in a way that the videotaped material failed to

do. As a result of this discovery, I decided not to pursue the interviews based on the videotapes but to make these available to teachers as requested. My lesson descriptions became the key tool for stimulating discussions during interviews.

Examples of lesson descriptions are presented in Appendix C and examples of interview transcripts are presented in Appendix D.

During the first week of observation, I attended four double periods. The first of these centred on reading and analysing Ibsen's play *The Doll's House* and the second on the use of propaganda. The third lesson was a practical drama lesson where pupils were involved in perfecting breathing techniques, and, in the fourth lesson, elements of play production were considered and discussed. I also conducted one interview with Lynn during this week.

Lynn and I selected these lessons after consulting her timetable and identifying lessons which, we hoped, would demonstrate a range of the techniques she used in her classroom practice. I followed this procedure and rationale in selecting lessons in each of the subsequent weeks of this case study and in following cases.

Using the more detailed lesson descriptions I had written after leaving the classroom, I constructed descriptive categories of the common trends and patterns in Lynn's teaching practice then compared these to the views she expressed on knowledge and learning. What follows below is a more focused and detailed description of these as, once all the case studies were completed, I spent a longer period of time categorising and analysing the data than I had had time to do during the period of observation.

A more detailed description of the analytical process is given in Chapter 8.

## **Theory/practice relationships**

Both the connections and the contradictions within and between aspects of Lynn's classroom practice and the views she expressed in the initial and following interviews are presented below.

### ***Connections between classroom practice and views expressed***

#### ***Concern with values***

In reading *The Doll's House*, one of Lynn's chief concerns was to help pupils critically understand the historically and socially constructed values espoused by the characters. In doing so, pupils needed to examine their own value systems in the light of the class discussions on those values held by the characters they studied. These goals clearly connected with Lynn's comments in the initial interview where she stated that her work dealt with values and that knowledge acquisition should be linked to the task of learning to understand and to cope with life.

Much of this lesson centred around an analysis of two characters' words in an attempt to understand their values, motivations and personalities. Language analysis was used as a tool to penetrate behaviour and thinking and so to move beyond a superficial understanding or evaluation of this behaviour. Throughout this section of the lesson, Lynn encouraged her pupils to assess the worth of the values espoused by the protagonists and to pass judgements on their motivations and characters. She also encouraged them to be critical of currently accepted norms and beliefs as they did so.

Such examples of Lynn's classroom practice suggested that she believed that others' experiences, as revealed in literature and as mediated through the teacher and the other pupils in the classroom, contribute to pupils' developing value systems and their growing

ability to make value-centred judgements. This belief connected with Lynn's description of values as "concepts based on knowledge and experience".

### ***Culturally-based knowledge***

Lynn began the lesson on *The Doll's House* by helping pupils to draw on research they had conducted earlier in the year when they had gathered information on four historical characters whose innovative thinking had influenced the course of dramatic art. This approach reflected Lynn's belief in the need to contextualise knowledge and values - in this case, to situate the play and the values it contained within its historical and social context. Her holistic approach required that pupils move away from traditional classroom practice which compartmentalises knowledge. She was critical of the pupil who "threw titles" at her and presented answers "in little boxes".

During the course of the lesson on play production, Lynn stated strongly that a play director, while free to adapt, interpret and update the original material, must be "true to what was written". This statement suggested that she thought that the boundaries between interpretation and original meaning were relatively clear and that the knowledge developed within one context or culture was accessible to others. While I understood the latter suggestion to connect with her belief in universal values, I found myself questioning the notion that original meaning could easily be distinguished from another person's interpretation of it.

### ***Academic challenge and pupil independence***

In getting her pupils to conduct research into the historical and social context in which *The Doll's House* was written - an activity Lynn recognised as being difficult for them - she not only presented them with an academic challenge but also encouraged greater independence in her pupils. Once again, both these activities - providing challenges and

encouraging independence - were ones Lynn had associated with good classroom practice in the initial interview.

### ***Relevant theoretical knowledge and its practical application***

Lynn began the lesson on breathing techniques by getting the pupils to focus on their faults in recent past performances. Only after this did she introduce and emphasise the importance of using intercostal diaphragmatic breathing to help increase the volume of and control over their voices. In this way, in spite of a technical focus, the knowledge was presented in terms of its relevance - voice control and volume - and learned through experience. In this lesson Lynn constantly moved between theoretical knowledge and its practical application by linking factual knowledge to practical need.

As pupils struggled to recall the information from past lessons and attempted to build on this in response to further questioning, Lynn used the chalkboard to record their responses as well as her own words. She jotted down key words and pupils copied these into their own notebooks. The movement this activity required - for pupils, between practice floor and writing-tables, and for Lynn, between practice floor and chalkboard - reflected the dynamic relationship between theoretical knowledge and practical relevance in Lynn's classes. There were no neat divisions between thinking, doing and writing up knowledge as in a more traditional approach where knowledge is produced by experts and then written up in textbooks for pupils to digest.

As the breathing exercises were done in relation to the theoretical or to the factual knowledge recalled and presented, Lynn urged pupils to "feel" their breathing by placing books on their diaphragms while they lay on the floor or by feeling the vibrations in their throats, cheeks etc. In this way, not only was she able to observe the pupils' breathing but the presence and movements of the books made it easier for the pupils, themselves, to monitor their own breathing by feeling the weight and seeing the movement of the books.

Lynn's practice reflected the value she gave to "doing, seeing, hearing and applying" in lessons and learning.

The techniques thus learned were then extended to *Everyman*, the play the pupils had recently performed, so that they "can use them", again reflecting Lynn's concern that knowledge be useful and relevant and help the learner cope with life or, in this context, stage performance.

### ***Pupils' construction of knowledge***

Although one of the chief goals of the lesson on elements of play production was to prepare pupils for a possible examination question, Lynn worked from the pupils' own experience - in this case, their knowledge relating to the preparations made for the recent school production of *Everyman*. In the interview, Lynn pointed out to me that it was more "valuable" to work "from inside" but that pupils, while involved in practical work, found it difficult to grasp the essence of what they were learning.

This lesson's activity demanded that pupils reflect on their own performances and those of others as well as their thinking at the time of their performances. These reflections were used as a basis for developing key elements of production theory. In doing so, pupils shared in the task of knowledge construction and developed a greater sense of autonomy because they were less reliant on traditionally defined sources of knowledge - the teacher and the textbook.

### ***Social challenges***

In drawing on their own experiences and in sharing these with others, pupils met the social challenges inherent in producing clear communication, maintaining careful listening and initiating and responding to classroom debate. Not only did they need to select aspects of experience to communicate but they also needed to structure these reflections in ways that

were accessible to their peers and to Lynn. They also needed to confront and respond to any arguments and criticisms that arose.

### *Teacher transparency*

I became aware of the generous way in which Lynn allowed access to her own thinking and reasoning - even where she was uncertain about the answers - in the second lesson of the week. She did this by thinking aloud freely in front of the class. For example, when she was asked the date in which Orwell had written *1984*, she said that she did not know but, in describing something of the contents of the novel and in relating Orwell's aims in writing it to world events at the time of writing, she deduced an approximately date. This example both reflected the way in which Lynn allowed pupils to follow her deductions as well as her view of the importance of contextualising knowledge.

Another example of the transparency in Lynn's classroom thinking and practice was evident in the way in which she dealt with one of her own spelling errors. She openly admitted to being uncertain of the spelling of "propaganda" when writing it on the chalkboard. After seeing the correct version in a textbook later, Lynn drew pupils' attention to the correction she then made on the board. After checking in a dictionary, Lynn explained that a good method of learning spelling was to find out the roots of the word in question. She explained that the term "propaganda" did not arise from "proposal" but from "propagate" and the second "p" was, therefore, followed by an "a" and not an "o". By working through her own mistake in this transparent manner, Lynn allowed pupils not only to understand the reason for her spelling error but also provided them with a strategy for learning and checking spellings in general. In doing so, she worked from the specific to the general and through an error provided an opportunity for further learning. This example of her classroom practice also demonstrates the ease she felt in **not** presenting herself as an authority but rather as someone capable of failure and ongoing learning.

In correcting pupils' breathing techniques, Lynn explained how she was able to see that pupils were not using the correct techniques or who was straining unduly. This provided pupils with additional information from another perspective to enable them to better understand the technique they were trying to perfect. Allowing pupils to access her perspective was a strategy Lynn frequently used. Similarly, when exaggerating sounds in order to make these more easily distinguishable for pupils, Lynn explained this teaching strategy.

Lynn's tendency to think aloud not only made it easy for pupils to follow her train of thought, it also made it easier for me, the researcher, to understanding the thinking behind her practice.

### *Teaching and learning aids*

During the first week I had noticed that Lynn's chief - and sometimes only - teaching aid was herself. She used little else apart from the texts from which she was working and the chalkboard. This suggested that she drew mostly on her own resources - her knowledge of her subject, her previous teaching experience, her observational skills and her communication skills.

An interesting comment made by Lynn in the lesson on play production was her description of her own directing as "instinctive". In sharing her experience with her pupils, she told them that she "instinctively" knew when something was right. Similarly, much of Lynn's teaching appeared "instinctive" in that she thought and taught 'on her feet', picking up on pupils' cues and sharing thoughts and ideas that arose spontaneously.

If Lynn was the chief **teaching** aid in her classes, her pupils were the chief **learning** aids. While she facilitated learning and provided the necessary learning space, pupils actively engaged in the learning process, learning through their activities rather than merely through Lynn's knowledge.

The mediating channel between Lynn and her pupils was language. Language - more specifically, words and their meanings - was used by Lynn as a teaching and learning tool. The lesson on play production was especially rich in vocabulary following Lynn's stated aim to "find the vocabulary" that would help pupils cope with an examination question on this topic. In an informal discussion Lynn explained that often pupils know the answers but are not able to articulate them in written form. Understanding pupils' difficulties in expressing their knowledge helped Lynn to structure the content and presentation of lessons in accessible ways.

The pace of Lynn's lessons was relatively slow which also provided opportunities for meanings of words to be explored rather than just taken for granted. In the lesson on breathing techniques, she linked the word "resonance" to "resound" and, from there, developed the idea of vibrations in cavities which led to the activity of pupils feeling the vibrations of their humming sounds in their mouths, throats etc.

In defining unfamiliar words, Lynn made use not only of verbal explanations, but also of movement and gesture. In addition, she used examples and short narratives. Finally, she checked pupils' understanding of the terms used by asking them to provide further examples or by questioning their statements (e.g. by asking, "What does it *mean*?"). At other times, she exposed the assumptions implicit in pupils' statements (e.g. "Are you saying you can't be poor and happy?") encouraging them to carefully consider their choice of words and the meanings behind them.

### ***Teacher-pupil interaction and relationships***

Almost all of the lessons I observed this week contained a great deal of teacher-pupil interaction. At times, the lessons resembled conversations as teacher and pupils responded to each other's statements. This interaction was less evident in the lesson on propaganda and, at the end of it, Lynn commented to me that she had felt tired and thought she had taught badly.

The classroom activities took place in a relaxed atmosphere where pupils were encouraged to express their opinions and to describe their experiences. Lynn appeared to enjoy the lessons, sometimes laughing delightedly with or even at the pupils' responses. There was warmth and respect in the relationship between her and her pupils. I noted that during lessons both teacher and pupils became absorbed in the topics under study, very rarely taking much notice of me or my camera.

### ***Complexity in structure and outcomes of lessons***

Teasing apart elements in Lynn's classroom practice as I have done here belies the complexity of the lessons themselves. In the lesson dealing with the language of propaganda, Lynn provided the class with a range of activities including answering her questions orally, finding keywords in a passage in their textbooks, analysing both pictorial and literary texts, attempting comprehension-type questions in pairs, providing oral accounts of these and evaluating each other's responses. This last exercise also involved pupils estimating the "numerical value" of the comprehension questions in an effort to provide appropriately detailed responses.

The lesson on play production became much more than merely anticipating and preparing for an examination question or developing pupils' knowledge about this topic. It included the development of those skills required for good listening, participation in social discussion and knowledge construction and the passing of value-judgements. In addition, reflecting on past experience and hearing the reflections of others enriched the pupils' understanding of that experience.

### ***Contradictions in theory/practice relationships***

In addition to finding evidence of many close relationships between the views Lynn provided in the initial interview and her classroom practice, I also found puzzles and areas of contradiction. These dissonant moments - once reflected back to her in the form of the lesson descriptions which included my questions relating to them - became the crux on which our work in the subsequent two weeks hinged. They led not only to Lynn's self-development as a teacher but they were also crucial in facilitating my understanding of action research and of the decision-making processes inherent in the practice of qualitative research methodology.

### ***Learning spaces - personal understanding and universal values***

It was in her use of questioning that I began to discover tensions between Lynn's belief in learning spaces provided for by the teacher and her belief in the need for pupils' personal understanding.

Although Lynn invited her pupils to participate in conversations, the boundaries within which they could participate were clearly defined and limited by her language usage in the questions that she posed. For example, in one lesson she told the pupils that she was going to present them with "a false premise". After doing so, she asked them if and why they agreed it was false. Having already had the premise established as false, pupils did not question its accuracy. At other times Lynn asked "Ja?" after statements she had made. In other words, in inviting pupils' views, *Lynn invited pupils only to agree or to disagree with views she had already established as correct or incorrect and as hers.*

During the first interview Lynn commented that placing pupils in imaginary situations - "perceiving themselves in a situation" - helped them to make more personal observations and judgements than "ones that are mimicked after hearing others say them". The extent

to which pupils mimicked her observations and judgements in lessons seemed to be overlooked.

Frequently, using more than one question at a time, subsequent question(s) sometimes clarifying the initial one, Lynn's combination of questions functioned to structure pupils' responses. For example, in the pairing of "Why do I say that? Would you agree with me if I said that?" the first question suggested that there **is** a reason for Lynn's having made the statement and this suggestion would therefore prejudice a pupil's capacity to disagree with it.

Another example of prejudicing class responses occurred after a pupil had provided an answer - quite possibly based on personal values - to a question from Lynn. Lynn disagreed with the pupil's response, provided an explanation of her point of view and then asked the class if any of them agreed with the pupil's initial response. Not surprisingly, none of the other pupils agreed!

While it was possible that Lynn's belief in "universal values" informed her practice of creating a limited "learning space" in which pupils needed to "search for the answers", the extent to which these learning spaces allowed for "personal understanding" was questionable.

At this point in the study, I began asking the following questions: 'Whose values are these pupils really learning? Their own, Lynn's or universally-held values?' and 'Does Lynn provide sufficient "learning space" for the development of pupils' "personal understanding"?' More importantly, I began asking myself 'If Lynn believes that she is able to identify universal values and that pupils need to accept these, to what extent is she fundamentally different from the teacher who believes in objective, universally-valid knowledge which she has gained and which pupils need to acquire too?' and finally, 'If there is no real difference, can Lynn's approach to her classroom practice really be seen as connected to her goal of developing independence and "enquiring minds" in her pupils?'

Another aspect to this problem was linked to Lynn's transparency in the classroom. For example, during the discussion of some of the elements employed in the production of *Everyman*, she justified some of the choices and decisions she had made and also briefly considered the accusations that could have been levelled at her for using some of these devices. In doing so, she once again allowed pupils to follow her thinking and logic, yet I began to see this transparent thinking as a double-edged sword. On the one hand, it provided clarity and helped pupils to understand why choices were made but, on the other hand, it had its dangers in that pupils had less chance of questioning or refuting the logic of the final decision since, in following Lynn's reasoning so closely, they were less likely to think of alternatives themselves.

These questions and concerns became important focal points in the interviews with Lynn and led to the reassessment of some of previous assumptions about knowledge, values and classroom practice.

### **Lynn's development - initial awareness**

In tracing Lynn's development during the time of the project, I focused on my role as researcher as well as the stages through which Lynn passed, the first of which was that of an initial awareness of my concerns.

In the first interview after I had observed Lynn's classroom practice, we watched a video replay of a section of the first lesson in which she had provided pupils with the answer to her question. I began to phrase a question relating to this practice but, before I was able to complete it, Lynn, herself, commented that "I fed it to them", and added "I've actually imposed the answer on them". The speed with which she picked up my concern that she may have been influencing pupils' conclusions rather than allowing them to come to

conclusions themselves is further theorised in Chapter 7; suffice to say at this point that it was gratifying at the time. I was in a position to theorise about Lynn's capacity to respond only once I was able to compare her responses with those of other teachers later in the study.

In this interview, after I had asked Lynn how often pupils disagreed with her, she responded with "Gee, I don't know. I don't . . . very few, very few times". I also asked her how often she presented pupils with views other than her own in an effort to encourage pupils to disagree with her. She pondered for a moment before saying that she only played "the devil's disciple" openly, exposing her role. She then remembered that disagreement regularly occurred in her lessons on *Oedipus* where pupils' interpretations were different to hers and that "I don't always get them over to my way of thinking".

Although Lynn pointed to the constraints of time in allowing for "debate" and "challenge" over "contentious issues", she concluded this initial interview by saying that "I must do (more of) that (kind of work)". She added, "So there's not only . . . two opinions but there are many opinions that they've got to look at and maybe or bits of the different opinions of writing they've got to . . . ja". While this last comment was disjointed and hesitant, Lynn's understanding of the ways in which she had been structuring pupils' responses was clear.

Her subsequent efforts to restructure questions and to wait for longer periods for pupils' responses after posing questions were evident in the second week of the study and are reported in the next sub-section on self-development. This suggested that the awareness developed during discussions in the first week of the study contributed to changes in her subsequent practice.

## **WEEK 2**

### **Fieldwork and the emergence of action research**

The second week of this study was one of crucial importance. In describing the fieldwork and its associated developments, I refer both to the way in which I then experienced these as well as to the way in which I now understand those experiences.

During this week I watched three lessons once again identified by both Lynn and myself for their potential in providing opportunities for the observation of a range of her teaching strategies. In the first of these, a drama lesson, developments in liturgical drama and medieval plays were explored. The second lesson was, in many ways, a repetition of the previous week's lesson on propaganda but with a different class, and the last lesson was a poetry lesson.

It was during this week that I found myself falling further behind in writing lesson descriptions. This led me to feel increasingly panic-stricken as I began to fully realise the demands of the work I had set for myself. I believed that the lesson descriptions were integral to the study in that they served to drive the interviews and that without these the entire study would be in jeopardy. As a result of my not being able to complete the lesson descriptions before interviewing Lynn, I felt that the collaborative process was about to grind to a halt. This was an especially lonely time when I felt that there was only me and me.

One of the main reasons for the difficulty I experienced in writing these descriptions related to the shifts in Lynn's practice as a result of our discussions during the first week. Despite the fact that the research design had been strongly influenced by my theoretical interest in action research, I found it difficult to record and then incorporate the shifts in Lynn's practice in both my descriptions and the semi-analysis I attempted. I wondered how I would continue to identify trends and patterns during the remainder of the study if

Lynn continued to shift her practice as a result of reading my fieldnotes and our discussions. My anxieties about this difficulty led to my beginning to lose focus on the central concern of the study - the investigation of the relationships between Lynn's theory and her classroom practice; instead, Lynn's development began to take precedence over the recording and analysis of theory/practice relationships.

At that stage I was not able to conceptualise the difficulties I was experiencing in these terms. I simply felt bogged down and had little trust in the process and even less in myself as the research instrument.

I now understand my position at that time as being at the interface of a choice. I could have chosen to shift the focus of the study and to take the route which followed Lynn's development. This would have required my basing my questions and subsequent investigation on the way in which her thinking and practice changed as a result of her participation in the research process. On the other hand, I could have chosen to refocus on the initial project, i.e. the study of theory/practice relationships. While there is an overlap between these foci, making distinctions between them at this point in the study would have helped me make clearer decisions relating to the collection and analysis of data. The distinctions between these foci are subtle but very important, involving choices about the 'real story' of the project.

At the time, however, not being able to conceptualise my position in these terms, I made no choice. I simply stopped writing detailed descriptions of the lessons. Fortunately, I was able to continue to videotape the lessons and to write brief outlines of lesson contents and main themes.

It was only once I had written up all the detailed lesson descriptions - weeks after I'd left Lynn's classroom - that I began to realise that the shifts in her practice were inevitable and, at least partially, a result of our collaboration. It was also through the interpretive and analytical processes involved in the act of writing of these experiences that I began to

understand that, despite my limitations as an action researcher, both Lynn's understanding of her practice and her practice itself developed and changed as a result of our collaborative work. Currently, my view of my role in this first case study is more positive than it was at the time of the study. In addition, my view of the power and identity of both the participating teacher and facilitator/researcher in action research developed and became more refined. These issues are further theorised in Chapters 7 and 8 in relation to power.

Although I did not give Lynn detailed lesson descriptions in the remaining interviews, we continued our discussions fuelled by the descriptions of the lessons in the first week as well as by my briefer descriptions of and oral comments on the lessons observed during the second week.

Recovering the chronology of the research process as well as identifying the developments in Lynn's theory/practice relationships in order to relate this story highlighted for me the way in which methodology and development were interwoven and entangled in this project. As a result, a central question arose during the final analytical process - how did I know that what I began to see as Lynn's increasingly coherent practice over the last two weeks of the study was indeed a result of my intervention? How did I know that the changes in Lynn's practice were as a result of action research and represented real development rather than just changes that would have happened anyway?

In attempting to answer these question, I traced Lynn's development from the stage of awareness in the first week to the stage of implementing changes in her practice in the next two weeks.

## **Lynn's development - towards changes in practice**

Lynn's role as mediator became a central focus in the two interviews in this week. In the first of these, she acknowledged that both her interpretation of the action found in a play as well as her use of language influenced pupils' developing value systems. She wondered aloud how one could ensure pupil independence through one's teaching saying that it was difficult for teachers not to impose their own values on pupils. She then postulated that both role-play and visualisation - "trying to get them to see and hear" - were essential components of this process which demanded that pupils move beyond learning only "the facts".

After having read one of my lesson descriptions, Lynn examined her own response to a pupil's response to one of her questions - a response which had been based on the pupil's own values. Lynn then thought of an alternative way in which she could have handled the interaction, concluding that this would have constituted "a far more valuable lesson on values". An interesting comment that she made at this point illuminated the difficulty she experienced in retracing her own thinking at the time in the lesson. She asked, "How does one go back on one's thinking?" I found myself asking this same question again and again as I completed the final analysis for this project and the writing of this thesis.

While watching a video replay in the following interview, Lynn again noticed her role in directing pupils' answers saying, "There, I'm doing it again". In exploring her motivation for having done so, she felt that she had directed responses because otherwise pupils' responses merely "tumble" out and that she had been trying to "sort them out". This suggested that in providing structure for pupils' responses - both prior to and after eliciting them - Lynn interpreted and channelled their developing knowledge.

Lynn began to notice this structure to her practice even more frequently than I did when watching video replays. At one point she commented, "I do it. I do it all the time. I'm acting dumb - 'far more exciting stories, or are there?'"

In response to her growing awareness of the contradictions and gaps between her views of good teaching and the realities of her own practice, Lynn began to change elements of this practice. For example, from the beginning of this week, she noticed when she had “given” the answers to her pupils in the course of her classroom questions. An example was: “This is not in reality? Or am I wrong? Is this in reality?” In this example, although Lynn began in her usual way with a statement, she then introduced the possibility that the statement might not be correct. She also attempted to provide pupils with greater opportunities for disagreement.

An important development occurred during this week when Lynn spoke to pupils about her practice of providing responses and imposing her values, explaining that she was trying to change this. In making her pupils aware of this, Lynn’s commitment to transparency and to collaboration with her pupils was highlighted. Not only was she open to criticism and willing to reflect and act on it, in attempting to change her practice, she allowed - even encouraged - pupils to become part of the process. In doing so, she initiated a shift in the established power relationships in her classroom: pupils were invited not only to challenge her statements but made aware of their need to do so.

One of the most exciting of Lynn’s lessons was the poetry lesson at the end of this week. Here her changing tactics and their effects were clearly noticeable. Although she continued to use questions, she hid her own thinking to a larger extent than ever before and frequently switched sides in debates without indicating her own preference. In this way she put pupils ‘on the spot’, requiring that they think for themselves and defend more carefully and vigorously their judgements. Her questions frequently echoed pupils’ statements demanding that they re-examine these statements and provide further justifications for them.

Despite Lynn’s sensitivity to her mediational role and the changes she had made to her practice, this lesson also presented her with yet another example of the way in which she unwittingly structured pupils’ thinking. At one point in the lesson, the gender of one of the

two characters in the poem being studied became an issue for discussion. Lynn began this discussion by saying, “We’ve decided it’s a he, hey?” Some of the pupils disagreed and Lynn commented that this conflict of opinion was “very interesting” and that she had just realised that the gender of this character had not been clarified in the text and that she had been making assumptions.

A little later in the lesson, a pupil disclosed that when the poem had initially been read at the beginning of the lesson she had envisaged a woman as the character in the action; however, she went on to explain, when Lynn had subsequently used the pronoun “he”, she had come to accept this view and could no longer think of the character as a woman. Lynn responded with; “So it’s **my** fault! Mrs Brown! Imposing yourself on your pupils **again!**” This example demonstrated both the ease with which classroom discourse can be taken for granted and its influence on pupils’ thinking. I interpreted Lynn’s responses during this interchange in terms of her capacity for self-criticism, her acknowledgement of her own power in the classroom and her commitment to providing pupils with learning space.

Despite implementing such changes in her practice as reported here, there continued to be aspects of Lynn’s practice that limited pupils’ explorations in this week’s lessons. Although she tried to wait for longer periods after asking questions in order to encourage pupils to respond, very rarely did Lynn explore pupils’ incorrect responses to these questions. As a result, they were not given opportunities to justify their ‘*incorrect*’ responses. I thought that both Lynn’s view of “universal values” and her prefacing of questions with statements of fact were connected to this practice.

These last examples suggested that while analysis of teachers’ discourse and comparison of this discourse and the patterns of their classroom practice highlighted both consistencies and contradictions between their theories of knowledge and learning and their classroom practice, recognition of such contradictions does not, of itself, necessarily lead to change in practice. Shifts and developments needed to be bolstered by on-going critical reflection and analysis. The need for a reflective mirror - whether it be a critical friend, lesson

descriptions or video replays - became clear in the light of the uneven nature of Lynn's development during this week.

The more coherent relationships between theory and practice that I observed in Lynn's work this week are described below.

## **Theory/practice relationships**

### ***Connections between classroom practice and views expressed***

Many of the same techniques that I observed in the first week of the study were evident in Lynn's classroom practice during the second week. For example, in the drama lesson, she again used questions to direct pupils' attention to the study of pictorial text and so develop their theoretical knowledge, keywords of which were noted on the board. Once again, there was close attention to the vocabulary used and Lynn's affection for her pupils was clear.

In addition, I noticed the following aspects of Lynn's classroom practice:

#### ***Motivating lesson introductions***

Lynn worked hard to enthuse and motivate her pupils during her lessons. For example, at the beginning of the lesson on propaganda, she invited pupils to describe their favourite or most disliked advertisements. At the beginning of the poetry lesson, pupils were invited to "talk around" some of the most useful items in their homes. This served as an introduction to the poem "Telephone Conversations". These lesson introductions connected to the emphasis Lynn had given to pupil motivation in the initial interview and to her view that "the best of learning occurs when pupils want to learn".

### *Pupil participation and social learning*

Although Lynn dominated the section of the drama lesson which involved historical detail, the lesson on propaganda was more pupil-centred as pupils described advertisements, created their own and then critically evaluated each others' presentations of these. During this lesson, I noticed that Lynn allowed pupils considerable time to respond to questions and to air their views and that she listened to each pupil in turn, at times asking other pupils to pay attention to the speaker when their enthusiasm prompted them to offer their own experiences. In this way, she guided turn-taking and, by asking questions, deepened pupils' understanding of the reasons they gave for liking or disliking particular advertisements.

Throughout this interaction, Lynn role-modelled good listening skills for her pupils demonstrating the need to pay attention to others, to share views and to tolerate preferences. Her interest in her pupils' responses was again evident in the poetry lesson when pupils related their experiences with strangers on telephones. In this way, pupil participation in lessons closely resembled social learning. This was again evident in Lynn's strategy of grouping pupils to design an advertisement - for either radio or television - for Mother's Day. Not only did pupils need to work together in creating an advertisement, but they needed to present these for group evaluation.

### *Limited instructions for pupils*

As Lynn had described teaching with "too many instructions" as "anti-teaching", it was reasonable to expect her to provide fewer instructions for her own pupils than had been given by Teachers A and B in the task in the initial interview. In preparing pupils to create their own advertisements, Lynn provided very few specific instructions other than the items for the advertisement - four different kinds of flowers - and the suggestion that pupils "mind-map" the attributes of these items. She also reminded pupils to write down their ideas and not to rely on only one person in the group to produce the ideas.

### *Concern with values*

Once again, Lynn's concern with values was clear in her use of questions during the evaluation of the advertisements. For example, one of the advertisements stereotyped boys as insensitive and Lynn's subsequent questions required pupils to focus on and reconsider their assumptions about gender implicit in their thinking and discourse. Other questions demanded that pupils be sensitive to the connections drawn between the monetary value of gifts and expressions of love. Developing a critical class community through engaging in critical reflection remained a central focus of this lesson although the academic content related to advertising techniques and persuasive language.

### *Pupils' construction of knowledge*

Although this lesson was experienced by pupils as "fun" (some dressing up in the costumes and using props available from the adjoining drama room), they were engaged in developing a theoretical understanding of advertising techniques as they responded to Lynn's questions which prompted them to focus on persuasive techniques, e.g. appeals to emotions, images used etc.

Lynn's questions in the poetry lesson also enabled pupils to construct knowledge. For example, by asking pupils how they might "work out what the other person is like" while speaking to a stranger on the telephone, she focused the conversation on "tone" and drew the relevant vocabulary from the pupils. Her questions required pupils to fully explore their own responses: "How do you answer the phone 'like a snob'?" was a question she threw back at the original respoondee.

### *Teaching and learning aids*

Once again Lynn did not use teaching aids other than the textbooks and the chalkboard even when the use of technology would have been appropriate and useful. For example, had she displayed a copy of the picture under discussion in the drama class on an overhead projector, certain directions and instructions would have been clarified. Without this aid, some reference points were unclear and Lynn needed to turn her own textbook around and point to it with her finger so that pupils were able to follow her questions and statements.

## **WEEK 3**

### **Fieldwork - completion**

The same concerns as those described in Week 2 of the study continued to dominate my thinking in the final week. I recognised that I was not going to be able to meet my previous plans and deadlines; nevertheless, I continued observing and videotaping lessons. In addition, although I was unable to make much analytical sense of the theory/practice relationships I observed, I felt that the data I was gathering was likely to be useful so persevered as best I could.

During the course of this week, despite the lack of formal analysis, my feeling was that there was greater coherence in Lynn's practice. This 'analysis by gut instinct' was confirmed for me in the third case study where the participating teacher was able to articulate the changes that occurred in her practice during the project far more clearly than either Lynn or I were able to do during the first case study.

While transformation is too strong a word to describe the experience of my work with Lynn, we shared transformatory moments in interviews and classroom observation

sessions during which we each experienced both a development in our understanding of her practice and the difficulties involved in initiating and sustaining changes in practice.

In this week I attended two lessons - a practical lesson in the drama studio which involved pupils learning and rehearsing new parts of a scene they were currently working on, and a lesson on essay writing. The last interview that I conducted with Lynn completed the fieldwork for this case study.

### **Lynn's development - towards coherent theory/practice relationships**

The difficulties Lynn had experienced during the first week of the project illustrated the difficulties involved in examining one's own thinking and articulating aspects of that thinking. Although she continued to refine definitions in interviews (for example, on the second day of the case study, she further defined education as "making connections"), at the end of the third day's observation, she commented that she felt uncertain about her own thinking. She said that she didn't know what she thought and that her thinking changed all the time. It is possible that her thinking was in a state of flux as a result of examining it as part of this research process and that, because of the nature of her work, she was open to other ways of thinking and in responding to these, found her own thoughts confused.

In the interviews towards the end of the project, however, Lynn not only became more confident in articulating her thoughts, she was also aware of the greater extent to which she engaged with conceptual issues. For example, she commented that she had "never really become articulate about" the role of imagination in the learning process before needing to answer certain of my questions.

The changes in the way in which Lynn articulated her thoughts about her practice were foregrounded in the final week of the study and represented her developing ability to track and articulate her thinking and practice through the process of reflection.

In Chapter 7 I argue that Lynn's development rested on several factors - her identity and perceived role as a drama teacher, her strong commitment to certain theoretical features in her personal epistemology, her ability to recognise subtle power relations, and her capacity to take risks in shifting her practice. In addition, the powerful processes associated with action research - even when initiated in this rather unplanned manner - played a role in this process. These aspects are highlighted in Chapter 7 which explores components of teachers' power identities.

### ***Connections between classroom practice and views expressed***

#### ***Performance - reflection and criticism - performance***

This sequence of action - performance - reflection and criticism - performance - provided the framework for the drama lesson. Both Lynn and her pupils were involved in each of these aspects. Lynn encouraged pupils to workshop and choreograph aspects of the performance themselves but she also participated as teacher by demonstrating what she thought it was that they were trying to achieve or avoid. During the performances, although seated in a chair in front of the pupils, Lynn clicked her fingers to set the pace or reminded pupils of words they had forgotten. At times, her movements and gestures served to inspire pupils and to remind them of their goals.

During the periods of reflection and criticism, Lynn asked questions, probed for responses and provided suggestions of her own. Once again, the emphasis given to language - both for its meaning and sound effects - was evident. Lynn worked from language to body movement and gesture, linking the two. After the periods of reflection and criticism, pupils repeated aspects of the performance, attempting to incorporate the directions and suggestions made during discussions. In this way, evaluation became integral to the process of learning and an aspect accessible to the pupils rather than the responsibility solely of the teacher.

Encouraging pupils to reflect on their work as well as the way in which they worked also formed a highlight of the lesson on essay writing. For example, in response to Lynn's questions, pupils discussed the merits and demerits of writing out essays twice - a long-established habit for many of them - rather than planning carefully and then writing only one draft.

### ***Challenges***

In this same lesson, Lynn asked pupils to "challenge yourselves" by not using old methods of essay writing but to structure their essays through "mind-mapping" before writing them. The topic she provided for pupils to "mind-map" was in itself quite a challenge - "Through a glass darkly"! Pupils initially greeted this topic with silence and then groans; however, after collaborating in the mind-mapping exercise, they agreed that the topic was not as difficult as they had originally thought.

### ***"Doing, seeing, hearing and applying" and personal constructions***

In addition to pupils constructing knowledge and developing greater understanding of sound techniques and the effects of sound aided by Lynn's use of questioning, the drama lesson this week once again highlighted her view of the need for "doing, seeing, hearing and applying" in experiential learning. She warned pupils not to "be afraid" of tackling the section of the work to be performed and not to "do it academically" or "it's just going to be an imposed thing". Later she reminded them not to "think too carefully" about what they were going to do and spoke of the need for intuition and impulse. When pupils presented a section of the work, Lynn criticised it for being "too contrived" and suggested that they try to "see the feeling" they were trying to portray.

In helping pupils to initiate ideas on the essay topic, "Through a glass darkly", Lynn encouraged them to think "freely" and prompted further associations as they began to offer some of their own suggestions. She wrote these together with her own suggestions

on the chalkboard demonstrating how the associations were linked to individual words in the original topic.

During this exercise Lynn commented that she liked pupils' use of "I see" as they provided suggestions and descriptions of the images the topic evoked in them. She later commented that a "sense of mood" was developing and asked pupils what "colours come to mind".

### *Learning processes*

At one point in the drama lesson, Lynn shared her views on learning with her pupils. She said that it was unfortunate but that "by nature we tend to sort of learn a little bit and then learn a little bit and then you can't get the links across". She then suggested that in the next performance cycle the pupils repeat the scene right from the beginning so they could "see" the section on which they had been working section "in context".

## **CONCLUSION**

This chapter has described the initial stages of my journey into qualitative research and recorded the difficulties I encountered in developing and working to the design or framework for the collection of the data as well as the difficulties involved in observation, the writing of fieldnotes and in interviews.

By the end of the three week period during which I worked with Lynn, although I had not reached the targets I had initially set for myself, I felt that I had learned important lessons about some aspects of the research processes. In addition, I felt that my initial questions relating to the relationships between teachers' theories and their classroom practice were valid ones and that answers were indeed accessible through the design and processes about which I was learning.

The week after completing these classroom observations, I resumed my lecturing duties and, being extremely busy, put off the task of completing the lesson descriptions and semi-analysis for some weeks. These were completed before I embarked on the next case study in August and the lessons learned in the process of finalising these also proved most valuable. The fruits of these lessons - essentially points in my own development as a qualitative researcher - emerged during the following case studies.

Despite the lack of formal analysis at this stage of the study, I was aware that there were both close relationships between aspects of Lynn's classroom practice and her views of knowledge and learning. I was also aware that there had been dissonant moments. The way in which Lynn, herself, had noticed these and then worked to change her practice suggested to me that my interpretation of her work had been accessible to her. It was Lynn's response during her participation in the study that gave me faith in the processes of the research design, even where I still felt considerable uncertainty.

## Chapter Three

### CASE STUDY TWO - KATE

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#### PREPARATIONS FOR CASE STUDY TWO

##### Selecting the teacher and gaining access to the school

Soon after returning to my full-time lecturing post, I began to make arrangements for the leave necessary for the second case study. This entailed employing a locum replacement at my own expense and preparing sections of the syllabuses in all the courses for which she would be responsible. I mention these details because not only did the difficulties of arranging for five periods of leave over eighteen months for the five case studies create additional burdens, they explain why I was loathe to change the dates of my leave period when difficulties later arose. Changing the period of leave may have required finding a new locum replacement and preparing different sections of the syllabus for her.

In addition, I began approaching principals of schools in order to tell them about the study and ask their permission to interview teachers who might be interested in participating in the second case study. At this point I still hoped to select teachers from a range of schools as well as subject areas.

The selection of a teacher for the second case study proved as frustrating as for the first. Principals, the gatekeepers to schools, were often too busy to take calls or, in some cases, to return them. Some principals and senior staff members were very suspicious of my motivation for pursuing the study. For example, one head of department, on learning that I was a University of Natal graduate and Ph.D. student at this university, refused to

participate on the grounds that my study “must be Marxist”! By the beginning of the third case study I had a new strategy in place for bypassing principals and selecting teachers for the remaining cases.

With the principals’ permission, I visited four schools in quick succession. Three of these fell outside the former House of Assembly, two of these schools being relatively new, privately-developed schools situated close to the centre of Durban - one in an old warehouse. The third school, formerly administered by the House of Delegates, was, at that time, enrolling an increasing number of African pupils. The fourth school - a boys’ high school - was a former House of Assembly school.

During these visits, I spoke to teachers during their lunch periods once again outlining my interests and emphasising the non-judgmental nature of the study as well the participating teachers’ role in the project, much as I had done for teachers interested in participating in the first case. In each of these schools, I found that while they listened politely, few teachers were interested in participating in the study and none was prepared to participate at that time.

Teachers’ reasons for non-participation ranged from lice in the school to the forthcoming elections, from the redecoration of the school (for eight months!) to having no time to prepare lessons, and from the possibility of my presence disturbing the pupils to weakness from fasting. A common reason was “We’re too busy” which was, I thought, true for some teachers but not necessarily the ones giving this reason! The most honest, of course, were those teachers who admitted to lacking confidence so were not comfortable to have me in the classroom - especially with my video camera, as unobtrusive as it was. At this stage I considered changing the focus of the project to teachers’ paranoia!

I found teachers’ rejection of what I had thought might be seen as both challenging and fun (I had certainly enjoyed talking about my teaching to other teachers) quite unnerving.

This, in turn, led me into certain avoidance behaviours. I put off contacting schools, expecting further rejection.

Finally, three weeks before the date the second case study was due to begin, a senior staff member from a newly-established school catering for African pupils in a rapidly expanding informal settlement in Durban showed some interest in the project and agreed to my speaking to the staff during a lunch period. Although not all members of staff attended the meeting, several who were present indicated that they would like to speak to me further.

Once again, however, national events intervened in my plans - this time in the form of a strike initiated by the South African Democratic Teachers' Union (SADTU) in July/August 1993. The contact person with whom I had liaised at the school said that it would not be possible to continue with plans for participation in the project at that time since the staff members had decided to join the strike action. Once again I found myself without a participating teacher shortly before a case study was due to commence.

Abandoning this school left me with both a sense of failure as well as frustration; despite this, having made the necessary preparations mentioned at the beginning of this section, I felt compelled to make use of the time I had set aside. Demotivated and demoralised and without making the usual prior arrangements, I simply drove to a school I was considering for a later case study (on the recommendation of another teacher educator who had recently described it as being "in an interesting phase") and asked the secretary if I could speak to the principal. When she heard that my business was in connection with a research project, she suggested that I speak to one of the heads of department.

Fortunately, this person had recently worked in an education faculty at a university and understood the gist of my explanation very quickly. Furthermore, he suggested a biology and general science teacher for the study explaining that she was a highly motivated person and very interested in her own development. He offered to speak to Kate himself and suggested a time when I could meet with and interview her. And so Kate was selected

- not so much by me, the researcher, as by the head of department at the school in which she taught. Further comments relating to the selection of teachers are made in Chapter 8 where the interdependence of research methodology and conclusions are dealt with.

### **Introducing Kate and her school**

Located in a suburb undergoing transition, the school Kate taught at was a co-educational school with classes ranging from standards 6 to 10. Historically a suburb for white, lower socio-economic income groups, it was rapidly becoming popular with black middle-class homeowners. As a result, the school was an interesting mix of white pupils from politically conservative and relatively poor homes, and black pupils from families which formed the backbone of the emerging African middle-class in KwaZulu-Natal in 1993. At the time of this observation period, this school had the largest percentage of black pupils (African pupils predominating) of any Model C\* school in KwaZulu-Natal.

The physical environment of the school was typical of that seen in many of the former House of Assembly schools administered by the Natal Education Department. The two-storey buildings were spread out but linked with walkways, some of which were covered. The classrooms are bright and airy and reasonably well-equipped. Although Kate did not always have sufficient equipment for each individual pupil in her class, there was always at least one microscope or bioviewer between two or three pupils. She had both a classroom as well as a laboratory available for lessons, both venues having chalkboards, pinboards and overhead projectors and screens. Class size averaged 27 pupils. While there were sufficient desks in both teaching venues, in most of Kate's lessons these were usually all occupied, leaving little room for walking around.

Kate, in her second year of teaching, was relatively new to the school at the time of the observation period. She had recently moved from her first teaching post in

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\* Model C schools were those schools in South Africa which had recently adopted a policy whereby pupils from all race groups could be accepted.

Pietermaritzburg, a nearby city, after her marriage to one of the other teachers at this school. The school at which Kate had taught the previous year was a very different school to this one. A boys'-only school, it was well known for its academic and sporting successes.

As previously mentioned, Kate was recommended for the study by the head of department because of her enthusiasm, both for teaching as well as for her own learning and development. She taught biology to all standards from six to ten and general science to pupils in standard six. Her extramural responsibilities at school included coaching basketball, hockey and athletics. She was also involved in the Students' Christian Association and the Wildlife Society.

Although youthful in appearance, Kate did not appear to be lacking in confidence at our first meeting. She conveyed her real interest in and commitment to the study at this time.

### **The initial interview with Kate**

Since Kate was nominated to the study rather than selected, I used the initial interview to gather baseline data on her thinking about knowledge, learning and classroom practice in order to develop a framework for understanding her personal epistemology and observing her classroom practice. This interview took place in the staff marking room a few days prior to commencing classroom observations.

Of all the teachers I worked with I found Kate's interviews the most difficult to transcribe. This was because she did not always complete one sentence before beginning the next and because she often hesitated and repeated certain phrases. In addition, she rushed certain parts of her speech making it difficult to distinguish words when transcribing the audiotapes. It was some time before I realised that the frustration that I experienced during the transcription process was, in fact, a valuable piece of data. This realisation helped me to examine Kate's discourse not only from the point of view of a researcher but

also from the point of view of her pupils. Both of these perspectives will be highlighted in the following discussions.

Kate began the task of analysing Teacher A and Teacher B's lesson introductions by commenting on almost every sentence in their introductory statements as she read these. Once she had completed these comments, the majority of which focused on classroom practice, I probed further by asking her questions relating to her understanding of the two teachers' relationships with their pupils as well as their apparent views on knowledge and on learning.

The analysis that follows is similar in content and structure but not identical to that given to Kate in the first week of observation for her comments and questions. As mentioned in the first case, I refined and edited the analysis given to Kate when writing the final draft of this thesis but did not make any substantive changes to the text.

## **Analysis of the initial interview with Kate**

### ***Views on knowledge***

Although Kate did not make any theoretical references to the nature of knowledge, her comments during the initial interview revealed an awareness of the dangers of an uncritical acceptance of what counted as knowledge and a sensitivity to the influence of culture on knowledge construction.

For example, Kate was critical of Teacher A who overlooked her pupils' prior knowledge and presented herself as having "all the knowledge and the information"; instead, she suggested that teachers needed to "work with the information that the pupils have".

During this analysis, Kate also commented on her own practice saying that she felt that in most cases "I dominate the lesson". She was concerned that, as a result of this practice,

“white culture” dominated her lessons in classrooms which she described as having “two different cultures”. She commented that “sometimes you personally don’t think you’re racist either but afterwards you think you know my whole lesson is actually geared towards” a particular culture. She also recalled how a lesson on tapeworms had been enjoyed by her African pupils while white pupils had been appalled at the subject matter and linked these different reactions to the different cultural perspectives and experiences of her pupils.

Despite her comments relating to experientially and culturally-constructed and related knowledge, Kate said that there was little to “debate” in biology lessons since the knowledge she taught dealt primarily with “structure”, and was based on factual information gained through objective procedures. At several points in the interview, she compared the knowledge dealt with in science and biology classes with that found in English language classes. She said that not only did the latter encourage more discussion and debate, she felt that it was more “relevant” to the “life situations” of pupils.

### ***Views on learning***

Kate distinguished between “learning off by heart” and learning with “understanding” during the initial interview. While she saw the former as involving “a transfer of information” and “regurgitation”, she described the latter as requiring pupils to “formulate their own notes” and “think”. Later she said that learning with understanding would more likely be related to “a life situation” and, consequently, a school subject that catered for such knowledge.

Kate pointed out the dangers of imposing ideas on pupils who already had ideas of their own on topics. She said that pupils “keep their own ideas even if they’re wrong from beforehand” leading to confusion as they attempted to accommodate new knowledge in old and possibly inadequate frameworks. She suggested that such confusion would be likely to arise in those subjects which required that pupils “just . . . learn the information”.

Kate suggested that pupils were more likely to be “interested” in and, therefore, receptive to learning new information if they were learning something “relevant”. On the other hand, her comments also suggested that there was value in “learning how to use your brain and work out” information although such information might not be directly related to pupils’ lives - ‘brain gym’ as it were.

Kate also distinguished between the type of learning required by pupils who were planning to go on to “tertiary studies” and those who were not. In discussing this distinction, she drew on her own teaching experience comparing the pupils she had taught in her previous school with those in this school. The former, she believed, would be more likely to respond to and benefit from learning techniques that required their own critical input while the latter would be less likely to be able to work in this way. She linked these different approaches to learning to the different socio-economic classes of the pupils - albeit in a rather naive manner. For example, she said that even when a teacher had a preferred teaching method she would need to consider the capabilities of her pupils: she said, “Here the kids so battle because they are coming from a financially . er poor background” and their “whole situation is very difficult”.

### *Views on classroom practice*

The contradictory elements found in Kate’s discourse on knowledge and learning became more pronounced in her discourse on classroom practice. Initially I found these difficult to reconcile but later understood them as being related to an ‘ideal’ teaching situation and to the ‘reality’ in which Kate found herself. Still later in the analytical process, I found that these contradictions provided me with invaluable clues to understanding not only Kate’s thinking and practice, but also the demands she placed on me to provide her with suggestions for the improvement of her classroom practice during the observation period. The dilemma this placed me in is described later in the case.

An example of contradiction in Kate's discourse on classroom practice was found in the shifts in her criticisms of Teacher A on a variety of issues. Towards the beginning of the interview she spoke disapprovingly of this teacher "gearing the pupils towards examinations", reading aloud from the textbook during class, rigidly adhering to the syllabus and stating the obvious; however, she later tempered this criticism by saying that teachers needed to adapt their classroom practice according to the needs and abilities of the pupils being taught. She surmised, for instance, that Teacher A's practice of giving emphasis to examinations could have been a strategy for getting inattentive pupils to concentrate in class. At the end of the interview, she again shifted position by describing Teacher A's planned activities as "ridiculous".

During the interview, Kate compared her current practice at this school with her past practice at the school in Pietermaritzburg. For example, she said that despite note-taking by pupils being an excellent practice which "really works", she did not use this method at her current school because pupils "can't write their own notes" and are unlikely to go on to tertiary studies. Kate also pointed to the difficulties involved in note-taking saying that "you have to guide the pupils really. You have to write things on the board . . . key points, spellings". In this way, she highlighted both the advantages of certain methods of teaching - those which she later categorised as "ideal" - as well as the difficulties involved in implementing them.

In referring to these difficulties, Kate spoke of some of the "many things" she needed to deal with at this school apart from teaching the contents of the syllabus. In particular, she felt the need to get pupils to "believe in themselves" and to develop their "self-confidence". She felt that many pupils in this school "don't have their own identity" which, she believed, resulted in her needing to "discipline a lot" adding that she felt that pupils "want you to say to them 'Dress nicely' or 'Don't talk'." Socially appropriate behaviour was clearly important to Kate who also mentioned that she sometimes apologised to pupils after scolding them.

In addition to pupils' ability, self-confidence and identity influencing a teacher's classroom practice, Kate believed that the teaching subject and lesson content were very important influences on classroom practice. In this interview, she drew strong distinctions between English language lessons on the one hand and science and biology on the other. While she approved of methods that encouraged pupils to "find out the information themselves", "formulate their own ideas" as well as methods that involved "debate" and "discussion", she felt that these would be more likely to "work in an English lesson" where pupils already have prior knowledge.

Kate felt that a biology or science lesson which introduced "a brand new section" required the teacher to "do the normal chalk and talk first" after which it would be possible to employ group discussion. She explained that biology dealt primarily with "structure" and required "just learning the information".

During this interview, I came to understand that for Kate the goals of a group discussion in a biology lesson would be for pupils to identify aspects of a structure, tell each other what they had learned about it and so clarify the information taught by the teacher and so reinforce learning. In addition to this emphasis on repetition in group work, Kate mentioned other advantages: pupils, she said, were "more willing" to learn from their friends than from the teacher and those pupils offering explanations would also gain greater understanding. In this way, she believed that pupils would "work it out together and in the end you'll know that okay they understand it".

I thought that Kate's description of discussion in group work and the understanding that developed through this process referred largely to pupils' successful memorisation of the knowledge introduced by her and their successful use of the terminology required for the description and explanation of structures. Her description suggested to me that, despite the value she placed on "understanding" and pupils' collaboration, her teaching practice would be transmission-orientated. I also wondered whether this approach was a function of the pupils she taught or whether it related to her view of the kind of knowledge dealt

with in the subject of biology. For Kate, “understanding” appeared to involve the consolidation of the knowledge gained during the lesson. She approved of both group work and worksheets for homework for this purpose.

Kate’s ambivalence towards group work was evident in her comments about its advantages and disadvantages. Although she liked the ‘togetherness’ embodied in Teacher B’s classroom discourse - “We’re going to find out . . .” - she pointed to the possibility of domination by one group member and suggested the teacher should “nominate a leader in the group herself . . . someone that she knows is responsible and . . . not necessarily the brightest”. She also suggested that a “group mark” would ensure a spread of responsibility for the work to be covered.

Kate went on to say that although group work was “ideal”, Teacher B’s classroom practice could only be used by a teacher who “definitely has control” and who’s “respected”. She explained that few teachers used group work because they felt that they “lose control”. In addition, she felt that it would not be possible to use this method in “a very weak class”. Another factor she mentioned as mitigating against group work was that it “takes quite a bit of work and preparation and most times (teachers) haven’t had time to do it”. She suggested that the success or failure of group work would depend on how you evaluated it and “what you actually want to achieve from it”. Kate also spoke of how culture influenced pupils’ responses (African pupils, she said, being generally less responsive in class) and, therefore, the social interaction that occurred both in smaller groups and the wider classroom.

Kate described her own teaching as employing “a lot of chalk and talk and overheads” but she distinguished herself from Teacher A by saying that she would also “stop and then I’ll ask (pupils) a question”. She mentioned the effects the need to complete the syllabus had on her teaching methods explaining that when working with the standard 10 class, which “was definitely geared towards finishing the syllabus” and where she had to “teach them”, she would incorporate questions to draw the information from them. On the other hand,

she felt that her work with the standard 6 experimental class where there was no syllabus had provided her with greater freedom and had been much more enjoyable.

### ***Areas of classroom practice identified as requiring change***

Towards the end of the interview, Kate commented that this opportunity for discussion and reflection “had actually made me think more about how I actually teach”. She said, too, that she felt “keen to go back and think” about “the culture that (her pupils are) coming in with”. In addition, she felt that the discussion on group work had made her “more keen to try it again now that I’ve thought about it”. She identified the “principles” that were “applied” in group work as being what she wanted to strive for rather than group work itself. I hoped that the project would provide Kate with opportunities for further reflection and development along these lines.

### ***Initial foci for observation and investigation***

The chief foci for investigation arose out of apparent contradictions in Kate’s discourse. Firstly, I was interested to see how she resolved or balanced the “ideal” methods of which she spoke with enthusiasm and the difficult realities she had identified in the school in which she taught. In particular, I was interested in the extent to which she was able to draw on the information that pupils had - their prior ideas - and yet do the “normal chalk and talk”. I was also interested to see whether pupils’ “understanding” was limited to memorisation and consolidation - “learning off by heart” - an activity that she, herself, had criticised in analysing Teacher A’s work. If so, I wanted to explore both the reasons for her use of this approach and possible ways of changing it. Analysis of her discourse in the initial interview suggested that both her view of biology as dealing primarily with “structure” and her view of her pupils’ emotional, social, financial and intellectual difficulties and limitations were the chief reasons for the contradictions between her ideal views and her actual practice. I hoped to examine these reasons and gain greater insight into their possible impact.

Additional areas of focus included the influence of Kate's sensitivity to cultural, racial and class differences, her concern with discipline and control, and her interest in developing her pupils' self confidence and identity.

## **WEEK 1**

### **Fieldwork - developing my understanding of and a structure for the processes**

I had learned some valuable lessons during the period of fieldwork for the first case study and while completing the lesson descriptions in the months preceding working with Kate. I had also made decisions regarding the number of lessons it was possible to observe and describe within the three week period of fieldwork and the number of interviews it was reasonable to expect teachers to be able to give me.

For this case study, knowing the demands of the three week fieldwork period, I limited other responsibilities and chores as well as social contacts as much as possible. In addition, I had purchased another video camera with a more sensitive microphone so that sitting at the back of classrooms no longer posed difficulties. I was also more practised in the routine of transferring footage from master tapes to storage tapes and the other mundane tasks necessitated by the use of video text as a research tool. As a result, I had greater freedom to concentrate on the demands of the more academic work. I was far better psychologically prepared for this case study so felt more confident about the stage of data collection but I still felt apprehensive about the way in which I would work analytically with the data.

During classroom observations in this case, I found that I was able to take more detailed notes and that I worked faster in reproducing these in printed form for Kate to read and

then discuss in interviews. While I continued to find this aspect of the research design and process challenging and time-consuming, being able to keep up to date with the lesson descriptions relieved some of my anxieties. I felt that I was beginning to develop a deeper understanding of and a tighter structure for the processes involved in the research design.

At the end of the first week, I discussed the week's lessons with Kate in our second interview. She had read the lesson descriptions of the first two lessons prior to this interview and prepared for our discussion by writing short notes on her copy of the descriptions. During this interview, I also discussed the third lesson of the week and gave Kate the description of this lesson to read in her own time.

Once again in this interview, I found it difficult to keep Kate on track as she tended to introduce new topics while still speaking about the one related to my question. I was uncertain whether or not to stop this pattern. In analysing the transcripts later, I realised that she sometimes lost the focus of the question or issue under discussion and needed to ask me to repeat the question. On reflection, the interview in this first week may have been cathartic for Kate as she spoke of the major difficulties she found in her work at this school. As researcher, however, I worried about the validity of the information gathered in this interview and at the end of the week I reviewed my method of asking questions. These changes are reported in the section dealing with the fieldwork in the second week of the case.

Another cause for concern during this interview related to the authenticity of Kate's response to the situation under discussion. I sensed that she was recalling her responses to my questions in the task given in the initial interview - most particularly, her criticisms of Teacher A and her view of "ideal" teaching practice. I did not want her to repeat these ideas rather than responding to the questions I now posed about her own practice during the lessons I had observed. For example, the discourse she had used in the initial interview was echoed in this interview when she said that she had been "trying to get (pupils) to

form questions themselves” and to encourage “debate”. As described below, such elements of Kate’s classroom practice were rare and, when initiated, barely developed.

I observed three of Kate’s classes during the first week of the study. The first was a revision lesson on monocotyledonous and dicotyledonous plants with standard 8’s, the second introduced a new section of the syllabus dealing with the brain to standard 7’s and the third, a practical lesson in the laboratory, required standard 8 pupils to draw diagrams from slides observed under microscopes. Each of these lessons was a double period of approximately seventy minutes.

There was a misunderstanding about the time at which the first lesson I was due to observe began. As a result, I arrived at the end of the first of the two periods in time to observe only the second half of the lesson. The difficulties of working according to timetables in schools while researching teachers’ practice was brought home to me more forcibly in this case study where there were several last minute changes to Kate’s timetable and to the times of lessons during the three weeks I spent in the school. This necessitated clear and frequent communication between Kate and myself. The relevance of these details is further developed in Chapter 8 where the interdependence of the researcher’s epistemology and the constraints found in the research setting are discussed.

### **Theory/practice relationships**

This section includes the connections as well as the contradictions I noted in Kate’s work during Week 1. The shifts in Kate’s thinking are then described in the sub-section entitled Kate’s development.

## *Connections between classroom practice and views expressed*

In organising and analysing the fieldnotes written during this week of this case, I highlighted the following connections between Kate's classroom practice and her views about knowledge and learning as expressed in the initial and second interviews.

### *Concern with control and discipline*

The concern for control that Kate had revealed during the initial interview was reflected in many aspects of her classroom practice and further confirmed in discussions in interviews.

In the first lesson I observed, I was immediately struck by the way Kate used her voice as an instrument of control as well as a teaching tool. While she was neither unsympathetic nor without humour, she spoke loudly and with authority, frequently straining her voice. Ironically, Kate began our next interview with an apology for her hoarseness. She agreed with my comment in the fieldnotes that she strained her voice explaining "that's the method I use when I teach". She added, too, that through changing her tone, she tried to stop pupils from "switching off" during lessons.

In addition to using voice tone and volume for holding pupils' attention, Kate drew their attention to the task at hand whenever it wandered or when their conversations disrupted their concentration. For example, in the first lesson, she asked a pupil with his head on the desk to sit up, another to put down an object he was playing with and told other pupils to stop talking.

Kate's discipline extended to the area of socially correct behaviour. For example, when one pupil could not respond to a question and other pupils laughed and appeared impatient, Kate asked one of the main culprits why he was laughing and whether he knew all of the answers all of the time. The pupil replied that he didn't know all of the answers all of the time but he did know this one! Kate left the reprimand at that.

In each of the lessons during the first week of observation, Kate reprimanded pupils for chewing gum and commented on untidy or incorrect uniforms. She also asked pupils to apologise to one another when she considered that they had made rude remarks to or about each other. At the end of lessons, after the bell had rung, Kate waited until pupils had packed their books and files and were standing quietly before greeting them and allowing them to leave the room.

In the interview at the end of this week Kate said, “I concentrate on control and discipline” and that “the atmosphere in a classroom’s very important” for her. These concerns, reflected in her classroom practice, were closely connected to her view of her pupils and their needs: she had told me in the initial interview that pupils “want you to say ‘Dress nicely’ or ‘Don’t talk’”.

In the same way that Kate’s voice served a dual purpose - as instrument of control as well as teaching tool - her use of questioning served both to discipline and control pupils’ behaviour as well as to guide their thinking and learning. For example, in directing the majority of her questions to the boys on the right-hand side of the classroom - pupils described by Kate as “difficult to control” - she hoped to keep their attention and so obviate the chances of any discipline problems arising during the lesson.

Kate individualised questions calling on pupils by name. If a pupil other than the one to whom the question was directed attempted to respond, Kate interrupted by saying that she was asking the pupil already named. In this way, she maintained strict control of turn-taking and persisted in the face of pupils’ ignorance and/or resistance to questions. She ensured that pupils had sufficient time to think and respond to her original question before either repeating it, posing additional questions or prompting them. She was also not easily satisfied with initial responses she considered inadequate. Frequently, she asked for examples in order to check on pupils’ understanding of their own responses. While patience and persistence were qualities I observed in Kate as she engaged with her pupils, her motivation for using questions provided a significant focus since it appeared to

explain, at least partially, her inability to draw on pupils' prior knowledge as she would like to have done.

Other issues related to control and discipline are described in the section which deals with the contradictions evident in Kate's work this week.

### *Concern with structure*

The use of the term "structure" in Kate's initial interview was reflected not only in the content of her lessons but also in the structure of the lessons themselves. For example, Kate introduced the lesson on the brain by describing this organ as the anterior part of the spine, giving its approximate weight and listing its three main sections, these being presented on the overhead projector. The lesson was itself divided into three sections, each dealing with one of the areas of the brain. "Structure" rather than relevance to pupils' interests appeared to motivate both the introduction and the lesson plan.

As might be expected from a teacher who described her subject as being primarily concerned with structure, Kate made extensive use of diagrams - usually on the overhead projector but also on the chalkboard and in textbooks - as well as models and specimens. In making use of diagrams on the overhead projector, Kate explained their perspective as well as the connections between the successive diagrams she presented.

In the lesson on the brain, Kate worked from diagram to model and vice versa. Much of the pupils' learning was centred around their close observation of the diagrams or models and then developed through description, comparison and differentiation. In each of these activities, they were guided by Kate's questions, distinctions and explanations.

Many of Kate's instructions and questions required pupils to describe what they saw in the visual aids on offer - "Tell me about their position" was one instruction when studying the differences between monocotyledonous and dicotyledonous cells - and then pupils were

asked to explain how this structure was related to function. Kate's questions also drew pupils' attention to comparisons between structures as a way of learning. For example, pupils compared different kinds of cells as well as their diagrams with those she completed. Homework questions requiring pupils to "list the differences" also centred around comparisons of and differentiation between structures.

### *Emphasis on revision*

The strong relationship between Kate's description of biology as concerned primarily with "structure" which required "just learning the information" and the emphasis she gave to revision in her classroom practice was also noticeable in this week's lessons.

Kate's lessons were developed around the revision and consolidation of knowledge dealt with in previous lessons. This was a structure of which Kate was aware and that she consciously used. During this week she used a variety of strategies to provide for revision and consolidation including repeating information herself, encouraging pupils to repeat it by answering her own questions, forms of 'peer teaching', reading aloud from the textbook (a practice she had criticised in the initial interview) and homework questions and summaries on lesson content which demanded little more than memorisation and regurgitation from pupils.

Most of Kate's questions in class were revision questions, simply structured, drawing on "knowledge (the pupils) already know". She described them as "straightforward questions moving to a peak" in an effort to "get the knowledge out of" her pupils. For example, through Kate's questions, pupils remembered that the cerebrum was composed of nerve cells and then noticed that there were more of these in the grey matter than the white matter. After correct pupil responses, Kate briefly but warmly praised pupils - "Good" being used more frequently than any other form of approval. She then repeated the pupil's answer, using this opportunity to reinforce the information for the whole class.

An example of 'peer teaching' as revision occurred at the end of the first lesson when Kate asked a pupil to draw a monocotyledonous vascular bundle on the board. After this pupil had made a second error in this diagram, Kate called upon another to continue the process. A third pupil completed the diagram and a fourth labelled the different parts. Kate then compared this completed diagram to the one she had drawn on the overhead transparency and referred to during the course of the lesson. Both the pupils' activities and the subsequent comparison served to reinforce pupils' knowledge of the structure of monocotyledonous vascular bundles while drawing on increased pupil interest as they watched their peers at the chalkboard. In an interview, Kate used the phrase "getting all the information together" to describe what pupils were achieving when they worked together.

The lesson in the laboratory also commenced with the revision of the rules related to the drawing of diagrams. During this lesson, Kate frequently repeated the instructions given at the beginning of the lesson to individual pupils as she moved around the class. In the interview at the end of this week she complained, saying, "Every single pupil I went to I had to say 'Put your magnification down'".

### *Language*

Memorisation and manipulation of vocabulary used in biology were two important tasks for Kate's pupils during the revision aspects of lessons. She gave close attention to vocabulary encouraging pupils to use correct biological terminology, e.g. "meninges" rather than "membranes" and "cranium" rather than "skull". In addition, words which were not specific to biology were also clarified and their usage encouraged, e.g. "voluntary". Kate also called attention to colloquial language which connected with the content of the lessons. For example, in the lesson on the brain, she asked the class whether they had heard of the phrase "grey matter".

Kate clearly enunciated these terms herself, often repeating them and writing them on the board. When pupils had difficulty pronouncing these terms, Kate encouraged them to persevere. In this way, she helped her pupils develop an understanding of the meaning of these terms and fluency in using them.

Kate explained in an interview that although she corrected pupils' spelling and grammar in their written work, she did not penalise them for these errors. She commented that she was not "an English teacher" but that she made corrections because as a pupil she "learnt not to do it myself". In connection with one of her own spelling errors on the chalkboard, Kate admitted to being a poor speller and said that the pupils "loved it" when teachers made such mistakes.

While she felt that language skills facilitated learning, Kate did not elaborate on this theme in the interview this week. She said only that understanding the "language (used in lessons) helps learning" rather than just learning terminology "off by heart".

### ***Contradictions in theory/practice relationships***

In addition to the theory/practice connections described above, I noted four major areas of contradiction between Kate's classroom practice and discourse as well as within aspects of her discourse in the interview in the first week of the study. The first two of these - those related to the importance of recognising and making use of pupils' prior knowledge and the issue of pupil participation in lessons - confirmed my suspicions which had originated during the initial interview. The second two areas of contradiction related to the complexities of working with the notion of biology as "structure".

#### ***Pupils' prior knowledge and ideas***

Despite Kate's belief that drawing on pupils' prior knowledge and ideas was good classroom practice, she provided few opportunities for this type of pupil participation as

she guided her pupils' thinking and learning through her questions and explanations. This guidance, provided for largely by Kate's revision questions and those which encouraged comparison and differentiation, served to channel pupils' thinking rather than to provide opportunities for drawing on their own ideas. The prior knowledge on which she did draw was largely limited to that which had been taught in previous lessons.

Apart from answering the questions posed by Kate and drawing diagrams on the board, there were few pupil-initiated activities in the first lesson observed. The lesson on the brain saw greater pupil participation as pupils asked questions related to cerebral palsy, loss of balance, an explanation of the term "brain dead", "fits" and the possible effects of medication. These questions reflected their interest in biology as everyday life experience rather than biology as structure and led to greater interaction between them and Kate and between the information being dealt with and their experiences of life. For example, a pupil who suffered from epileptic seizures drew on her own understanding of her condition to explain how and why these seizures occurred.

When, however, a second pupil contested this pupil's statement that medication made her sleepy, quoting his uncle who had been on medication for a long time, and so initiating a debate, Kate brought subsequent discussion to a close with the comment that she was not a pharmacist and was therefore unable to give additional information. In a later interview, Kate explained that she had felt that the second pupil's comments were derogatory and that she "didn't know how to try and discipline him without making her feel bad". In this example, the tensions between Kate's concern for control and socially acceptable behaviour and the necessary space and risks required for exploring personal experience and thinking were evident as was the priority she gave to the former.

I thought it was likely that while Kate's dual concerns relating to control and structure informed her teaching, she would find it difficult to meet her ideals of drawing on pupils' "past experience" and attempting to get them to "form questions themselves". In addition, I thought that achieving her goal of developing pupils' self-confidence and identity

required the implementation of more challenging and risky classroom practices than those she relied upon.

### *Pupil participation and resistance*

While Kate's discourse suggested that she valued pupil participation - and to some extent this was evident in her use of questioning in the classroom - the tactics she used in her classroom practice often led to ambiguous results. At times pupil participation was mainly in the form of resistance to such participation! Kate had to contend with pupils appearing to misunderstand her questions and clowning around during 'peer teaching' exercises. Some pupils frequently laughed raucously or maliciously at other pupils' mistakes. When Kate asked one class which of them would be "going for an A" in the final examinations, one pupil responded by saying that he was "going for an E". Much the same level of enthusiasm followed Kate's next query which related to a "study timetable".

In addition to dealing with pupils' resistance to participation in lessons and to learning for examinations, Kate needed to deal with poor behaviour arising from pupils' frequent confusion relating to her instructions or the organisation of the lesson. The difficulties Kate had to contend with are best illustrated by describing the standard 8 practical lesson which took place at the end of the first week of observation.

Kate had told the class that they could talk quietly amongst themselves as they drew their plan diagrams but that they should not let the noise "get out of hand". Within a few minutes of having given this instruction, Kate remarked that there was already too much noise. She repeated this complaint at intervals during the next thirty minutes. While she moved from pupil to pupil helping them and checking their progress, some pupils attempted to focus their slides in the microscopes but others simply sat, possibly waiting their turn to look into the microscope. A few pupils wrote the diagram heading in their books while waiting. Several chatted amongst themselves.

During the course of the lesson, Kate sent a pupil to stand at the door as punishment for disrupting other pupils in the class. By this stage, I was finding my role as observer difficult to maintain and I had to restrain my desire to intervene in the lesson and reprimand pupils myself!

At the end of this lesson, pupils loudly packed their books together. One sneezed repeatedly and loudly and others called across the room to each other. Kate told the class to return during big break as punishment for this behaviour. When she then encountered protestations and explanations as to why certain pupils were unable to do so, she cut these short and concluded the lesson with the usual greetings.

In the interview this week, Kate provided two explanations for pupils' lack of application in this lesson, the first relating to "frustration" which was, she felt, a result of their not understanding what to do. She also felt that pupils in this particular class "don't want to think" for themselves but simply wanted to be told what to do. This, she said, was "why the practical is so difficult for them". Kate suggested that it would be easier to use alternative and more innovative teaching methods and to draw on pupils' prior knowledge in schools where pupils' parents were "doctors and things like that". At this school, Kate thought, pupils "just want to pass, that's it and that's what they're geared towards". As a result, she explained, she adapted her teaching to her pupils. An example of such adaptation was her use of a notebook similar to a textbook which she described as containing "all the information for the examinations". Kate felt that the use of this book as a basis for lessons was appropriate at this school where pupils had little interest in academic learning.

Kate believed that Tyrone, the pupil she had sent to stand at the door during this lesson, was an example of an "attention-seeker". She said that "he didn't want to think for himself" but had hoped that she would draw his plan diagram for him. Had she done that, she said, he would have "won". She outlined the history of her difficulties with Tyrone saying that initially she had tried to "win him over" but that this strategy had failed.

Without the support she had requested from the head of department, Kate felt that Tyrone had “got away with” his previous bad behaviour. After this lesson, she said, “I’m out of control of the situation” and “there’s nothing that I’ve found that helps” despite having “tried all the strategies that I can”. Kate also surmised that Tyrone’s latest bout of bad behaviour was partly in reaction to my presence in that he was “acting” for me and the camera - another way of getting attention.

While not denying the difficulties involved in dealing with these pupils, I saw them as forming only one constraining factor in the theory/practice relationships in Kate’s work. For example, during the interview at the end of the week I noticed the limited value that Kate placed on pupil participation. She said that while she admired another teacher whom she described as “brilliant” for the extent to which he was able to draw on pupils’ prior knowledge and to facilitate participation in classroom activities, she was critical of the results that his pupils achieved at the end of the year. She said that the fact that his pupils did not achieve “A’s” in the final examinations “was the only criticism I could find” in his work. These comments led me to wonder to what extent Kate’s ambivalence influenced her classroom practice. Further comments on the difficulties she experienced in this regard are provided in Chapter 7 where issues of teachers’ power identities are developed.

### ***Structure - difficulties with perception***

Despite the suggestion in Kate’s discourse and practice that the emphasis on structure in biology required simply studying physical structure and then learning the associated terms, it appeared that pupils experienced considerable difficulty in perceiving aspects of different structures during lessons this week. For example, although Kate told pupils to “draw exactly what you see” when revising the rules for drawing diagrams, this did not appear to be an easy or straightforward task for pupils. For one thing, they found it difficult to focus their microscopes. Even once microscopes were correctly focused, some pupils merely copied their diagrams from those that other pupils had completed. I noticed, too, that some pupils used a compass to draw the outline of the stem rather than attempt an

accurate representation of the slide itself. It is interesting to note that the incident with Tyrone began with his complaints about not being able to “see” his slide.

During the interview that followed this lesson, Kate said that she believed that the “expectations” of the biology syllabus were “far too high” and that she remembered that she, herself, had been unable to meet them as a pupil. Later, contradicting this comment, she said that it was the African pupils who experienced difficulties in “seeing” through the microscope. I pointed out, however, that it had been Tyrone, a white pupil, who had been the most vocal in complaining about the difficulties he had experienced in this regard.

During this interview, I found myself beginning to make suggestions as to how Kate could deal with the disciplinary problems she was experiencing with Tyrone. In doing so, I shared some similar difficulties I had experienced in the past. I also questioned her as to the skills associated with “seeing” and drawing detail of slides and specimens. This interaction was different to that I had shared with Lynn in the first case study and, without my being fully aware of what was developing, contributed to some of the difficulties I experienced during the second week of the case study.

During our discussions, the skills involved in “seeing” structure and replicating this were recognised by Kate and led to her creating new strategies for pupils’ learning which are described in the section dealing with her development at the end of this section on Week 1. Her additional comments relating to connections between race and perception are also reported there.

### ***Structure - representation and reality; theory and practice***

The last area of contradiction arose out of the tensions between the representation of structures - either in textbook diagrams or by using models - and those structures in reality. This contradiction was also linked to the lack of clarity in Kate’s thinking about theoretical knowledge and its practical application.

During the interview this week, Kate drew a distinction between diagrams in textbooks and actual specimens saying that “textbook diagrams look completely different from the slide” and that they are “not a true reflection” of reality. It appeared that pupils had also noted differences between different styles of representation. For example, when told to draw diagrams of the brain in their books, using either the diagram on the overhead transparency or the model to guide them, a pupil asked why they needed to consider the choice of drawing their diagram from the model. Kate did not respond to this question but it seemed to me that the former - copying a diagram from the example on the overhead transparency - would be the easier option and that this was possibly the motivation for this pupil’s question.

In the interview Kate drew distinctions between theoretical knowledge and experientially-based knowledge. She said that beginning the learning process with the reality - e.g. observing slides of tissues or dissecting a specimen - was more effective than presenting theory first and following it with practical work. Not only did she think that dissections grabbed pupils’ attention but that dissection prior to theory allowed pupils to observe without too many theoretical preconceptions. Teaching the “entire section theoretically” before doing practical work, Kate argued, encouraged pupils to “learn off by heart” and then “they’re actually thinking of it (i.e. the practical exploration of a specimen) theoretically so it’s not a practical application”. While Kate argued for giving pupils greater freedom in exploring and discovering knowledge about specimens for themselves, she also said that the difficulties some pupils experienced in the practical lesson were as a result of their not knowing what to look for. This comment suggested that prior theoretical knowledge may well have been helpful in guiding pupils in their exploration of specimens.

During this interview, Kate’s discourse relating to practical lessons was frequently confused and contradictory. For example, she said both that pupils enjoyed and learned well from practical lessons (e.g. the dissection of specimens) and that they found practical lessons very frustrating and did not learn as much as teachers thought they did. Her

comments in recalling her own sense of frustration during practical lessons as a pupil in school are recounted in the next section which considers her development during the course of the first week of the case study.

### **Kate's development - heightened awareness reflected in discourse**

My analysis of the interview at the end of the first week of this case revealed both shifts in Kate's thinking about certain issues described in the previous section as well as influences that constrained her in working towards coherent theory/practice relationships. As a result, tensions were maintained between her ideal classroom practice and her actual practice. These issues are described below and a further analysis is provided in terms of Kate's power identity in Chapter 7.

#### *Gender issues*

The discussion of Kate's preferential treatment of boys in her classes as reflected in the disproportionate number of questions she directed to them both heightened her awareness of this practice and provided space for her to explore her reasons for directing the majority of her questions to the boys in her classes. After reading my fieldnotes describing this practice, Kate said both that she was "often not aware of it" and "I'm aware . . . but not as much as maybe I should be".

Initially, she said that she gave the boys more attention because they "dominated" the lessons and were "continually butting in". During this discussion, Kate recalled an article she had read on the disadvantages of co-educational schools for girls as well as the "confidence" with which girls in her own secondary school - an all-girls' school - had spoken and responded to questions in class. She felt that the boys' teasing of the girls in her current school undermined the girls' confidence.

As this discussion progressed, however, Kate began to consider other reasons for her practice of targeting boys and shifted the responsibility from the boys to herself. She said that because the girls “have difficult Zulu names which I can’t pronounce properly”, she did not “consciously stop to ask their names” when “the lesson’s going quickly” but simply called on the boys whose names she found easier to pronounce.

Kate told me that reading my lesson descriptions increased her awareness of this practice and its dangers, leading her to “deliberately just asking the girls” questions in the next lesson. She later told me that when she did this she sometimes needed to ask the girls for the correct pronunciation of their names. By discovering the reasons behind her practice of questioning boys more than girls, Kate provided herself with a strategy for implementing a shift in her practice. In this way, the collaborative nature of the research project facilitated greater understanding, enabling her to take the appropriate steps to initiate alternative practice.

Other gender-biased aspects in Kate’s discourse in this interview included her descriptions of boys being less sensitive than girls to the pain experienced by animals and less sensitive in dealing with what Kate referred to as “deviancy” in other pupils. I did not comment on or challenge either of these statements at the time. It was only in the following week that I felt more confident in confronting Kate about the contradictions between her practice and discourse and aspects of these with which I disagreed.

### *Language awareness*

In the same way that Kate became more sensitive about certain gender issues as a result of reading the lesson descriptions, she also developed a greater awareness of the attention she gave to language. For example, although she had not mentioned language in the initial interview, during the interview at the end of Week 1 she said, “I’ve become more aware of the language that I use in teaching”. It appeared that the effect of my interest in and descriptions of this aspect of her practice sharpened her own consciousness.

### ***Structure - the role of theory in perception and representation***

As already mentioned the interview this week contained references to the difficulties pupils experienced in “seeing” specimens and the benefits and/or disadvantages of their having prior theoretical knowledge when tackling work of a more practical nature.

During the discussion Kate reflected on the methods she had previously tried in training pupils in practical work. For example, she said that she had tried to get pupils to make their own slides but that that had proved “even more difficult”.

She went on to speak with sympathy and understanding of the nerves suffered by pupils in practical examinations as well as the demands of such examinations. For example, she asked, “How could they see the differences between (the cells) when they all look so similar?” Yet, she said, this was what the syllabus expected pupils to be able to do. At one point, she said, “I’ll think about it but I still haven’t come up with a way to get them to see”, a comment which illustrated the difficulty of imagining alternative classroom practice.

Towards the end of the interview, Kate described the complexity of the task she had set for her pupils in the practical lesson - manipulating the microscope, inserting the slide correctly, differentiating between the cells on view and then finally drawing these cells. She admitted that, at times, pupils were unable to “see” the slide even when the microscope had been correctly focused. She also said that although the pupils “had all the information” they did not make the information “their own”; consequently, she felt that her information was not really being “superimposed” on pupils’ own prior knowledge and ideas.

This last comment suggested that Kate believed that theoretical knowledge was necessary for the task of seeing structures and that until pupils had fully integrated such knowledge they were unable to apply it in the practical situation. This was in contradiction to her

earlier statement that theoretical knowledge precluded pupils from exploratory practical work. In response to my further questions, Kate said that although pupils might “have all the theory in their mind”, they still found it difficult to apply the knowledge in the practical lessons. These reflections illustrated the conflicting aspects of Kate’s view of the relationship between theoretical knowledge and practical work in biology.

During these discussions, Kate also considered her reasons for thinking that African pupils had particular difficulty in “seeing” through a microscope, and in doing so, she shifted from her first suggestion that this was “a whole cultural thing” to the possibility that these pupils’ schooling histories had not provided them with sufficient learning opportunities - “they’re coming from schools that didn’t have microscopes”. She felt that these pupils had “no foundation” of past experience in this field on which to build.

As a result of her reflection on and critique of her thinking and practice during this interview, Kate implemented some changes in the next practical lesson described in Week 2. There were also aspects of her discourse in the interview that alerted me to possible constraints to her development. Amongst these were her references to her past experiences as a learner.

In recalling her own school experience, Kate described herself as having been “quite a slow learner” and said that she had not been able to “pick up quickly” so had become very frustrated in class. She recalled that as a pupil she had had difficulty understanding “all these terms” and that during practical lessons at school “I honestly never knew what was going on”. As a result of her feelings of inadequacy that developed - “I mean I thought I was so dumb” - Kate said that “it took me ages to actually believe in myself” adding that she had struggled academically at university as well. She said that it was only once she was “in my fourth year at varsity” that she had begun to “actually believe in myself”.

Her strategy for coping at school had been “to learn everything off by heart” - the same strategy she had employed in learning the biology syllabus during her first year of teaching and which appeared to influence the emphasis she gave to memorisation and revision - elements of rote learning - in her current classroom practice.

The attention that Kate gave to individual pupils also appeared to have its roots in her memories of the difficulties she had encountered as a pupil. For Kate practical lessons weren't “fun” because, she said, “I didn't know what was going on in the first place”. She recalled that “the teachers just presumed that you knew everything that was going on, that you were learning from the experience more than if you were doing theoretical” work. She said that she “used to think . . . if only the teacher would sit with me and just explain to me”.

During our discussions, Kate mentioned her twin sister on a couple of occasions each time comparing herself unfavourably with her. For example, in speaking of their school experience, Kate said that her sister had been brighter and learned faster so had helped her to understand explanations given in class. She also referred to the explanations this sister - now a pharmacist - had given her about some clinical conditions mentioned in her biology lessons. She described these explanations as detailed and complicated, adding that she had found aspects difficult to understand.

Kate's references to her university training were also telling. For example, she said that “I had varsity training so I was never trained”! When I asked for a fuller explanation of this statement, Kate explained that prior to studying for the Higher Diploma in Education she had had “three years where I was trained as a scientist”. During this time she was “trained to go into research”. With some reluctance - “I don't want to say too much” - Kate recalled her H.D.E. studies as including “the History of Education” and “the effect of missionaries on education”. She also recalled her first teaching experience during the teaching practice block as “traumatic” and “disastrous” saying that she “learnt the whole

thing off by heart”, “simplified the lesson” and then, after ten minutes, “didn’t know what to do”.

While Kate felt that she had gained “extra information” in her university training, she said that she still experienced difficulties with the practical aspects of teaching, for example developing worksheets and notes. She compared her university training with that her older sister had received at a technikon. The latter, she felt, being more closely tied to the school syllabus, provided for better preparation for classroom experiences. She said that she still needed to “analyse” her lessons, “think about what I’ve done” and “say okay that doesn’t work. Maybe (pupils) should do this”.

The significance of these comments is further elaborated in Chapter 7 as part of the analysis of the role of teachers’ power identity in theory/practice relationships.

## **WEEK 2**

### **Fieldwork - a new dilemma**

The second week of this case study saw me facing a new dilemma and constructing solutions to deal with it. The solutions included further refinement of the previous methods used in writing fieldnotes and in conducting interviews.

I found that after the interview of the previous week - during which I had begun to share with Kate my own experiences of and ideas for strategies for control and discipline as well as my thoughts about theoretical knowledge and its practical application - I struggled with the focus of the study. Essentially, I found myself uncertain of my role - I asked myself whether I should use the fieldnotes and interviews for criticism in order to help Kate ‘improve’ her practice and change her thinking or whether I should remain a researcher of the current theory/practice relationships in Kate’s classroom? I felt confused because I

thought that I had dealt with this dilemma in the first case study when Lynn's practice had begun to change as a result of her reading the fieldnotes and our subsequent discussions.

It was some time before I realised that, in fact, my dilemma in this case was different to that in the previous one. Lynn had changed her practice without much direction from me - I had been too busy struggling with the demands of writing detailed fieldnotes to provide any such direction at that time. She had seen the theory/practice gaps and worked on them. In this case study, as a second year teacher without Lynn's confidence, Kate's expectations of my role were somewhat different. She hoped that I would continue to make suggestions for changes to her practice much as I had begun to do in the interview at the end of Week 1. (A more detailed analysis of the differences in teachers' capacities to engage in reflection and development is provided in Chapter 7.)

I became increasingly aware of Kate's expectations during the course of Week 2. In the interview during this week, I asked her if she felt "disappointed" that I was not providing "clearer criticisms" or "clearer guidelines" for her in my fieldnotes and interviews. In her response Kate indicated that she would have liked me to be more specific about the language she used in class, to point out when pupils were not understanding her or "getting bored" or "something like that".

I was uncertain as to how to deal with the situation. While I felt obliged to struggle with Kate as she began to explore possibilities in her thinking and practice, I did not want her to see me as being able to provide 'suggestions for improvement'; rather, I wanted ideas for her development to originate with her.

In order to facilitate this process, I decided that my practice of allowing Kate to choose aspects of the descriptions on which to comment - while reflecting the democratic nature of participatory methodology - did not always provide for sufficient focus in the interviews. I decided to pose more explicit questions within the lesson descriptions and to phrase questions in interviews in a more focused way.

In addition, I decided to introduce a greater degree of argumentation in these interviews and to point out the more contradictory aspects in and between Kate's thinking and practice. In doing so, I hoped to challenge her to discipline her reflections in an effort to create visions of alternative classroom practice. I also hoped that this strategy would encourage Kate to provide more authentic responses rather than the 'echo effect' I had sensed during the interview in Week 1. At the same time, I wanted to affirm Kate's strengths by pointing these out to her.

This strategy represented a stronger form of intervention than that employed in the first case study and was a function not only of Kate's relative youth, inexperience and expectations but also of my growing confidence in myself as a researcher with two foci in her study.

Despite my developing confidence - especially in writing detailed lesson descriptions to give to Kate prior to the interviews - I felt that I was not giving sufficient attention to the analysis of this data; however, at the time of writing up the final drafts of the case studies, I found the semi-analytical comments that I had included in the earlier lesson descriptions very helpful as a basis for the more formal analysis provided in Chapter 7.

Towards the end of this week, I realised that despite the difficulties experienced in the fieldwork, lucky events had also occurred without my being fully aware of these. For instance, it struck me that although neither Lynn nor Kate had been my first choice for the first two case studies, they were proving to be very useful participants in that I interpreted much of their thinking and practice as lying at opposing ends of a continuum. As a result, through contrasting aspects of their work, I began to engage in a comparative analysis which later informed my choice of power as an analytical concept. The methodological note included at the beginning of Chapter 7 provides a fuller description of this realisation.

During this week I observed another three lessons followed by my third interview with Kate. The first lesson was described by Kate as "a practical lesson on vertebrates" to

standard 9's. In the second lesson with standard 10 pupils, Kate first went over a test and then spent the remainder of the lesson revising information on the ear as well as other organs. Kate's plan for the third lesson was in response to our discussions on the previous week's practical lesson. Here, the same pupils were required to draw a diagram of a transverse section of a leaf but Kate had instituted some changes in lesson procedures as reported in the following section which records Kate's development..

### **Kate's development - towards more complex understanding**

#### *The role of theory and skills in the perception and representation of structure*

The results of Kate's increased awareness of the complexities involved in the acts of "seeing" and drawing structures were evident in the third lesson of this week.

In this lesson, Kate introduced the use of bioviewers to replace microscopes thus obviating some of the technical difficulties associated with microscope work and giving herself and the pupils the opportunity of concentrating on the task of drawing a plan diagram. She also asked pupils to draw their diagrams in stages as delineated by her so that they worked progressively through the different layers of cells.

In addition, in asking pupils to compare their previously gained theoretical knowledge to what they saw on the slide of the leaf in the bioviewer, Kate encouraged them to differentiate between their prior theoretical knowledge and their perception of the specimen. For example, she asked the pupils whether the epidermal cells at the top were exactly as they had expected them to be. This approach represented a shift in both Kate's thinking and practice in that she encouraged pupils to make judgements about the similarities and differences between theoretical knowledge and 'reality' as seen in the slide specimens.

She then asked pupils to describe these cells as they saw them before asking them, “What are you going to draw?” Pupils provided different answers as they examined their own slides. In the slide that Kate, herself, was working from there were some sclerenchyma cells in between the parenchyma cells. These she included in the plan diagram she was developing on the board, pointing out that these cells would not necessarily be found in everyone’s slides.

After pupils had began drawing the cells in their practical books, Kate noticed that many of them were “exaggerating” the four walls of the cells. On the chalkboard she demonstrated both the correct and the exaggerated versions. When helping a pupil compare his diagram with the slide he was drawing, Kate counted the number of cells he had drawn and then compared this count with the number she could see through his bioviewer. Kate asked another pupil “Are the chloroplasts like that in the middle?” training him to examine his specimen more closely. When a pupil showed concern because his diagram was different to that of his partner’s, Kate questioned both pupils and discovered that they were drawing different sections of the same diagram.

The majority of pupils concentrated on the task set and, in the following interview, Kate said that this lesson had been of benefit to pupils in that by working “step by step” and in giving individual help, she had helped them to “build up a picture for themselves” and gain a “clearer understanding”. She felt that her strategy of drawing their attention to the specimen and asking them to compare it with their prior theoretical knowledge had been better than simply assuming that pupils would be able to observe different aspects of the structure.

During the lesson I overheard a pupil say: “So each one of these things is different from the others” indicating his understanding of the difference not just between different specimens but also the difference and flexibility between theoretical knowledge as found in the textbook and its application in reality. In the interview the following day, Kate said that she thought that pupils “were actually now grasping the fact that this was a live

specimen” and that “it was different from one another” but that they could apply the theoretical knowledge that they had learned to their observations. She commented, too, that “prac work” was “a good way of showing them” the differences between individual specimens.

Kate’s own clearer understanding and focus was reflected in the language she began using in this interview. For example, she used the term “skills” in connection with the gains that pupils had made, a term she had not used before either in interviews or in lessons. She said that “it was skills that we were looking at more than knowledge so their skills were definitely improved”. These skills, Kate said, were skills she had assumed that pupils already had. When prompted, she said that these were “observation skills and then being able to draw it down”. She went on to describe these skills as being fundamental in that pupils would not be able to gain information without them. Without them, she said, they had become “frustrated”, “agitated and confused” and “irritated with themselves and their peers”.

In going over the test in the second lesson, Kate again took up the issue of the differences between theoretical knowledge and its practical application. She warned pupils that in the practical examination they would be confronted with slides which would not be “exactly like what is in the textbook” and that they would need to “apply the knowledge that they have”. This warning was indicative of her greater awareness of the difficulties pupils encountered in drawing structures.

### ***Pupil participation***

During the interview, Kate described pupils’ attitudes as being “more positive” during this lesson and commented on the way in which many of them had worked together and helped each other.

In commenting on pupils' increased participation in the lesson Kate spoke of the different atmosphere in the classroom. She described it as "an atmosphere more of learning" and said it was due to pupils knowing what they were doing and "because they were learning more from it".

### *Consciousness of language*

Again this week, Kate felt that she had become more aware of "language in teaching" - more especially the language in "the questions that I use". The difficulty she experienced in moving beyond and elaborating on this brief comment is interpreted in the section relating to theoretical consciousness in Chapter 7.

### **Theory/practice relationships**

Despite these shifts in Kate's thinking and practice, her development was uneven and contradictions in and between these aspects of her work continued as reported below.

### *Contradictions in theory/practice relationships*

#### *The role of theory in the perception and representation of structure*

Once again, pupils' difficulty in implementing Kate's instruction to "Draw what you see" and not what is "in your mind" was evident in both the first and the third lessons - both practical lessons - this week. For example, one pupil, while working on a diagram in the first lesson, expressed concern because, while he could not see the lateral lines on one fish specimen, these lines were visible on another. I understood his anxiety as being related to pupils' concern about drawing 'the right thing' as well as their difficulty in differentiating between theoretical knowledge and its practical application. The pupil was uncertain whether to draw in the lateral lines or not, especially as his previously gained theoretical knowledge indicated that he should do so.

That Kate expected pupils to draw on their previously learned theoretical knowledge - an exercise in revision - when answering the questions set on the vertebrates was evident in her comment to a pupil after he had asked a question in the first lesson. She said, "You've just written the test, Tom", indicating that she expected him to be able to deal with the practical questions since he had passed the theoretical test. In the light of my current thinking about the gaps between theoretical knowledge and its practical application, I thought it likely that it had been Tom's theoretical knowledge that had caused his confusion in the practical application.

In this lesson, I overheard one pupil comment that he was choosing the easiest specimens to draw while another said, "We can't draw that bird" when faced with the task of drawing this specimen. Certainly I sympathised with him, thinking that drawing diagrams from these specimens was indeed difficult. I noticed, too, that Kate scolded a group of boys who had not moved to the frog specimen but who were nevertheless attempting to answer questions on the worksheet relating to this specimen. They did not appear to think it was necessary to examine the specimen itself when doing so. Kate's comments relating to cell size, incorrectly shaped cells and pupils' use of sketchy lines as she walked around the class illustrated that some pupils continued to experience difficulties in perception and representation. Tyrone, the pupil who had complained of not being able to "see" in the previous practical lesson, again said, "I can't see a thing" after which Kate asked him to stand at her desk. At the end of the lesson, Kate said, "Standard 8, half of you are still not drawing separate cells." Whether this was due to their laziness or ignorance I wasn't sure and silently wished that Kate would ask her pupils more questions in an effort to understand their difficulties.

In the third lesson of the week, a pupil suggested that in "drawing what they see" one could cheat and say that a particular feature was not on their specimen. Kate responded by saying that she knew what was on the slides. She also said that she could tell who had drawn from the textbook instead of from the slide. While I understood that it must be relatively easy to tell a textbook-drawn diagram from a microscope-drawn one, I, like the

pupil, wondered whether the examiner would know the differences between all the slides provided. In other words, would the examiner know which pupil had drawn which slide? Without this information, she/he might have certain expectations despite certain features not being found on particular slides or specimens.

In addition to the problematic connections between theory and perception, the perspectives of diagrams on transparencies, which were Kate's chief teaching aid, sometimes caused confusion for pupils - for example, the "elongated" representation of the ear - and Kate frequently needed to clarify these.

### ***Pupil participation***

In this week of the study, pupil participation was still mostly limited to answering Kate's questions. When revising the ear and then other organs in the second lesson, Kate asked pupils questions individually and one at a time. She again showed persistence when dealing with those pupils who were reluctant to respond. She concluded one interaction rather triumphantly with the words, "So you knew the answer!"

In the interview this week, Kate spoke of her awareness of her limitations in posing questions to invite fuller participation from pupils. Once again, she compared herself to a teacher whose lessons she had watched during the school-based period of the Higher Diploma in Education year. She said that "he would draw out more of the pupils that I do" while she only drew "on what they already have so it's more repetition" and "I won't make them think as much as he does". She also felt that while her own questions were more syllabus-orientated, this teacher was able to relate the information in lessons more broadly to the pupils' experience. Kate partially explained these differences in terms of the pupils. She said that the parents in the other teacher's school were "doctors and things like that". Later in the interview, Kate drew connections between her use of questions and her concern for control. These connections are reported in the following section.

During each of the two practical lessons, many individual pupils asked questions as well as for Kate's help indicating that they did not fully understand her instructions and could not follow her organisation of the lesson activities. The questions pupils asked when going over the test related mainly to the possibility of their being awarded more marks. I also noted that there were times when Kate seemed uncertain as to whether a pupils' question to her was indeed a question. For example, she asked in response to a pupil's query, "Are you asking me something? Is this a question?"

Despite such evidence of miscommunication, in the interview Kate said that she felt that her classes were "very open" and that pupils would let her know if they needed a break or if she had treated them unfairly.

### ***Connections between classroom practice and views expressed***

The following aspects of Kate's practice demonstrate the connections between her practice and her views and beliefs relating to knowledge and learning.

#### ***Emphasis on the learning of structure in relation to terminology and function***

Each of this week's lessons was organised around structures in the biology syllabus. The first lesson required pupils to study specimens - two or three to a workbench - and then answer questions that Kate had reproduced on worksheets distributed to all the pupils. In the second lesson, in revising the section which dealt with the ear, Kate began by telling the class that there was a lot of terminology to be learned in this section. Pupils were then asked to identify the different structures of the ear and to explain the functions of each of these. Similarly, in the third lesson, Kate directed pupils' attention to different aspects of the leaf slides they were observing and drawing.

In each of these lessons, Kate continued to pay attention to language usage, particularly pupils' use of terminology. This is indicated in the following examples. In the first lesson, she dealt with pupils' confusion relating to the terms "phylum" and "sub-phylum" and, in the second lesson to "transverse" and "longitudinal".

When pupils used colloquial language in oral responses to Kate's questions, she accepted this but also asked for clarification of meaning encouraging them to use either more sophisticated language or biological terminology. For example, when a pupil used the word "keeps", Kate questioned him until he used "stores". Likewise, when a pupil used "short time", Kate prompted him into substituting "temporarily". I noticed, too, that Kate instructed the class to answer the questions on the worksheet in full sentences.

When going over the test, Kate responded to a pupil's query by explaining that his incorrect spelling of an answer had been penalised because his incorrect version suggested a different structure and therefore a different and incorrect answer.

Although Kate did not provide a theoretical explanation for her understanding of the place of language in learning, it was clear from her classroom practice that she believed knowing and using correct terminology was important. This practice, however, is best understood in terms of the emphasis she gave to learning structure in terms of terminology and function as well as to learning as memorisation.

In going over the test in the second lesson, Kate provided only the correct responses to the multiple choice questions without exploring any of the incorrect responses or the reasons for pupils' choices. When a pupil contested Kate's correction of one of his responses to a test question and suggested that his response should be considered as a possible answer, Kate responded saying "No, it's not an answer. It's wrong." This provided me with the opportunity of asking her in the next interview whether she ever set questions in tests that allowed for an answer rather than the answer and whether, in fact, it was possible to do this in biology.

Kate responded by saying that only in two sections of biology - those relating to ecology and to conservation - was it possible to provide different answers. She said that it was not possible to use model answers when marking pupils' work on these sections. Kate described "a lot of biology" as dependent on "recall, so it's labelling diagrams, giving it terminology so that there is only a correct answer". She went on to say, "The whole thing of science, biology . . . it's very factual. You can't really um expand on it. I mean that . . . those are the facts . . . so there has to be only one answer." "Learning biology" she said, demanded "recall of different structures and how the structure and the function actually work together".

In discussing perceptions of power in Chapter 7, the constraints imposed by Kate's view of science on her classroom practice and her capacity to initiate changes in this practice are highlighted.

### *Concern with control*

In each of the lessons I observed this week, Kate exerted firm control over all activities. For example, she waited until there had been silence for up to 30 seconds before greeting pupils at the beginning of lessons and ensured that she had pupils' attention prior to beginning teaching. At the beginning of the second lesson when standard 10 pupils seemed particularly noisy, Kate told them to put their heads on their desks for several seconds before she began the lesson.

Despite the evidence of miscommunication already mentioned, Kate gave explicit instructions regarding the organisation of lesson activities - often repeating these when pupils indicated that they were confused - and clarified the questions provided in worksheets, sometimes giving examples of possible responses to such questions. Clearly, this strategies were attempts to reduce pupils' bad behaviour.

In the interview this week, Kate drew connections between the questions she asked in class and her concern for control. She said, “If I see that someone has not been listening, I’ll deliberately ask them a question. This, she felt, ensured that “the pupils don’t switch off”.

Once again this week, Kate noticed incorrect uniforms explaining to me in the interview that the school principal had reprimanded teachers for not enforcing correct dress code amongst pupils. Kate said that this had made her “very conscious” of incorrect uniforms and the wearing of jewellery. This week, Kate also attempted to have pupils speak with courtesy to each other and reprimanded those who shouted across the room, threw objects to each other or who disturbed other pupils in their work. Sometimes she asked pupils to move seats in order to control such disturbances. At one point I wrote in my fieldnotes that Kate was as intent on teaching her pupils good behaviour as she was on teaching them to memorise biological terms, structures and functions!

Kate agreed that she was “continually disciplining” her pupils - except for the standard 10 class where she said she felt “more at ease”. In response to my questions, she said that this class “respected” her more so that “I don’t have to set my limits with them all the time”. Kate spoke of her irritation when pupils talked at inappropriate times in class and how she believed that their “frustration” experienced as a result of not learning contributed to their noisiness. She also suggested that while I was observing lessons, she used more discipline in the class. She said, “I think I’m I’m aware of the discipline because you’re sitting in the classroom, so I don’t want you to sit in a classroom that’s undisciplined” and that she had been “concentrating on discipline” in the previous two weeks while I had been observing her lessons.

Kate’s concern to have me observe a “disciplined class” and her reiteration of her belief that pupils “want discipline” and that pupils would respect her less “if I didn’t have discipline” highlighted the value she placed on her control in the classroom.

Kate endeavoured to develop a measure of self-discipline in her pupils by deducting 5% off the test results of those pupils who had forgotten to bring their testbooks to class. At one point in this lesson, she threatened to send the next pupil who talked out of the classroom, a threat she did not implement when the occasion arose. She had told me previously that she did not like sending pupils out of the classroom because they missed work. It's possible that she used an empty threat because she did not have other strategies to use and could not expect support if she were to send pupils to the head of department for punishment.

Part of the interview this week was devoted to Kate's exploration of her dislike for Tyrone, the pupil who had caused a disruption in the laboratory lesson during the practical lesson the previous week. She wondered if it was "a personal thing" recalling that her predecessor had not had difficulties with Tyrone but had had problems with another pupil, Brett, in the same class. In response to my question, Kate said that she felt that it was not only his unacceptable behaviour that she had witnessed out of school that was at the root of her dislike of him but his "more demanding" and "malicious" behaviour in the classroom. In addition, she felt that Tyrone did not have the "same acceptance" from his peers as did Brett and that Tyrone made it "his point to try and make me as uncomfortable as possible". She described his behaviour in the following way: "He glares, he sulks, he has little tantrums" and complained that his behaviour was inconsistent - "he's up and down". At one point in the interview, she said, "I don't know how to handle . I don't know how to handle Tyrone." She also mentioned that her husband, a teacher in the same school, had remarked that she lacked control in classrooms and suggested she send pupils for corporal punishment. My suggestions (for ignoring bad behaviour and isolating Tyrone from the rest of the class) met with some resistance as Kate explained that she did not want him "to be conspicuous or think himself as being different".

These examples of Kate's control in classroom is further elaborated in Chapter 7 where reference is made to pastoral power and its connections to teachers' power identities.

### *Pupil participation*

I was interested in Kate's organisation of pupils in pairs in the first lesson. Working in this way, pupils bounced possible answers off each other as they constructed their responses to the questions on the worksheet before writing them into their practical books. I initially considered that this strategy represented some development in Kate's thinking and practice until I heard her reprimand a pupil for not having helped her partner and realised that this collaboration was essentially an exercise in the revision of previously learned knowledge rather than an exercise in developing or acquiring new knowledge. As such, it connected closely with Kate's view of the "understanding" developed in and through group work - i.e. consolidation of previously learned knowledge.

I noticed that Kate did encourage pupils to answer some of their own questions in lessons this week. For example, she threw back a question to the pupil who had asked it saying, "You tell me" and, when he attempted an explanation, prompted him to develop his response by providing further questions.

### *Learning as memorisation*

As described above, pupils' learning was largely dependent on Kate's questions - oral or written - and pupils' memorisation and manipulation of the terminology associated with the structures under study. 'Peer teaching' as revision was employed in revising the ear, a pupil describing the sound wave passage while pointing to a model of the ear. Other pupils were asked to describe the structure and associated functions of the kidney, the spine and then the eye. When one pupil was unable to do so, Kate told the class, "Standard 10's, you have to learn this. You have to learn what it's called. You have to learn the diagram."

In going over the test Kate said that some of the answers had required "pure learning" and that the mistakes pupils had made indicated not "a lack of understanding" so much as "a lack of learning". In spite of this comment, when a pupil protested that an answer was not

in “the blue book”, after reprimanding him for calling out, Kate explained why he should have known the answer anyway. She went on to warn him not to expect questions and answers to be exactly the same as the information found in “the blue book”, a book Kate had described to me in an earlier interview as having been compiled by the Natal Education Department and as containing all the information necessary for the examination.

Despite the emphasis given to learning the terminology and functions associated with structures, Kate also made references to pupils’ increased “understanding” evident in this test, a result, she told them, of their having made their own notes for this section of the syllabus. She told them that although they had complained and had not wanted to make their own notes, their tests indicated that they had “understood more”. The apparent contradictions in Kate’s use of “learning” and “understanding” are reconciled in the light of her definition of “understanding” as achieving higher test results as a result of “pure learning”.

The emphasis on structure in Kate’s lessons was also evident in the advice she gave pupils about learning for tests. In going over the test, she explained the marking structure - for example, no negative marks were to be awarded in multiple choice questions - and she also suggested how pupils should structure their responses - for example, she told them not to waste time by writing out the whole response to multiple choice questions. In explaining the rules for drawing diagrams, Kate also explained how faults would be penalised in the examination.

Revision and consolidation of information relating to structures and their functions was carried out through repetition and drill which encouraged learning as memorisation. For example, Kate repeated the rules for drawing diagrams in subsequent lessons as well as within the same lesson. After describing and explaining each of the three requirements of headings for diagrams, she repeated these while pointing to the example written on the chalkboard. She again repeated these requirements, stressing the order of the information and adding that it needed to be written on one line. Kate further consolidated and revised

lesson content by reading from “the blue book”, sometimes stopping to ask pupils questions or to relate the information just read to the diagram on the overhead transparency.

## **WEEK 3**

### **Fieldwork - completion**

My feelings about my research practice in the final week of this case study were ambivalent. While I believed that I was getting to grips with many aspects of classroom observation, I still lacked the same degree of confidence when conducting interviews. In addition, while I was aware of differences in thinking and practice between Lynn and Kate, I was not clear about how I would analyse and present these differences or, indeed, their connection to my broader theoretical understanding of knowledge, learning and theory/practice relationships.

Both my observations and subsequent organisation of Kate’s classroom practice in terms of categories - processes of semi-analysis - caused me considerable anxiety. I wondered again about the extent of the overlap between her reality and my interpretation of it. In addition, the uneasiness that I felt on seeing the development of more coherent theory/practice relationships in aspects of Kate’s work by the end of Week 2 led to my developing a different view of this phenomenon and I no longer considered coherence in as positive a light as I had in the past.

On reflection, I realised that I had hoped that Kate’s view of the nature of scientific and biological knowledge, the emphasis she gave to structure in her classroom practice and her view of “understanding” as learning through memorisation would shift as a result of our discussions and that such changes would have some impact on her classroom practice. What appeared to be happening, however, was that certain connections between Kate’s thinking and practice were growing stronger. Only once the fieldwork and several layers

of semi-analysis had been completed did I realise that, although the more coherent aspects of theory/practice relationships in Kate's work did not follow my personal teaching preferences, they were, in fact, worth noting and exploring. Reasons for the direction taken in Kate's development are suggested in terms of her power identity in Chapter 7.

Having little time to work on this analysis and feeling anxious about my ability to do so, I put off this aspect of the work; instead, I wrote a paper on the research design and methods - *Teachers' Personal Epistemologies: revealing and developing teachers' thinking about knowledge and learning* - for presentation at a conference organised by the World Council for Curriculum and Instruction (Region 2) - Educational Challenges for Africa in the 21st Century: The Road Ahead - held in Lagos, Nigeria in October 1993. Developing this paper encouraged me to write up the connections between my motivation for the study and the design and methods used in the research process.

In the final week of observation I attended two of Kate's classes. In the first of these a standard 6 class wrote a test and in the second Kate introduced the section on mammalian tissue to the standard 8's. I conducted the last interview with Kate after she had had the opportunity to read the lesson descriptions of both these lessons.

### **Theory/practice relationships**

When writing up the final draft of this chapter, I found it very difficult to make decisions about how to categorise and structure the theory/practice relationships I observed during this final week of my work with Kate. This, I believe, was not merely a reflection of my lack of clarity but was also, most importantly, a result of trying to analyse Kate's chaos - the very messy nature of Kate's thinking and practice at that time. I found difficulty not only in categorising the trends and patterns in Kate's teaching but also in deciding on the structure of these trends and patterns in terms of their coherence, contradictions and Kate's development. Not only did I think that there were more coherent connections between aspects of her theory and practice, I also thought there were contradictions

within these same aspects - **simultaneous connections and contradictions**. In addition, I was uncertain whether to present the more coherent connections as part of Kate's development - as already explained, these more coherent connections hardly followed my expectations of what her development should have been - or whether to present them as contradictions to aspects of Kate's discourse.

I decided to begin with a description of the increasingly coherent connections between certain aspects of Kate's thinking and practice. These aspects were those features - control, structure, drill and repetition - which had consistently appeared in her lessons over the three weeks of the case. This subsection is followed by a description of those aspects which I considered to be contradictory. The sub-section on Kate's developments concludes the section on Week 3.

### ***Connections between classroom practice and views expressed***

#### ***Concern with control***

Kate tried to ensure that lessons began with pupils in control by requiring that they line up outside her classroom and wait in silence before greeting her. During the lesson she scolded pupils who called out without raising their hands and who laughed at others' responses. During lessons, she continued to comment on pupils' dress and grooming.

By deducting 5% from the marks of pupils who forgot to bring their test books and 20% from those who handed in their practical books later than requested, Kate tried to ensure that pupils remembered to bring the right books to class - something that pupils seemed careless about. Kate told pupils in the second lesson that if their books had not been handed in by the end of the day, they would get nought. Here she used marks as a means of control.

Before pupils began writing the test in the first lesson, Kate provided them with information about the test - she said that it was long and out of 90 marks - drew attention to certain instructions, some of which she read aloud, and explained how the marks from this test would contribute to the term mark. Kate also told the class that anyone who talked during the test would be given nought.

Kate's use of questions in the second lesson was again directly related to her need to control her pupils' behaviour. In the subsequent interview, she explained that "it's a way of keeping all the pupils' attention because they don't know who I'm going to ask next". I noticed that Kate ignored pupils who called out their responses to her questions without raising their hands and that Tyrone had been moved to a seat next to a quiet girl in the front of the room from the beginning of the lesson. I noticed, too, that although Tyrone appeared to be calling attention to himself, Kate was not drawn to respond in any way that provided him with opportunities to continue to do so. Later in this lesson he appeared to be participating in an acceptable fashion, asking questions and providing responses to those of Kate's. When asked to comment on this in the final interview, Kate said that she had felt "more in control" with Tyrone sitting "closer to me" and I wondered if her strategies for dealing with Tyrone in this lesson were related to the suggestions I had made in the previous interview.

### *Concern with structure, function and terminology*

I noted that most of the questions in the test that Kate gave this week dealt with structures and functions and required correct biological terminology. The only question which related to everyday life situations was the last one which asked pupils to give three ways to get rid of the housefly!

Concern with structure was once again central in the second lesson which introduced mammalian tissue. After providing the name of the new section to be studied, Kate asked

pupils to name the section just studied and then she briefly spoke about the section which followed mammalian tissue in the syllabus.

In turn, Kate asked for definitions of a cell, a tissue, an organ, a system and an organism. In each case, she used questioning to develop pupils' initial responses, sometimes requesting them to provide an example of an initial generalised response. When pupils were confused about the differences between an organ and an organism, Kate used the analogies of a car and a school in her further explanation of the differences between these structures. It was at this point that I noted that Kate's concern with structure was stronger than ever before!

After this extensive period of revision, Kate began to deal specifically with tissue structures. She named the four main tissue groups, referring to overhead transparencies and using the chalkboard to write new terms and to draw plan diagrams explaining perspective.

Despite describing the standard 8 syllabus as "very irrelevant and boring" in the last interview, in the interview this week Kate said that the knowledge and information covered here was integral to "building up" pupils' knowledge in other areas of the syllabus. She said that "you'd have to change the entire syllabus" if you wanted to "drop" the section she was currently dealing with "because . . . it's all linked together". This comment was indicative of the extent to which her practice was bound to and constrained by the syllabus and is further developed in Chapter 7.

The links between structure and language were again evident in Kate's encouragement of pupils to use biological terminology and her use of the chalkboard to display new biological terms introduced in the lesson. At times, Kate asked pupils, "What do you mean when you say ' . . . '?" requiring that they clarify and refine the vocabulary used in their responses.

Much of Kate's practice which gave emphasis to structure, function and terminology was underpinned by the classical, standard view of science which holds that the natural world is real and objective and that its characteristics cannot be determined by the preferences or the intentions of observers underpinned Kate's views of science and biology. At the end of this week, I felt that unless she was able to develop a more critical view of science, she would be unlikely to make any substantial shifts in her classroom practice. While there were close connections between her views of science and her classroom practice, there would continue to be contradictions between her ideal and actual classroom practice.

### ***Drill and repetition***

Throughout both the period of revision in the first lesson and the introduction of new information in the second lesson, Kate used repetition extensively. Not only did she repeat the information just given, she questioned pupils so that they also repeated the information. At the end of the revision period, she provided a summary of all information covered during the lesson. After dealing with the definitions and functions of tissues, Kate read notes from the overhead transparencies after which she asked pupils to copy these down. The homework set at the end of the lesson required lists of definitions to be supplied.

The bell was delayed at the end of this lesson and by the time it finally rang both the pupils and I were saturated with information and quite exhausted!

### ***Contradictions in theory/practice relationships***

#### ***Examinations***

Despite the emphasis Kate gave to drill and repetition as described above, she criticised teachers who "geared" pupils for examinations by "just going over past paper". In the final interview, she said that pupils or students who have "just gone over the past papers" and

then achieved good results “shouldn’t actually”. Similarly, despite the emphasis she gave to control, structure and function as well as to learning through memorisation and the manipulation of terminology for examinations, Kate’s definition of education was much broader than her teaching practice suggested. For example, she spoke of the importance of “attitude” rather than just knowledge when discussing the aims of education as well as of her desire to implement “innovative techniques” in teaching “relevant” content.

Although Kate disapproved of teachers who reproduced past examination questions in their papers, she also thought that she, as a new teacher, should set papers based on previous papers. She said, “You just use the past papers’ questions, for the past say five or seven years” and that “it’s good ’cos I’m a new teacher”. Later, however, she said that this system did not allow for the examination of “all the extra bits” dealt with in the course of lessons.

When discussing biology examinations, Kate explained that there was no choice given (as opposed to other subjects like history, for example). She went on to say that she favoured the introduction of choice particularly “for the weaker pupils” who “generally have a section which they prefer”. She thought sections of the examinations could “cover the entire syllabus” - possibly, she suggested, through the use of multiple-choice questions - but that other sections of the examination could reflect the different sections of the syllabus. During this discussion I asked Kate whether she thought that biology, was “more rigid, as a discipline, in a school” than it was when considered as more general biological knowledge outside these institutions. She responded by falling back on her view of science as “very factual”. She said, “the whole thing of science, biology . . . I mean it’s very factual. You can’t really expand on it. I mean that, those are the facts”.

### *Kate's knowledge of and views on the biology syllabus*

Kate's feelings of competence and confidence in teaching the biology syllabus appeared to fluctuate and these shifts were reflected in her discourse. For example, in response to my question as to whether she had a copy of the syllabus for each of standards she taught, Kate said that she had received "a copy when I was at varsity and I remember the syllabus from school very much, so I know the syllabus". She then immediately went on to say that she was "not very au fait with what's the difference between standard grade, higher grade and lower grade, so what I generally do is teach everything and in the examination differentiate between the three standards". This, she explained, was because she had pupils working on all three grades in the same class.

Kate also said that "generally" she had "a lot of content knowledge because of the fact that I went to varsity" yet she contradicted this statement in saying that "as a first year teacher, I've had no con no syllabus at all. So all my knowledge I have is still from school. So I go the night before and learn everything that I'm going to teach the next day".

In addition to evidence of Kate's conflicting feelings and views about the content of the biology syllabus, her discourse also revealed contradictory thoughts about the nature of knowledge contained in the syllabus. These statements also conflicted with much of her classroom practice.

For example, during the discussion on question choice in examinations, Kate said that she felt that what was needed was to change "the way in which pupils learned how to apply knowledge rather than learn facts" and explained that "the knowledge (in the syllabus) could change in the next few years". After I had asked for clarification of this statement, Kate said, "Well, what we're teaching in standard 8 is wrong. The syllabus is wrong because we now have updated information which I . . . we learned at varsity. Now I'm teaching incorrect information . . . to the pupils, because the syllabus hasn't changed."

Again in response to my question, Kate explained that she dealt with these kinds of situations by telling pupils what was in the syllabus and then adding the updated information. She remembered having learned that teaching pupils “problem-solving skills” was preferable to merely transmitting information but admitted that she didn’t do this herself and pointed to insufficient time and lengthy syllabuses as constraints to introducing more innovative teaching practices.

Despite the emphasis that Kate gave to syllabus structure as well as to syllabus content, she approved of the school principal’s encouragement to staff members to be flexible in following the syllabuses - particularly in the lower standards. Throughout my contact with Kate, she affirmed the value she gave to questions - both from herself and from pupils - which demanded or showed evidence of “thinking” rather than rote learning or what she termed “regurgitation”.

Possible reasons for and interpretations of the contradictions evident in Kate’s work and discourse - which include the influences she herself cited in interviews as well as those which emerge in my analysis of perceptions and conceptions of power - are dealt with in Chapter 7.

### ***Kate’s development - uneven and conflictual shifts***

The shifts in Kate’s thinking and practice during this week are described below. Once again, these developments were uneven and conflictual in themselves.

#### ***Gender issues***

In the final interview with Kate, gender once again became central to discussions on the biology syllabus. In bemoaning the fact that “a section on sexual reproduction” - that relating to menstruation - had been “cut” from the syllabus, Kate explained that “the leadership are men” and, as a result, the syllabus - like science itself - was “male-based”.

She said that “the examiners didn’t like marking” the section on menstruation but that girls had found the section very interesting and had been able to “relate” to it “personally”.

Kate stated that “a more feminine approach to the subject” was required as “girls and boys have a different way of looking at things”. She pointed out, too, that all the examples in the textbooks related to boys and that girls were largely ignored. In response to further questions, Kate provided various suggestions for topics which could be included in the syllabus, some of which would favour “a more feminine approach”. I thought that Kate’s awareness of the need for “a more feminine approach to” developing the biology syllabus conflicted with her view of science and biology as being “factual” and that this contradiction provided an important focus on which future development could be based.

### *Kate’s view of teachers’ roles*

The confidence and enthusiasm with which Kate made the above suggestions led me to ask her whether she was at all involved in aspects of syllabus revision. Her immediate response was “No” and, when I followed with “Not yet”, she again responded negatively saying, “But I don’t know if I could be”. I asked, “Why not?” and Kate said, “Because I’m just a teacher. I mean it would definitely um it would . we would discuss it in a meeting with our subject head. I mean that’s all we could do. And she must then go and change the syllabus”.

During the subsequent discussion, Kate, “in thinking about it”, began to recognise the ways in which teachers were already contributing to syllabus revision and showed an increased willingness to “voice my opinion”. At this point, she spoke of the importance of restructuring the syllabus so as to make it more “relevant” to pupils. For example, she suggested incorporating various life skills into the syllabus as well as a section on AIDS education. She had already chosen to include a section on contraception - which she described as the only “optional” part of the syllabus at that time. Rather vehemently, she stated that if more relevant sections - like ecology - were developed, it would be possible

to “kick out all this on tissues”! This statement appeared to represent a shift - however temporary - from her earlier statements where she said that it was not possible to “cut” certain sections from the syllabus and that teachers “have to stand out of” real decision making.

While these comments do not represent substantial changes, they do illustrate the developments that can accompany critique and reflection.

## **CONCLUSION**

While this chapter records my increasing efficiency and effectiveness in coming to grips with certain aspects of the research design and its processes, it also details my confusion and difficulties in others areas.

I found the final writing up of Kate’s case in the form of this chapter the most difficult of the five case studies. It involved not only my on-going struggle to understand my role in the research process, but also to understand Kate’s position and points of view. As such, the case provided me with some of the important challenges associated with qualitative research and I needed to make difficult decisions relating to the focus of the study and the use of questions in interviews. I began to realise that while qualitative researchers allow issues to emerge, the issues that do emerge are closely related to the questions posed. This realisation led me to take greater responsibility for my role as researcher and to provide a clearer framework for the collection of data through focused questioning.

While working on the case - both during the data collection stage and, later, during the stage of formal analysis - I felt at my most confused about theory/practice relationships. The advances I thought that I had begun to make in Lynn’s case appeared to have been eroded. In retrospect, this experience and my perceptions relating to it were themselves important lessons in the shifting nature of power. At the time, however, not only was I focused on the difficult task of making sense - at least within descriptions - of the shifts

and contradictions in and between Kate's discourse and practice, I lacked my former faith in theoretical knowledge.

In spite of these difficulties, this case - especially once more formally compared to that of Lynn's - offered a wealth of material for the analysis of contradiction and coherence in theory/practice relationships and for reflection on the facilitation of teacher development through action research processes. In addition, it was the puzzles offered in this case that contributed to both my later definition of power and to my understanding of the components of power which, I now argue, contribute to and/or inhibit the development of teachers' power identities.

## **Chapter Four**

### **CASE STUDY THREE - MARION**

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#### **PREPARATIONS FOR CASE STUDY THREE**

##### **Selecting the teacher and gaining access to the school**

Having completed the first two case studies in 1993, I decided to schedule the remaining three cases for 1994. Once again that year, it was not possible for me to take an extended period of leave so I arranged for three shorter periods of four weeks leave in March, May and August.

After the difficulties that I had experienced in selecting teachers and gaining access to schools in the first two case studies, I recognised that a change in entry tactics was required. I decided that rather than approach the official gatekeepers of schools, the principals, I would first approach potential teacher-participants themselves. I hoped that once I had aroused the individual teacher's interest in the project, principals would be more easily persuaded to allow me into their schools.

Had I not established my 'credentials' during my previous teaching and lecturing career as well as through my involvement in community projects, it is likely that I would have found gaining individual teacher's trust and, therefore, access to schools even more problematic.

Because of the continuing instability in school in African townships in KwaZulu-Natal in 1994, I reluctantly gave up the idea of attempting to co-opt teachers from these schools. At this point I decided to delimit the study to schools which historically had been under

the administration of the House of Assembly and which, therefore, fell within the more privileged sector of the education system. This decision, together with my new strategy of approaching teachers whom I had known previously in some or other context, clearly had implications for this study. Further comments on the selection of teachers and the implications of this selection process for the knowledge constructed in this study are made in Chapter 8 in the discussion on methodology.

I decided to continue with my initial plan to include teachers from a range of subject areas and still hoped to be in a position to select teachers from a range of schools. Having found significant differences between Lynn and Kate in the first two case studies, I felt less concerned about finding too many similarities between white teachers than I had previously.

I had met Marion four or five years before this case study when she and I had accompanied our respective pupils to the Standard Bank National Schools' Festival in Grahamstown. I had been impressed by the interest she had shown in a range of education-related topics beyond that of her own teaching subject, namely mathematics. Only once I had explained the study to Marion - in much the same way as described in previous chapters - and she had agreed to participate (with greater alacrity than any other teacher thus far) did I approach the school principal. I had also met him previously both through provincial literary competitions and through my work with student-teachers who had completed their teaching practice periods in his school. When I met with him to speak about this project, he showed an interest in it and willingly granted permission for me to undertake this work with Marion.

## **Introducing Marion and her school**

The boys' high school at which Marion taught was situated in an upper-middle class historically white suburb which adjoined an area populated by relatively wealthy Indian families. Once it had become a Model C school, increasing numbers of Indian pupils were admitted to the school but the overwhelming majority of the boys was still white at the time of this observation period early in 1994.

The school was proud of its academic and sporting records and considerable emphasis was placed on achievement in these areas. Large and relatively well-equipped, the school had several classes in the standards 6 to 10 each with twenty-five to thirty pupils in all but the lowest classes in the standards.

Over a period of eighteen years, Marion had taught mathematics in a variety of school settings - including a girls' school - and had given private lessons prior to teaching here. Interested in children's development in areas more broadly than traditional school subjects, she had initiated the school's Driver Education Programme. She also coached team tennis, was the official announcer at galas and sports meetings and had been involved in catering for different school occasions. I knew, too, from my previous conversations with her, that Marion had been invited to address parents' meetings on the subject of gifted children. Marion's three daughters had provided her with a wealth of experience in this field.

Married to a university professor, Marion was not unfamiliar with the needs of research. Right from the outset she showed interest in the project and sympathised with me when I explained some of the difficulties I had experienced. She had recently accompanied her husband to the U.S.A. during his sabbatical leave, their second visit there. On each of these visits, Marion had worked either in schools or with school teachers. As a result, much of her discourse in the interviews in this study referred to her American experiences and she drew comparisons between these and her experience in and knowledge of South African schools.

## **The initial interview with Marion**

It was during this interview with Marion that the major weakness of the task used in the questionnaire - mentioned under The initial interview in Case study one - became clear to me. I discovered that in using stereotypes that teachers could easily recognise, I ran the risk of their being recognised as stereotypes and, therefore, not being responded to as real teachers. Interestingly, while some of the teachers in this study mentioned their difficulties in this regard, others did not. This, in itself, became a useful point for analysis when I later developed profiles on individual teacher's thinking.

The stereotypical nature of these lesson introductions was also connected to the artificiality of the exercise. In order to save time and construct a more concise task, I had decided to present teachers with a lesson introduction rather than an entire lesson. Within the introductions, I had hoped to provide an outline of the teacher's plan for the lesson. Unfortunately, however, this strategy had necessitated the inclusion of a fair amount of information and quite extensive instructions from Teachers A and B and it was this aspect of the introductions that Marion criticised rather than the planned activities.

Of all the teachers I interviewed, I found Marion the most articulate. The audiotapes of my interviews with her were a pleasure to transcribe! She spoke fluently and generally expressed herself with ease - usually in full sentences. I found myself needing to do very little in the way of explaining my questions or in prompting her responses. It was only in the final analysis of the data collected in this case study that I began to consider the implications of this. The effects of Marion's articulate and fluent discourse are clarified later in this chapter.

My initial interview with Marion took place in her classroom shortly before I observed the first lesson of this case study. Once again, the analysis that follows is similar in content and

structure but not identical to that given to Marion soon after the interview for her comments and questions.

## **Analysis of the initial interview with Marion**

### *Views on knowledge*

Marion criticised Teacher A for being “very limited in her ideas or his ideas about knowledge” and said that she did not believe that “force-feeding for regurgitation procedures” led to knowledge although she admitted that “it works” in examination situations. She recalled her own rote-learning strategies in learning history for her standard 10 examination and said that although these strategies had enabled her to learn “a subject that I found quite difficult”, she had “very little general knowledge on that history”. Marion concluded that real knowledge needed to be contextualised - to “fit into place in respect to other things”.

In response to my question, Marion said that while the idea that different books may contain different answers might result in pupils being “more confused” “initially”, she felt that they “would actually be better off at the end” especially if they could “put some bits of one account together with bits of another account”. She went on to say that “there must be the understanding that . . . there is more than one answer to certain things”. When questioned further, Marion admitted that this was not as true of mathematics “as often as other subjects”. She pointed to the constraints imposed by working “in a strict syllabus with an exam at the end” as well as the methods of teaching rather than the nature of mathematical knowledge as the factors which contributed to the more limited view of mathematics.

In speaking of worthwhile knowledge, Marion said that “if you discover things for yourself, you will not only remember more but you will learn skills and techniques in being

able to discover new things for yourself, being able to do research, being able to explore avenues that will expose you to these things". She stated that achieving "a good exam result" was not knowledge since knowledge needed to be discovered, understood and contextualised - to "fit into place in respect to other things" - in order for it to have meaning for the learner. She criticised the South African approach to teaching mathematics because it placed too much emphasis on "getting the answer right" rather than "how did we get there".

Later in the interview, Marion compared school-based mathematics knowledge in South Africa to that in the U.S.A. She said that in the former, mathematics was presented as "academic" and was "structured". While she felt that this might contribute to a "higher level" of knowledge, very few sections of the South African syllabus - which she described as "old-fashioned" - encouraged problem-solving. She felt that "we could structure" syllabuses differently and make them more "flexible".

Marion drew an interesting connection between mastering mathematics, a form of knowledge which is respected by Western society, and successful pupils' self-esteem. She felt that success in mathematics at school increased pupils' self-confidence.

### ***Views on learning***

Marion described the learning in Teacher A's classroom as "rote learning" and "learning off by heart" "for regurgitation" in exams and in "the sort of tests that will only test what has been covered in class and only in that form". Opposed to such "drill work" where pupils do "very little thinking, in fact, none", Marion clearly described her preference for methods of learning which actively engaged pupils in discovery through participating in research, "learning by experimentation", "by talking to others", "by writing", "by thinking" and "by exploring". For her, learning was an active process where the pupil engaged directly with other pupils, the knowledge being studied and with the teacher. In addition,

as already suggested, she placed greater value on the processes involved in learning than currently encouraged by the mathematics syllabus.

Marion thought that there was “more learning going on” in Teacher B’s class because pupils were “discovering things” for themselves and “talking” and “discussing with their friends”. The knowledge gained by these pupils, she believed, would “be more meaningful” and pupils would find that discussing it amongst themselves would make it “easier to understand”. In addition, Marion said that pupils would be more likely to remember knowledge gained in this way than through rote learning techniques.

During this interview, Marion also mentioned that “the new thing in the States is teaching maths by writing” the theory being “that if you get children to write about their problems they will actually solve their problems themselves”. Clearly, this theory intrigued Marion and she later gave me a book to read (mentioned again later in this chapter) which explained it in greater detail.

### *Views on classroom practice*

In her analysis of Teacher A’s classroom practice, Marion spoke of the reasons behind classroom practice which emphasised examinations. In particular, she spoke of the constraints imposed by the syllabus and the external standard 10 examination. As a result of these factors, she said, teachers in schools gave more emphasis to answers than to the process of learning. She said, “The thing that I’m most dissatisfied about in my teaching, the thing that I would like to do without is the fact that we have to concentrate on exams because that matric lies at the end of the tunnel.” Marion went on to compare teachers in South Africa with those in the United States who, she said, were “much freer” and who were not “interested in the answer at all” but “only interested in how we were working towards it”.

Marion described the matriculation examination - and especially mathematics at this level - as a “gatekeeper to so many other things”. She said that because a pass in mathematics was one of the important criteria for entry into many university courses, teaching mathematics to standard 10 pupils was “an added responsibility” because “I’ve got to know that they’ve covered all the syllabus and that they’re well prepared for exams”. She pointed out, too, that because schools were “exam-orientated”, the time teachers have to “branch off and do something different” from the syllabus was severely constrained. As a result of these factors, Marion felt that many teachers did teach like Teacher A and had no time “to explore options where there is no result”.

Marion believed that “teachers who lack confidence” or “initiative” were more likely to “force-feed” since this style of teaching did not require that the teacher become “vulnerable”, a quality Marion seemed to find important both in a good teacher and a good learner. She said that Teacher A’s style of teaching provided a “pattern pupils can depend on” and so “eliminates all those scary areas” such as being asked a question to which you do not know the answer.

Marion did not have a very high opinion of pupils’ abilities to motivate themselves and said that interesting, motivating and exciting pupils was largely the teacher’s responsibility. For example, she criticised Teacher A for not providing “an interesting introduction” which would “grab the kids”. Much of her discourse suggested that she thought pupils were often lazy and uninterested in learning and that they were best motivated by competition. She also spoke of them as being relatively incompetent, saying that they were unable to “carry more than three instructions in their heads at a time” or to gauge how long they would take to complete an exercise.

Marion criticised Teacher A for being “cold” and “dictatorial” but she said that her careful explanations would be appreciated by many pupils “in this system” who would find her methods “reassuring”. She suggested, too, that “not being challenged to think” or to be “made vulnerable to exposing their ignorance”, was more comfortable for pupils who

would find challenges “scary”. Marion also thought that “the less inventive type of pupil” would also feel more comfortable with this style of teaching and learning. In addition, she felt that an “A class” would be likely to respond favourably to Teacher A because “they are very concerned about marks and being top of the class and beating whoever they’re trying to beat”.

Marion commented on Teacher A’s “good control” in the classroom and explained the mechanisms she used for achieving such control - keeping pupils “so busy” and the lesson tightly “structured”. She also pointed out that such lessons did not “take off in some exciting way” that the teacher “has not thought of”. For Marion, one of the most exciting things about teaching was the way in which some lessons do “take off”. She said, “I think one of the best things about teaching is that some days you just get to the end of the lesson and you just think ‘How did that happen?’” Marion believed that lessons “take off” when pupils “ask the right question at the right time” or even “answer the wrong answer at just the right time” and so alerted the teacher to “where they were going wrong”. This connected with her view as teaching and learning requiring the active and direct engagement of both teacher and learner.

While Marion was aware that the cost of control and structure was lack of excitement and motivation in the process of learning, in the interview she recognised her own need to control and discipline boys who, she believed, needed different strategies to those she had used with the girls she had taught in the past. Despite wishing to develop a “less dictatorial relationship” with her pupils, Marion said that she needed to be “strict” in order to “gain respect” from pupils.

Marion was not so much against the individual techniques used by Teacher A (for example, she felt that a brief summary in point form would be “a good idea”) as she was against the number of instructions and the amount of information provided at the beginning of the lesson. She likened Teacher A to “a machine” or a “tape-recorder” which could be switched on to provide the necessary instructions for learning. This comparison

connected with her view of Teacher A as “cold” and “dictatorial” but “not harsh”, and revealed her own preference for warm engagement with pupils in the classroom.

Unlike those of the previous two participating teachers, Marion’s evaluation of Teacher B’s lesson plan was not particularly favourable. Several times in the interview, she commented that there was “no teaching going on here” adding that had she been a pupil in this classroom, she would have been “totally confused” and unable to retain all the information and instructions given at the beginning of the lesson. In this respect, she felt that there was little to choose from between Teachers A and B. She also pointed to the “fairly structured” nature of Teacher B’s lesson and said that the instructions given, while different, were given in “a very similar way” to those given by Teacher A. While she saw Teacher A as “a little bit more dictatorial”, Marion described Teacher B as giving her pupils “a little bit more of the decision-making” but felt that many pupils would not be able to respond to this approach appropriately.

### ***Areas of classroom practice identified as requiring change***

Marion pointed out the weaknesses she saw in her own teaching and compared these with aspects of the lesson introductions she had studied in the earlier stages of the interview. In particular, she spoke of her own “dictatorial” style, justifying this much as Kate had done in saying that “boys are fiddlers” and that she needed to control and discipline them especially when she was “explaining”.

Marion said that she would like to implement “group work” in spite of the fact that “maths doesn’t lend itself that well to group work”. She also said that she would like the time to “present more real life problems”. She mentioned, too, that she would like the opportunities to take her pupils out of the classroom situation more often, for example on “field trips with maths as the basis”. The reasons she gave for the latter preference included the need to “learn for yourself” in order to “be stronger”, “retain” the information and to “grow in confidence”. Marion explained that she saw life as “one big problem” and

that skills learned in one context ought to be able to be transferred to solving problems in others.

### ***Initial foci for observation and investigation***

Interestingly, Marion was the first teacher in the study to speak more specifically of theory underlying practice as in “the idea behind it being . . .”. I thought that her exposure to schooling in the States may have been a factor in providing her with food for thought and that she was in a good position to speak critically of different classroom practices and their underlying theories. I was, therefore, very interested in ascertaining the effects of this, i.e. whether Marion was able to articulate stronger and less contradictory theories for her own classroom practice than the two teachers previously studied and whether these theories were more consistent with her practice. Her articulate and fluent discourse in the initial interview suggested that this could be the case and that she had achieved a degree of comfort in resolving the conflicting elements between her school reality and her preferred practice. I thought that this, too, may have been a result of her insight into and ability to articulate the differences in teaching and learning strategies.

I was interested in the extent to which Marion incorporated multiple answers in the learning situation and the extent to which her pupils engaged in the learning processes. I expected Marion to be central to and actively engaged in the teaching process, something she said Teacher B did not do. I also expected her to use firm discipline and control as a warm, motherly figure. I was interested in seeing the ways in which she motivated and excited her pupils as well as the extent to which “vulnerability” played a part in her lessons.

I hoped to ascertain how Marion combined the contradictory elements in her task of preparing pupils for “matric” and working in “a restrictive syllabus” and yet using “discovery” methods in her classroom practice. To what extent, I wondered, was she able

to combine preparation for success in tests and examinations with experimentation and independent thinking?

I found various reasons to think that Marion would be a good participant for this study. As already mentioned, her ability to express her thinking clearly - using full sentences with few pauses or repetitions - not only made transcribing easier but also the development of a clear profile of her thinking. In addition, she was organised and efficient in setting dates and times for lesson observations and interviews, making the daily organisational tasks easier for me. While I was aware that Marion had agreed to become a participant in this study partly because she was sympathetic to the difficulties I was experiencing in finding willing teachers, her interest in her own growth and development was evident. In the initial interview, she had said that one “always benefits” from educational studies and recognised her own “shortcomings” as areas for change and improvement. While Marion showed an interest in the processes of research which I had outlined, I did not know whether she was aware of the extent to which the study would require self-scrutiny; however, I was sure that her self-confidence - again evident in her discourse - would withstand the effects of such scrutiny.

## **WEEK 1**

### **Fieldwork - reaching a turning point**

The third case study was, in effect, a turning point for me in the fieldwork for this project. I felt a real sense of achievement when Marion made the following comment after reading the first set of fieldnotes given to her: “I just felt after reading it (the fieldnotes) ‘Wow, you know. How did she manage to get so much out of such a short time and observe so much!’”

In the interview in this first week Marion told me of the effect that reading my fieldnotes had had on her. She said that while reading them, “I suddenly thought I’m going to learn a lot from this because it’s not often you can have someone analyse and I’m going to learn to think probably better myself about what I’m doing and why I’m doing it so I think I’ll come out richer for it which is a good idea.” Not only did this comment highlight Marion’s own qualities and her commitment to self-development, but it also suggested to me that the methodology could indeed encourage reflection and critique.

I had decided to continue the more precise question structure that I had introduced when working with Kate and I found that these questions - focused as they were on specific teaching practices I had observed in lessons - provided good starting points in interviews. While discussions developed around these questions and sometimes ranged well beyond the questions posed, this structure ensured that discussions were closely linked to classroom practice. As a result, I felt more confident in collecting valid and relevant data.

In January 1994 I had scrutinised the data collected in the first two cases in order to find illustrations for inclusion in a conference paper *The importance of teachers’ personal epistemologies in the transition phase in the R.S.A.* which I had presented at a conference of the Educational Association of South Africa entitled The Transitional Phase in the R.S.A. : Implications for Education in Stellenbosch. To my surprise and relief, in the process of examining both my fieldnotes and the transcripts of the interviews, I found that an abundance of exciting ideas sprang to mind. While the stage of final analysis was still a long way ahead, I was beginning to feel less anxious about this aspect of the research process.

As a result of having met many - but not yet all - of the challenges of the fieldwork, from this point on I experienced fewer dilemmas and anxieties. This is reflected in the shorter notes written under the subsequent sections on fieldwork both in the remaining weeks of this case as well as in the final two case studies.

In the first week of this case, I observed three lessons. In the first of these, Marion introduced a new section of the algebra syllabus to standard 9 pupils and I sat in on a test that this same class wrote the following day. The third lesson with standard 7A pupils dealt with fractions. I interviewed Marion about these lessons at the beginning of the following week after she had read my descriptions of these lessons.

## **Theory/practice relationships**

Both the connections and contradictions I found in Marion's work as well as between her classroom practice and the views she expressed in the initial and subsequent interview are reported below. It is useful to note here that with time my analysis of the theory/practice relationships in Marion's work became sharper. At first, I noted more connections than contradictions but once I had developed a more critical eye and had developed the notions of power and identity in greater detail, I became more aware of the theory/practice tensions in her work. While highlighting the gaps between aspects of Marion's thinking and her practice in Week 1, I also give emphasis to my perspective and the shifts that began to occur in this regard.

### ***Connections between classroom practice and views expressed***

#### ***Discipline and control***

As expected, Marion used firm discipline in controlling the boys' behaviour. Right from her business-like greeting at the beginning of her lessons, she imparted a sense of urgency to her pupils, setting and maintaining a brisk pace. Sometimes I felt a little overwhelmed as I endeavoured to keep pace with her in writing full descriptions.

In a subsequent interview, Marion said that her mind "thinks fast" and that she was a "very impatient person with people who are slow"; this, she thought, "might be a fault in certain lessons".

Marion's rather wry humour was also immediately evident and it introduced a light touch to the discipline and control she used. For example, in the first lesson she commented on the boys' "normal pathetic 'Goodmorning'" greeting. At other times, she gently teased pupils, for example telling Greg that he was "very quiet today. How nice!" and commenting that another pupil had been "particularly verbal" before suggesting that this might have been as a result of my being in the classroom and that I should come more often. In the third lesson, Marion noticed that one boy was not attending and asked, "Chris, are you with me?" and went on to say, "Your body's here but is this (indicating her head/brain) here?"

A firmer tone was adopted when Marion reprimanded a pupil who was scornful of another's attempt to answer a question. She said, "I'd appreciate it if you didn't try to shut him up. Just mind your own business". I found this response more intimidating and effective than Kate's constant and more polite attempts to get pupils to be nice to each other in her classes.

Most boys worked individually on class exercises with only a few of them working quietly in pairs. Only once did Marion separate two boys who were talking while doing classwork. Despite this apparent control, in the next interview Marion said that she did not think her "psychology" was working "too well" with some of the pupils in this standard 9 class; nevertheless, she was optimistic that "it'll come".

In the lesson in which pupils wrote the test, I noticed the measures Marion took to obviate any cheating. Pupils were not allowed to keep their bags next to them in the aisles and they were told not to sit next to the person to whom they normally sat. After they had begun writing the test, Marion walked around the class and asked a couple of boys to move their chairs into the aisle. She stood at her desk in front of the class for long periods during the lesson and, at the end, she collected both question and answer papers telling pupils to write their names on the questions papers if they wanted those particular copies returned to them.

In the subsequent interview, Marion explained that although “there’s not much incidence” of cheating in the school - in her eight years of teaching there she had never caught any pupils cheating - she did not “believe in making it easy” for pupils to cheat so removed “as many possibilities for cheating as I can”.

In addition, she felt that it would be unfair if pupils cheated in standardised tests or in examinations because these results were important in securing entrances to tertiary education institutions and were also taken into account in the allocation of scholarships and bursaries. Fairness was also the reason Marion gave for handing out papers face down; this practice ensured that all pupils would have “equal time”. In mathematics, she said, “five minutes is vital - even one minute could make a difference”.

Marion, herself, suggested that her preference for “general manners” in a “more traditional classroom” lay behind her practice - connecting with her view of herself as “an older teacher” - but admitted that “even I’ve become lax because the whole standards seem to be changing”.

Finally, she said she believed in implementing the “proper procedures” in all class tests so that pupils would know what to expect in final examinations. She felt this contributed to “setting the atmosphere” for final examinations.

During the third lesson, Marion threatened to give the whole class punishment and later defended this threat in an interview explaining that “if I just punish the whole class they eventually sort out” the individuals responsible for making the noise. She said that she was not prepared to be “a policeman” and was “not happy to justify” punishments to classes but used this method because it “just works better” although it might not be “very just”.

Although there were close connections between Marion’s initial views of herself as a teacher who controlled her pupils and the classroom practice I observed during this first week, her control was both better established and less obtrusive than that of Kate’s. In

addition, it appeared to be limited to controlling pupils' behaviour rather than their thinking. In time, I began to refine this argument in response to my developing understanding of issues relating to power.

### *Concern with and interest in thinking*

Marion clearly articulated the contradictions and tensions between the nature of mathematics knowledge contained in the South African school syllabus and her preference for teaching techniques which encouraged thinking. She said that "maths is probably the subject that is hardest not to spoonfeed" and yet she was "anti-spoonfeeding". She described the sections of mathematics covered in the syllabus as "a thing where - you know - skills and formulae have to be taught". Marion attempted to resolve the tensions between the way in which knowledge was structured and presented in the syllabus and her goal of "trying to get pupils to think" in a variety of ways. Once again, it was through language usage that I identified several of these.

Many of Marion's exhortations to pupils included the word "think". For example, in the first lesson she used, "C'mon guys, think" and "Use that good brain of yours". In addition, her praises also included references to thinking such as "You're thinking nicely".

As I had found with the previous two teachers, Marion's questions were often loosely structured: "What can you tell me about that?" and "What's interesting about X?" being two examples. Marion's questions frequently required that boys provide explanations for the conclusions they had drawn. In the first lesson, after Billy-Joe had answered a question, Marion asked the whole class, "How does Billy-Joe know that?" She also asked, "Who can explain why . . .?" and, after a pupil had made a choice between X and Y, she said, "Tell me why." In the third lesson, Marion encouraged pupils to use their

imaginations or to draw on past experience by asking them “What happens if . . . ?” When answering individual pupil’s questions, she used the same pattern of interaction as when dealing with the whole class, i.e. questions to get the pupils to think through their problems or suggestions.

Like Kate’s questions, Marion’s were individualised in that she called on pupils by name. At the same time, she reminded the class that they should all try to think of the answer although she had not posed the question to them specifically. Unlike Kate’s questions, however, Marion’s were not used punitively. I also noticed Marion’s encouraging body language when she asked pupils questions. Her eye contact was direct and she smiled sympathetically, often prompting the boys or waiting for a response with an expectant look.

Other examples of the emphasis on thinking in Marion’s classroom discourse included her explanation of how a pupil “should have thought” when he had been attempting a problem. She went on to say, “He should have said to himself . . .”. Marion also stopped going over class exercises at a particular point because “not everyone is there yet” and to continue would have meant that these pupils would not “have a chance to think”. In addition, Marion explained what had led to confused thinking by pupils. For example, she said that LCD’s were often “big numbers” in spite of the term “low”.

Although Marion dictated notes to the class (after explaining to them that this was because of time constraints), she asked them to think of an appropriate heading for the section being written up.

In an attempt to ascertain that pupils were thinking, Marion provided them with a red herring in the third lesson. When prompting pupils to work through an equation on the board, she asked one boy to “go on from there”. When he responded, “Can’t”, she looked pleased and remarked that she had tried to catch him out. In similar vein, she warned pupils not to “get lost” in algebraic calculations, asking them to explain what it was that

they were doing and what the advantage of this was. In the following interview, she spoke of the danger of using a calculator - she said pupils “think whatever’s on the display is the accurate answer so they stop thinking”.

Marion’s concern with thinking was also evident in her responses to my questions during this interview. For example, she explained that she discouraged pupils from calling out because she wanted “to have a chance to ask people who would normally be reticent about answering and it also gave them all a chance to think whereas if someone had shouted out the answer straight away it means that most of them don’t ever get the chance to think”. In this way, she tried both to encourage the entire class to engage in thinking about her questions and to stop certain pupils from dominating the activities.

It was Marion’s interest in encouraging pupils to think that lay behind some of her suggestions for changes in the syllabus. These included interpretations of graphs and work involving estimation. The latter, she said, in requiring comprehension, encouraged pupils to use “logic behind calculations”.

When Neil, a standard 7 pupil, indicated that he was ready to offer a solution to an equation without doing any of the writing Marion had suggested the class first engage in, she allowed him to present his solution but then said, “We’ll see how your answer compares to others”. After working in their books, four other pupils offered answers, each one different. Marion proclaimed that the fifth answer offered was correct. Neil realised his error and Marion suggested that he not rely on his head/brain too much but that he also use writing when working out solutions. Not only did this example demonstrate the way in which Marion delayed her own responses to those provided by pupils in an effort to get them to discover their own errors, it also connected with her interest in learning through writing, a process which emphasised learning rather than producing correct solutions.

In time and despite the connections described here, I began a closer and more critical analysis of Marion's work and the theory/practice relationships within it. These are developed later in this case and in Chapter 7 in relation to components of power.

### *Multiple answers*

The issue of multiple answers arose in response to my interest in pupils' understanding of inaccuracies which arose in the first lesson this week. Although essentially a lesson in algebra, Marion asked the class how they would illustrate the formula under study graphically and what problems they would associate with such an illustration. It was clear from the boys' responses that they were familiar with the possibility of inaccuracies in graphic illustrations. I was interested in the ways in which pupils dealt with such inaccuracies - in particular, whether they queried how an examiner would evaluate inaccuracies and whether inaccuracies in algebra also surfaced.

In the subsequent interview, Marion said that she did not think that "pupils actually query much in maths" because "for too long we've been fixed in this one correct answer". She said that for most pupils mathematics was "in a tightly closed box and its maths" underscoring the unquestioning nature of pupils' engagement with it. She said that although she provided pupils with more than one correct answer or solution and pointed out different interpretations and the possibility of multiple answers "if ever I can", pupils "are fixed in the format that maths has one correct answer". Marion felt that both the way in which most teaching of mathematics occurred and "the exam and test-orientated syllabus that we have in this country" had contributed to this.

In the same lesson, Marion asked pupils to compare algebraic and graphic illustrations asking, "Is either better?" encouraging not only comparison but evaluation as well.

From time to time, pupils presented alternative possibilities to those which the class and Marion were working on. Sometimes Marion encouraged them to work briefly with these

and to talk them through. Another time, Marion agreed with a pupil that “you could do it that way” but also pointed out that “we choose” to do it another way. The notion of choice in this instance was an interesting one and I asked Marion about the extent to which accommodation was made for choice in examinations. She felt that it was not easy to employ “individual choice” in mathematics pointing again to the present syllabus - “it’s not really encouraged in our syllabus” - but said that it was “more common” in geometry where pupils were “free”. She explained that she could have “ten different solutions in a class and they could all be right”.

At the end of the first week with Marion, I had a strong sense of her wanting to encourage pupils to explore alternative methods in mathematics; at the same time, however, there were several constraints to her doing so. These included the syllabus and examinations as well as boys’ attitudes to mathematics as a result of the teaching methods to which they had been exposed.

### ***School syllabus-based mathematics***

In addition to the criticisms and suggestions relating to the South African school mathematics syllabus already mentioned, Marion also suggested that syllabus restructuring should encourage and allow for closer collaboration between teachers of different subjects. She said, “We should be working with geography - there’s a lot of maths in geography”. Later she also pointed to connections and common areas between mathematics, science and accounting which also connected to the view she had expressed in the initial interview - that knowledge in one area needs to “fit in” with that in other areas.

Despite these suggestions, Marion neither pursued such integration in any depth nor made such connections during her own lessons. This contradiction is further developed later in the case.

### *Teacher centrality*

Although Marion made use of discovery techniques and peer-teaching as described below, she was always central to class activity and to pupils' learning. In an interview, she said that she believed that learning mathematics was different to learning most other school subjects in that for the latter "you can do quite a lot of work on your own to improve" while in the former you need to have "someone coaching you". She acknowledged that "many people battle with mathematics" and understood that there was some mystique attached to the subject - people thought of her as "bright" because she was a mathematics teacher - yet stated her belief that "anyone with average intelligence being taught properly should be able to cope" with the subject. For her, the teacher "becomes a lot more important in a subject like this". As a result, she felt that mathematics teachers are under "a lot more pressure" which "makes the teaching of maths a much more exhausting subject". She described herself as never being free in her contact time with the class because "you are giving of yourself the whole time and you're explaining". This, she said, was "very draining", so much so that "by lunchtime most days I'm exhausted".

Certainly, there was almost constant interaction between Marion and her pupils - either as a group or as individuals. Although, for the most part, pupils worked individually and quietly on classwork exercises, a series of questions was posed to Marion by boys who either approached her at the desk or who raised their hands while seated. Marion also circulated around the classroom checking pupils' work and moving to them as they raised their hands indicating they wanted help.

I commented on this almost constant interaction in my fieldnotes at the end of this week noting that far from discouraging it, Marion praised pupils for their interesting questions, sometimes calling the whole class's attention to these. In a subsequent interview, Marion explained that she walked around the class while pupils were engaged in classwork because "shy boys . . . will never come up here (i.e. to her desk) and they will certainly never put their hands up and ask me to come 'cos they won't draw that attention to

themselves but, if I circulate, I'll find often many, many boys who would never ask me to help them on another occasion will because I'm right there. They will just look up and say to me, you know, 'Am I doing this right?'"

Marion's centrality was again demonstrated as pupils wrote notes on the work covered in class. Notes were written after the interactive learning phase of the lesson, pupils either copying these from the chalkboard or writing as Marion dictated them. Marion either wrote the more difficult spellings on the chalkboard or spelled these aloud. She also told pupils when to start a new line and explained how the day's notes fitted into the other sections of notes already completed. She warned pupils of the possibility of their making errors as they copied equations and notes from the board and urged them to concentrate. Little talking took place as pupils completed this task and Marion walked around the class looking at boys' books over their shoulders. In the standard 7 lesson, she commented, "I see some good notes. Make sure you understand these". She also explained that they would need them all year and that they would also be necessary for standard 8 the following year.

In an interview, Marion said that the reason for her success in teaching mathematics was that she had been doing it for "a long time" and that, as a result, she was aware of the kinds of mistakes pupils often made and could "pre-empt those in my teaching". While not contesting this statement, I felt that it represented an underdeveloped view of what influenced good teaching. Chapter 7, in exploring teachers' power identities, presents a more complex view of those factors which influence and constrain teachers' development.

### ***Discovery in learning***

In going over homework in the first lesson, Marion provided pupils with some information which she said she could perhaps have told them before and which could now help them. When asked about this statement in the following interview, Marion explained that she had deliberately held back this information at an earlier stage but that it had been available in

the textbook. She said that she had “left it . . . for them to try to discover” but when they did not do so, she pointed it out to them. She also said that knowing that they were not “a strong class”, she had not expected them to discover it but that she did not “believe in solving problems for them before they’ve discovered the problems themselves”. She concluded by saying that “even if it’s just two or three that discover it for themselves, it’s worth it rather than sort of coaching them. So much of our syllabus anyway is coached and spoonfed and pushed and shoved and mollycoddled that - you know - I’d like them to have a chance to see it”.

In discussing pupils’ acts of discovery with Marion, she distinguished between “true discovery” or “invention” and the discovery of established knowledge. Most of the time pupils were engaged in the latter, but Marion did not rule out the possibility of pupils inventing new formulae or solutions. She provided two examples where South African pupils had done so and whose constructions had been presented in recent textbooks.

In a subsequent interview, Marion reiterated her belief that “the sort of maths that we teach doesn’t lend itself to self-discovery as far as methods are concerned”. She explained that “in this country where we are dealing with fairly high level algebraic processes . . . the chance of their discovering method for themselves is not great so if there is a little chance (of their doing so), I will always ask the one who got it right to come up” to the front of the class and teach the others.

Another example of pupils discovering established knowledge occurred as Marion was teaching a new rule governing a procedure. First she worked through the procedure with the boys and then asked who could make up a rule to describe it. After a pupil offered a suggestion, she asked who could “add to that rule”. A pupil did so and then Marion prompted for greater clarification. Once satisfied, she repeated the rule thus formulated and asked pupils if it was going to “suit” them.

### *Competition in learning*

Evidence of both Marion's use of competition as a motivating force and the boys' competitive spirit was found in the third lesson of this week. After pupils had worked through an equation in their books and one indicated that he had arrived at an answer and began to call it out, Marion stopped him and walked over to check his written work. She then said "No" as she did to another ten boys who subsequently raised their hands. While the boys were amused by this strategy, it was also evident that they were working very hard to try to get the answer first. Marion then promised a chocolate to the boy who got the correct solution first. Some of the boys went on to offer their second tries. Although Marion teased them and called them "lazy", there was no sense of failure and her "no's" were tempered by her comments of semi-comic despair about "my A class" and exclamations about boys who had "lost their feet to the crocodile". When a boy sat back in his chair and stopped working, Marion asked, "Just given up, have you, Nicholas?" At one point a pupil asked, "What about cancelling first?" Marion repeated this question in a pleased tone. Eventually she was able to announce "You've got it!" to one pupil to whom she then promised the chocolate. The sense of enjoyment - both Marion's and the boys' - had been tangible in this part of the lesson. I recalled Marion's words in the initial interview: she had said that she felt that providing motivation for pupils was one of the important tasks of teachers and that she thought that pupils found competition motivating.

In the subsequent interview, Marion admitted to the enjoyment I had sensed - especially in saying "no, no, no to a bright class" who were so competitive - but also provided another reason for the focus she had built around this particular question. She said that the question that pupils had been working on encouraged "the same error that's made every year" and that she felt that if she got them all interested "they're more likely to remember that error" than if she were to "just teach it". This strategy, therefore, also reflected Marion's interest in encouraging pupils' learning through discovery rather than merely encouraging greater competition in the classroom.

### *Peer-teaching*

Marion went on to use peer-teaching in the same lesson asking Chris, the pupil who had reached the correct solution first, to go up to the board and to explain it to the class.

When Chris took over the teachers' role in the front of the classroom (Marion had seated herself next to me at the back), he appeared quite comfortable, chalk at the ready. Pupils, too, seemed at ease in the situation and there was no laughter as there had so often been in Kate's classes when she had tried a similar strategy. As Chris proceeded to present the solution on the board, he asked the class questions in much the same way that I had seen Marion do.

At one point, Marion corrected Chris and asked him to write up the step he had done "in his head". Chris showed some confusion saying that he had not done any such a step. Marion insisted that he must have done. When Chris continued to sound confused, she went to the board to explain the step to him and the rest of the class.

After this, Marion handed back the chalk and the teacher's role to Chris and stood at the side of the room. She waited in silence as Chris muddled through aspects of his explanation, some of which he was clearly battling with. When a couple of boys suggested that he did not deserve a chocolate after all, Marion agreed saying that he ought to buy her one! Once again, she helped Chris and then stood back telling him he could now do the step "you're dying to do". As Chris was writing this on the chalkboard, Marion commented to Neil, a pupil in the front row, that he must be "kicking himself" for having been "too hasty".

Marion then pointed out the stage at which many of the pupils had "slipped". She told them to "make careful notes in your head where you slipped". After Chris had completed the equation, Marion said, "Well done", thanked him and then wrote a note in coloured chalk marking the stage that had caused Chris confusion. She explained the importance of

this “bracket step” and compared this question with others previously done which had not required a similar step.

Later in an interview, Marion explained that “you learn best when you teach something” in that the act of explaining a newly-grasped concept reinforced it in your mind and also gave you confidence. She also felt that this kind of activity made the class less “teacher-centred”.

Chris, she felt, “did very poorly” in demonstrating his method to the class. Marion said that although “he knew how to do it himself” he “wasn’t that good at putting it across” and that he had not “perceived where the others were going wrong”; nevertheless, she felt that because “he’s a very mature child” and “very responsible”, “he handled it fine”.

In this and the other lesson this week, there was a sense of pupils sharing their insights as Marion asked them to “tell the class” how they had arrived at their conclusions. In effect, pupils were engaged in developing their own understandings as well as those of their peers and sharing processes of learning and understanding rather than merely revising concepts learned as had occurred in Kate’s classes. Sometimes, when a pupil asked a question requiring further clarification of a mathematical concept or procedure, Marion would ask the class if anyone could give an explanation.

Although Marion made use of peer teaching and allowed pupils to work out solutions together, in an interview she replied in the negative when I asked whether she ever set test papers which allowed pupils to work together in developing responses to test questions. She went on to explain that “we have too many tests in the school anyway . . . and so I avoid testing under any other conditions”. While she had thought of various more informal ways of getting pupils to test their knowledge (for example, competitions and group projects), she said that “it’s the same old story of time” that stopped her from implementing these.

### *Learning, the self and emotions*

Both in interviews and in her classroom discourse, Marion made several references which connected to the dialectical relationship between confidence and self-esteem on the one hand and learning and success in mathematics at school on the other.

For example, towards the end of the third lesson, she asked the standard 7 pupils whether anyone still had “negative feelings about fractions”. When a couple of boys raised their hands to indicate that they did, she asked them if they had attended the same primary school and had been in the same class. Marion went on to tell the class that her father, who was then aged 76, still had nightmares about fractions and that she was sure that they did not want to have similar feelings.

Two ideas were suggested in this interchange: firstly, that teachers can influence both one’s attitude to and success in mathematics, and secondly, that one needed to work hard to overcome negative feelings about mathematics but that it was important to do so. In the subsequent interview, Marion said that it was not only teachers’ attitudes but also those of parents that influenced pupils’ attitudes to and success in mathematics. She felt it was very important that parents’ negative feelings towards mathematics not be conveyed to their children.

Marion also believed that “if confidence in maths is built up, the overall improvement in all subjects . . . will also show” because pupils’ self-esteem is raised.

The issue of pupils’ confidence was also raised in a discussion on the criteria for good examination papers. Marion said that she had “discovered that if you set exactly the same test but put a hard question first, the marks can be considerably different”. She explained this phenomenon by saying that pupils “actually need to find something they can do first then they find they don’t have problems with the next one whereas if you put a hard (question) first, they lose their confidence. They panic”.

References Marion made in class also highlighted her belief in the need for pupils to feel confident about the knowledge they were learning. For example, she stopped after explanations to ask, “Is everyone happy?” She also used the phrase “pretty secure” to describe the apparent confidence that the boys felt about a section of the syllabus.

During an interview, Marion referred to her “very, very favourite topic of interest in schools” - that of “the age that children come into school”. She said that she could pick out those who were younger at school entry age “within two weeks of them being in my class with almost complete accuracy”. She believed that children who were “held back” - and thus gained a greater degree of maturity before beginning formal schooling - achieved greater success at school - both academically and socially. This interest connected with her belief that self-confidence facilitated better learning which, in turn, led to greater self-confidence. In a later interview, Marion described a pupil as being “far too young for his class”, the reason she believed for the difficulties he experienced with work in class.

Another interesting example which pointed to Marion’s interest in self and learning was found in the correspondence she had developed with Bryte Lin, a Taiwanese boy who had recently arrived at the school. These letters were written in an effort to get Bryte to learn English and, as such, they served as a fascinating record of language development. In discussing aspects of Bryte’s letters with me, Marion said that through writing “he learnt to use language and power” and referred to one letter where “he tries to negotiate with me to get a new class captain”.

I read Marion’s letters with as much interest as I did those of Bryte. Since Marion was my ‘object of study’ her letters provided me with additional insights into her thinking. It was clear that she was concerned with the development of the whole child and her letters made mention of mountain hikes as well as rugby matches. Marion’s letters encouraged Bryte to write of his home and friends as well as his progress at school. She was sympathetic and interested but explained calmly and rationally when Bryte questioned or challenged his

new environment and experiences. While written to and for an English second-language learner, her letters were never patronising.

Marion explained her views on life and its challenges to other pupils in her class, too. For example, when a pupil complained about something, Marion responded by saying, “That’s fine. That’s the story of life, Andrew” and I was reminded of her saying that life is a series of problems to be confronted and resolved. As I continued my analysis of Marion’s work, however, I began to notice contradictions more and more. In addition, I began to question Marion’s classroom practice more critically. For example, I felt that she did not teach mathematics as knowledge for solving life’s problems. At the same time, having had little experience of mathematics teaching, I was not sure just how this could be done. This theme is further developed in the second half of this case.

### ***Revision***

Although I thought Marion did very little revision work in class during the first week of my observation of her classroom practice, she said that if she wasn’t “restricted to such a system as we have, I would do a lot more of recapping almost every lesson”. She felt that this activity helped pupils both to refocus and to get a broader picture. She said that when working on sections of work pupils got “bogged down” and “blinker” as they grew accustomed to “the pattern” of working with the formulae. In the process, they lost sight of what they were doing “so I find the recapping gets it into context as well and helps them to see that the particular section that we may be stuck on for two weeks as part of a bigger section”. Developing context, Marion believed, helped pupils to “know where they’re coming from and where they’re going to”. Marion also said that revision helped weaker pupils learn and grow in confidence.

It seemed that Marion used revision in classwork exercises in that some of these exercises were repetitive. She explained that “I actually set more work to do in class than most maths teachers but I don’t fuss too much if it’s not finished”. She went on to say that her

“idea is that there must always be work for the brightest and the fastest and the ones that are slower are always working anyway”.

### *Anecdotal teaching and “tips”*

Marion made use of anecdotes in her teaching practice. For instance, in the first lesson she explained that “natural numbers” were so called because children learn to count “naturally” on their fingers but, because they don’t have a finger for nought, they only learn this number later. In one lesson Marion told a pupil that he had fallen into the “trap where the crocodile is going to eat your feet”, an error she described as one of the most commonly made in the matriculation examination.

Marion explained to me that because there was so little in mathematics that you could make “personal”, she tried to include some personal references when possible. This strategy connected with her warmth towards her pupils and the personal interaction she maintained in class and in extramural work with them. In Chapter 7 I analyse the connections between this aspect of Marion’s practice and pastoral power.

During a lesson this week, Marion directed the boys’ attention to a poster she had brought back from the States. This gave some tips to help people with mathematics, one of these being to use easier or simpler numbers in an equation when faced with difficulties. At another point in the lesson, Marion said that it was important that mathematics “foundations” be strong. Later, she said that in mathematics, if you got “little things” right, you would also get “big things” right. These tips not only reflected Marion’s sympathetic attitude to her pupils but also her own views about knowledge and learning.

## *Language*

As with the other two teachers previously studied, Marion's language in class linked to aspects of her discourse in interviews and also alerted me to observe more closely certain elements of her classroom practice. For example, in the first lesson, I noticed her use of "we" as in "We call that a solution, don't we?" In the subsequent interview, she said, "I'm not aware of using 'we' so it's something that you'll have to help me with more and find out when I use it"; nevertheless, she went on to suggest that she used it "because I'm with them. It's that, you know, if they're doing the work, I'm coaching them through it, helping them, marking it, testing them on it so it is a group thing". In this way, Marion's language usage alerted me to the way in which she perceived both her centrality in class and her interaction with her pupils. In addition, the more informal language - "C'mon guys" - connected to her warmth and the way in which she motivated her classes.

Marion also checked pupils' ability to use subject-related terminology or "maths words", but in a later interview, she said that she did not think that there was "as much room for pupils not understanding the questions (in examination papers) as there is in other subjects".

Marion's own responses to my questions were usually coherent in that she was able to justify her classroom practices without difficulty. For example when I asked her why she chose to go over homework later in the lesson instead of at the beginning, she explained that because she was also teaching a new section during that lesson she had wanted to begin with that while pupils' "concentration" was "best". She went on to explain that when you go over homework it doesn't always "apply to everyone because some of them have coped all right and so you find you've got half a class concentrating". She thought that this mattered less at the end of a lesson than at the beginning.

### *Theory and application*

Marion made the following comment to a pupil in class: “You’ve got the right idea. Now let’s see if you can do it.” This suggested that Marion believed that there were possible gaps between knowing something - a kind of theoretical understanding - and being able to apply this knowledge. This theme is returned to under the section detailing the contradictions found in Marion’s work this week where the tensions between her own theoretical knowledge about learning mathematics through writing and her practical implementation of this knowledge are highlighted.

### *Contradictions in theory/practice relationships*

After completing my analysis of the theory/practice connections in Marion’s work at the end of Week 1, I was aware that there were contradictions in these - in particular, between the interest she expressed in encouraging pupils’ thinking and discovery in the learning process and her actual classroom practice. I was also aware that she explained these contradictions by citing the requirements and constraints imposed by the syllabus, school timetables and the external “matric” examination. I also thought that Marion was able to balance some of the resulting tensions to a greater extent than had either Lynn or Kate, and that she did so by using both her powerful position as a mathematics teacher in a school environment where mathematics was considered a gatekeeper to a successful future, and her powerful personality. Further analysis of this interpretation is provided in the discussions of power found in Chapter 7.

In addition to those already mentioned, there were other areas in Marion’s work where the contradictory tensions were more blatant and which she did appear to be able to resolve in the same ways. These are reported below:

### *Learning through writing*

Although Marion had suggested that learning through writing was a method of teaching in which she was very interested, I became aware during the first week of the study that she was rather more ambivalent about this than she had appeared to be in the initial interview.

While pupils were writing the test in the second lesson I looked at a couple of books Marion had suggested I might find interesting. The first of these, *Writing to learn Mathematics - Strategies that Work* by Joan Countryman, described mathematics as a “human endeavour” and pupils’ learning as a process of active construction. Countryman suggested that as pupils write about their mathematics experiences - good or bad - their thinking, and, therefore, their learning is facilitated. Underlying this strategy was the idea that reflection on experience stimulates thinking and leads to the development of new insights. She provided examples of many forms of pupils’ writing including freewriting, learning logs and autobiographies.

In the following interview, Marion admitted that although she had done “a lot of reading and a lot of listening” on the topic of pupils’ learning through writing, she had not been “totally convinced of it yet because I’ve not been able to put it into practice myself”. She continued to be interested in the idea because of the “faith” she had in Joan Countryman whom she had befriended in the U.S.A. and with whom she continued to correspond after returning to South Africa. Although Marion cited time constraints as the reason for her having few opportunities to “test” this approach, further into the discussion she revealed that she had been “very disappointed” with the writing that she had initiated thus far. She said that she had set questions for pupils to answer on a test that they had written but that she did not think they had “got anything out of it”. She explained that “the reflections were all very much the same and very much what I would expect them to say”. At this point, she felt that writing needed very careful guidance or else pupils “could spend a lot of time writing all the same thing”.

At the time of final analysis I wondered about the extent to which Marion's impatience had contributed to her lack of success in this area. She, herself, had admitted to being a "very impatient person" and I thought that her unwillingness to pursue the strategy of learning mathematics through pupils' writing may have been connected to this. In addition, it may have been connected to her unwillingness to place herself in the relatively vulnerable position involved when learning a new strategy. She had clearly mastered, if not perfected, her current teaching approaches and learning a new strategy would have required her to step into unknown and possibly risky territory. Ironically, during the initial interview, Marion had spoken of the need for both teachers and learners to become vulnerable and now it seemed to me that she, herself, was unwilling to do so.

### ***Knowledge***

In addition to her mention of choice in solving mathematics problems, Marion also used the instruction to "obey the laws of the equation". Soon after using the latter in class, she used the word "gimmick" to describe a technique pupils needed to use. There seemed to be possible contradictions in the use of "choice", "different answers" and "gimmicks" on the one hand, and "laws" on the other.

In the subsequent interview, Marion began by saying that she did not think she used the word "gimmick" very often but said that she did use "trick" as in "This is just a trick". She explained that she tried to find words "that will appeal to the children" and are not "mathematical words"; nevertheless, she was clear that "whenever I use those words and whenever I use that particular skill I always teach the mathematical foundation for it".

I noted that during this conversation, Marion defined an equation as "a specific algebraic sentence that children learn" and compared it to "a balance scale" saying that laws are used to solve equations. She also described the laws of mathematics as being "mathematically sound".

Marion felt that all of these things - “tricks”, “gimmicks” and “laws” - were “mathematical things”. She said, “I mean you can get different answers. In geometry you have a choice of method. Laws of maths are evident all the time and, you know, mostly have to be obeyed. And a gimmick I think is . would probably just refer to a way of teaching something that looks like a trick but, in fact, is mathematically based”. For Marion, this appeared to resolve any contradictions but I was less certain because, for me, the tensions between Marion’s expressed preference for a problem-solving approach to the teaching and learning of Mathematics and her classroom discourse relating to the need to follow rules remained. These tensions became increasingly more significant as I embarked on further layers of analysis and in writing up the final draft of this chapter. The tensions are further elaborated upon in Chapter 7 in the discussion on teachers’ subject identities and their theoretical consciousness and the connection between these and power identities.

### *Collaboration vs “traditional” competitive classrooms*

There was not much evidence of pupils working collaboratively during the first week and in a subsequent interview, Marion explained that “I actually wish I could allow more talking in class but I feel I’m fairly rigid about that”. She also felt that “maths is the sort of subject that a lot of people can’t do if there’s a noise level above a sort of minimum one and so my classes are generally quieter than most”. She reiterated that “I would like to allow them to talk more but I actually find that difficult myself”. This connected with her description of herself as an older teacher who preferred a more “traditional” classroom. This contradiction can also be understood in the light of Marion’s central position in all pupils’ learning activities. Marion’s centrality reduced pupils’ opportunities for collaboration since they were encouraged to interact with her rather than with other pupils

## **Marion's development - awareness of reasons behind and past influences on practice**

Although Marion had initially agreed to participate in this study partly out of sympathy for me and because she understood the difficulties I was experiencing in recruiting teachers as participants, she began to realise the possible benefits of her involvement for own development after reading the first descriptions of her lessons. After reading the first set of these, she said that she had “suddenly thought ‘I’m going to learn you know a lot from this because it’s not often you have someone analyse and I’m going to learn to think probably better myself about what I’m doing and why I’m doing it so I think I’ll come out richer for it which is a good idea’”.

Later in the same interview, she said that reading my descriptions of her lessons had been “quite an eye-opener” and she had come to realise that “I would have to watch out what I was saying or at least be accountable for reasons of doing what I did”. In reporting on her thinking around the questions I had posed in these descriptions, she said she “had to try and be honest . . . because I think as a teacher you’re often on the defensive - ‘Oh well I did that because that’s the right thing to do’ - and I didn’t want to do that”.

These quotations pointed to Marion’s interest in self-development as well as to her understanding of the need to become vulnerable - a term she herself had used as being an important quality in good learners and good teachers in the initial interview - in this process. The second of these comments also revealed Marion’s increased awareness of the need for accountability in teaching or, in other words, for having a good reason for one’s classroom practice. It was this heightening of consciousness of the thinking behind her practice that proved to be the main theme in Marion’s development in the following two weeks and which served to tighten the focus of her work as a teacher. Issues relating to the identification of aspects of teacher development during action research are elaborated on in the fourth case study and again in Chapter 8 in the discussions on research methods.

In this interview, while speaking about pupils' writing in the learning of mathematics, I expressed interest in Marion's suggestion that, when asked to reflect on their learning, pupils had written primarily what they had thought she expected from them. This comment encouraged her to consider changing her tactics in order to change this motivation. She said, "I must look at them (the responses) a bit more closely. Perhaps my questions weren't good enough. My questions probably weren't open enough".

In a subsequent interview, Marion also said that pupils "are not used to the idea of writing in maths" and would have been confused not understanding "what I could mark or what I would look at because . . . there were no maths answers as such". Once again, this thought led her to consider tactics to overcome pupils' confusion in the task of writing in mathematics learning.

This interview also revealed something of Marion's personal history and past development as she spoke of some of the factors that had influenced her thinking and practice. She mentioned her parent's lack of encouragement to her to pursue academic study in favour of attending a teachers' training college and spoke of the resentment she still felt - "and it's a very deep-seated thing" - because "I wasn't allowed to go to university". She felt that her parents and her teachers should have been more encouraging: "They should have been not just encouraging but saying 'You must go to university'". She compared this period in her life with more recent developments, both personal and general. For example, she said that "the world has changed and women's rights have changed and the expectations of women have changed".

She also felt that her own thinking had "changed a lot" over a period of time. Of particular importance had been the year she had spent in Berkeley, California in 1982. She described this as having been "a very life-changing experience for me - probably the most life-changing thing I've ever had". She described the people she had met there as "people who don't want to be restricted in any way" and explained that their "ancestors" had "pioneered across the States whenever there were restrictions placed on them" until they

could not travel “any further west”. She said that living there had been “a very liberating experience” for her and that she “sort of got confidence in myself and came alive as a woman for the first time ever there”. The importance of this experience is further illustrated in the discussion on power in Chapter 7.

Marion felt that it was too soon to tell how her more recent year in Philadelphia had influenced her thinking. She did say that the year had been “a particularly bad” one for her but that she was “willing to look back in a year or so’s time and see what I learned and I will probably find that I have learned things that I didn’t expect to learn”. Marion felt that sometimes you learn only “in retrospect”. She described Philadelphia as as different to Berkeley as South Africa was to Japan.

In speaking of the influences on her past development, Marion mentioned the influence of her children on both her thinking and her teaching practice. She described her three daughters as “all very bright” and said that “one in particular is a lateral thinker, a different thinker, an extremely rewarding brain to have been part of”. This daughter, Marion said, “has incredible general knowledge and the ability to just soak up information and use it”. As a result, she said “my understanding of knowledge and learning has changed a lot through her” and that it was “one of the reasons why as a teacher I’ve changed”. She said that these changes had occurred “only in my later years” and she had then begun taking pupils “into the mountains to hike . . . to the theatre . . . on steam train trips and to the beach and almost anything that will be of interest to them because I see them as absorbing knowledge in ways that I can’t provide or restrict”. In this way, she said, “you’re never too sure where they’re going to get it so you must just give them as much as you can”.

The importance of non-mathematical knowledge areas to Marion was interesting in that while it connected to much of her practice and discourse (her letters to Bryte, her trip to the Schools’ Festival in Grahamstown and even her criticism of school policy that required that all pupils study mathematics), it suggested that she had reservations about the power of mathematics as a medium for pupils’ learning experiences. It is possible that such

reservations arose out of a limited vision and her lack of an alternative view of mathematics teaching which, had she had one, might have encouraged her in following a more problem-solving approach to teaching mathematics.

In this interview Marion told me that “I’ve learnt over the years mostly how little I know. How much there is still to learn and . . . how much we could learn if we had time”. She concluded saying that she resented the fact that she had to “work for a living because there are so many other things that I would like to do”.

## **WEEK 2**

### **Fieldwork continued**

Towards the end of this case, I commented in my fieldnotes that the language used in mathematics was “esoteric” and that I sometimes could not follow the contents of lessons very closely. As a result, unlike the previous two case studies, I did not learn as much subject content. In addition, while observing lessons in the first two cases, I could easily imagine myself in the role of the teacher whereas in mathematics lessons I took on the role of a pupil - and not a particularly bright one at that! It was only later in the analytical process that I realised the consequences of this. Not having an alternative vision of mathematics teaching myself, I found that, initially at least, I was less critical of Marion’s practice than I had been of either Lynn’s or Kate’s. This realisation, together with my later closer analysis of components of power, led to a shift in my view of Marion’s practice.

During this second and the subsequent third week of this case, all the pupils in the school were writing examinations in the first hour of each day. Although I had made arrangements to observe two lessons during this week, I observed only the first of these because, on arriving at the school for the second lesson, I was told that there was a bomb scare which had necessitated the evacuation of all pupils and teachers for a number of hours.

As a result of this disruption to my schedule, I made arrangements to attend four lessons instead of three during the course of the third week in order to keep to my plan of observing eight lessons in all. In addition, because Marion was busy marking examination papers this week, we made arrangements to postpone the interview scheduled for Week 2 and to conduct two interviews during Week 3.

The lesson I attended this week was one that involved revision of past examination papers with a standard 10 class in preparation for the term examination they were to write the following day.

### **Theory-practice relationships**

In this lesson I found further evidence of connections between Marion's classroom practice and the views she had expressed during my first two interviews with her. Some of these connections were similar to those described in Week 1.

### ***Connections between classroom practice and views expressed***

#### ***Emphasis on examinations***

As might have been expected in this week, in addition to the content of this lesson centring on examinations, Marion gave several reminders about the examination these pupils were preparing to write. Her comments about examinations were coupled with her concerns about time. For example, she commented on pupils' "slowness" and told certain boys to "get cracking".

Time was also mentioned after Marion asked certain pupils about the methods they had used in reaching their solutions. She responded to one boy's explanation by telling him that he would have got "your marks either way but you're wasting time". In a subsequent interview, Marion told me that she thought that post-standard 8 mathematics examination

papers “seem to be longer” and that they “push more into the paper”. As a result, she said, “many matric pupils don’t actually finish the paper let alone have time to check” their scripts before handing them in.

At several points during the lesson, Marion drew pupils’ attention to the mark allocation for a question saying that this was “a signal” to tell them how much work was expected in answering the question. When a pupil contested this statement, Marion disagreed with him but admitted that previously she had made a mistake in relation to a mark allocation given in one of their class tests.

Marion told the class that if they learned the formulae “off by heart”, they should write them down as soon as they had received their question papers in the examinations.

At the end of the lesson, Marion reminded the pupils of their mathematics examination the following day once again and told them that it was important that they get enough sleep. She again suggested again that they learn their formulae “off by heart” as this would “help a lot”. She also reminded them to watch their timing. She reminded them that the paper was out of 100 marks and that they had two hours which meant they needed to answer questions worth 50 marks an hour. She told them not to spend too much time on the ones they battled with but to treat the examination like a “treasure hunt”. She suggested that they do the easier questions first and then “come back in the time left over” to tackle the ones they did not know how to do.

When discussing examination papers in the subsequent interview, Marion told me that she believed that good mathematics examination papers “will have in one section parts that relate and lead up to the next”. She said that “instead of just saying ‘Prove this’, I will ask them first ‘What do you know about this?’ and then link that up and then say ‘Now prove this’ so you sort of guide the proof by the step before”.

During the interview, Marion described mathematics papers as having “room for error and ambiguous questions” so they needed to be very carefully checked. In a later interview, she said that although she had not thought that there had been any ambiguity in one of the questions on a recently written examination paper, another teacher had thought so. She concluded by saying that this was something that pupils would need to learn to deal with - “that is something they’ve got to learn to decide for themselves and, if not, they’ve got to learn to put their hands up and say, ‘Please call a maths teacher. I don’t know’”.

In an interview, Marion commented that pupils in South Africa do not read instructions - both in classwork and in examinations - sufficiently carefully. She attributed this to the amount of spoonfeeding done in South African schools as opposed to those in the United States.

### ***Marking of pupils’ work***

Pupils marked their own work during this lesson. At the beginning Marion nominated pupils who then provided answers but after a while she began to call out the answers herself to speed up the process of marking. In the next interview, she explained that she preferred to get the pupils to call out the answers themselves “because it just gives them a bit more interest” and also “tells me who’s covered the work”.

Some pupils continued to work on the exercises during the marking process. Marion reprimanded a pupil who was neither marking his work nor completing his classwork and I wondered if the calling out of answers interrupted pupils’ concentration. When I asked Marion about this in the next interview, she admitted that “there are some pupils who are perfectly able to get on with their work but I would find it quite hard myself so, ja, I’m sure that does disturb some of them”. Despite this, she did not mention changing this practice.

In this interview, Marion explained that at one time she used to mark a lot of pupils' classwork but that "over the years" as the numbers of pupils per class increased and the number of lessons per week increased "it's just not possible to mark that much". She mentioned, too, that most mathematics teachers did not mark class work and that no inspectors ever checked teachers' marking. She said that all the textbooks "provide all the answers from standard 8 onwards" and that she also "trained" pupils in marking at the beginning of the year. If they had written a "mental test" she asked pupils to pass their books in a circle which meant that "nobody's ever marking the book of the boy who's marking his and you find they never cheat 'cos the only time they cheat for marking is if they can do it to each other". She also asked pupils to sign their names in pencil in the book that they had marked. Other kinds of tests she took home to mark carefully. She did try to see the books of the "weak class" every week.

### ***Multiple answers and strategies for learning***

Once again in this lesson there was evidence of Marion's belief that there could be different kinds of answers to some mathematics questions as well as different approaches to solving mathematics problems.

For example, I noted that Marion praised one or two pupils for giving answers that were "more refined". In an interview, she explained to me that for her a more refined answer was one that was "more finished" and which could therefore be "more easily used in another example".

During the lesson Marion had called pupils' attention to one of the questions and warned them of "the trap" that she herself had fallen into. A pupil offered an alternative suggestion to the one that Marion then provided. She appeared quite pleased with this saying, "Good, Richard. I'm glad to hear." After a moment's consideration, she said that Richard's answer was a "better one than ours" and then said, "Well done!" to him. She also told pupils that they could "use the geometry as well" when working out the algebra answers.

In discussing different approaches to learning in the following interview, Marion said that “some boys will find one (method) easier than another. I know myself in maths that there are some methods I understand more easily. Just whether it goes back to how I was taught as a child or whether it’s a way that my particular brain works but you know I will certainly understand or will prefer one method to another in many areas and I think with them if I can provide two I will because I feel that they will feel the same - that sometimes they will understand one more than the other but exactly why that happens I don’t know”.

After one boy had provided an answer to one of the classwork questions, Marion asked, “Was it the extra maths teacher’s answer?” During the following interview, Marion said that she did not mind at all if her pupils went to extra mathematics lessons provided these teachers did not just complete mathematics homework exercises with pupils or try to get them ahead of her in the syllabus. She said, too, that she sometimes recommended extra mathematics teachers to parents, believing that a good teacher was much better than “these expensive tapes” available on the market.

### ***Teacher centrality and pupil collaboration***

Once again, Marion was central to pupils’ activities even when they were working by themselves. Many of them went up to her at her desk for help as they worked through the questions on the papers. Marion encouraged this saying that she “was here to help if anyone wants help”.

In this lesson I noticed greater collaboration amongst pupils, some leaving their desks to approach other individuals or pairs. Marion neither encouraged nor discouraged this activity but there seemed to be more need for control and discipline in this class than there had been in any of the classes observed in the previous week.

## *Control*

After the period of marking their work, the pupils seemed to take quite a while to settle down to answer further questions in their classwork books and I noticed that many pupils seemed to do a lot of fidgeting. In our next discussion, Marion admitted to having been “very frustrated with” this class “especially with the laziness” and commented that “boys just don’t seem to be any bit as motivated as girls are”. She said that she often told them “that being white male’s not going to be everything that it’s been in the past and if they don’t get cracking they’re going to find it’s too late”.

Marion thought that pupils may have been excited by my presence and had been “showing off” for me. I thought, too, that the increased collaboration in this class had itself led to increased noise levels. Marion also surmised that because many of these pupils had recently changed to standard grade from higher grade for mathematics (as a result of having had a history of failure) their ability to provide correct solutions “was a novel experience” for them. Despite the difficulties with control, she described their increased confidence as “a delight to see”.

One boy, Derek, had left his file either in his home classroom or at home. Marion told him that she would talk to Mr X, a head of department, about him. The boy argued saying that his work was always up to date. Marion ignored these protests and turned her attention to the pupil next to him. Derek stayed behind at the end of the lesson to offer further protests. He said that his test results had been satisfactory. Marion countered this by saying that his classwork was not satisfactory. He replied saying once again that his work was up to date. Marion’s response was to say that he needed to have his file in class.

Where Marion felt that lessons had not gone “too well”, she was philosophical about it in interviews saying, for example, that “that happens with groups of children”.

### *Emotions*

Some of Marion's comments about this week's lesson in the following interview again referred to the importance of emotions in learning. For example, she reiterated that putting "easier questions at the beginning" of mathematics examination papers was important for their "psychological effect because if you have a very hard one first . . . a lot of pupils will be lost before they've even started".

During the same interview, Marion said that she felt that a lot of boys in this school were "immature" and "very spoiled" especially by their mothers who "bail them out of problems all the time so they never actually become responsible for their problems". She described many pupils as "undisciplined" and "very much unmotivated" and pointed to the "talk about how white males are not going to get into tertiary education, they're not going to get jobs, they're not going to get this" as having contributed to the boys' lack of enthusiasm for working towards school success. She said that they "feel almost defeated - 'Why should we even bother? We're not going to get jobs anyway'". In spite of this, she said, coming from relatively affluent homes and having "professional parents" and "established" teachers at school, these pupils generally achieved well in the final matriculation examinations.

### *Contradictions in theory/practice relationships*

As already mentioned, without an alternative vision of mathematics teaching, I initially found it difficult to identify contradictions in Marion's work especially as she was able to provide fluently articulated justifications for her teaching practice - the South African mathematics syllabus, time constraints and examinations. Certainly each of these factors was part of her everyday reality but, with further analysis, I began to wonder about the extent to which she used them as excuses for not working towards implementing aspects of the view of learning she had espoused in the initial interview and which was also inherent in her strong interest in non-mathematical areas of knowledge.

I became increasingly aware, too, that my lack of an alternative vision of mathematics teaching had tempered any criticism on my part of Marion's failure to pursue teaching practice that would have connected more closely to her view of learning as discovery. On the other hand, I wondered to what extent any mathematics teacher, given the structural constraints and realities Marion described, would have been able to teach differently.

The contradictions described below reflect the absences in Marion's practice, i.e. aspects of her discourse that were not found in her practice. In describing these, I refer to presences in her discourse and aspects of practice observed in lessons.

### *Preparation for examinations vs absence of pupils' acts of discovery*

Marion's strong perception of her responsibility in preparing pupils for the standard 10 external examination shaped her classroom practice and her discourse in many lessons. She provided pupils with sound advice for preparing for and writing examinations; however, I noted that this advice would not have been so useful if she followed a more problem-solving approach to learning. In addition, I noted that it was not always such sound advice for preparing pupils for solving life's problems - and Marion had mentioned several times that she saw life as a series of problem-solving events. For example, learning formulae "off by heart" may, in fact, prohibit one from responding appropriately to problematic experiences in life.

Marion's centrality in the classroom and her lack of ease with noisy collaborative activities - expressed in her view of herself as a teacher from the 'old school' - were also factors which constrained her in providing a more exploratory mode in pupils' learning opportunities. While she fostered pupils' self-confidence in her interactions with them - believing as she did that learning and self-esteem were closely connected - I found myself wondering about the extent to which pupils relied on her for their learning. Further comments relating to teachers' pastoral power and its effects can be found in Chapter 7.

## **WEEK 3**

### **Fieldwork - completion**

I observed four lessons in the final week of this case study. The first of these involved going over a recently written examination paper with standard 8's and the second a similar lesson with standard 10 pupils. The third lesson was a geometry lesson with the lowest standard 7 class and the last lesson with the top standard 7 class introduced "a new theorem". I concluded my work with Marion with two interviews based on the fieldnotes which she had read. She had also watched selected video-tapes I had recorded in the observed lessons.

I noted that observing four lessons and conducting two interviews in the course of this week did not present me with particular difficulties. I found myself able to write up the lesson descriptions before the end of the week and to present them all to Marion before conducting the final interviews. The transcriptions of these interviews were only completed some time after I had returned to work.

### **Marion's development - tightening focus and practice**

Marion's development was different to that which I had encountered in the first two case studies. While the discussion on power in Chapter 7 centres on my interpretation of the differences and similarities found in the five participating teachers' theory/practice relationships, a significant difference to be noted at this point was that I had noticed fewer unresolved contradictions in Marion's work at the beginning of my observations of her lessons than in the case of either Lynn or Kate. In addition - and possibly because I lacked a critical eye as well as an alternative vision of mathematics teaching - Marion's development appeared less dramatic than that of Lynn's. Despite the more subtle shifts in

her work, Marion's development was clearer to both herself and to me than had been the case with Kate.

Another feature of Marion's development during the course of this study was that it was interwoven with those developments which had already occurred both in herself and in her work and which she had internalised over a period of time. Her development was, therefore, a subtle tightening of focus and practice and closely connected to the notion of accountability found in her discourse both in Week 1 and again in the final interviews.

In the last of our interviews, Marion said that she "wouldn't have believed that it was possible to learn so much from an exercise like this". She continued by saying that it had made her think very much more about what she was teaching and that having me "analyse the lessons so deep in such detail" meant that she had had "to actually account for why I'd done things". Marion felt that as a result of this need for accountability she had "actually improved my teaching". She said, "I sort of feel that I'm teaching better at the moment than I have for many years and also I'm getting to the nitty gritty of things without fussing too much about the exterior." In addition, she felt that she had begun thinking of ways of introducing lessons and concepts in ways that "I've never thought of before". She concluded this interview by describing a lesson that she had given earlier in the week and said that "I almost wished you'd been able to see it".

Certainly, Marion's description of the changes in her teaching were apparent to me in the clearer focus in her classroom work. In particular, I was aware of the ways in which she reached what she called "the nitty gritty of things" while making more confident use of strategies she valued - particularly, self-discovery and collaboration in learning as well as multiple approaches to learning.

## **Theory-practice relationships**

### ***Connections between classroom practice and views expressed***

The following section describes the above-mentioned and other connections between Marion's classroom practice and her thinking about knowledge and learning.

#### ***Views on Mathematics knowledge***

In the first of these lessons, I noticed that Marion spoke to her pupils about "mathematics knowledge" as compared to other kinds of school knowledge. In discussing her reasons for going over examination papers in class before pupils received their marked papers and results, she also asked pupils how going over mathematics papers compared with going over papers in other subjects. After a couple of boys had offered replies, Marion said that mathematics work was "more repetitive" than that of other subjects which was why pupils would benefit from going over past papers. This description connected with Marion's views on the importance of "strong foundations" and the usefulness of revision and was suggestive of the cumulative and interconnected nature of mathematics knowledge. In addition, this description - one view of a possible number of views of mathematics - also connected to the emphasis Marion gave to learning formulae "off by heart" for examinations and was, I thought, a possible factor in her reluctance to pursue alternative teaching strategies.

This view of mathematics knowledge was again referred to in the second lesson where Marion spoke to the pupils about how the examination paper contained "guided questions" and how "little bits lead you on to the next bit". This description reminded me of the description Marion had given of good mathematics examination papers in the previous interview.

Other aspects of Marion's classroom discourse which highlighted the interconnectedness of mathematics knowledge included a reference to "what you learned in standard 8" and a question - "If you know the gradient is a positive one, what else do you know about it?"

This interconnectedness contributed to a certain 'tidiness' in mathematics, something that may have itself contributed to the pleasure Marion told me she experienced in solving equations. Further comments on this are found under the sub-section on contradictions at the end of this week

Even when introducing new concepts to pupils Marion drew on aspects of mathematical knowledge they had already grasped. For example, in the final lesson, she told pupils that it was likely that they would experience some difficulty in the new section they were embarking on because they would have to "start from the bottom". She went on to explain that they needed to begin to do some "formal proving". Up until then, she said, their learning of geometry had been "experimental" involving measuring and comparing but now they would need to leave behind what they already knew.

In spite of this, Marion told the class that the foundation for what they were about to learn had been laid and that they had a few "arguments up their sleeves already" as well as a starting point. Her next questions were aimed at helping pupils to remember these arguments which she described as the arguments that philosophers like Socrates and Plato had used.

Marion then wrote some "mathematics sentences" on the board and asked the class what deduction they could make from them. After a pupil had answered, Marion asked the class whether he needed to "prove that". She agreed that one "may assume" the accuracy of the statement and that one did not need to prove it. In this way, she introduced the concept of syllogisms.

Marion went on to define syllogisms as obvious logical arguments and added that some people were better able to do these than others. She repeated that syllogisms are “arguments you can’t deny” and that when you had a syllogism, you did not need to provide a reason.

During the course of this lesson, Marion described the brain as “the best possible computer” and compared syllogisms to building bricks. She told the class they would be “laying bricks all the way through to standard 10”. When reading from the textbook with the pupils, Marion drew their attention to an illustration of a geometry wall which had as its foundations axioms, definitions and keywords. She pointed out how theorems were built on each other.

In an interview, Marion agreed that she thought mathematics knowledge was interconnected and interdependent and that she believed that if pupils had a good grounding in primary school, the standard 6 work “will be much better done”. She went on to say that “if the standard 6 work is well done, 7 will be easier”. She described standard 7 as “a vital year” because a lot of the “basic concepts” needed for standards 8, 9 and 10 were taught in this year. She said that mathematics was a subject where “a missing link can be a problem” and that mathematics was “unique” in this way. Marion pointed to the repetitive nature of mathematics knowledge by saying that “on two hands you could cover all the kinds of questions you could be asked on a standard 8 paper in algebra”.

Marion contradicted elements of the latter view in the final interview of the study when comparing the higher and standard grade standard 10 mathematics papers. She said that the former was “very difficult these days” in that it had lots of “subtle” and “different questions”. She said that “you can’t really prepare for it as well as you can for the standard grade paper”. The significance of this comment is also highlighted in the discussion on the contradictions in Marion’s work at the end of this chapter.

During the interview, Marion once again mentioned the interconnections between mathematics and other subjects, for example, science, and she repeated her belief that teachers from different subjects “should be liaising more”.

While there were fewer references to multiple and different answers during the course of this week, in the introductory discussion on geometry with the standard 7 F class, a boy offered the comment that in geometry one had to be “more accurate most of the time”. Marion responded to this by saying, “Not any more than in algebra” and that “a leeway for measurement was allowed because drawings were not always accurate”. Marion’s comment, here, suggested that there was room for flexibility in the marking of geometry questions.

### *Clarification of reasons behind practice*

I noticed this week that Marion frequently provided pupils with the reasons behind her preferred classroom practice and that, even when challenged, she used these to justify her methods.

For example, she made it clear to pupils that she preferred going over examination papers before handing back marked scripts because she found that pupils concentrated better without their marked papers in front of them. When a pupil said he preferred to go over the paper while looking at his examination paper, Marion indicated that she understood this preference but maintained that if pupils had these papers in front of them they were interested in listening to only certain sections of the lesson - presumably only to the questions they got wrong - rather than to everything she had to say.

When Marion introduced the term “syllogism” to the standard 7A class, she also explained to them that for a long time she had not used the word with standard 7 pupils because she had felt that they would not be able to cope with it. She explained that a few years previously she had changed her mind as well as the way in which she taught and had found

that standard 7's were indeed able to cope with the term. I thought that her acknowledgement of this change in her thinking and practice connected to other confidence-boosting statements Marion made to her pupils.

In the final interview, Marion told me that she never used to mention “philosophy, Plato (and) Socrates” to pupils but that since doing so she had found that “that actually interests them”. She said that she had avoided the term “syllogism” “for years because I wasn’t too sure myself about philosophy” and because “immediately you think of philosophy you think ‘Oh it’s difficult, it’s beyond most people’”. She concluded by saying that “I’ve just found now sharing that with them they don’t have any problem with it”.

### *Emotions and mathematics learning*

During the lessons this week there were several examples of Marion’s classroom practice and discourse that connected with the importance she gave to the affective aspects of mathematics learning.

Marion asked the pupils in the first class of the week how they felt about going over the examination papers and whether they thought it was an important thing to do. While several pupils indicated that they thought it important, nobody really spoke about “feelings”. Marion also asked pupils how they had felt about the paper and whether any of them ever “panicked” in mathematics examinations. When a few boys indicated that they did panic, she said that they would need to work on “some tactics for handling exams and tests”.

Marion punctuated her explanations to pupils with questions that referred to emotions such as “Everyone happy with that step?” In the second lesson, she commented that she thought that some pupils were still “scared of lotus”.

I found her introduction to the second lesson of the week particularly motivating and geared to developing positive emotional responses in her pupils. She told the boys that they had done well in their paper and that they deserved their good marks. In addition, she said that there was no reason why this class should not get A's and B's in the final examination - provided, she added, that they "sorted out" the few boys who were a disturbing influence.

Marion began the third lesson by writing the word 'Geometry' on the chalkboard. When one boy responded with excitement, she asked the class if there were others who felt similarly. After several pupils had indicated that they did, Marion went on to ask the first pupil why he was pleased to be about to study geometry. He explained that he thought it was "more interesting" (presumably than algebra) and a couple of other pupils said that they thought geometry was "more fun" and "easy".

Marion then asked those pupils who did not feel the same way to explain why they did not. Pupils' responses here included "hard", "complicated" and "boring". Marion pointed out to pupils that since they needed to write a three-hour examination of geometry in standard 10, they needed to be positive. She added, too, "I'll be there to help you." I was reminded of my suspicion that Marion used external examinations to justify aspects of her teaching practice and of the way in which her centrality in lessons contributed to pupils' confidence.

As these standard 7 pupils recalled their standard 6 geometry in response to Marion's questions, she remarked that they were remembering "beautifully" and likened their brains to computers which she described as better than man-made ones. She was pleased when one of the boys used the word "oblique" and mentioned to them that not one of the boys in standard 7A had remembered it. The class responded very positively to her praise, confidently giving answers to her questions. At the end of this point in the lesson, Marion said that she was "astounded" to see "how much you've remembered". She went on to say that she didn't think that they were going to have problems with geometry.

In the penultimate interview, Marion said that “expectations of (pupils) at home or perhaps bad connotations from the past” as well as the “word ‘exam’ is inclined to make many of them nervous”. In the final interview, Marion again said that she thought that mathematics was “very very scary” for a lot of pupils. She imagined how “demoralising” it must be for pupils to fail continually and said that she “resented the fact that we force every pupil at the school to do maths”. For some pupils, she felt, mathematics was “a daily nightmare”. In response to my questions she said that although it happened infrequently, there were times when she herself felt “a little bit sort of panicky” when faced with questions on certain areas of knowledge from “bright pupils” - especially if she was tired and not thinking clearly. In spite of this, Marion reiterated her belief that “with good teaching anyone with average intelligence should be able to at least pass maths”.

Marion also referred to her own emotions during lessons. For example, where she thought pupils had answered a question well, she pointed this out saying “I was happy with the last one” adding that she had not expected pupils to cope as well as they had done with this question.

In the last interview, Marion spoke of her own interest in and love for mathematics. She said that “maths is very much in my daily life and I use it all the time but that’s because I love it”. She described herself as a mathematics teacher “that enjoys the teaching of maths”. She said that she enjoyed “getting others to succeed . . . seeing the pennies drop”. She recalled that she got “quite excited” on seeing a pupil’s “eyes light up” as he grasped a concept she was teaching.

Not only did Marion gain satisfaction in teaching mathematics to others, she said, too, that she got a lot of “pleasure out of just doing maths calculations”. It almost seemed that she found working on such calculations therapeutic. She said that if she felt “depressed or anxious” or just “generally unsettled”, after “a couple of hours of just doing algebra problems” she would feel “fine” and “more relaxed”.

Marion found it difficult to explain the source of this pleasure but she felt that it was not derived solely from getting the solutions or answers but rather from “the process and remembering how you do a particular process”. She compared the pleasure she experienced to the “nice feeling” she had “when I’ve balanced everything and I know where everything is” after doing the family and domestic bookkeeping.

Marion thought that a lot of the A class pupils experienced the same sort of enjoyment as she did when doing calculations. She went on to speak of the enjoyment she also derived from “working on nice clean paper” with “nice equipment”. She said that she liked “to produce neat work . . . not for anyone else to see” but because “it just gives me pleasure”.

Marion compared herself to other teachers saying that “I very seldom want to go any further than the school maths. That’s enough for me.” She said that she would rather spend her time “finding ways of getting that across to pupils” than pursuing higher level mathematics knowledge. Some teachers, she acknowledged, found teaching the same processes repetitive and some pupils, she said, were “like the sort of people who are looking for new things all the time and don’t get the same sort of pleasure out of repeating processes”. The comfort Marion experienced in the more repetitive aspects of working as a mathematics teacher as described here are again referred to in the section dealing with contradictions.

### ***Revision***

Going over previously written examination papers constituted a lesson in revision. Marion frequently pointed out mark allocations as well as “traps” in different questions and errors which were commonly made or “careless”. During this time, boys responded to Marion’s questions and she wrote up their responses on the chalkboard. These questions included prompts such as “Who can help me here?” At times Marion reminded pupils of information they had written in their notes or she remarked on the correct setting out of responses.

In connection with a particular question, Marion said that she was “not happy” with the pupils’ calculations and that very few of them had got these right. She told them to use their calculators to work out the answer after she had given them “a clue” as to what was required. She said that their brains should work like “a calculator’s logic”. After several boys had called out possible answers to which Marion had said “no”, she said that they must be “doing something really wrong”. She stopped them, gave an explanation and then asked them to continue to work on the calculation. After an almost correct response, Marion gave another suggestion and the pupil then produced the correct answer. In this way, Marion combined revision with pupils’ acts of discovery of established knowledge. Throughout the process, she remained central to and the chief motivating force for their learning.

After going over the paper, the pupils wrote down the information on the board as corrections to be filed. Marion told the pupils to do “careful corrections” as it was important that they could revise using these at the end of the year. She walked around the classroom checking pupils’ progress and sometimes speaking to individual pupils as they wrote up their corrections. It seemed that by circulating in this way, Marion kept pressure on the boys to work.

While the standard 7 F lesson was essentially revision of work the pupils had covered in standard 6 the previous year, the lesson also served as an introduction to the section of geometry in the standard 7 syllabus.

Marion began the final lesson by recapping previous work telling the boys that she wanted to make sure than they were “with me”. During this lesson which dealt with a new theorem, she repeated certain exercises several times, ensuring that the pupils were able to follow.

### *Pupil participation*

There appeared to be an increase in pupil participation in the lessons observed this week possibly as a result of Marion's increased sensitivity to the way in which her more "traditional" expectations of pupils' classroom behaviour could limit such participation.

Marion invited pupils' questions for further explanations by asking "Who's not sure about the step we've just done?" and so provided opportunities for interaction as well as clarification. Although pupils did not often respond to this specific question, they did ask questions and make suggestions freely during class. At one point in the second lesson, a pupil indicated that he was not ready to proceed with further steps in the calculation and Marion offered a fuller explanation of the step they had just completed.

Pupils seemed particularly motivated and keen in the second lesson, many asking questions of Marion as they went over the paper. Some of these were "What if . . .?" questions clearly indicating imaginative thinking and going beyond the confines of the set question.

I noticed again that Marion made eye contact with her pupils and smiled encouragement when they attempted responses to her questions. She also made use of nods to replace words. Her body language was open, she frequently moved around the classroom and her voice was firm and clear. Not only did this indicate her own sense of comfort and ease in the classroom, she conveyed her warmth and interest in the pupils' progress and encouraged their interaction.

In the lesson with the standard 7 class, Marion asked a pupil to summarise information on the board and, once he had done so, she asked the other pupils: "Is this true?" Some boys indicated that they did not think so and Marion invited one of them to correct the original response.

When a boy asked a question about the possible use of a “kappie”, Marion returned the question to the class and one of the pupils then indicated that the “kappie” should not have been used in that instance and explained why not.

Pupil interaction continued during the writing of notes. Although Marion provided headings and a lot of the information, from time to time she asked boys to contribute - either orally or by drawing on the chalkboard. At one time, she underlined the words in the notes she had written on the chalkboard that she thought were important. When a pupil suggested an additional word, Marion said “okay”, underlined it and drew pupils’ attention to this.

In encouraging pupil participation in the lesson, Marion deliberately placed them in the teacher’s marking role, asking them to “pretend you are me” marking a set of tests over the weekend. She asked them which of the three different responses provided on the chalkboard they most liked. In this way, she established both a variety of labels for angles as well as the one they should use and the reason for it.

Towards the end of the standard 7 F lesson, Marion told the class that they had been “patient” and had written lots of notes and listened and answered lots of questions. She said that while the former activities were important, the latter was even more so.

During the last lesson, pupils asked many questions on the new work covered. These questions related to the work at hand as well as to future possibilities.

The interaction between Marion and her pupils this week was easy and relaxed, each apparently comfortable to contest the other’s statements. For example, one pupil challenged another’s conclusion which Marion then described as having “had to be”. The pupil still contested it so Marion substituted numbers for the letters in the syllogism to demonstrate its validity and the boy then looked happier and said, “Oh!”

Marion interrupted another pupil who was providing answers to a homework exercise to say very informally, “There’s some garbage there”. After she had corrected him, the boy explained how he had arrived at his answer and this Marion appeared to accept.

While discussing pupil participation and interaction in class in one of the last interviews, Marion said that she felt that boys were more tolerant of “what we would call oddbods” whereas girls could be very “cruel” to peers who were different in any way. As a result, she thought that boys are “less sensitive” and also more willing to risk asking questions in class than girls are.

### *Discovery in learning*

It was interesting to see how quickly pupils discovered their own errors when going over examination papers. Although I was sitting at the back of the classroom, pupils’ body language clearly conveyed when they had made such discoveries.

In the standard 7 lesson on geometry, Marion used a series of questions to help the pupils “discover” what they already knew about lines, shapes and points. At times, she picked up the phrases used by the pupils either pointing out problems associated with them or saying that she was “interested” in them and using them to further develop a concept.

In order to summarise the newly acquired information in the standard 7 class, Marion asked pupils how they would write this information in “a maths sentence . . . not in English”. In this way, pupils were encouraged to formalise their discoveries.

In the last lesson Marion suggested that if the boys were especially interested in this section of the work they should read the whole chapter in their textbooks which she described as the “best” she knew. At one point in the lesson, she read aloud from this book while the pupils followed in their books. She stopped to explain briefly the reference to the difference between Eastern and Western philosophy.

In spite of observing and noting these aspects of Marion's practice that supported pupils' acts of discovery, I also questioned, in my final analysis of the theory/practice relationships in her work, the absences in her practice or the extent to which her teaching practice did not reflect aspects of her discourse. I further develop these thoughts in the final subsection of this chapter.

### *Concern with thinking*

Both in the activities geared towards discovery as well as in other aspects of Marion's classroom practice, her encouragement of pupils' thinking was evident. At the end of the standard 7 F lesson, Marion gave the class a homework exercise to begin to work on. In this exercise pupils needed to identify "the odd man out" in a series of drawings. A pupil said that he did not understand the requirements of the exercise and Marion agreed it was quite difficult but told the class to "think". After a moment during which the boys studied the drawings, Marion asked Sam to respond to the first question. After he had replied she asked him for a reason for his answer. Another pupil then indicated that he was unhappy with Sam's response but he found it difficult to explain why. At one point he stood up to try to show pupils what he meant. Marion became involved in a brief discussion with other pupils at the front of the class. Quite a bit of debate took place as boys around the class discussed their thinking with each other.

In the final interview, Marion said that many mathematics teachers did not realise that although pupils have had calculators "for many years", a lot of pupils - "even the top students" - "don't know how to utilise those calculators properly". She said, too, that the syllabus did not take this into account. This connected with her belief that pupils did not always think well when using a calculator as they expected this device to do their thinking for them.

Marion's concern with pupils' thinking was again evident in her use of "why"-questions such as "The bracket step wouldn't be a vital one here. Why?"

### *Choice of method*

I noted several examples of choice than Marion highlighted for pupils in lessons this week. For example, during one lesson, she drew pupils' attention to the choice of method available to them in answering one of the questions on the examination paper. She also said that she could not say that one was better than the other and described the methods as having the same degree of difficulty and the same number of stages. She suggested that pupils use the method they found easier. This connected with the comments Marion had made to me in a previous interview about different approaches to learning and solving mathematical problems.

In the second lesson, Marion asked "What's the best way of writing that?" suggesting both that there was more than one way and that one way was better than others. Similarly, in asking for the "most economical definition" of a rectangle, Marion provided for more than one answer but encouraged pupils to provide an answer which conformed to particular requirements.

In the standard 7 F lesson, Marion pointed out that a different sign to the one she was using could be found in some textbooks. She went on to explain the reason for the use of the one utilised "in this school".

Marion commented in the second lesson that it might have helped pupils had they drawn a "sketch" but added that "you don't always have time". In the subsequent interview, she said that sketches are often "helpful" and that she would never "worry" about people doing a drawing or sketch "to help them". This connected both to her belief that different pupils learn in different ways as well as learning as an activity involving discovery.

## *Control*

In the final interview, Marion explained that “the beginnings” of her lessons “are fast on purpose because that in most classes brings them all up. You know they’re all attending”. Certainly, I frequently found myself needing to make use of very speedy shorthand in order to capture all her instructions, questions and statements at the beginning of lessons.

In this week I noticed that Marion ignored any protests pupils offered after she had told them to stop talking or to move seats. She also used this strategy when pupils began to badger her for their examination results despite her earlier explanation of why she was not at liberty to divulge these as yet.

I also thought that the control Marion maintained in her classroom was linked to her central position in class activities. For example, her control and centrality were clear in her dictation of the notes in the standard 7 F lesson where she provided the “big heading” for the top of their notes and the next two sub-headings as well as writing up the more difficult spellings on the chalkboard.

While Marion controlled the pace of many aspects of the lesson, pupils were largely responsible for controlling the pace during revision where Marion provided frequent opportunities for questions and for repetition. On the other hand, during other periods of lessons she scolded the standard 7 F class for doing “too much faffing” and for not writing notes speedily enough. Later in the lesson, several boys asked Marion to “slow down please”.

Calling individual pupil’s attention to the task at hand was done without undue attention and without a major disruption in the lesson. For example, Marion interrupted herself to call “Yoohoo, Sam”. She was often tolerant with pupils in class, avoiding unnecessary confrontations. In an interview, she explained that she was aware that some pupils had problems at home. Some pupils, she said, were “into their third set of parents”!

In one of the last interviews, Marion described the effect of my presence in the classroom on her teaching and confessed to having toned down her anger towards pupils because she did not want me to see her “like a real dragon”. She explained that on “a normal day (i.e. without my being in the classroom) I would have said ‘What the hell’s the matter with you lot?’” you know”.

Although usually warm and friendly and playing a strong maternal role, Marion’s power in the classroom was considerable. Not only was it linked to her position as a mathematics teacher and to her centrality in the classroom as mentioned earlier, it was supported by her frequent references to examinations - the framework for much of her classroom practice. These issues are again raised in Chapter 7 in discussions on pastoral power and the structural arrangements found in schools.

### *Language*

The following examples serve to illustrate the way in which Marion paid attention to the language used in the classroom in the last week of the study.

In going over the examination paper, she asked pupils what “simplify” meant in algebra and the meaning of “hence”. She also asked the class what was required if a question asked them to “state” X and she checked the boys’ understanding of the term “root”.

In the introductory section to the standard 7 F lesson on geometry, Marion divided the word ‘geometry’ into two explaining the meaning of each part and then combining the meanings - “measurement of shapes”. Throughout this lesson, she placed a lot of emphasis on vocabulary, both explaining terms and encouraging pupils to recall others they already knew. At times, pupils were required to explain the meaning of mathematical terms, Marion providing a context for the question such as “How would you describe to a little guy in standard 1 . . . ?” In addition, she encouraged pupils to think of alternative ways to describe processes and procedures, for example “as the crow flies” and “an easier word

for rotation”. She used the boys’ understanding of “submarine” to facilitate their understanding of “subscript” and the idea of neighbours to explain “adjacent”.

In this same lesson, Marion asked for a description of horizontal lines. It seemed to me that although she knew what pupils meant in their responses, she deliberately drew lines on the chalkboard according to their descriptions rather than the meanings behind them. This encouraged them to re-examine their descriptions and then to offer more refined and accurate descriptions using mathematical terminology.

As the standard 7 F class were writing their notes in their books, Marion warned them not to write “angels” for “angles”.

### ***Contradictions in theory/practice relationships***

Although aspects of Marion’s practice appeared to be more coherent in this final week and she was more focused on what she termed “the nitty gritty”, contradictions remained - particularly between those aspects of her discourse which referred to mathematical knowledge as relevant to life and her practice which gave emphasis to a more isolated learning of mathematical concepts in a classroom environment where she, herself, provided structure and direction in all activities.

### ***Mathematics knowledge as relevant life-skills***

In the final interview, Marion spoke with conviction of her view of the contribution mathematics knowledge makes in helping pupils develop relevant life-skills. She described a poster she often displayed in her classroom as listing “every section of maths right from standard five to post-matric” and linking these to the way in which mathematics knowledge is used in different careers. She said that the only career where mathematics was not needed was that of a disc-jockey. She said that the boys “loved” the poster and often examined it.

Marion went on to provide examples of where mathematics knowledge was used in everyday life - for example, comparing prices in the supermarket and working out petrol consumption in cars. She said the “skills that you learn in refining the problem-solving processes are skills that can be transferred to other problems”. Once again, she reiterated her belief that “life is one big problem - let’s face it”.

Despite her discourse mentioned here, Marion concentrated on a more basic approach to teaching and learning mathematics. She did not develop an approach which highlighted the application of mathematical knowledge and I was not sure about the extent to which her pupils made links between their classroom learning of mathematics and solving real problems in life.

### ***“Tidiness” versus ‘messiness’ in mathematical knowledge and learning processes***

While it was clear that examinations were part of Marion’s everyday reality and shaped her practice, I thought that Marion’s view of mathematical knowledge as interconnected and repetitive as well as her liking for a certain “tidiness” in doing mathematical calculations were also strong influences on the routine and structure - a similar tidiness - in her classroom practice. Increasingly I was alert to the connections between her view of mathematical knowledge and her personality and the connections between these factors and the absences in her classroom practice.

The pleasure that Marion said she experienced in doing repetitive work and the comfort she felt in her central position in the classroom were connected to the highly structured classroom which served to give both the pupils’ and Marion, herself, confidence. I thought that she may not have been as comfortable with the ‘messiness’ that would have developed had she pursued a more problem-solving approach to learning where it is likely that she would have had to find new strategies to deal with the noisiness of collaborative work and the loss of her centrality in the learning process.

Marion's view of the repetitive nature of mathematical knowledge - which, in itself, may have been a factor in explaining the absence of additional strategies to encourage discovery and collaboration in pupils' learning - also explained why Marion thought that preparing for the higher grade examination was not as easy as it used to be. Her comment regarding the more "subtle" nature of the questions at this level suggested that her usual strategies did not work as effectively when preparing pupils for this examination and that a different view of mathematical knowledge and of good teaching practice might have been required for this examination.

## **CONCLUSION**

While this chapter reflects the familiarity and confidence I had gained in relation to certain aspects of data collection, it also highlights the difficulties I continued to experience in relation to the analysis of this data. Initially, I had worked in a more descriptive and less critical mode but, in time, when I read over my earlier descriptions (both those in my fieldnotes and the first drafts of this chapter), I developed a more critical and analytical eye. This more critical focus both contributed to and was sharpened by my understanding of power and identity and the role they play in theory/practice relationships and in teachers' professional development.

As a result of my analysis of Marion's classroom practice and the connections and contradictions between it and her discourse, I came to understand more clearly the ways in which tensions between preferred teaching practice and constraints arising from the set syllabuses and external examinations are resolved by teachers. At the same time, this case study also brought other questions into sharper focus for me. In particular, I began asking myself the following questions: Was it possible for teachers to overcome structural constraints and introduce other ways of teaching? Just how powerful were these constraints? What was required for teachers to shift their practice in the face of these constraints? And, importantly, how could teachers work towards greater coherence in their practice?

These were the questions which formed the basis for Chapter 7 where I have attempted to provide some responses through a closer analysis of teachers' power identities. In this way, the puzzles present in the cases led to my posing questions which, in turn, led to the development of suggestions and explanations rather than just descriptions.

## Chapter Five

### CASE STUDY FOUR - LILIAN

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#### PREPARATIONS FOR CASE STUDY FOUR

##### **Selecting the teacher and gaining access to the school**

Lilian, the participating teacher in the fourth case study, was recommended to me by a lecturer in teacher education who had heard that I was hoping to include a history teacher in my study. I was told that Lilian would understand the motivation behind the study and that it was likely that she would find participation in the study very interesting. Despite this optimistic introduction, securing Lilian's agreement to participate was not as easy as was suggested.

When I first approached Lilian telephonically she expressed interest in the project as well as sympathy for the difficulties I was experiencing in finding willing participants and in gaining access to schools; however, she was very reluctant to participate herself. She explained that this was due to time constraints caused by her heavy teaching timetable as well as several administrative duties for which she was responsible. In particular, she felt that she could not spare the time for as many interviews as I had outlined in my description of the study and her role in it. In addition, she said that when she had participated in previous studies, she had felt exploited because her help had not been acknowledged by the individuals concerned. I assured her that her participation and contribution would be acknowledged in this study - although I also suggested that a fictitious name could be assigned to her in the final dissertation. Lilian did not think there

would be any need for an anonymous identity and said that she would like to be thanked by name. At that point, I agreed to do this.

I reiterated that the study might be of benefit to her since she would have access to my fieldnotes and to the videotapes of her lessons. I suggested that she might find these interesting and that I thought that they had proved an interesting stimulus for other teachers who had already participated in the study. After several telephone conversations and some persuasion on my part, Lilian finally agreed to participate in the study provided I limited the interview sessions. This I agreed to do.

At this point it occurred to me that by delimiting the study to white women teachers in this way, provision was made for a more coherent analysis of the theory/practice relationships in their work. This selection of teachers meant that I had fewer factors to consider in terms of educational backgrounds and teaching contexts when comparing the teachers. I was also aware that the selection of participating teachers would limit the conclusions I arrived at. These factors will be referred to in greater detail in Chapter 8.

Although Lilian had finally agreed to participate in this study, I was aware that the school principal was not enthusiastic about my presence in the school and that she had granted permission only because Lilian had given her prior consent. I asked Lilian about this reluctance during the final interview and she gave several possible reasons for it. These included pupils not liking my presence in the classroom and reporting it to their parents who, she said, might complain either to the principal, herself, or, possibly, to inspectors and then “you have an inspection on your hands”. Lilian explained that parents were perceived as being “very powerful now” in schools where they made greater financial contributions than they had done previously.

In addition, Lilian felt that school principals might not have “a sense of insecurity” and could feel “threatened” by my presence in their schools. She surmised that a principal might think: “What is going on in my school that a stranger picks up? She won’t tell me so

where will it be reported to?” Again, Lilian linked this fear with principals’ fears relating to parents’ reactions. Once again, the effects of the research setting and its constraints on both the methodology and analytical conclusions of this study are explored in Chapter 8.

### **Introducing Lilian and her school**

The school in which Lilian taught - then still administered by the former Natal Education Department (for white pupils) - had recently been amalgamated with a similar school serving a neighbouring suburb after each institution had experienced a decrease in pupil numbers. As with other Model C schools in the Durban area, its population was undergoing rapid change in 1993 and 1994. Increasing numbers of African, Indian and Coloured pupils had been admitted to standards 6, 7 and 8 while in standards 9 and 10 white pupils still predominated.

Again as with most Model C schools in Durban at this time, the N.E.D. flavour of the school was retained in the physical environment, the curriculum and the staff demographics. For example, all teaching and secretarial staff were white and all cleaning and garden staff were black.

Lilian had taught history at the school previously situated on these premises for many years. At the time of the observation period she had notched up thirty years service in classrooms. As a Head of Department, she had additional administrative duties which included taking the minutes of management meetings and checking the class registers. She had also been active in promoting the Young Historians’ Competitions and had been involved in TADA (Teachers Against Drugs and Alcohol) as well as the production of the house plays in this school. In the past, she had served on the history syllabus committee.

Lilian had completed her initial education and training in West Germany but subsequently she had studied for her higher qualifications in South Africa. Of the first four participating teachers, Lilian had the highest formal university qualifications, having completed the

Bachelor of Education degree in addition to the Bachelor of Arts Honours degree and the University Education Diploma.

A single woman and a mature and experienced teacher, Lilian's physical appearance brought to mind a rather more stereotypical picture of teachers than had those of the participating teachers in the previous three cases.

### **The initial interview with Lilian**

The initial interview with Lilian took place at her home after school one day. I found her responses to the task of analysing Teachers A and B's lesson introductions in this interview a little disappointing in that she did not elaborate on her ideas as much as I had expected - or had been led to expect by the person who had recommended her as a suitable participant for this study. I wondered about the extent to which her use of English as a second language hindered her in providing more detailed responses and whether this, together with her still marked accent, would be important factors in her interaction with her pupils.

Like Marion, Lilian did not only focus on the planned teaching strategies of the two lessons in the task given during this interview, but also on the management strategies used by Teachers A and B. Both Marion and Lilian commented on the number of instructions given at the beginning of both lessons and both thought this constituted poor classroom management and teaching practice. I asked Lilian to consider the lesson plan rather than just the provision of instructions at the beginning of each lesson. I also noted the differences between Marion and Lilian on the one hand, and Lynn and Kate on the other since neither of the latter had commented on this aspect of the lesson introductions.

## **Analysis of the initial interview with Lilian**

### ***Views on knowledge***

In analysing Teacher A's lesson, Lilian said that while "factual knowledge", which was "basic for any discussion that takes place", would be gained in this lesson, she felt that the latter - i.e. discussion - was "more important than factual knowledge". She went on to speak of the "skills approach" which was used in schools where pupils "work for themselves and think for themselves".

In response to my question relating to possible pupil confusion about different answers in different books, Lilian said that from standard 6 onwards pupils should learn from their teachers that there are "different interpretations" and that "there is bias in every book". Furthermore, she felt that pupils should be helped by teachers to distinguish "between bias and factual knowledge". Lilian felt that her own pupils would not be confused by different answers in different books and went on to say that pupils should "know that everybody is biased, to some extent, and they should find out how far the bias goes".

After a question dealing with truth, Lilian said that "the truth probably lies in between several accounts" and that while "you have to look for it" and "search for it", "you will never achieve complete truth". She explained that you "never reach it because we don't know. We rely on what is reported". She went on to describe knowledge as "search for truth". When I asked whether knowledge was "search for truth but never truth itself", Lilian felt that that statement was "too dogmatic" and that one should be "open-minded" and accept the results of research as "a possible answer - never as a complete answer. It's open-ended". She pointed out that the selection process involved in research itself biased possible outcomes - "You are either limited or you select it. You select your outline to the answer so you are biased".

Lilian saw knowledge as the outcome of doing research, being exposed to different accounts of events and being open to the possibility of bias. As such, critical thinking and evaluation or judgement were important components of the process of constructing knowledge. Alongside this view, Lilian spoke of “your facts”, the importance of “a sound factual knowledge” as a basis for discussion and the need to distinguish between facts and bias. This interview suggested that for Lilian knowledge was comprised of both facts - probably limited by the selection process - and interpretations - probably biased - based on those facts.

### *Views on learning*

Although Lilian criticised Teacher A’s approach to learning, she admitted that pupils would still learn in such a lesson because “you learn if you want to learn”; nevertheless, she said that pupils would “switch off” and would not “learn much” without more active “participation”. She described the kind of learning that would occur as “parrot-fashion learning . . . without thinking”. These comments suggested to me that although Lilian believed that pupils needed to be actively involved in learning, the motivation of the individual pupil was as important as the teaching approach employed.

Lilian said that a different kind of learning was taking place in Teacher B’s classroom. She described this as “a kind of research” where pupils’ “curiosity is hopefully aroused” and where they are “looking for something”. She believed that they would “learn much more” through this approach. In addition, she believed that they would be more likely to “remember” information that they had looked for themselves. This, she added, was not “rote-fashion” learning. For Lilian, curiosity was an important element in learning and in remembering and it connected to the importance she placed on motivation.

Lilian thought that learning should be pupil-centred in that the teacher needed to ascertain the level the pupils were at. At the same time, she believed that pupils needed careful guidance and should not be given too much information or too many instructions at one

time; nevertheless, she believed that teachers should treat pupils as adults, even those in standard six.

### *Views on classroom practice*

Lilian's initial description of Teacher A's lesson was "old-fashioned" and the teaching approach "according to the textbook". She criticised, in particular, the management and organisation of the lesson - for example, the giving of all the instructions at the beginning of the lesson. Underlying this criticism was Lilian's idea that pupils would not remember all instructions given in this way and that they would not listen sufficiently well or long enough to absorb so much information. Lilian concluded her criticism of this lesson by saying that it was "dead".

In response to my question, Lilian said that teachers who taught in this way did so because it was "convenient" and demanded "very little preparation". She also added that it allowed teachers to "feel secure and safe" because there was no "experimenting" involved. She added, though, that pupils would be "extremely bored" by this approach.

In commenting on the relationship between Teacher A and her pupils, Lilian said that the teacher was the "authority" while the pupils were "somewhere down at the bottom to be taught down to". She felt that this sort of hierarchical structure would not be conducive to "good harmony" in the classroom.

While Lilian felt that Teacher B's teaching was "better" than that of Teacher A's, she did not think it "ideal" either. Again she criticised this teacher's management strategy saying that there was still "too much information . . . given at a time" and "you do not tell the class to split up into groups and then give instructions". She felt that in this class, too, "too much" was "thrown at the pupils" and that they would not be able to "concentrate".

Once again, underlying these remarks was Lilian's view that pupils need instructions "in point form, in steps to follow" and that these are best copied down before forming groups "so that they know exactly" what to do. I wondered whether this view contradicted her previous statement that pupils - even those in standard 6 - should be treated as adults.

In spite of her criticisms, Lilian believed Teacher B's lesson was "better because there's group work so there is class involvement". In addition, she believed that in a classroom like that of Teacher B, "there's a far more open relationship". Here, she said, "the pupils are not afraid to say 'I do not agree with you'". While she hoped that her pupils told her when they did not agree with her, she said that they needed to provide justifications or reasons for their opinions. She likened the teacher in such a classroom to "a facilitator" rather than "an authority", adding that the teacher would "perhaps even be a friend".

Although Lilian said that she hoped that "history teachers teach more in the B type" style, she also said that "unfortunately" there were a few history teachers who still taught in Teacher A's style. She initially said that she did not know the situation in other subject areas but later added that group work and pupil involvement was used in mathematics and English, and that geography was "definitely approaching" the skills-based approach to teaching. She concluded by saying she was "sure" a skills-based approach could be followed in other subjects "but differently in every subject" - even history teaching, she said, varied from teacher to teacher and class to class, differences depending on the teacher as well as the responses of the pupils themselves. She commented that it could be "frustrating if there is no response" from pupils.

Lilian clearly saw herself as teaching more in the style of Teacher B than of Teacher A in that she used group work and pupil participation as pupils searched for answers and learned to distinguish between facts and biased statements. During the interview, she commented that she wanted to teach history as she would have liked to have been taught the subject as a pupil. She explained that she had hated her own history lessons at school.

In response to one of my questions, Lilian said that more years' experience in classroom teaching could affect one's teaching either negatively or positively. She explained that if a teacher "grew old", she would teach as Teacher A did, whereas if the teacher were "open-minded" and had "learned in the meantime to adapt to new situations", the teacher would be "more secure" and less "frightened" to try out new methods and to experiment. She said, too, that "if an experienced teacher has the courage - and it needs courage - to have the skills approach, the experience helps. Definitely".

In addition, Lilian believed that "a very sound factual basis", knowing "your facts", being "open to new approaches, new schools of thought" and reading up on both your teaching subject and "general knowledge" were helpful for a teacher's development. She felt that history teachers, in particular, needed to be "politically aware" because "today's politics will be history tomorrow". She suggested that teachers needed training in "psychology" because "you need to be able to work with people". The teacher would need to "see at what level pupils are and go along with that" and to "try to help them to make the next step in their learning as well as their general development".

At the conclusion of the interview, Lilian said that she thought these lesson introductions were artificial rather than real - a valuable comment which suggested that her reality was different to those suggested by the lesson introductions in the task.

### ***Areas of classroom practice identified as requiring change***

Lilian mentioned that there were aspects of her work that she would like to change. In particular, she felt that she would like to involve pupils in more group work, more research and more written work than was currently allowed for. She pointed to the "time pressure" and the marking load as well as the constraints of the matriculation syllabus as factors inhibiting her from implementing these changes. She said that although the approach to history teaching in KwaZulu-Natal was different to that found in other provinces - a result of frequent contact with Britain and America and a strong History

Teachers' Association which had fought for a different approach to teaching and assessment - teachers were still faced with the difficulties of covering a syllabus which limited the way in which they could choose to teach. Furthermore, she said, although history teachers in KwaZulu-Natal had a provincial examiner, they were still bound by national rules.

Lilian felt that she would like to be less bound to the syllabus and to external examinations. She felt, too, that additional teachers in the school would help to ease the burden of teachers' current workloads. She pointed out that parents often paid for additional teachers in boys' schools but that this was not often the case in girls' schools. She believed that having additional time at her disposal would allow her to further develop pupils' skills, especially those relating to thinking and reasoning.

### ***Initial foci for observation and investigation***

As mentioned earlier, Lilian had been recommended to me as a possible participant for this study because, as an innovative teacher, she would be a good subject for study and because she would understand the purpose of and the rationale behind the project. After the interview, however, Lilian said that she had not really enjoyed analysing the introductions in the task. I was interested to see whether she would develop a greater sense of ease and enjoyment in this regard during the course of the study.

During the period of observation, I hoped to focus on the extent to which Lilian employed the skills-based approach to teaching and learning which she had described as getting pupils to work for themselves and to think for themselves. In essence, this required ascertaining the extent to which Lilian encouraged pupils to engage in research activities and identifying her management of such activities. I was also interested in the way in which Lilian treated "even standard six pupils" as adults although she felt that pupils would find it difficult to remember a series of instructions given at the beginning of the lesson. I suspected that Lilian's lack of confidence in her pupils' ability to concentrate and

motivate themselves could limit the extent to which she acted as a facilitator of thinking and research activities rather than as “an authority”. In addition, I hoped to focus on the distinctions Lilian made between facts and bias as well as the methods she used in her teaching practice to encourage pupils to make similar distinctions. Finally, I wanted to ascertain the degree to which her preferred teaching approach was constrained by external structural factors such as the school timetable and examinations.

While Lilian viewed her other administrative and extra-mural activities as possible hindrances to her participation in this study, I was pleased to have the opportunity to share parts of her working day - including some of the pressures which are increasingly an important aspect of teachers’ realities. I hoped that through an exploration of the extent and effects of these pressures I would gain an understanding of the ways in which they constrained the choices teachers made about classroom practice.

## **WEEK 1**

### **Fieldwork - dealing with delays and disruptions**

This case study was planned to begin immediately after the 1994 national elections but, because the KwaZulu-Natal election results were delayed, pupils at Lilian’s school had been given extensive work to complete on their own - either at home or at school. During this time no formal teaching was allowed at the school so as not to disadvantage those pupils who were unable to travel each day from townships. As a result of this arrangement, I delayed my observation of Lilian’s lessons until the election results had been announced and all pupils were able to return to school.

In the first week of this case study, I observed three lessons. Each of these centred around work that pupils had completed on their own in the previous couple of weeks while no formal teaching had been permitted in the school. The first lesson, with standard 9’s, dealt with the Versailles Conference and Treaty, the second, with aspects of the French

Revolution with standard 8's - speeches for presentation having been prepared by some pupils - and the last lesson with standard 10's dealt with Stalin and his policies. Lilian warned me that because of the recent disruptions to normal school procedures there might be some unusual elements in her practice during this week.

At the end of the week I conducted my second interview with Lilian, once again at her home after school. Before we began our discussions, she explained to me that she had not had time to prepare extensively for this interview and that she had merely skimmed through my descriptions of her lessons focusing on the questions I had posed within them.

### **Theory/practice relationships**

In analysing Lilian's classroom practice, I became aware of a difference between this analysis and those completed in the previous three cases. The difference lay in the centrality of contradiction in Lilian's work, in her view of the process of the construction of historical knowledge and in her view of the way in which the subject, history, was structured, taught and examined in schools. Not only was Lilian, herself, aware of contradictions in all of these areas, she appeared to find them inevitable; consequently, she made use of contradictions more than did any of the other teachers previously studied. As a result, contradictions were central to the connections between her classroom practice and her expressed views. These contradictions, being consciously and deliberately used, were coherently connected rather than unconsciously opposed as in the three previous cases.

In addition to the **connected contradictions** I noted, other contradictions also emerged during analysis and these are dealt with separately.

### ***Connections between classroom practice and views expressed***

My use of fewer sub-heading in this section than in Chapters 2 - 4 is, I believe, largely a result of the closer and more coherent connections I found in Lilian's work than in that of any of the first three participating teachers' work.

#### ***Facts and human constructions in history***

Lilian combined a concern with factual knowledge with the need for an awareness of selection, interpretation and thus the social construction of historical knowledge in each of the lessons I observed this week. This approach was reflected in her use of metaphor when describing history and historical inquiry in the interview at the end of the week. She compared learning historical knowledge to the act of tasting a stew by saying that pupils needed to identify the "different herbs or the different items that you have put in and concentrate on one particular one that gives the taste", the question being "to what extent does that particular herb give the taste to your stew?" In the study of history, she said, pupils needed to answer the question, "To what particular extent is that event responsible for the entire lot?"

Lilian's concern with facts was evident as she asked pupils for specific information such as the dates of historical events. For example, in dealing with The Versailles Conference in the first lesson, she told the class that they "needed the date" and that "the month and the year is important", adding that it would be good to know the actual day as well. After this, Lilian asked the class to name the participants at the conference and to provide the nicknames by which they had been known.

In the same lesson, Lilian referred to the importance of "background" in order to "make sense" of information and, in the third lesson, she again spoke of the need for background which she then described as "common sense" by which she appeared to mean general knowledge. During each of the lessons in this first week, Lilian spoke of the need for a

“broad general outlook” as well as for “more specific knowledge”. All these terms seemed to be synonymous with what she had called “facts” in the initial interview and on which she believed interpretation was based.

In an interview, Lilian said that “once you learn you facts . . . you are at an advantage”. Her belief in the importance of facts for interpretation and discussion was again found when she told the class that they needed to highlight the terms of the Treaty of Versailles in their essays and that they would not be able to engage in any criticism unless they first knew these terms. Similarly, she told pupils that they “have to know seas and countries - only then can you deal with territorial clauses”. Again, in the interview, she explained that pupils would not be in a position “to discuss” unless they were able “to stand above the material”. This, she said, enabled them to focus whereas “if you are in the middle of a muddle you are overwhelmed by all the facts you can’t select. And that selection is a skill that has to be taught”.

Sometimes, Lilian said, lessons become very “mechanical” which she hated “but you can’t get away from them”, confirming her idea that learning in history lessons requires a more mechanical learning of facts as well as an interpretation of these facts.

In the second lesson, Lilian spoke of the need to “get into the picture” by summarising the events of the French Revolution. These she then presented in chronological order. Once again, there was emphasis on ordering knowledge and the need to structure it chronologically in the third lesson which Lilian began by reminding the class that they had “looked at Trotsky last lesson” and that the information learned had been presented “chronologically”.

In the interview at the end of this week, Lilian stated that she was firm believer in learning events in chronological order. She said that “if you do not have it in chronological order it doesn’t make sense - it’s not logical”. While she admitted that she might be in “the

minority” and that this practice might be seen to be part of the “old school” approach, she reiterated that “chronological order is, to me, only logical”.

When I asked whether the syllabus was itself structured in chronological order, she replied saying, “Not necessarily. Depends,” and then explained that the standard 6 syllabus has “a more topical approach” which, she allowed, was “reasonable” but added that it took pupils a long time “to understand that many of the things are going on at the same time”. To help pupils cope with this difficulty, she explained that she used a “time-chart” and reiterated that “I always believed in chronological order”. Later in the same interview, Lilian explained that she sometimes taught one section of the syllabus “with an eye” to subsequent sections and drew pupils’ attention to information that would connect the different sections. At times, she said, she rearranged the syllabus to accommodate this style of teaching.

Lilian worked to balance this concern with facts learned chronologically with the need for interpretation. In doing so, she presented historical knowledge as socially constructed and, consequently, subject to interpretation and bias.

In the very first lesson of the study, the possibility of bias in the interpretation of history was raised when a pupil mentioned that she had recently watched a television programme dealing with the need to rewrite South African history books. The pupil explained that a caller to the programme had asked how this would be possible. Lilian said that this was a good question and asked the class whether it was ever possible to get an absolutely accurate record of history. When another pupil suggested that historical accounts are always biased, Lilian asked why that was so. The pupil responded to this question and Lilian went on to elaborate on her response pointing out that historians select their facts and so bias their interpretations of history.

This last statement accorded with Lilian’s beliefs stated in the initial interview: bias is always present, and there are both “interpretations” as well as “facts” in historical

knowledge. In addition, her view that while historians and researchers should have truth as a goal but that it was unlikely that they would find it was also borne out in her classroom discourse.

Lilian went on to ask the class how they thought the history of black people in South Africa would be written. A pupil suggested that oral history would be used. Lilian agreed with this and also mentioned that other documents would be used. She then showed the class a recently published South African history book based on oral accounts and bushmen paintings. She also told the class that teachers of history in Natal had always looked at other points of view - reminding me of her earlier comment that the history taught in this province and the methods used here were different to those found in other provinces.

At the end of this lesson I wrote in my fieldnotes that this interchange in the first lesson that I observed was almost too good to be true since it followed so closely aspects of the initial interview. In fact, I wondered if it had been rehearsed for my benefit. In addition, I wondered why the pupil who had asked the original question had done so since other pupils in the class were clearly already familiar with methods of constructing and developing historical knowledge. Later I realised that she had not asked the question herself but had reported hearing a caller on the television programme do so.

In the subsequent interview, Lilian put these suspicions to rest assuring me that the interchange “definitely hasn’t been rehearsed” and that it was “spontaneous”. She went on to say that “it often happens” in class but that “history being rewritten hasn’t been discussed” before. She ascribed the pupil’s question to the heightened awareness all pupils had gained during the elections when she had encouraged them to report on information and discussions seen and heard in the media.

I was very interested to hear Lilian use the phrase “according to historians” in response to a pupil’s comment during the first lesson. This suggested that she did not necessarily agree with their interpretations and conclusions. Similarly, in the second lesson, she asked the

class to name the first event in the French Revolution as seen “in the eyes of historians”. In the third lesson, Lilian introduced some information with the phrase “historians do say . . .”. In each of these cases, she suggested that the knowledge being learned had been developed and constructed by human beings - the historians - prior to being printed in texts and that these views were not necessarily correct or shared by others. She also drew pupils’ attention to the notion that exclusion (of other information and/or other people’s views) introduced skewed or biased interpretations.

As pupils were going over a worksheet in the form of a close passage in the third lesson, Lilian pointed out that there were different opinions on a certain answer and that the one found in their school textbook was only one of these. She said that the information found in this textbook was “inaccurate” and that the girls needed to do additional research. Lilian also said that she had hoped that they would have found some contradictory answers which would have required that they look more carefully for additional information. When a pupil appeared confused about this comment, Lilian explained that the notes they had were too vague but that they would have found the answer had they looked at other sources. One pupil then said that she had a different answer to the one used in the class and Lilian went on to explain how she should deal with this - by providing the source reference.

Lilian’s practice described here was connected to her view of one of the more general benefits of studying history. In the subsequent interview, she said that one of her aims is “to prepare (her pupils) for living in our mixed society . . . prepare them to see that there are different opinions . . . and that we have a right to our different opinions, that we have to learn to be tolerant, which I think is a life-skill that is absolutely necessary in South Africa, in the world generally”. She said that it was this belief that led her to “always stress it is one person’s opinion, a group of people’s opinion”.

In the same interview, Lilian told me that when marking pupils’ essays she sometimes indicated that while the contents of their responses might be acceptable, she, herself, did

not agree with the positions or arguments reflected in these responses. She said that when pupils then argued that “Boyce says so” (Boyce being the author of the pupils’ history textbook), she told them that she did not care and that she wanted to know what they, themselves, thought.

In addition to the view that historical facts are selected and interpreted (possibly inaccurately) by historians who study events after they have happened, Lilian also presented historical concepts as dynamic and subject to change. For example, she commented in the third lesson that a particular belief was “typical of communists at that time” (Lilian’s emphasis) which suggested that ideologies change over time and are not fixed.

The influence of human beings during the course of history was also emphasised in Lilian’s classroom practice as she dealt with individual personalities pupils studied. Her first lesson contained references to the “attitudes” of particular historical characters. For example, working from a cartoon, she asked the class to deduce the “attitude” of one of the members of the Versailles conference who was depicted as a tiger. She said, “Picture the tiger . . . how it follows its prey . . . sitting in a tree . . . hidden.”

In this and other ways, Lilian alerted pupils to human motivation as an important factor in determining the events in history. For example, in discussing the reason for a particular person’s hatred of Germany, she asked the class to think back to earlier events. Later in this lesson, she asked the class how a prime minister came to hold office. After the pupils had responded, she said that the prime minister needed to “please the people” since he “represents the people” implying that decisions and actions could be based on factors other than what was best for a country or its people - in this case, an interest in being elected to and then remaining in office. She went on to state the importance of making links between the “attitudes” and “aims” of the historical personalities studied.

Other references that Lilian made to human motivation and to the possible influences on people's thinking and actions included the following: the fear people feel when confronted with "things they don't understand"; the need to conform to society's norms; the influence of "early training in church schools" on "revolutionaries"; Trotsky's "sense of inferiority" and the notion that "people do anything for money". At the end of a section of the third lesson, Lilian told the class that they had completed the introduction to "Stalin, Stalin the man, and how he had come to power", again highlighting the individual's context and circumstances.

The notion of human fallibility was highlighted in the way in which Lilian dealt with her own errors in class. For example, when, in the third lesson, there was some confusion over the page numbers and, therefore, the ordering of the printed notes she had handed out to pupils, Lilian apologised for the error adding that she was "human" and had "the right to make a mistake".

Lilian's emphasis on the human factors in historical developments was again found in her discussion on the written exercises she gave her pupils, one of these being a "dialogue" between a French and a German as they discussed the Treaty of Versailles. Similarly, her use of "dialogues between different people in events" leading up to the French Revolution helped pupils to recognise "the difficulties of the living conditions . . . of the common people". Through pupils' presentations of these dialogues, Lilian encouraged their recognition of human effort and human suffering in the course of history. In so doing, she juxtaposed the memorising of chronological events with the human face of those events.

In the interview at the end of the week, Lilian spoke with enthusiasm of the textbook "History Alive" which contained "dialogues, descriptions, newspaper articles and so on" and which she thought helped pupils understand "history in the daily life and how it affected the people". In explaining the emphasis she gave to human motivation, Lilian referred to her belief that "history is about people". She went on to say that "people decide on the course of history often indirectly without thinking about it". This belief

influenced the way in which she helped pupils learn. She said that “I tell my little sixes and sevens (that) they are detectives to go after the event and see what happened before . . . and they are psychologists to ask themselves why and they love that . . . and then they are lawyers to try and detect bias and be unbiased as far as possible”. She explained that this was how she tried “to motivate them to use their brains”.

Lilian linked the connected contradictions between historical facts and historical interpretation to the different levels of studying history as a school subject. In the interview, she pointed out that higher grade pupils were expected to deal with “contradictory essay topics” and discuss statements made there. Standard grade pupils were expected to “discuss events” while lower grade pupils merely to “describe events”. A comparative analysis of the tests given to the standard ten class the following week clearly revealed the differences between these three grades. Although the questions on each of the papers covered the same areas of content knowledge, the focus and demands of each were different.

Lilian explained that higher grade pupils were expected to “pick up the contradictions” inherent in historical knowledge. She also thought that “the contradictions make history interesting” and went on to suggest that these are resolved by “personal interpretation” which required thinking skills.

I thought that Lilian’s own description of her classroom practice in terms of contradictions - as “a mixture of the old and the new” - reflected her attempt to span the divide between the view of historical knowledge as fact and the view of historical knowledge as interpretation.

### *Orientation towards examinations through a skills-based approach*

Both in her classroom practice and in her discourse during interviews, Lilian worked to marry a skills-based approach to the teaching of history with the need to prepare her pupils for examinations, particularly the matriculation examination. She combined - and so resolved - the contradictory elements of each of these thrusts in her work in several ways.

I noted that Lilian's classroom practice introduced and encouraged the development of the following skills: focusing on and selecting relevant information, reading graphic texts (such as maps and cartoons), critical reading and interpretation of verbal texts, note-taking and language skills. These skills were closely connected to those more commonly associated with writing examinations including anticipating likely examination questions, allocating marks to questions and criticising others' responses as well as learning to deal with criticism directed at one's own work. While an attempt is made below to tease apart these skills for closer analysis and then to connect them to preparation for examinations, they were not presented as such discrete entities during Lilian's lessons.

Lilian emphasised pupils' thinking skills by using a variety of strategies in her classroom practice to encourage her pupils to think for themselves. Like Marion's questions, Lilian's questions and prompts often included the word "think" and she also frequently used the term "focus" in her classroom discourse. At times, "focus" was used as a noun - for example, the focus of an essay topic - and, at other times, as a verb - for example, pupils were told to focus on what was important. In the latter instances, focus appeared to be synonymous with "think about and give emphasis to".

The connections between thinking for oneself and focus became clearer for me when, in the second lesson, Lilian commented that although a group of pupils had researched their topic, there had not been sufficient focus on it. In the subsequent interview, I asked her what she thought had led to this weakness in the pupils' work and she explained that pupils "repeat what they have learned and they don't think while they are learning".

During this discussion, she recalled that she, herself, only learned to think “when she got desperate at Varsity”; nevertheless, she believed that pupils at school ought to be encouraged in critical thinking and evaluation skills and said that certain pupils, even those at standard seven level, were quite skilled at this.

Lilian suggested that “intelligence and maturity” enabled certain pupils to think and focus better than others; higher grade pupils were expected to have mastered this skill whereas standard grade pupils, she said, “can’t focus” and lower grade pupils were “hopeless” in this regard. In addition, Lilian felt that the amount of time pupils spent on individual research, a factor which was directly linked to their “motivation” to learn, was influential in developing their ability to focus. During this interview, Lilian recalled that she had been surprised by how much “individual work” pupils in standards six and seven had done earlier in the year when she had given them research to do for homework.

In this interview, Lilian also explained that “examiners started to use the word focus so we had to get used to it” and said that when she first introduced it to a class, she explained it to them by using the example of a camera and the way a photographer focuses on the most important object he wishes to capture in the photograph. She then defined focus as “a concentration on the important point”.

In order to help pupils to focus, Lilian centred her teaching and questions around headings containing key words or concepts which she wrote on the chalkboard. For example, in the first lesson she had written “The Versailles Conference” on the board and, in the second lesson, “Course of the Fr Rev”. At times, Lilian used pupils’ responses to her questions as sub-headings sometimes drawing arrows between these to illustrate the connections between them.

These connections often provided a focal point for pupils’ thinking during lessons as Lilian urged the class to notice the linkages between aspects of information and to bear these in mind when writing tests. For example, in the third lesson, before beginning the work on

Stalin's programme and his aims, she told pupils they could only assess a programme in terms of its aims. In similar vein, Lilian told the class that she would like them to highlight the differences between Stalin and Lenin, essentially an exercise requiring comparison through listing important points. Much of this work also depended on pupils' use of another skill referred to in the initial interview and discussed under the heading *Facts and human constructions* above - that of selection of facts.

Throughout all of the above, Lilian's use of questions was central. In each of the first three lessons, she used questions in order to ascertain the pupils' understanding of the work they had covered by themselves. Here her opening questions - i.e. those she asked towards the beginning of the lesson - were usually open-ended. For example, she asked, "What can you tell me about Trotsky?" When a pupil asked for clarification, Lilian repeated the question and said that they could give her "anything". During the lessons, Lilian's questions grew more specific as she listened to the information pupils offered, these questions sometimes acting as prompts or requiring that they provide greater clarification of previous statements and responses.

Lilian's use of graphic texts in lessons also demanded that pupils learn to think for themselves and develop specific reading skills. In the first lesson, both cartoons and maps were used for this purpose. The pupils appeared to find working with the former less demanding than the latter. They initially groaned when faced with the prospect of working with a map and had difficulty in responding to Lilian's questions. She told them that they had a "duty to make sense of a map" when confronted with it. After pupils continued to show confusion, Lilian pointed out that they had done studies in this area of knowledge each year since standard 6 and said that she was "shocked" and "horrified" by their lack of knowledge displayed in this part of the lesson.

Lilian revised the clauses of the Treaty of Versailles in conjunction with a map displayed on the overhead projector. She asked pupils to provide the clauses of the treaty and then to identify the relevant areas on the map. She also asked them to provide some

information about the particular geographical area in question. For example, the influence of the weather on the lifestyles of people who lived in Eastern Europe was described by a pupil who had recently come to South Africa from this region.

In the interview at the end of this week, Lilian explained that she sometimes provided more than one map of a particular region, each having a different focus, to encourage “your eye to get used to it” and to learn to find particular regions “in different contexts”. She recalled the difficulties that she, herself, had experienced with maps as a pupil saying “I remember that I hated maps” and later she said “I can understand their fear of maps”. Lilian thought that some people “don’t have an eye for maps” adding that reading maps fluently required “a photographic memory”. She also felt that because pupils were “lazy” they did not spend time working to “overcome” their handicaps in this regard. She explained that she asked pupils to “colour in maps” to help them with their difficulties in this area of work.

In her efforts to get pupils to think for themselves, Lilian took on the role of a facilitator in that she provided questions and keywords and areas of knowledge for pupils to recall information already dealt with and to structure this information in an accessible and meaningful way. In addition, during the first week of the observation period, there was considerable evidence of pupils having engaged in independent research involving skills relating to critical reading which was itself connected to interpretation. For example, in the third lesson, by asking the class what a certain piece of information in the worksheet told them, Lilian introduced an exercise in reading between the lines since pupils needed to understand the implications of this information. This exercise required not only that pupils research the facts but also placed them in the role of the historian in that they were required to interpret meaning beyond the facts provided.

Closely linked to the development of pupils’ skills required for reading and interpretation was Lilian’s encouragement of her pupils to develop a greater political consciousness through their reading of current affairs in the media. In the interview this week, Lilian

spoke of the work she had covered in the first term prior to my arrival. For homework she had asked pupils to bring relevant articles or headlines which dealt with the elections. She hoped that as a result they would become “more aware of what was going on”. She said that she felt that she had achieved this objective because recently a pupil had come to her for help in establishing a Current Affairs Club. In addition, she felt that as a result of the homework given, pupils asked “all kinds of questions” in class related to current affairs. Evidence of this interest was provided in the first lesson as described earlier.

On the walls of Lilian’s classroom were informative articles and pictures dealing with current affairs in South Africa. Examples of these included a picture of President Mandela, another of the former Deputy President De Klerk and his wife, the new South African flag, a map of South Africa showing the distribution of parliamentary seats and a diagram of a “Democracy Tree” which illustrated both the responsibilities and the “fruits” associated with democracy. I also noticed a couple of piles of *Time* magazines on tables in Lilian’s classroom.

In an interview, Lilian explained that in teaching the section on the French Revolution, she was also “trying to teach (pupils) to see that a good government has no chance to continue if economic conditions are bad, that economic conditions also affect political conditions”. In addition, Lilian said that pupils were learning “that the masses are exploited” by well-to-do middle class intelligentsia. Finally, she said, “I try to make them realise that violence does not lead to stability”. She explained that through learning about the Reign of Terror, pupils could better understand exploitation, violence and the consequences of the “lack of respect for human life”. This section of the syllabus, she said, “brings me very much to the South African situation as it was a short while ago”. Lilian’s thinking here closely connected with the views she expressed on the importance of tolerance for others’ opinions.

In the third lesson, Lilian referred to President Mandela's promise of amnesty since there were similarities in the work under discussion. During this lesson, she likened other aspects of this period in Russian history to that currently found in South Africa. At one point, she linked a section of information to "to something Mandela mentioned yesterday". She went on to say that she hoped the girls had watched the president's inauguration ceremony on television and had noticed the comment about the 60% illiteracy rate in South Africa. When some pupils seemed surprised about this, Lilian told them to "keep your eyes and ears open for current affairs". Lilian's political consciousness and the influence of this on her classroom practice is referred to in the analysis of power identity in Chapter 7.

In addition to a critical reading and interpretation of the media, Lilian gave attention to pupils' writing through note-taking as they were encouraged "to make their own notes". This was also an exercise in research skills. Lilian explained in the interview that she sometimes provided pupils with lists of references to consult and from which to develop summaries. Some of these summaries were in the form of close passages which required pupils to fill in the missing information and were usually given as homework assignments and then checked in class. Most of these references she provided were available in the school library. Lilian believed that through consultation of a variety of sources in such research activities, pupils became aware of different opinions. She also encouraged pupils to take notes during lessons or to write in additional information on the typed notes she provided.

In the interview, Lilian clarified the range of note-taking activities in which her pupils were involved. Before dealing with topics in class, she gave pupils printed notes to read "so that they know what is going on". She encouraged them to "scribble into the notes" saying "I don't want neat notes in their file. I want to see that they are working with them". In addition, pupils "make their own notes" and Lilian encouraged them to "scribble things down while I am talking". Occasionally, she said, she gave them "summary-worksheets"

as homework assignments. These contained “some notes which I have taken from different books as well as questions and references” and were subsequently checked in class.

Lilian explained that she frequently gave the class ten to fifteen minutes at the end of lessons to start making their own notes and that during that time “I go around and try personally to find out what they don’t know”. In addition to the summaries provided in these worksheets, Lilian included questions requiring the interpretation of documents, speeches or a cartoon.

Developing pupils’ language skills was also an important component of Lilian’s skills-based approach. Once again, this aspect of lessons was combined with pupils’ preparation for examinations. Lilian explained that in addition to the need to define terms in non-essay questions, if a pupil did not fully understand a term, her subsequent discussion and interpretation “might be wrong”. She explained that unless pupils were asked to clarify their understandings in their own words, it was difficult to gauge whether they understood the terminology being used.

In the third lesson, Lilian asked a pupil to “in simple terms, tell us what blueprint means”. When this pupil was unable to do so, another pupil provided a definition and Lilian elaborated on this also reminding the class that they had had this word before. In this same lesson, Lilian wrote the term “collectivisation” on the board and asked questions in order to prompt pupils into providing a definition. She then added information to that that they had provided and finally gave a clearer and more concise definition of the term. During this lesson, it appeared that a pupil did not understand what was required in an answer to a question asking about “attitudes” and Lilian explained that “adjectives” were required.

Lilian also gave attention to the vocabulary used by the pupils themselves. For example, when a pupil described an historical character as “Hitler-like”, Lilian showed that she appreciated the thinking behind the response but provided more appropriate vocabulary for this description. She also asked pupils to define certain terms they used in their

responses to her questions - for example, “demilitarised”. When a couple of pupils appeared uncertain about definitions, she told them that they should have asked themselves the meanings of these words while they were learning this section. Later in this lesson, Lilian reminded the class that there was a dictionary available in the classroom for them to consult if they did not understand a word.

Lilian’s concern with accurate terminology was highlighted when, in an interview, she said that she preferred the term “assessment” to “criticism” because the latter had a “negative connotation” whereas “assessment” suggested that “you look at everything and there is not black and white” but also “shades of grey”. Here I thought that her concern with terminology was connected to her interest in interpretation and her view of research as search for truth.

Lilian explained to me that she encouraged pupils to develop a “glossary” or “dictionary of difficult words” in their files which contained words they needed to look up in the dictionary or which had been discussed in class. She said that there were three dictionaries available in the classroom for pupils to consult.

In each of Lilian’s lessons, she made frequent references to examinations. Many of these references were connected to the variety of skills that she believed preparation for and writing examinations required and tested. In this way, she drew close connections between a skills-based approach to teaching and learning history and preparation of pupils for examinations based on a set syllabus.

In the interview, Lilian said that she “consciously” taught “with an eye to the exam” in order to “teach pupils how to focus”. Lilian spoke of the need for pupils “to learn the skill to write exams”. She said that she tried to teach in such a way as to integrate the learning of “facts” with an essay topic which could be used in examinations. This approach was evident in her classroom practice when she concluded a section of the third lesson by telling the pupils that they had enough material on Trotsky if an examiner were to be

“nasty”. Later in this lesson, Lilian pointed to a possible examination question and suggested that such a question would require more independent research. She also pointed to the importance of drawing links between certain aspects of information in the writing of examination essays.

Lilian often required pupils to walk in the examiner’s shoes by asking pupils what they thought the examiner would focus on. In the interview, she explained that this strategy “forces pupils to think”. At one point in a lesson, Lilian said that the “emotional clauses” of the Versailles Treaty would be important to examiners and asked the class why this would be so. At other times, she told pupils what sorts of questions to expect in examinations. For example, in the first lesson, she told the class that cartoons were “popular material for exams”. Later, she suggested that questions could be “based on a map”. She pointed out that such questions are easier than essay-type questions for examiners to mark. In addition to providing “hints” about possible examination questions, Lilian also made suggestions regarding the planning of essays. For the latter, she compared essays to meals - to be divided up into courses - and she suggested that pupils use sub-headings in their essay plans. When reading aloud from the notes in the third lesson, Lilian paused to emphasise a good quotation which could be used in examinations.

In the interview, Lilian said that she pointed out to pupils that examiners are “human” and do not just want “what you have learned” but that they require pupils to “focus on important things”. She said, too, that she told pupils that they needed to try and “get into the mind of the examiner” in order to “know what he might ask so that you are not learning the unimportant things”. Similarly, in the second lesson, after pupils’ presentations, Lilian required the class to “play teacher” asking them to comment on what they had seen and heard and to give a fair assessment. She told them, too, that they would need to “justify” the marks they awarded. When one pupil said that the a particular presentation had been “well-organised”, Lilian asked her what she meant by this remark. I thought that pupils’ comments on the presentations - especially those dealing with

delivery rather than with content - indicated that they had had experience of this kind of activity before - possibly in an English lesson.

When one pupil did offer a criticism on the content of another's presentation, Lilian disagreed with it after which another pupil also disagreed with the original criticism. The first pupil went on to offer another criticism. This and other comments made by pupils suggested that they - or at least some of them because not all offered comments - had, in fact, listened well and evaluated the information presented.

Lilian also suggested that pupils "allocate marks" themselves to worksheet questions so that they could begin to get a sense of the amount of information required in different answers. Lilian believed that this exercise encouraged pupils to learn "the skill of how to answer questions", a skill she linked to broader "life-skills" saying that "what seems important now might not be important at all" at a later stage. Once again, the connections between this practice and interpretation and selection through focusing were evident.

In discussing a story-telling versus a skills-based approach to teaching history, Lilian said that "with different approaches you sometimes sacrifice something" but that "in history . . . you have to think" and that "story-telling alone is not enough". In emphasising the development of skills in her lessons - for example, for answering questions and for essay-writing - Lilian said that she had had to "cut down on my story-telling"; yet, in the interview, she criticised a pupil's presentation for being "boring" despite its use of "good facts". Here again, Lilian's awareness of the strengths and weaknesses in different teaching approaches and of the contradictory nature of her own work was highlighted. She explained that "I'm bound by the material that should be covered . . . but my way is of making it as interesting as it is possible" revealing her acceptance and her method of resolving the contradictory elements in her work as a teacher of history. She said that it was necessary to "use everything in the book or not in the book" to enable pupils to enjoy learning in history. Her guidance of her pupils as they grappled with the variety of skills

illustrated here connected with the views she expressed in the initial interview - i.e. she tried to work as a facilitator in helping pupils in their search for truth.

Lilian's view of the learning involved in history closely connected with her belief in and practice of disciplining pupils' responses as they struggled to master the above-mentioned skills. In the interview this week, she said that "history is a discipline and if your thoughts are not disciplined you can't be a good history pupil" and that "in history you have to learn. I'm sorry, you have to think". At several points during the interview, Lilian spoke of the laziness of her pupils who found the discipline of developing the necessary skills required in learning history "too much effort" and of her irritation and anger at this laziness.

### ***Pupil participation***

In the first lesson observed this week, pupils were encouraged to participate mostly through responding to Lilian's questions. In the interview, Lilian said that she tried to avoid asking lower grade pupils difficult questions reserving these for the more "intelligent" pupils. When she felt that the answers to questions required merely "simple learning", she asked lower grade pupils to respond. At the same time, she mentioned that she was aware of "an antipathy towards the clever ones amongst the lazy ones" which made the former "nervous in the eyes of their fellows".

Less frequently, pupils asked questions themselves, most of these questions requiring greater clarification from Lilian - i.e. repetition of information already covered rather than requests for additional information. Some of the questions posed by pupils arose out of their genuine interest in and as a result of their having already engaged with the topic through their reading. Several pupils, however, were very quiet and made no contributions at all during lessons. It was difficult to judge whether they were just quiet pupils or whether they had little interest in the subject. Generally, I felt that the pupils in the first class I observed lacked enthusiasm and energy.

Lilian sometimes encouraged pupils to provide fuller responses than those originally given. For example, she would say that although an answer was “close” she was “not quite happy” with it. At other times she asked other pupils to elaborate on the original response or did so herself. When, in the third lesson, a pupil asked Lilian for the correct spelling of some names, she asked another pupil to write the correct spellings on the board. In the second lesson, when a pupil asked Lilian a question, she told her to ask it of the pupil who was going to present that aspect of the lesson.

Several times in the first lesson, Lilian was faced with several simultaneous responses from pupils as they answered her questions. Sometimes she asked them to raise their hands and, at other times, she asked them to provide their answers one at a time or not to shout out. At certain times, she nominated individual pupils to answer the questions she posed. The latter she did not do very often but she did warn pupils that she would nominate those pupils who had not yet responded to any questions to do so. In the third lesson with the standard 10 class, a smaller group of pupils than in the first lesson, I noticed that Lilian did not appear to mind if pupils called out responses without raising their hands.

In the interview, Lilian explained that “the calling out is just a lack of self-discipline”. In addition, she felt that “it takes away the chances for the weaker girls to give an answer” because “it takes away the chance to think”. She also said that she did not really “enforce” the raising of hands but that she tried to “remind” pupils to do so, adding that she did not want to be “a dictator”. She also explained that “I sometimes get cross” with pupils who shout out “stupid answers” without thinking. Her responses here demonstrate the connections between her concern for thinking and her role as facilitator of pupil participation in lessons.

Lilian also corrected pupils’ responses - both the content and the form in which the responses were couched. For example, she interrupted one pupil’s response to tell her that her introduction to a definition - “something to do with . . .” - should be replaced with “we understand . . .”. In addition, after one pupil had read out her answer to a question on a

worksheet, Lilian suggested that she try to “be a little bit simpler” and to use her own words. After pupils had responded to Lilian’s oral or written questions, she often said “Good”.

In the second lesson, pupil participation through peer evaluation was encouraged. Lilian explained to the class that she would be awarding marks to the different presenters and that they needed to check that “we are fair”. She provided an explanation of the criteria to be used for the assessment and said that the girls should be able to assess the content as well as the delivery of the presentations since they had each done their own research on the different sections. The marks were to be out of 10 “because it’s a small section” and pupils were to keep records of these in the test section of their files until all the presentations had been completed. As the first group was preparing for their presentation, Lilian told the whole class to “remember (their) manners” and not to talk during the presentations.

While the first group of pupils to present a section on the French Revolution appeared quite competent, the second group was initially reluctant to begin their presentation saying that there was insufficient time left before the bell was due to ring. This group did not seem as competent and confident as the first and Lilian quietly told me that this was “one of my weakest groups”. These pupils relied heavily on their notes, mostly reading from these. They also giggled - possibly because they were nervous - and had to contend with an announcement over the intercom and the resulting restlessness amongst the class members who knew that such announcements were made just prior to the ringing of the bell at the end of lessons. When the bell did ring, Lilian asked the pupil who was speaking to continue with her presentation but I noticed that other pupils began to pack their books together.

In the interview, Lilian said that she thought that group work encouraged integration in the class. She explained that she tried to ensure “mixed ability” groupings. She went on to explain the rationale for using group presentations in the lessons on the events leading up

to the French Revolution. She said that she hoped “to show them that there are different groups involved in revolting against the system”. Lilian’s method of choice for pupils’ learning can be seen to be connected to both the content of her lesson and her view that history needs to be understood in terms of its effect on people’s daily lives.

In the same interview, Lilian said that she hoped that through exercises requiring their evaluation of others’ work, pupils would learn to listen in such a way that they can “pick out what is new in that talk - a fact that they didn’t know, an interpretation that is different from what they found in their books”. In addition, she hoped that they would learn from the criticism given. In response to a question from me, she said that pupils were no longer “frightened” by criticism nor did they get “angry” but had developed “a more mature approach” to dealing with criticism of their own work. Lilian defined criticism as “trying to help you get to the next step in your learning”. Finally, she said that she hoped that listening to others’ presentations in order to critique these helped pupils to learn “to concentrate for just a few seconds longer than before”. She mentioned that she routinely spoke to pupils about listening skills at the beginning of the year - “I make them tell me how to listen” - and that she liaised with the guidance teacher and asked her to “do it over and over” in her lessons. Here again, the connections between Lilian’s skills-based approach and pupils’ active participation in the classroom were highlighted.

### *Counselling of pupils’ more personal problems*

At the end of this interview, Lilian commented on my comment in the lesson descriptions relating to the number of pupils who stayed behind after class to speak to her. She said that “they always want to speak to me” either in connection with “personal problems” or “they want to show me that they have done their work for a change”. It appeared that despite Lilian’s sometimes rather brusque manner with pupils in class, they did recognise her as being approachable and sympathetic.

Lilian went on to explain that when she had first started her teaching career, there had been no official teacher-counsellor in schools and that pupils had frequently come to her for help and advice in personal matters. She said that this trend still continued and that the number of pupils who came to her for counselling depended on the abilities of the current teacher-counsellor in that post. She cited the following as examples of personal problems pupils experienced: “boyfriend trouble”, “a divorce in the family” and “drug-taking” and went on to describe a particular incident where “a discussion in class” had led a pupil to seek help with a personal problem. She concluded by saying that “suddenly a personal problem becomes too much to bear and they break down”.

### ***Contradictions in theory/practice relationships***

#### ***The lack of Lilian’s own personal interpretations in classroom discourse***

Despite the emphasis Lilian gave to the importance of interpretation in historical inquiry and despite her notion that the contradictions in historical knowledge were resolved through personal interpretation, she made few personal interpretations or comments during the course of her lessons. In the third lesson, I heard her - for the first time - express a opinion which could be seen as a personal interpretation and potentially contentious. She mentioned that she liked the fact that there were no strikes in a particular country.

#### ***Lilian’s interaction with and control of her pupils***

I found aspects of Lilian’s view of and interaction with her pupils more puzzling than those I had encountered when working with the first three teachers involved in the study. Like the first three teachers, her views of and relationships with her pupils were linked to her control of pupils’ learning activities; however, I found Lilian’s interaction with her pupils less warm than those I had seen in the first three cases. I found contradictions between her expressed preference for treating even standard six pupils as adults and her

liking for harmony in the classroom, and my own perceptions and interpretations of her interaction with her pupils this week.

In the interview, Lilian spoke of the importance of pupils' enjoying history - "they have to enjoy the subject". She felt that her pupils did get to enjoy the subject more and more and recalled that they sometimes used the battle cry 'history is fun' when they wanted to get her to do them a favour.

Despite this comment, I considered certain aspects of Lilian's classroom practice rather intimidating for pupils - even rather demotivating. These aspects, I thought, may have been the reason for some pupils' lack of participation and their apparent lack of enjoyment in some the lessons. For example, Lilian sometimes chose not to answer the questions posed by pupils, deferring them until a later point in the lesson. In the first lesson, when a pupil asked a question about a particular cartoon that she did not understand, Lilian told her that they would come back to this once they had discussed the terms of the treaty which would make it easier for her to understand. A little later in the same lesson, after a pupil had made a comment, Lilian said that they would get back to that later and that at that time they were dealing with something else.

Although Lilian provided justifications for the deferment of questions - in an interview she said that she preferred pupils to ask questions relating to current affairs at either the beginning or the end of lessons rather than during the lesson itself "because I don't like them to lose their focus" - I wondered whether her desire to control pupils' focus may have been a contributing factor to their lack of curiosity and their reluctance to ask questions when issues did strike them as worthy of inquiry.

In addition I wondered whether Lilian's often repeated view of pupils as "lazy" affected their participation in lessons. In the interview, Lilian suggested that this laziness contributed to non-participation in class and spoke of her anger towards "lazy" pupils, both those she thought "intelligent" and those she described as "weak". In the same

interview, she again attributed pupils' reluctance to look up words they did not understand in the dictionary to laziness - "it takes a little bit of effort" she explained. When I asked her why pupils were so lazy, she said that "school generally" was the cause and pointed out that coming to school was not voluntary. She also felt that pupils had "other interests" - particularly "boyfriends".

Although Lilian believed that "brighter" pupils were more likely to participate in class, she also said that in certain instances lively participation was merely "noisiness" which she did "not squash" except when trying to get pupils to think and focus. I noticed, however, that Lilian discouraged collaborative work during the lessons that I observed during this week. At one point in the second lesson, Lilian asked certain pupils not to have "private conversations" without having ascertained the topic of this conversation. In the interview, she explained that although she allowed pupils to sit where they liked initially, she rearranged friendship pairs and groups if pupils did not work hard enough or concentrate in class. Once again, it appeared that Lilian's wish to control and discipline her pupils set limits to their participation in learning activities despite the value she attached to group work and active pupil participation - an issue referred to once again in Chapter 7.

When pupils were unable to respond to Lilian's questions, she indicated her disapproval by her use of tone and short reprimands, for example, "Ladies!" and "At last!" to a correct response after several incorrect ones. At one point in the second lesson when pupils did not respond at all, Lilian said that their brains were "rusty". Sometimes, after several incorrect responses from pupils, Lilian chose to provide the answer herself. Unlike some similar comments made by Marion to her pupils, those made by Lilian lacked the lighter and teasing tone which would have softened the disapproval implicit in them.

In the second lesson, Lilian told the class that she was "tired of the laziness" they were showing. She commented, too, that this class was well-known for its laziness. When there was a correct response to Lilian's next question, she said, "I can breathe again" before going on. I did not find such exchanges particularly motivating for pupils and felt that

these aspects of Lilian's practice contradicted her views about the teacher as a facilitator of pupils' learning and her recognition of the importance of motivation in learning. I did notice, though, that Lilian was sympathetic towards a foreign pupil who had not responded to any of her questions in class and who appeared reluctant to do so when nominated by Lilian to answer a question. In addition, as already mentioned above, I noted that several pupils appeared eager to speak to her after classes and that some of these exchanges centred on their need for help with personal problems.

### *Logical connections versus human motivation and agency in history*

The difficulties of combining a view of history as socially constructed - both in its development by participants and by historians after the events have occurred - together with the necessity of preparing pupils for examinations were clearly illustrated in Lilian's classroom practice and her discourse. While she attempted to balance these two by using a skills-based approach to learning as described earlier, I also detected tensions between these aspects of her work.

As already described, Lilian attempted to blend pupils' learning of facts with their understanding of bias and interpretation. In addition, she attempted to blend their understanding of the connections between facts and the events out of which these facts emerged with their understanding of the effects of human and social agency in bringing about those events and in the construction of facts relating to those events. Her ability to span this divide was limited by the need to deal with one or the other side at any one time. As a result, at times her practice presented only one side of the divide. For example, in writing the names of key events on the chalkboard and drawing lines between these in an effort to help pupils learn about the events of the French Revolution, Lilian suggested a logical connection between these events. In the second lesson, she told the class that "every event has a cause" - emphasising a rule-based logic to the unfolding of history.

It appeared to me that the employment of a technical approach to learning the facts minimised the arbitrary nature of the historical process since, I argued with her, events are not necessarily connected and do not inevitably lead from one to the next. I also thought that this approach to teaching and learning did not demonstrate that human beings can and do choose how to act and so are instrumental in determining the next step in history. Conceivably, other events could have occurred had the human beings involved thought and acted differently at the time. Yet, on the other hand, I recognised that since these were the events that occurred (or, at an rate, were generally agreed on by historians to have occurred) and pupils need to learn them and draw links between them for presentation in examinations, a reliance on logical connections was an easy way for Lilian to explain the occurrence of events and for her pupils to learn them. I felt that the danger of teaching and learning history this way was that, even with the best intentions, it precluded pupils' realisation and understanding of both the arbitrary nature of historical events and the complexities underlying them. This was not merely my own view of history since Lilian, herself, had highlighted the notion that "people decide on the course of history" and that they sometimes did so without clearly thinking through their decisions.

While these issues puzzled me at this point in the study, I was as yet unable to formulate the above argument very clearly so did not bring up my concerns around it until the final interview.

## **WEEK 2**

### **Fieldwork - a new challenge and a new dilemma**

During this week of the fourth case study, I became increasingly aware of a new challenge emerging - that associated with my becoming too familiar with the different processes of the fieldwork. The early difficulties which I had experienced and which had caused me such angst were no longer challenges to be overcome and I found myself beginning to tire of and feeling a little bored with the processes of data collection. The danger of this was in

lapsing into too mechanical an approach when observing lessons, writing lesson descriptions and conducting interviews. I recalled the double-edged sword of “connoisseurship” (Eisner 1991 : 63) I had encountered at the beginning of the study. At that time it had been the familiarity of the classroom experience that had reduced my sensitivity to my environment and limited my ability to ask critical questions of my observations; now it was the familiarity of the data collection processes that could, I knew, reduce my sensitivity to the processes of inquiry with similar consequences. Dealing with this new challenge and keeping the study on track required self-discipline.

During this week a new dilemma also arose when Lilian asked me not to report on a statement she had made to me. I found it difficult to agree to this because it seemed to me that this statement captured some of the contradictions between Lilian’s discourse and practice in relation to her view and treatment of her pupils. Later I made the decision to include a description of both the statement and the incident which gave rise to it despite Lilian’s request that I not do so. I made this decision because I believed that the anonymous identity given her in this text provided sufficient protection and that the statement was important in confirming my tentative initial interpretations.

In the second week of the study, I observed a further three lessons. In the first of these, standard 6 pupils handed in project work completed during the previous week and then continued “analysing source material” on the Renaissance period. Standard 10 pupils wrote a test in the second lesson and, in the third lesson, standard 9 pupils worked in the Media Centre. Because of Lilian’s time constraints, I had agreed to reduce the number of interviews with by one and then postponed this final interview until after the completion of all the lesson observations.

## **Theory/practice relationships**

### ***Connections between classroom practice and views expressed***

#### ***Facilitation of pupils' research activities***

Once again, there was evidence of pupils engagement in independent research in the second week of the study. In the first lesson, Lilian collected in projects pupils had completed during two library periods and for homework sessions. It was clear, however, that several pupils were not ready to hand these in, many of them still pasting in pictures as Lilian walked up and down the rows between the desks. Lilian also commented on the brevity of some of these projects and scolding pupils for their lack of effort saying that when she saw a project of only one page she was “disappointed right from the beginning”.

During this lesson, pupils were engaged in historical research as they analysed source material guided by Lilian's questions. Not only did they learn about the topic under study but they also learned about aspects of research. For example, they were expected to differentiate between “primary and secondary” sources.

It was clear that some pupils experienced difficulty in conducting research and Lilian needed to provide considerable guidance, scaffolding their learning activities. At the beginning of the third lesson, which took place in the Media Centre, Lilian pointed out books which she thought would be useful for the research projects that pupils were engaged in. As pupils settled to work here, she circulated around the room, questioning them, commenting on their work, offering help and examining the books they were working from. She also helped them to identify appropriate reading material as it was clear that they found this aspect of the research process particularly difficult. For example, one pupil expected to find all the information she required in one book and Lilian explained to her that she needed to look for certain sections of the information in different books. I overheard Lilian make the following comment to one pupil: “Why must you take the most

difficult book?” and, later, when the same pupil showed her another possibility, Lilian said it was the “wrong book”.

In addition, it seemed that pupils found it difficult to locate the necessary information even once they had an appropriate text in hand. One of Lilian’s comments as she moved amongst pupils was: “You have to search for it” by which she meant that the pupil needed to examine the text closely in order to find the information she needed. During this lesson, Lilian reminded pupils that quotations were important source material and that they needed to provide the names of the authors of the books they were using.

I also noticed more technical aspects of Lilian’s management and control of pupils’ research activities. For example, at the beginning of the lesson she had spoken to pupils about a list of topics she had drawn up which included the names of the pupils who were researching these topics. She had brought this list with her and, when several pupils indicated that they wanted to check it, Lilian said that she would pin it up and asked for the library pupil’s help in arranging for this. In addition, arrangements were made in the Media Centre for pupils to photocopy information from books, a facility several pupils made use of during the course of the lesson.

In the final interview, Lilian said that pupils are “definitely not” equipped to conduct research or to do project work. She thought that perhaps she was “demanding too much” from them “because I want them to think”. Her subsequent comments relating to the difficulties pupils experienced in selecting appropriate source material and in reading and selecting the required information reflected the difficulties I had observed pupils experiencing in the Media Centre. Lilian thought that some of these difficulties were related to pupils “being spoonfed at primary school”. She said that “they are too lazy to think” and spoke of a pupil who had told her that she no longer liked history “because I make her think”. (Here again, the connections to Lilian’s view of history as a discipline which requires thinking skills were clear. In addition, her view of pupils’ laziness was reiterated.)

Lilian also felt that pupils were unable to take “initiative” in doing research and expected her to provide more guidance than she was prepared to give. She said, “They don’t think and I refuse to give them all the answers. I don’t help them with that.” Instead, Lilian said, she asked pupils questions in order to help them focus on aspects of topics for research or on aspects of research material and that she explained the processes involved in research “over and over and over again”.

One of the most frequent problems Lilian experienced in engaging pupils in research was that of plagiarism. She said that she often received projects where not one word had been written by the pupil herself. She described one project which, while beautifully presented, contained only extracts from an old edition of *The Daily News*, a Durban daily newspaper. Lilian said that she had told the pupil concerned that it was “very nice - for *The Daily News*. Hundred percent for the *The Daily News*, nought for you.” In another case, she told a pupil who had merely copied information from another text that she did not deserve a mark adding, “Give me your work and I’ll give you a mark.” She reiterated, “It must be in their own words.”

The importance Lilian accorded research as a process which developed good thinking skills was clear. In addition, the value she placed on good language and vocabulary skills was closely linked the importance she gave to research as a learning process. Certainly, the connections between her expressed views and practice in this regard were obvious not only in her discourse and classroom practice but in the displays of several posters and other projects completed by pupils on the walls of her classroom.

Lilian also spoke of the demands involved in marking these projects - “concentration and time”. She explained that in marking projects, she checked “their research ability” and “their selection of material”. In addition, she assessed “their English - their fluency, their grammar, their spelling, how they can express themselves”. She also took into account their “critical ability, like assessment” and did not accept “a conclusion which is primary”.

In essence, these criteria were also the skills Lilian believed one developed through a critical study of history.

Despite Lilian's awareness of the difficulties pupils experienced in project work, she believed that although "they need a lot of pushing to get interested", "on the whole I think they really enjoy it finally. They really do". She referred to a pupil who had appeared to be more interested in chatting with friends in the library than doing any research to illustrate this belief. Lilian said that despite this pupil's bad behaviour in the Media Centre, she had been "surprised" when she had handed in a project that "made sense" and was "good".

In addition to the theory/practice connections described in this sub-section, I also noticed contradictions between Lilian's discourse relating to pupils' enjoyment of research and my observations. These are described in the sub-section relating to contradictions later in Week 2.

### *Interpretation of facts*

In the second week of the study, the relationship between facts, interpretation and bias was again highlighted. Once again, Lilian's own sense of ease with the contradictions inherent in historical knowledge was clear. For example, while speaking to a group of pupils as they worked in the Media Centre, she said that they should point out the examples of bias they had found and provide different points of view on the topic under study.

In the final interview, Lilian explained that even standard six pupils were expected to consult a minimum of three books for their projects while standard nine pupils were expected to consult at least six books. This, she said, introduced them to a range of interpretations and helped them hone their "critical abilities" which she described as "very important".

Lilian said that she was “delighted when (pupils) come - I’ve got sixes and I’ve got sevens already - they come and say, ‘But look at this book Miss Brown. They say he was born on the 26th and he said on the 21st. Now how is that possible? How must I know it?’ and I say, ‘Now you write down, with the author, this and this and therefore possibly he might have been born - when now? Why is it possible? What could be the reason for it?’” She pointed out that four different dates were used in four different texts relating to the outbreak of the Franco-Prussian battle. She said that pupils “have to find out which of the dates is the correct one. They are all correct from some point of view”.

### ***Personal experiences in knowledge construction***

In addition to the processes of research and interpretation, Lilian encouraged pupils to reflect on their own personal lives and experiences as they attempted to respond to certain questions. For example, she asked the standard 6’s to consider the influence and role played by the church in their own lives. At the end of this section of the lesson, she concluded that the church had played a very important role in people’s lives “although it’s not written in your textbook”.

Lilian’s sensitivity to her pupils’ varied life experiences became clear at these times. For example, although her lesson with the standard 6 class centred on the Christian Church, she explained why it was that Muslim, Islam and Protestantism were not considered in the western world at that point in history. Also, in response to a pupil’s question about the Hare Krishnas, she explained the relative youth of this religious grouping and told the pupils that they would find out more about this the following year when they visited the Hare Krishna Temple.

### ***Focusing on keywords and terminology through questioning***

The pattern based on questions and keywords discernible in Lilian’s classroom practice in the first week of the study continued to be a trend in the second. She used both keywords

written on the chalkboard as well as questions to focus pupils' thinking and carry them through the learning process. Some of her questions were related to terminology and definitions. Others demanded that pupils provide greater clarification of their previous responses. As in the first week, Lilian asked for simple responses where pupils used their own words and she criticised those who parroted answers found in textbooks and other references. To one pupil she said, "You give me difficult things. I want simple things." She often repeated pupils' correct responses to her questions and sometimes elaborated on or simplified these. Very often, she added keywords from their responses to those already on the chalkboard.

When pupils found it difficult to explain or to provide definitions of terms in their own words as required by Lilian, she sometimes provided hints to help them - for example, by writing part of a word on the chalkboard or by providing another context for the word. Pupils sometimes asked for further clues and appeared to enjoy this 'vocabulary game'.

In going over the notes with the first class observed this week, Lilian said that she hoped that they had already "highlighted the important phrases". When Lilian realised that they had not done so, she asked them to identify the first "important key phrase". After this, pupils were asked to identify further key phrases and words. When reading aloud from notes in class, Lilian sometimes stopped to explain key concepts in greater detail and to ask if there were any questions from pupils.

Lilian's interest in helping pupils to "think for themselves" as they responded to her questions was again apparent in this second week of the study. Appropriately, she asked the standard 6 class who were studying the Renaissance about the benefits of learning to think for oneself. She agreed with one of the pupils who suggested that thinking would make one "more independent" before adding that the Renaissance experience had made people "freer".

Before the standard 10 class began to answer their test questions, Lilian suggested that they give themselves “time to think” before writing. She then wrote the following on the chalkboard: “Think! Logical arrangement” and “Relate!!!” This last word, she implied, was of particular importance to the higher grade candidates.

### ***Reading maps***

In the first lesson this week, Lilian again made use of a map, basing her questions on this. She provided pupils with several suggestions as to how they could make sense of the map. These included the suggestions to begin examining the map “with something you know”, colouring it in, and comparing the shape of Greece to “a crippled hand”. She also told the class to “have a good look” at and directed their attention to different features of and small diagrams printed on the map.

### ***Access to the examiner’s thinking***

Lilian’s strategy of encouraging her pupils to understand the examiner’s perspective and position was again evident in the first lesson this week. While collecting in pupils’ projects, she defined a project as “an illustrated essay” suggesting to pupils that both written and pictorial text was required in such work. In addition, she briefly outlined the criteria she would use in marking these projects and said that good presentation would indicate that effort had been taken while good content would indicate that research had been done.

In the first lesson, Lilian asked pupils to evaluate other pupils’ responses to questions. For example, after one pupil’s response, she asked, “Who doesn’t agree?” One pupil indicated that she did not agree but Lilian then pointed out that the original response had, in fact, been correct. I thought that this red herring connected with Lilian’s desire to encourage pupils’ thinking.

### ***Contradictions in theory/practice relationships***

Some of the same tensions and contradictions that were evident in Lilian's work in Week 1 were again apparent during the lessons observed this week.

#### ***Treating pupils as adults and preparation for examinations***

Once again, this week, the difficulties involved in treating pupils as adults while preparing them for the rigors of external examinations could be seen in Lilian's strategies relating to the management and control of pupils in the writing of tests.

Before the standard 10 pupils arrived at the classroom, Lilian drew margins on the chalkboard as well as the headings that she wanted pupils to write: "Name, Date, Class, May Control Test, History, Grade, and Section A : Essay-type". After pupils were seated, she drew their attention to the layout that she had provided saying, "You have to follow instructions."

When the pupils had arrived at the classroom, Lilian had told them that they could sit where they liked but that she would like spaces between them. Tests were handed out face down, Lilian telling pupils not to turn these over until everyone had received a copy. She also reminded pupils to read the instructions on the paper once they had turned their copies over and to write the numbers of their questions in the middle of the page. She suggested that pupils use the backs of their test question papers to plan their responses.

Once pupils were given permission to begin, Lilian wrote "Started 8.23" followed by "8.40, 8.55, Stop 9.13" on the board and subsequently crossed off these times during the lesson.

Towards the end of the lesson, she told the class that they had four minutes left. Some pupils appeared to panic and Lilian said, "Just calm down" adding "remember, you need a

conclusion". She then said, "Ladies, you'd better come to an end. Half a minute." Lilian then told the pupils that their time was up but a few of them ignored this and continued to write. After a couple more seconds, Lilian told them that they had to stop. This she repeated and when one pupil protested, she said "Bad luck" a phrase I had noticed her use a few times previously.

Lilian told the class to keep their question papers and not to talk until she had collected all the answer papers. Once again, she repeated this last instruction when some pupils ignored her.

Lilian's management and control of the test situation was linked to the preparation she thought necessary for standard 10 pupils for their final matriculation examination; however, I wondered about the extent to which her strategies in this regard limited pupils' views of themselves as adults and, therefore, affected their relationship and interaction with her. The constraints involved in preparing pupils for the external matriculation examination and the effects of these on teachers' theory/practice relationships are again referred to in Chapter 7.

### ***Lilian's interaction with pupils and facilitation of their participation in learning processes***

Despite Lilian's expressed view that lessons needed to be pupil-centred and that pupils needed to actively participate in the learning processes, I frequently observed that pupil participation was limited in her classes. This was true in spite of Lilian's using pupil research and pupil reflection on their personal experiences as well as question and answer methods as her main strategies in facilitating such participation. I wondered if this suggested that pupil participation was difficult to achieve - even if one were committed to it in theory and had the ability to use certain strategies consistent with the theory. Lilian's comments about pupils' resistance to school and their other interests appeared to support this.

In the first lesson of the week, it was clear that the standard 6 pupils either did not enjoy research or found it difficult - possibly both. Several pupils had not completed their projects on time and some were attempting to stick in pictures while Lilian was walking around the class collecting these in. Lilian warned those who had not completed their projects that they would lose 10 marks for each day - including Saturdays and Sundays - that their projects were late.

In this lesson, as in others I had observed in the first week of the study, there were few questions from pupils. In some cases, Lilian threw open any such questions to the class encouraging greater pupil participation. At other times, she merely provided the explanation herself.

While the interactions between Lilian and her pupils in the Media Centre were generally more conversational than in the classroom where question and answer patterns prevailed, this mode of interaction was limited to certain pupils. Most of them appeared to be working in groups, the work consisting primarily of paging through possible sources of information and some discussion. One group, in particular, spent a long time discussing procedure and presentation before studying the texts. There were a couple of pupils working individually and I thought that they may have already completed their preliminary discussions

I noticed that pupils in this class displayed different levels of interest in and took different degrees of responsibility for their work. Some pupils appeared to be working diligently while others used the period to catch up on gossip! In addition, I noticed that pupils generally showed little interest in the Young Historians' Conference. Lilian began the lesson in the Media Centre by speaking to the class about this lack of interest and her own disappointment in them. Although a pupil enquired whether there would be another round in the competition and Lilian then provided the date that this would take place, pupils showed little enthusiasm for attending the conference.

I also considered that the lack of pupil participation in learning activities was as a result of the primary school “spoonfeeding” routines mentioned by Lilian in her explanation of the difficulties pupils encountered in research. This seemed to be supported by the disorganisation shown by the standard 6 pupils in their approach to project-work. In addition to not having completed these on time, I noticed that they took a long time in finding the correct worksheet in their files and Lilian had to resort to holding up her copy to help them to identify it.

In addition to pupils’ immaturity in this regard, I thought the contradictions that I noticed between Lilian’s thinking and practice - particularly that concerning her interaction and relationship with her pupils - might have been partly responsible for the lack of pupil participation. Mostly, however, I felt that it was the tone of Lilian’s interaction with her pupils - her lack of warmth - that could have inhibited them. In this sense, I did not think that she facilitated pupils’ participation. For example, in trying to encourage pupils who had not responded to questions, Lilian said that she wanted an answer to the next question from the “very quiet ones”. I wondered whether such categorisation and labelling would not be even further intimidating for quiet, shy and reserved pupils.

During the lesson with the standard 6’s, Lilian asked whether anyone was “thirsty for knowledge”. In asking this question her tone of voice suggested that she thought few of these pupils were thirsty for knowledge. One pupil responded in the affirmative and Lilian said “Good” but nothing further. Although she also used the response “Good” in praise of pupils’ correct answers, I noted that she did not supplement such praise with the types of non-verbal cues that I had noticed in other teachers’ responses.

At times, Lilian’s scoldings were teasing. For example, she displayed mock horror when the standard 6 pupils, who had just completed a project on Shakespeare, could not tell her in which language he had written his plays. At other times, however, there was no humour in her interactions with pupils. During the lesson in the Media Centre, Lilian found two pupils chatting over the newspaper at one of the tables. She questioned them, reprimanded

them and separated them. This was done quite severely and for several minutes. After the bell had rung, I noticed Lilian again speaking to one of these two girls who sounded upset and angry. After the pupils had left, Lilian commented to me that she did not mind publicly humiliating pupils when she considered that they had deserved it. Some time later, Lilian appeared to have second thoughts and asked me not to report this last statement as she felt that it showed her in a poor light. As mentioned earlier, I saw this comment as providing me with stronger justification for the interpretations presented here.

### *The lack of Lilian's personal interpretations in her classroom discourse*

During this week, I thought that Lilian missed opportunities to share her own personal views and beliefs with pupils in class. For example, during a discussion on the role of the church in education during the Renaissance period, a pupil asked about the education of girls as the discussion had centred on the education boys. Although Lilian appeared pleased with this question and responded with the comment "interesting" before going on to speak of the role girls and women played at this time in history, she did not use this opportunity to develop pupils' understanding of gender issues in their own time nor did she reveal her own thoughts or interpretation on these issues.

## **WEEKS 3 AND 4**

### **Fieldwork - difficulties in identifying and recording teacher development**

The difficulties facing researchers facilitating teacher development through collaborative research processes and action research were well illustrated in my work with Lilian.

Firstly, Lilian's lack of ease with certain aspects of the process was evident. In the initial interview, she had said that although she "didn't mind" analysing the two lesson introductions, she had not really enjoyed this exercise. In addition, in the second interview, she said that "I can't always give a reason for what I do because it comes involuntarily. It

just comes". She explained that while she prepared lessons "on a broad basis", she no longer thought about "how I present individual little facts". While she had found both "reading over the comments" and my questions "interesting", she said that she did not understand why I had had to write such detailed descriptions of the lessons.

These comments suggested a lack of comfort with the task of analysis and self-criticism - both skills Lilian, herself, believed important in the discipline of studying history. I found myself thinking that if she experienced difficulties with these tasks, then how much greater would be the difficulties for those teachers for whom these skills were of less importance. Lilian's last comment also indicated the need for researchers to explain the process of their work to the teachers with whom they collaborate in greater detail than I had done.

Secondly, Lilian's reluctance to participate in this study which not only involved having me in her classroom but demanded that she read descriptions of her lessons and answer questions in interviews, was, in part, due to her workload. The increasingly heavy workload of teachers has serious implications for their participation as researchers in school-based projects and in action research since research requires time for reading, reflection, discussion and critique etcetera. Lilian's response to my suggestion that collaborative research might be a way to help teachers was a rather derisive "Ha, ha, ha".

When I asked her to elaborate on this response, she also mentioned the lack of support this project had received from her school principal whose comment had been "You must be mad!" when Lilian had told her that she had decided to participate. Lilian said that she had explained to her principal that she had hoped that she might get "some feedback" through this participation - something she felt she lacked "from my inspectors because they seem to be quite happy".

For some teachers, another difficulty in collaborative research would be that of the presence of the researcher in the classroom. Although Lilian said that she had "trained (her)self not to mind" my presence in the classroom, she felt that her pupils had not liked

it. In particular, she felt that the senior classes had felt “hampered” while the junior classes had shown off. Lilian suggested that the possibility of this response might have been a reason for school principals not being eager to have me in their schools.

Commenting on the usefulness of the study for herself, Lilian said, “I haven’t found - except the sympathy I got from you - I haven’t found any help in it so far for problem-solving and I can’t. The more I think about it, the less I seem to be able to solve them . because we’ve been warned from two years ago that you would get bigger classes, you would have less free periods and so on . and we must change our teaching methods. I have tried to do that. I have tried . to change my testing methods, but if you want results by the end and if you really have . the learning of the child at heart, you can’t skip them. And I can’t cut down anywhere else. I can’t do it. When I tried . by getting out of checking files I would always have a bad feeling about this.”

Although Lilian did not comment on any changes in her work during the time of the study period, I felt that, as in Marion’s case, her work became more refined and focused. Identifying and describing such subtle changes in practice and in thinking posed difficulties for me - especially where, as in Lilian’s case, she did not recognise any changes and where, as in Kate’s case, the changes reflected a deeper entrenchment in contradictory practice. It was only through my comparison of all the teachers - employing the concept of power in the final analysis of the theory/practice relationships in their work - that I, myself, began to understand the differences in their work and to identify shifts and developments in it.

The identification of such shifts and developments required that I learned to trust my observations and fieldnotes as important and reliable research tools. Similarly, I needed to learn to rely on my interpretations in the organisation and analysis of the data collected. These later stages of the research process caused me considerable anxiety and led me to question on more than one occasion the boundaries between reality - especially that as experienced by the teacher - and my interpretations of reality. At one point I lived the

experience of believing a phrase which previously I had only read and debated in seminars - that is, that there is no reality beyond the text. Living this experience was quite different to understanding it theoretically and caused me temporary paralysis in the analytical and writing processes. It was only once I had learned to give myself permission to be and act as the researcher, which involved drawing conclusions based on my interpretation of the data, that I was able to complete these processes. A more theoretical argument for this phase in my development is provided in Chapter 8 as part of the discussion of power and identity in epistemological and methodological issues in qualitative research.

During the third week of the study, Lilian was ill so I observed only one lesson; however, I made arrangements to take another day's leave in the following week - the week in which I, myself, returned to work - to observe one further lesson. In the first of these lessons, with standard 7's, Lilian and the pupils were involved in the revision of previously completed work on aspects of early South African history as well as preparation for their forthcoming test and examination, and in the second, with standard 10's, a section of American foreign policy was dealt with.

## **Theory/practice relationships**

### ***Connections between classroom practice and views expressed***

In the last two lessons observed, I noted closer connections between Lilian's practice and few contradictions - a possible effect of her participation in the study. As such, the closer connections represented developments and shifts in thinking and practice.

### ***History as social construction***

In these last two lessons, Lilian continued to highlight the impact of individuals on historical events and vice versa. One way in which she did this was by encouraging pupils to consider affective factors and the emotions experienced by historical actors. For

example, in the first lesson, Lilian emphasised the humiliation and lack of dignity accorded slaves by using two pupils in a role-playing exercise. She went on to speak of the plight of the slaves and their conditions of work. At one point in this lesson, in helping pupils to understand the responses of individuals to events, Lilian suggested that pupils “consider their own situation” when formulating their responses to her questions. In the debate on bias, Lilian made the comment that human beings cannot always control their feelings and rather wryly told the girls to “look at yourselves” as the debate became quite heated.

Lilian used a similar strategy in the Standard 10 lesson, again highlighting the human and social perspectives in history by pointing to the “pressure” under which the then president of America needed to work and the power of business interests in political decisions. She also told pupils to place themselves in the positions of the Americans at that time in history so as to better understand and explain why a particular course of action had been taken.

At times, Lilian’s more colloquial vocabulary was also useful in suggesting the human emotions experienced by historical characters. For example in the last lesson she said that an event was “the last straw as far as Wilson was concerned”.

These examples serve to illustrate the ways in which Lilian encouraged pupils to reflect on their own experiences and emotions when studying history. She told pupils that in addition to needing to “think” when writing their summaries, they also needed to “use your feelings”. She said that pupils should try to explore what the people in this period of history had felt. In this way, she said, they would be “like psychologists” and sometimes “like lawyers”. She also told them that understanding feelings would make it easier for them to learn the work.

In addition, the issues of bias and interpretation in the construction of historical knowledge continued to be features of the last two lessons observed. In the first lesson, Lilian asked the class whether they thought the author of the book being studied was

biased or not. She also asked them to give a reason for their response. I noted with interest the way in which the opinions expressed by pupils shifted from “not biased” to “biased” through a debate in which Lilian provided little direction.

The first pupil to respond to Lilian’s question said that she did not think the author was biased but that she had provided “an outsider’s point of view”. The next pupil to respond agreed that the author was not biased, saying that she had provided facts and not just opinion. Lilian said “Good” and repeated the observation that “sources” had been used. Some pupils who added to the debate at this time found it difficult to express their views and justifications but others appeared to be able to use a high level of sophisticated argument. One pupil suggested that the author had given the facts and then allowed the reader to make a decision.

The debate began to shift as a pupil said that the author’s presentation was one-sided and that she had not considered other points of view. Another pupil agreed with this and Lilian reminded the class that even she, herself, was biased in her selection of material for them to read and study. Lilian said that she also thought the author had provided a narrow outlook on the events being described, adding that if they were to compare this version with “our normal history books” which gave the “white point of view”, they would be able to see how different the two versions of events were.

Another pupil suggested that perhaps the author had attempted to provide a balance to the white point of view. Lilian appeared pleased with this comment, saying “Good”, but another pupil said that since this was a textbook to be used by a wide variety of people, the presentation of a biased point of view, even if it were presented as a balance to another biased point of view, was not a good thing.

At the end of this debate, Lilian asked the class if they had seen what she had been trying to do - to make them “wide awake” in their studies and aware of possible bias. She said, too, that she had introduced this particular book so that different points of view could be

studied. Certainly, I thought that this class appeared to be very comfortable with the notions of bias and multiple viewpoints.

On the topic of texts and references, Lilian explained to the standard 10 class that she had taken the notes she had given them from one particular book and mentioned, too, that this was because other books dealt with other aspects of the topic. This seemed to confirm that Lilian's notes drew on a variety of sources, some of which were contradictory.

### *Contexts and interconnections*

In contextualising the sections of the syllabus under study, Lilian located these within the syllabus itself and also made references to the contents of other sections already studied. For example, Lilian began the history content of the last lesson by locating the section under study in "the second part of the syllabus". Later in this lesson, she contextualised the change that had occurred in American foreign policy in an attempt to explain why this change had happened.

Lilian explained to the pupils that while it was important for them to know the contextual background, it would require only a brief mention in an examination answer. A little later, she again said that they would not require all the details they had been discussing and that they were only then getting to the topic itself. These comments also demonstrated how Lilian attempted to straddle the divide between her belief in broad general knowledge and her need to prepare pupils for an external examination where skills development was emphasised along with the memorisation of facts.

Lilian's belief in pupils having a broader general knowledge than that required for examinations was also highlighted in her frequent use of the phrase "bear that in mind" which suggested that she wanted pupils to understand a range and variety of issues when studying historical events or decisions. Developing pupils' awareness of the complexity in history seemed important to her.

The interconnections Lilian saw between different sections of the history syllabus were evident in other examples of her classroom practice and discourse. She rarely taught ‘from scratch’ during the lessons I observed; instead, she drew on pupils’ prior knowledge of other sections of the syllabus. At one point in the standard 10 lesson, Lilian told the class that the information being dealt with was “common sense” and “not that difficult” and proceeded, through her questions, to draw on their prior knowledge gained in projects completed the previous year.

Lilian drew interesting connections between the section which dealt with American foreign policy earlier this century and current events in the Phillipines and China. In addition, some of her questions required pupils to make similar intercontinental connections. For example, she asked the class for a definition of a “warlord” and then asked for European examples of such. Pupils’ initial responses were restricted to the South African context but, after some clues from Lilian, they were able to transfer their understanding of the power relations inherent in this term to the European context. This example also highlighted Lilian’s interest in vocabulary and in current affairs, and demonstrated the influence of these interests on her classroom practice.

### ***Combining a skills-based approach with preparation for examinations***

The skills involved in summarising and in critical thinking as well as vocabulary skills were again found in the last two lessons I observed. Once again, Lilian frequently pointed to the connections between these skills and preparing for and writing examinations.

In the first lesson, pupils not only revised historical knowledge but also “a skill (they had) learned in Media Science last year” - that of summarising. As pupils raised their hands and were then nominated by Lilian to provide a summary of paragraphs in their written notes, she checked the content of their responses and commented on their ability to summarise. For example, she told one pupil not to give the “entire paragraph” but to “keep it short”. She also suggested that writing summaries in “point form” was useful and later reminded

the class that it was the “main idea” that was required. Later in the lesson, Lilian emphasised the importance of summarising through key phrases.

Once again, Lilian’s classroom discourse highlighted the value she placed on pupils’ thinking skills. After nominating a pupil to answer a question, she said, “Now come on, think”. Soon after this, she asked a question of the class generally adding, “Use your brains for a change”.

In the standard 10 lesson, Lilian asked the class whether a country could still be considered to be neutral if it supplied armaments to another involved in a conflict. A pupil suggested that the country concerned should provide arms to each of the sides in the conflict. I thought that this response may have been an effort to promote fair play but it appeared to be an escape from the real issues at stake in a question which demanded both critical thinking and a moral assessment of the situation. Lilian response was: “So the two sides can kill each other?”

Vocabulary skills were also highlighted in the first lesson. Lilian focused on the definition of terms while reading notes in class. She told pupils to underline or to highlight certain definitions which she described as important. She went on to remind these standard 10 pupils that non-essay questions frequently asked for definition of terms, in this way linking vocabulary skills with examination preparation. In addition, Lilian corrected a pupil who spoke of the “good or bad effects” suggesting that she use the terms “positive and negative” instead.

Linked to Lilian’s concern with providing definitions of key words and concepts was her emphasis on pupils’ need to simplify statements and to use their own words. She also told the class not to be put off by the difficult language found in some texts.

From time to time Lilian paused in her explanations or while reading notes to ascertain that pupils understood historical references or more difficult vocabulary, for example

“Boxer Rebellion” and “laissez-faire”. At one point in the last lesson, Lilian, herself, used quite colloquial language in defining the term neutrality - “staying out of other people’s business”.

Lilian sometimes used pupils’ understanding of vocabulary to highlight historical and social processes. For example in the last lesson she introduced the term “loopholes” and used an explanation of it to highlight the complexities of government’s workings.

In the last lesson, Lilian invited the standard 10 pupils to play examiner by thinking of a question they might “meet” in an examination essay. She continued this role-play by asking pupils to provide a focus for the essay and to list the important points for inclusion. Finally, she asked them to evaluate their responses and suggestions. In completing each of these tasks, pupils employed a variety of skills necessary for preparing for and writing examinations.

### ***Pupil participation and classroom interaction***

In the first lesson, pupils participated by providing summaries and, when necessary, adding to these or answering questions posed by Lilian on the content included in the summaries.

Lilian had mentioned to me that this standard seven class was one of the brighter classes in the school and, certainly, they seemed more willing to interrupt each other and Lilian and to disagree and offer different points of view than had any other class I had previously observed in this case. They also offered points for discussion more freely and confidently than had other classes. At certain points in the lesson, pupils entered into lively debate, some of the arguments showing, I thought, a high level of sophistication for pupils of this age. At one point in the first lesson, Lilian said she was pleased that this class had thought of more points relating to one section than she, herself, had done.

Several of the pupils in this class were eager to read their essays aloud to the class and they appeared comfortable in criticising each other's work and thinking. Lilian invited pupils' questions from time to time by asking whether there were "any questions so far?" When a pupil asked Lilian a question, she responded with one of her own which the pupil then answered. I considered the interaction in this lesson more fluent than any I had seen previously in Lilian's classes.

During this lesson, I became aware of Lilian's use of encouraging non-verbal cues for the first time while observing her lessons. These cues included eye contact as well as smiles and gestures. At one point in a lesson while questioning pupils, Lilian said, "Don't fall asleep on me".

The last lesson began with a measure of disagreement between Lilian and the standard 10 pupils in this class. It appeared that Lilian felt that the class ought to have gone to the Media Centre one day during the previous week when she had not been at school to work on a project or do some research but the pupils did not seem to have received this instruction. Lilian told them that all they had had to do was to fetch the key for the room. One of the girls said that there was "no nothing" on the board - I assumed that she meant there were no instructions to this effect. Lilian told her to stop arguing and the pupil responded by saying that she was not arguing but telling Lilian. Lilian's last comment revealed that she thought the class had shown a lack of initiative in not fetching the key themselves.

### ***Political consciousness/current affairs***

During the lesson in Week 3, Lilian compared the events being studied in South Africa's past to the current situation. For example, she compared the way in which attitudes to slaves had not immediately changed when slavery was banned to the anticipated changes in attitude in present-day South Africa. She predicted that South African attitudes would

not necessarily change just because democratic elections had been held. This example was also connected to the human and social aspects of historical development.

Later in the same lesson, Lilian linked information under study to current affairs in South Africa by asking the class to name the political party which had recently referred to betrayal in land affairs and wanted an investigation of this matter to go back to an early date in history. Pupils provided the correct answer to this question.

### ***Key concepts and words as focus***

Lilian again made use of the strategy of using key words written on the chalkboard as a focus for her questions and for pupils' thinking. In the last lesson, she wrote "1917" on the chalkboard before asking pupils the importance of this date. She also used pupils' responses as keywords written on the chalkboard.

At other times, as in the last lesson, Lilian made use of transparencies on which keywords had already been written and around which Lilian centred her questions to pupils. She kept these transparencies partially covered as she worked her way through a series of questions, revealing the lower sections of the transparency as pupils provided answers or in order to encourage pupils to do so.

### ***Structural constraints***

At the beginning of the second interview, Lilian spoke with resentment of the extra-mural activities that crowded her teaching life. These activities are described below in some detail in order to capture the pressures she experienced as a result of these.

Lilian began by explaining that that day she had been expected to attend two different meetings during lunchbreak. In addition, an unexpected visitor had arrived at the school to meet with her at that time. She said, “You are supposed to be in two or three or four places at the same time.”

Lilian went on to mention the Parents’ Evenings scheduled for the following Monday and Wednesday evenings. She said that “officially” these meetings lasted from five o’ clock to half past seven but that in fact “it can be eight, can be nine - depending how many people want to speak to you”. She explained that although only three minutes were allocated for each parents’ consultation “you never stick to it because they don’t” and “you can’t chase them away”.

A management meeting for which Lilian always wrote the minutes was due to be held on the Monday afternoon prior to the first of these Parents’ Evenings. Completing these minutes for presentation, Lilian said, would occupy her Tuesday evening.

On Thursday evening in this same week, Lilian needed to attend the “area conference of the Young Historians” at a neighbouring school. She outlined the procedures involved - a welcome speech, “a speech by some fundi”, delivery of speeches by pupils in separate venues, coffee while the adjudicators come to decisions, and, finally, the handing out of prizes and certificates. She concluded by saying “so it’s a long evening”.

Lilian explained, too, that she had helped her pupils who had entered the Senior Young Historians Conference to “research their speeches and had listened to their speeches” after normal school hours. In addition, she had attended meetings relating to the conference itself.

After school on Friday of this week, Lilian was to attend “a dress rehearsal for the school play - from three o’ clock until six o’ clock officially”. The house plays were scheduled to be performed at the school in the evenings during the following week. Lilian said that “it

starts at seven but I must be there at the latest at six and I'm the last one. I have to check the locking up of the school". These house plays had been partially Lilian's responsibility since pupils had first began preparing for them in the first term of the school year.

Lilian went on to explain that preparation for the Junior Historians Conference would be a major focus in the following term. She explained that this conference involved pupils in "a group project" and that she would need to spend lunchtimes as well as time after school working with at least some of the groups. There were "six groups in each class and four standard six classes". Successful groups would be chosen to present their productions at an evening similar to that described above towards the end of the year.

Lilian was also involved in TADA (Teachers Against Drug Abuse). She said that although "they are trying to let the committee (of pupils) run the show" she needed to attend some of the meetings "simply to go and see what is going on". In addition, she had to "get minutes, organise speakers" as well as visits to "civic places they have chosen to support".

Lilian also spoke of "our excursions for standard seven and standard eight" pupils which also "always demand something extra" by way of organisation and time. For example, she mentioned the "telephoning around" that was required in the organisation of these excursions.

In response to my question asking whether she saw herself as "quite unique as a teacher" in terms of all of these "additional responsibilities", Lilian replied in the negative but admitted that many teachers at other schools no longer entered pupils for the Young Historians' Conferences because of the "workload that is involved". She explained that she had continued to support pupils' participation because she saw it as a "very important learning experience" that allowed pupils to develop "skills" and to "learn a lot". In particular, she mentioned "the research skills and then all the social skills" that came from "working together and in groups".

Lilian spoke of the lack of gratitude she encountered as well as the lack of sympathy for her workload. She said, “If you complain or if you should just a little bit try to complain or get some sympathy, you’re just told ‘It’s your own fault. Can only get worse’.” Even when pupils achieved success in events such as the Young Historians’ Conferences, Lilian felt that little recognition was given to the teacher - “You push them but nobody says thank you, really”.

Lilian’s teaching timetable allowed her seven “free periods” in every nine-day cycle. “Free period” was a misnomer because during these periods she needed to “organise notes for the next section” of the syllabus, set class tests (three tests per term meant that “when you have nine classes you barely finish with the one lot of tests when you have to set the next”) and mark projects (“one hundred and forty-odd projects” were due to be handed in the following week). In addition, Lilian needed to complete “admin work” during these periods. She mentioned a table “full of stuff that must be sorted out before I can go home”. She said that she frequently stayed after school hours to deal with such matters because “everything seems to be urgent and everything comes up on that day when you have no frees”.

Another of Lilian’s duties performed during her “free periods” was that which involved appraising junior teachers. This task required that she watch these teachers teach a lesson each term and then submit a report on these lessons to the school principal.

In addition to these extra-mural responsibilities, Lilian mentioned that the recent increase in discipline problems at the school exacerbated the difficulties she experienced. She said, “It’s a draining of energy just to have to cope with the discipline problem” and that there were times when she “had to jump out of my own class to calm the other classes down when you hear the noise”.

Lilian also described the increasing numbers of pupils per class as “madness” - there were thirty-eight pupils in her standard six class. She felt the “ideal” class size would not exceed twenty-five pupils.

The incongruities in the decisions relating to testing in the school were highlighted by Lilian in this interview. Again she used the word “madness” to illustrate her thoughts on the school rule which required the setting and marking of three tests per class per term. She explained that were she to try to keep to this ruling she would do very little teaching in a nine-day cycle - especially in the standard six and seven classes which had only three lessons during the course of this cycle. She said that she had recently “taken a stand” and decided to take project marks as one of the required term marks and had also suggested that only two tests per term be required in the lower standards. Lilian explained that while some tests might take only one half of a period to write, “I need more than one period for discussing and correction” when returning the tests to the pupils.

In addition to marking tests and preparing lessons, Lilian explained that she usually made new notes for her standard ten classes “every second year at least” while she modified the notes given to other classes by “adding on” or “cutting something out”.

Lilian mentioned that she had used the Easter holidays to check the files of her eight classes despite being told to have a good holiday after a “terrible term”. She said that she had told the principal that she would “happily” leave the files at school “if you tell me that I don’t need to” mark them. The principal had said that she was sorry but she could not do that and when Lilian had asked her where she suggested she “cut down” on her workload, the principal had replied, “You have to find it.”

Lilian recalled that in her first year as Head of Department, she had had nineteen lessons per week and that this had been increased to twenty-one, then twenty-four, then twenty-nine and currently stood at thirty-nine lessons per week. Despite these changes, Lilian said

that she did not think that she had changed her “teaching habits and teaching methods because I’m always guided by the response of my classes”.

Given this workload, it is not surprising that Lilian said, “I also feel that I always work very hard. I always work very very late into the night.” She said that she found it difficult to work beyond “eleven half past eleven” at night “because I’m getting up at five thirty”. Later in this interview, Lilian said that she felt that many teachers were not giving of their best but “just coming to collect their cheque”. She said they arrived at the last minute before the start of the school day and left sometimes before the pupils did. She told me that at the school where she taught “it was found necessary to make a rule that teachers only leave ten minutes after the children” and continued saying, “I’m often alone (at school in the afternoons). The secretaries and everybody has already left because it’s after four when I leave simply because I can’t cope with the backlog that collected during the day on my table.”

On the other hand, showing sympathy for some of these other teachers, Lilian mentioned that several were “involved in sport two afternoons a week at least . . . from straight after school until five or six o’ clock”. Sometimes, she added, these teachers did not have time to return home between the end of their sporting responsibilities and the beginning of evening functions at the school. As a result, she felt that it was understandable that they “rush(ed) off the other two afternoons”.

Lilian spoke of the “wrong picture” the “general public” have of teachers’ working hours. She compared herself to an office worker who could “close the door at half past four, five o’ clock” and go home to be “free” and only start work the following morning “at half past eight or nine o’ clock in a lawyer’s office”. She, on the other hand, arrived at school “at the latest ten past seven”.

I asked Lilian for her solutions to some of her current difficulties - particularly those relating to her workload. Her response included references to “more teachers” which

meant either a larger education budget from the state or “parents being a little bit more generous which is often done in boys’ schools”. Additional teachers, she believed, would provide for “quality teaching and smaller classes”. In addition, she explained they would be able to “work with tutorial groups” which would “definitely take the load off us”. When I asked Lilian how one could get parents to be more involved in education and schooling provision, she said that she thought that in boys’ schools fathers were “tremendously involved” but that mothers were not equally involved in girls’ schools because “they either work or their time is occupied with their sons at other schools”. Lilian highlighted parents’ lack of interest by mentioning that only two pupils’ parents out of a class of twenty-nine pupils had attended the last Parents’ Evening for a particular standard. She added that it was usually the parents of children who were “consistently absent and consistently fail” who did not come to Parents’ Evenings.

This interview concluded my work with Lilian. I was left feeling quite overwhelmed myself. I wondered about the negative effects of Lilian’s workload on both her morale and health. The effects of structural constraints on teachers’ power identities is explored in greater detail in Chapter 7.

## **CONCLUSION**

Once again, the on-going difficulties and dilemmas I experienced in data collection, in the initial stages of analysis and in documenting the case have been highlighted in this chapter. While some of these were new experiences and required new decisions and solutions, others I had encountered in slightly different ways in previous cases. For example, in previous cases I had learned that my questions were vital in shaping the teachers’ responses and, therefore, the data collected. In addition, I had become aware of the possible gaps between the teachers’ realities and my interpretations of it. These lessons had been learned in relation to the data collection stage but it was in the analysis of this case that I began to assume the power of the researcher as interpreter. I learned to work with the data I had collected and to trust it to a greater extent. This power had been

struggled for throughout each of the four case studies and rested on the processes through which I had already moved and the insights and understanding gained. My realisation of the shifts in my thinking and practice formed the basis of Chapter 8 which provides a more coherent picture of my development.

This chapter has also highlighted important lessons which contributed to my developing understanding of contradiction - especially the idea of connected contradictions - in theory and in theory/practice relationships. In addition, the ironical contradictions between Lilian's apparent power as HOD in the school where she had taught for many years and her feelings of helplessness in the face of structural constraints informed many of the arguments developed in Chapter 7.

## Chapter Six

### CASE STUDY FIVE - JANET

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#### PREPARATIONS FOR CASE STUDY FIVE

##### **Selecting the teacher and gaining access to the school**

After the difficulties that I had experienced in recruiting participants for the first four cases, Janet's recruitment went relatively smoothly. It was quite by chance that I first met her and, as we chatted informally about our work and interests, she mentioned that she was a geography teacher. I had already decided that geography - incorporating aspects of both the natural and social sciences - would be a useful subject to focus on in the final case.

When I asked Janet if she would be willing to participate in the study, she expressed considerable interest but told me that she was transferring from her present school to another school just prior to the dates that I had set for this final case to begin. After some discussion and consideration, I decided that I would make the necessary allowances for this rather than pass up the opportunity of working with Janet. Both she and the principal of the school to which she moved warned me that she would still be 'finding her feet' in her new environment when I began working with her but both were keen that the study go ahead.

## **Introducing Janet and her school**

The school that Janet had transferred to was very different in terms of its socio-economic setting to Janet's former school which was the sister school - situated in the same suburb - to the one in which Marion taught. Janet's new school was located in a suburb on the other side of Durban and generally drew its pupils from a lower socio-economic grouping. In addition, Janet had told me that the principal at her new school had made it clear that she was committed to changing the school demographics in a short period of time. Evidence of this could be found in the lower standards in the school where there were increasing numbers of coloured children as well as some black pupils. Much of the focus of the school in which Janet had previously taught had been on academic achievement rather than on racial integration - both, however, had seen themselves as catering for the needs of their communities.

Janet's interest in her own further studies, in curriculum development and in educational research had been topics of conversation at our first informal meeting where I had become aware that working with Janet might provide me with the opportunity of including a teacher with stronger theoretical interests in this project. She had completed a Bachelor of Arts degree as well as an Honours degree in Geography. In addition to the Higher Diploma in Education, she had also completed the Bachelor of Education degree and was considering registering for a Master's degree in either Geography or in Education at the time of this study.

At that time, Janet had had nineteen years of teaching experience which included preparing standard ten pupils for the matriculation examination. Although she taught only standard six and seven pupils at her new school, she drew on her wider previous experience in discussions and interviews.

Janet had considerable extra-mural experience both within and beyond the school context. As Head of Department, she had gained experience in administration and had also served

as Standard Head which involved the pastoral care of pupils in that standard. She had also been involved in coaching sports teams both at her previous school and at her new school.

In addition, she had worked on a variety of committees related to her teaching subject. These included the Geography Subject Committee, the Syllabus Subcommittee and the In-service Course Subcommittee. She had recently been appointed as the Standard Seven External Examiner for the planned exit examination at this level. She was also currently serving on the Networking Subcommittee which she described as trying to establish points of commonality between the former separate education departments.

### **The initial interview with Janet**

The initial interview with Janet took place at my home one evening after she had been teaching at her new school for a few weeks and a week before I began to observe her lessons. During the interview I became aware that speaking to an experienced teacher but one who had recently moved into a new teaching environment had certain advantages. The effect of this move on Janet was to make the familiar unfamiliar to her and she was experiencing a heightened consciousness of the differences in her new environment as she compared it to that of her previous teaching position. While Kate, too, had made comparisons between her previous and current teaching contexts, she had not been able to draw on Janet's wealth of experience.

During the interview, and especially when she was commenting on Teacher B's approach to teaching, I was struck by Janet's honesty in admitting to what might have been perceived as her failure to implement her preferred teaching methods or those she thought she would like to use but which she had not succeeded in mastering. In trawling the transcripts before writing the final drafts of the case study chapters, I also noticed that Janet was the teacher who drew the closest connections between views on knowledge, views on learning and different approaches to classroom practice - this despite her saying that it had been only very recently that she had begun to realise differences in these areas.

These connections could be seen in her use of the phrase “in my view . . .” in some of her responses in this interview and also in her critique of Teacher A which sought to understand the perspective underlying the classroom practice described in the extract rather than merely criticise it.

## **Analysis of the initial interview with Janet**

### ***Views on knowledge***

In this interview, Janet was critical of the view that there was “only one right answer” - and that the one uncritically provided by a teacher to pupils. By way of contrast, she said that for a teacher who worked in a more pupil-centred classroom, “your truth and my truth may be very different even if I am standing in front of the class telling you ‘This is so’”. She continued by explaining that in such a situation “you bring to the classroom and the child brings to the classroom a preconception of the world” which, she felt, would influence the way in which knowledge was received and understood. Later in the interview, Janet used the term “mind pictures” to describe pupils’ preconceptions - a concept that was to prove to be central to her work. Janet drew connections between one’s mind pictures and one’s culture and language at various points in the interview.

For Janet, subject knowledge or content was “a vehicle to teach the skills” necessary for learning. Towards the end of the interview, Janet spoke of a recent networking subcommittee meeting which was “about bridging the gap between standard five and standard six” and included staff from the former separate education departments. Here, she said, it had become clear to her that there were “totally different conceptions” of the subject and what it was teachers from the former different departments were trying to achieve in their teaching. In recounting a meeting with teachers from the schools formerly administered by the House of Representatives (H.O.R.), Janet said, “They viewed the subject as utterly content-based and we (staff from the former House of Assembly schools

- H.O.A.) kept talking about skills and skills we expect children to know when they come through from five to six to seven”.

She went on to say that “it took us a good half hour” to realise the differences in the use of the term “skills”. The H.O.R. staff thought skills referred to things like “how to manipulate a compass” - something Janet said the H.O.A. staff saw as “content”. She defined an associated skill as “having a sense of direction” or of “place or space” or being able to “read a graph”. Janet felt that in the amalgamation of the former departments of education such differences would become important focal points.

### *Views on learning*

For Janet there were different kinds of learners and different ways of learning and thinking. In this interview, she distinguished between convergent and divergent thinkers and learners.

Janet thought that for a teacher to follow a more pupil-centred approach to learning as found in Teacher B’s lesson introduction, it would be necessary to “shift in emphasis in your view of learning”. She said that for such a teacher “it doesn’t really matter what the child learns as long as he is learning something” suggesting that in this approach content was of less importance than the activities and processes involved in learning.

For Janet, learning was most successful when “you start from the known and develop out to the unknown”. One of the first steps in this process, she believed, was to understand pupils’ “mind pictures”. These would be vital, she felt, as they constituted “the known” - i.e. pupil’s prior knowledge - and thus the starting point for both learning and teaching.

Janet felt that “Teacher A would probably be shocked to find that the children aren’t viewing what she has said anything like she thinks she has said it or what she intends them to view”. In this way, she distinguished between the teacher’s “input” and the “output” or

knowledge gained by the pupil which, she felt, would “be very different from what’s being fed in”.

Janet spoke of the difficulty in getting to understand pupils’ “mind pictures” saying that even when teachers attempted to understand these, a pupil’s “mind picture may still be different to what you think it actually is”. More specifically, she spoke of her concern that she did not yet have a very clear understanding of her new pupils’ mind pictures - especially those of the coloured children in her classes. She said that she had recently learned that “coloured children don’t do things white children do” in their leisure time and that she would need to learn more about the cultural influences in their lives if she were to develop a clearer understanding of their mind pictures.

### *Views on classroom practice*

Janet spoke of several influences on classroom practice. For example, in her critique of Teacher A’s lesson introduction, she said it was necessary to consider the possible purpose or objective of the lesson and that if Teacher A’s introduction was to “a matric class just before a matric examination”, it would be “perfectly acceptable”. Janet described Teacher A’s approach as “very very rigid” and “teacher-centred rather than pupil-centred”, but understood the necessity for such an approach in certain circumstances. Later in the interview, she said that she changed her methods of teaching to suit the needs of the lesson.

In drawing close connections between a teacher’s view of knowledge and her classroom practice, Janet said that a teacher who believed that there is “only one way of thinking” would be likely to work in a “teacher-orientated” classroom and would “find it very difficult to cope with a child in the class that might be a divergent thinker”.

Janet also drew links between views of knowledge and testing techniques. For example, she felt that teachers who allowed pupils to draw on their own previous experience and to construct their own knowledge bases would need to “be very creative” in setting tests.

Janet perceived Teacher B as having given her pupils “more responsibility” for their learning than had Teacher A. At the same time, she thought this teacher had provided both a structure and content for the lesson without necessarily becoming over-reliant on the syllabus. Janet described teachers who were over-reliant on the syllabus as “invariably terribly insecure”.

When asked which of the two teachers she thought she most resembled, Janet was uncertain saying, “I don’t know. I don’t resemble Teacher A but I’m not sure that I’m quite as open as Teacher B”. She went on to list several aspects of Teacher B’s lessons that she had not tried at all or had not had much success in trying. Included in this list was group work and the practice of pupils giving report-backs in class. She said that “during report-backs you lose the rest of the class” but admitted that she had not “worked on it”.

Janet said that without the constraints of examinations, time and limited finances, she would like to incorporate the following strategies into her lessons more often: “work on portfolios and research work”, “a lot more fieldwork” and “researching and presenting research findings”. In addition, she believed that in this way she would be able to develop “different kinds of skills” - different, that is, to those that were required for preparing for and writing examinations. She felt that different subjects offered opportunities for developing different kinds of skills. She thought that the study of geography - provided a skills-based approach was used in the classroom - made an important contribution to the skills involved in “thinking spatially”. Another important skill she mentioned at this time - but one not unique to the study of geography - was that of “decision-making”.

Janet commented that she often heard teachers say, “‘I don’t have time to do this’ and ‘I don’t have time to do that’”. She explained that time was a constraint on teachers’

classroom practice because “you have to get through a certain body of work” before examinations and that a research-based approach to learning was time-consuming. While she was very critical of the constraints imposed by examinations, she felt that “appraisal” was important and advocated “different forms of appraisal” including “pupil-pupil appraisal” and “self-appraisal”. When asked, Janet admitted that she had not used either of these forms of appraisal herself.

### ***Areas of classroom practice identified as requiring change***

Janet felt that she would like to be “a bit more organised”. She said that while she thought she was “fairly organised” “in terms of lesson structure”, she did get “a bit disorganised at times” - “particularly towards the end of term when there’s so much going on at once”. This disorganisation, she said, led to her getting “flustered”. In addition, she tended to rely on her “past experience or personality” rather than “actually preparing” the lesson or “thinking it through”. Despite saying this, she did not think this degree of disorganisation disadvantaged her pupils.

Janet also felt that since she had changed schools there was a lot she needed to “relearn”. In particular, she mentioned the need to give greater emphasis to the development of her pupils’ language skills. She explained that the pupils in her previous school - situated as it was in a more affluent suburb - had had relatively good language skills so that although she had recognised the importance of language in learning, developing their language skills had never been “a major issue” for her. On the other hand, she had recently discovered that many pupils at her new school often did not “understand very basic words like ‘vegetation’” and so she was having to “learn and adapt to that”.

Janet also said that these pupils’ conceptual understanding was of a far lower level than that of the pupils in her previous school. She gave the concept of monsoons as an example and explained that she had had to show her class pictures of monsoons before they were able to deal with the geographical content of lessons on monsoons. She said that “not

knowing the level they were at” made teaching difficult and she had decided “that I will assume that they know nothing”.

Janet also spoke of the “cultural gaps” between her and the coloured pupils in this school. She said that she thought she would need to learn “cultural frames of reference” and gave “pop music” as one possible “point of contact” she might utilise in the future after having recently discovered that coloured children are “very interested” in such music. As a result of the different context in which she found herself and the different backgrounds of many of these pupils, Janet said that she was finding it difficult “at this stage to perceive their mind pictures” and that this would need to be a priority in her work.

Janet seemed aware that changing one’s classroom practice, while necessary, was not easy. She said, “I’m having to change whether I want to change or whether I don’t want to change. I’m having to change.”

### ***Initial foci for observation and investigation***

When I had first met Janet, I had quickly realised that she would be an ideal candidate for this study. Both her enthusiasm for and her insight into some issues of mutual interest excited me.

This was confirmed in the initial interview when she said that she had enjoyed the task of analysing the two extracts and that she had found “looking at different teachers” and “different teaching methods” “interesting”. She explained that such analysis was “relatively new” for her and that it had been only recently that she had come to realise that her own style of teaching “was perhaps different” from other teachers’ styles. She said, “I was nurtured perhaps in a particular school under a headmistress that really let me develop in a particular way that I did and I didn’t realise that it was perhaps different from other teaching.” She then went on to explain that with a series of staff changes at the school where she had worked for several years, she had had “to step back and re-evaluate the

way in which I had done things". She went on to say that this re-evaluation had not just been limited to "different teaching styles" but had also encompassed "different views of the subject - a different view of what the subject actually is and what it means to education in general".

In the initial interview, Janet said that she thought involvement in this study would facilitate her "self-development". She admitted that she knew that she did not want to change "in some directions" but thought it likely - especially in her new school context - that she would need to "compromise to a certain extent".

In addition, she believed that the study was itself very important "because of where we are at this particular point in our whole history of teaching in South Africa and where we are going to".

All of the above factors led me to believe that Janet would be an extremely valuable teacher to include in the study in that she appeared to understand and be interested in its major concerns. I hoped that during the weeks I worked with her I would be able to ascertain the extent to which her theoretical understanding was reflected in her own work in the classroom.

I also hoped to focus on the following aspects of Janet's work: the extent to which and the ways in which she came to understand her pupils' "mind-pictures" and then worked from the them - the known - to new knowledge - the unknown; the extent to which she adapted her teaching in order to accommodate her new pupils' abilities and interests, and the extent to which she attempted to incorporate aspects of practice she valued (for example, group work and pupil appraisal) but which she felt that she had not yet successfully used in her classroom practice.

## WEEK 1

### Fieldwork - following established patterns

In terms of fieldwork, this final case study did not provide any surprises and I followed the procedures that I had by then mastered and refined. I was even able to write a conference paper - *Preparing the Mainstream Teacher to Meet Special Educational Needs : H.D.E. at Technikon Natal* - during the three weeks of observation and to fly to Cape Town to present it in a plenary session of the 20th Annual SAALED (South African Association for Learning and Educational Disabilities) Conference - Specialised Education : Strengthening the Mainstream. While I still did not proceed too far into analysis at this stage, I was sufficiently aware of the differences between the five teachers I had included in the study to feel that I had considerable material to work with once I gave this my full attention

In the first week of this case study I observed three of Janet's lessons. The first, with standard 6 C, dealt with day/night lines, the second, with standard 7 D, with natural disasters, and the third, with standard 7 B, with rainfall in monsoon areas. I did not interview Janet about these lessons until the following week but I gave her two of the three lesson descriptions before the end of Week 1 and she had had the opportunity to read all three lesson descriptions before we discussed these in the interview in Week 2.

Janet's response to the first two lesson descriptions was interesting. I had given these to her at the beginning of the third lesson and as soon as she had the opportunity, she sat at her desk and began to read these quickly becoming thoroughly absorbed. After this lesson, as we walked together to the foyer we met the school principal who asked us how the study was progressing. Janet commented that I had just given her my descriptions of the first two lessons I had observed and that she thought her lessons had appeared "chaotic". I explained that I had tried to capture as many details as possible and that the beginnings of many lessons were busy with many different actions taking place simultaneously. At this point, Janet still appeared to be a little shocked by all the activity recorded in these

descriptions but, by the end of the study, she no longer found this aspect of lesson descriptions so surprising.

During this first week, I confirmed my idea that Janet's recently changed working environment at the time of the study would be particularly useful in throwing into sharp relief the influences of this school and its pupils on her teaching practice. At several points when discussing her reasons for her classroom practice, Janet compared her present teaching context with her previous one. At other times, she pondered on possible causes for the differences in the pupils and their behaviour.

## **Theory/practice relationships**

### ***Connections between classroom practice and views expressed***

#### ***Control and discipline***

From the first lesson I attended, I noticed that pupils lined up outside Janet's classroom prior to being invited to enter. Janet explained to me that this was a school rule and I noticed that teachers locked classrooms during breaks so pupils had no choice but to wait outside until the teachers arrived with the keys. Janet explained that this was a security measure. The entry and greeting procedure was much the same for the subsequent lessons. Pupils waited at their desks until Janet greeted them and introduced me after which they greeted me and then sat down. I considered that a possible reason for Janet making all pupils enter together and then waiting for silence was the wooden floors in this classroom. A considerable noise was made as pupils walked in these - especially at the beginning and end of lessons when they moved around en masse.

In providing reasons for her perception of the first lesson as "chaotic", Janet pointed to both the lesson content - an exercise "that all children do battle with" - and, with stronger emphasis, the "different work ethic" amongst the coloured pupils in the school. The notion

of “a work ethic” was central to much of Janet’s thinking about the differences between her past and present pupils. She said that “the work ethic is absolutely essential and it’s essential not only for the school but it’s also essential in life - it’s a life-skill”.

Janet believed that coloured pupils’ academic backgrounds contributed to this “different work ethic” which, in turn, influenced her classroom practice - especially her interaction with pupils. In describing these pupils’ academic backgrounds, Janet said that they were used to lessons which were “content-based” and where “the teacher stands up in the front of the lesson and teaches and then they have a test”. She said that they “don’t have a history of . . . worksheets and consolidation exercises and things like that”. She felt that they “have to be trained into that way of doing things but it’s not what I’m used to because at (her previous school) I would never have had . the kind of problems that I have got here. I would say, ‘Get on and do the exercises’. I would maybe walk around, check that they were doing it and then I could have sat down, and they would have gone on with it. And I would have gone on later to check that they had their . their axes where they should have had them etcetera etcetera um . and you would have found a number that didn’t but it wouldn’t have been . the almost bedlam that it is . in the weaker classes here.”

Janet spoke, too, of the “common problem” teachers in the school experienced with the standard six classes. She said that “they don’t bring books, they don’t do the work that they’re supposed to do, they don’t hand it in. The work ethic is just different”. She concluded that she would have to “find a way of dealing with it”.

Janet felt that her five years’ experience at a boys’ school in a lower socio-economic suburb, while “a long time ago”, had helped to prepare her for the difficulties associated with teaching at this school. She said that some of the problems at that school had been similar and that without this previous experience “I don’t think I would have been able to handle it here”. As a result of this experience, she said, teaching here had not been “a complete culture shock. I did know what I was coming into”.

Despite this earlier experience, Janet said she still needed to “find her feet” and that she was “not too sure what the answer is at this stage”. She went on to say that “even the experienced teachers that have been in the school” for a period of time were uncertain about solutions.

Despite this rather negative view of her pupils, I noted that Janet called them “Ladies” when addressing them - even when reprimanding them. In the following interview, she explained that she saw “Ladies” as “a term of respect I suppose. Hopefully they will respect that”. After I had commented that pupils in this school had greeted me in corridors less often than pupils in most other schools, Janet said that she had had “nothing but courtesy from girls here”. Respect and courtesy appeared important to Janet and formed the basis for control and discipline in her classroom. This theme is further elaborated on in the section describing classroom interaction.

Janet clearly monitored the attention pupils gave her during lessons and, where necessary, interrupted herself to refocus pupils’ attention on her and the learning process. Such interruptions were short in duration and light in tone, barely affecting the flow of the lessons. For example, at one point in the first lesson, Janet paused in her explanation to tell some girls on the opposite side of the room to “sshh”. Later, she again interrupted herself to tell a pupil at the back of the classroom to attend to what she was saying. At another point in the first lesson, she told two girls at the side of the classroom to “listen” and to “concentrate”. While giving an explanation during the second lesson, Janet walked down the aisle and indicated to a pupil in the back row to stop writing in her pad. Similar patterns of control proved to be a consistent feature and discernible in other lessons both in this and in subsequent weeks.

Even where pupils’ behaviour bordered on the more disruptive during the teaching section of her lessons, Janet chose a similar approach in her control and discipline. In an interview, she explained that one of the more disruptive pupils had “a hideous background” and “needed a lot of attention and some tender loving care”. She felt that “coming down

heavily” on this pupil was “not going to work” and that there “wasn’t any point in disciplining her as such”. She explained that in addition to her being “hyperactive”, there was “a whole history of learning um problems and . family background problems and (her file) just reads like a nightmare”. These comments indicated that Janet was aware of ‘problem children’ in her classroom and was able to deal with them sensitively, despite valuing control and discipline in class. They also connected with the value she placed on respect and courtesy.

There seemed no particular pattern to the way in which Janet controlled pupils’ responses to her questions. Sometimes pupils raised their hands and, at other times, they just called out their answers. At one point in the first lesson; after several pupils had called out responses, Janet said, “Don’t shout at me” but she did not ask them to raise their hands or to take turns when providing answers. The lack of pattern in this regard gave a more informal feel to the questioning process in her lessons.

In an interview, Janet said that she had thought about the issue of pupils’ raising their hands or not when responding to her questions in class and that it was “a pattern that I’ve evolved at (her previous school) and tend to continue here. One of the problems with putting up hands is the lack of spontaneity, and the other problem with naming (specific individual) children is that they then sit back and don’t think until they’re asked”.

Janet also thought that stopping to call on an individual pupil “who obviously hasn’t got the answer and couldn’t be bothered anyway” would interrupt the pace and the “flow” of the lesson. She also felt that it would also contribute to pupils’ losing “interest” in the topic.

Prior to settling pupils to answer worksheets and/or questions provided in the second part of lessons, Janet ensured that they fully understood the requirements of the work. For example, before pupils began to work on the worksheet she had provided in the first lesson, she told them to listen to the instructions she was about to give. In giving these

instructions, she also reminded them that the earth was “three dimensional” and asked them to provide a definition of this term. She also contrasted the earth’s three dimensional character with a photograph of the earth.

Prior to pupils beginning the worksheet in the second lesson, Janet drew their attention to several features of it. Before doing so, she told the girls to “put everything down and look at me”. Then she told them to “listen carefully” to what she was about to tell them about the instructions. Janet then went on to clarify these instructions and to provide examples of possible responses to one of the questions before telling pupils to write their answers in the backs of their books.

While pupils were working on these worksheets, Janet monitored them by walking around the classroom and checking on their progress. When she noticed that four pupils were taking a very long time to get started on the worksheet in the first lesson, she reprimanded them and said that she did not want them in her class if they were not going to work. She also mentioned that she would have them sent to “room 13”.

In the subsequent interview, Janet explained that room 13 was “a hideous empty room” where “there’s nothing to do”. She also said that in a recent management meeting it had been decided that “if it is reasonable to exclude a pupil from a class then you may”. She went on to say that if a pupil were to disrupt her and the class, it would be considered reasonable to exclude the pupil as “a temporary measure”. She felt that such exclusion would help her to “assert” herself.

Towards the end of the third lesson, Janet asked a pupil why she was not working. The pupil indicated that she had finished her work but, after having checked her book, Janet said that she had not completed the work and, using a louder voice, went on to say that it was “not on” for a pupil not to try even if she was having difficulties in answering the questions. All pupils - some of whom had been talking quietly amongst themselves - fell silent. Janet repeated that the pupil “should ask” if she could not answer the questions and

pointed out that others had done so. This interchange was connected to much of what Janet said about the lack of a work ethic in this school.

At times, as she moved around the classroom, Janet complimented some pupils on their work. In an interview, she explained that pupils “actually love” getting stamps for good work in their books - “right up to matric” - and that it was “like a carrot in front of them”.

Towards the end of the third lesson, while Janet was reading the lesson description I had given her at the beginning of the lesson and the pupils had almost all completed the work set, she made little attempt to control the increasing noise levels. At one point she said, “Ladies, quietly if you’ve finished” but this had little effect and she did not seem unduly concerned.

When I asked Janet whether she had noticed any difference in pupils’ behaviour in those classes I had observed this week, she said, “No, there’s no difference at all.”

### *Structure*

By the end of the first week of this case, I recognised Janet’s interest in providing for a structured learning environment for her pupils. This interest in structure was apparent in the lesson structure itself as well as the instructions Janet gave to her pupils.

During the first part of her lessons, Janet set a relatively fast pace and pupils’ attention was focused largely on her as they responded to the questions she posed, often in connection with representations of some sort. In the second part of lessons, pupils set the pace as they engaged in consolidation and/or development exercises. In the interview this week, Janet agreed that this was an accurate description of a general trend in her classes; however, in my last interview with her, she was less happy with this description as a definitive one. Further details of this change in view are provided later in the chapter.

In both the second and third lessons, Janet provided the class with an overview of the plan of the lesson and its activities in her introduction. She even mentioned aspects of the subsequent lesson at this point in the third lesson. She began the second lesson by reminding the class of their last lesson, a strategy that helped situate and contextualise the knowledge being learned. Janet's concern with structure was also evident in her instructions which were themselves carefully structured and clarified.

Janet told me that she found the standard six and seven work "bitty" at this school - "they do a bit here and then a bit there" - whereas she liked "to work with a flow so I know where I'm going in the end". This comment was indicative of the value she placed on structure and organisation and I recalled that she had said that she wished she were more organised in the initial interview.

Interestingly, although I was aware of the similarities between many of the above-mentioned aspects of Janet's classroom practice and that of Kate's when writing up the final draft of this case, I had been less aware of these at the time of observation. A possible reason for this was that Janet's interest in providing structure for her pupils was balanced by the individual experiences she encouraged pupils to draw on in answering questions. One of the dangers of teasing apart aspects of classroom practice as I have done in each of the case studies is overlooking the way in which these different aspects of teaching are mixed and blended by individual teachers. In order to understand the important differences between Janet and Kate, it is necessary to understand their concern with structure in relation to other aspects of their classroom practice. For example, the descriptions provided in this sub-section need to be read in association with the later section relating to Janet's use of pupils' experiences in class.

### *The use of questions*

From the first lesson I observed, I noticed that - as with each of the other teachers - questions were central to Janet's classroom practice. In the first ten minutes of the first

lesson she had used a variety of questions which I classified as falling into two broad categories. The first was essentially for revision purposes and drew on pupils' prior knowledge - often that gained in previous lessons. The other type of question was that which encouraged pupils to notice things or to recall things that they may have noticed in life experiences previously and then to draw connections between these. In the following interview, Janet agreed with this categorisation and description of her questions.

Janet's recall questions frequently began with "Who can remember . . . ?" and checked pupils' previous knowledge. In this way, she moved from the known to the unknown as she had suggested was her practice in the initial interview. Recall questions sometimes served to integrate pupils' knowledge of previously studied information with that currently under study. One of the most interesting questions in this category was the one that asked pupils what would happen if the earth's axis did not tilt as it did. This question required pupils to recall information about the effect of the axis and then, effectively, to reverse this information.

Questions that drew on pupils' knowledge from previous lessons were central in the third lesson. Janet then tried to integrate this previously-held information with the skills involved in reading graphs and maps.

I also included in this category those questions which demanded that pupils recall terminology used in a previous lesson and which checked pupils' understanding of this terminology by asking for explanations. Further comments on terminology can be found in the section entitled Terminology.

The second category of questions had as their objective training pupils to develop their thinking skills. Many of these questions were prefaced with "Why . . . ?" as Janet helped pupils towards an understanding of their observations. A more theoretical explanation of this kind of question is provided in the section dealing with common sense and geographical or connected knowledge.

At one point in the second lesson, Janet caught herself asking a series of questions, stopped and said, "Let's ask one question at a time." In the subsequent interview, she said that she knew that she often asked "a question which actually has three parts" and that "only when it comes out do I actually realise that this is actually too much for these kids" and that she needed to break the complex question into simpler ones. In the third lesson, I was struck by the pace of Janet's questions. As usual, I judged pace by the ease or difficulty with which I was able to write details in my fieldnotes.

Although classroom interaction is dealt with in greater detail under that heading, it should be noted that, frequently, when the first pupil to answer a question did not provide a satisfactory response, Janet continued to pose the question to other pupils in the class rather than answering it herself or continuing to prompt the individual pupil. At times, where pupils provided an inadequate response, she asked for additional information to that given in the initial response, sometimes prompting pupils and, at other times, providing additional responses herself. When pupils found difficulty in providing any response at all, Janet rephrased the question and sometimes provided a clue to the answer.

### ***Skills and thinking***

Skills and thinking appeared to be closely interconnected in much of Janet's thinking and her classroom practice. While the term "skills" did not often feature in her classroom discourse, it did feature during interviews as she explained her classroom practice to me. In addition, the term "think" often featured in her exhortations to her pupils as they attempted to develop certain skills. For example, in the first lesson, when pupils appeared unable to answer a question, Janet told them, "You do know - you just need to think". Later in this lesson, I heard her say the same thing to an individual pupil she was helping. Similar comments were made in other lessons.

In observing Janet's classroom practice, it became clear to me that in helping pupils to "think", it was necessary that they master certain skills. For example, she encouraged pupil thinking through asking them to observe carefully. In the first lesson, she asked pupils what they noticed about the axes in all four drawings on the overhead projector.

Developing pupils' skills associated with reading pictorial text and representations or illustrations of reality were central to many of Janet's lessons as well as a basis for developing other skills. Some of her questions in this regard appeared simple. For example, she asked pupils to locate the tornado in a picture displayed on the overhead projector and, after projecting another picture on an overhead transparency, she asked the class whether this was "near the sea or inland" and, once they had answered, she asked them to explain their thinking.

In addition to the skill of careful observation that of comparison was used by Janet in developing pupils' thinking skills. For example, in studying the graph on display pupils were required to work out the "relationship" between rainfall and temperature.

The skills involved in reading graphs and maps were particularly highlighted in the third lesson I observed this week. At one point Janet directed pupils' attention to the key on the maps being studied, offered a brief explanation and then asked pupils to "look at Bangladesh" and "tell" her "about the average rainfall". Janet's further questions demanded that pupils link information about rainfall in this area of the country to the presence of mountains further north.

In the following interview Janet said that a teacher's "view of what you're trying to do in the classroom" informed what and how she taught. She said, "Are you trying to teach them content or are you trying to teach them skills? If you're trying to teach them skills then the content becomes a vehicle to teach those particular skills and the emphasis at this school appears to be now in (standards) six and seven developing skills because none of these children have had the skills and if they're going to be successful in (standards) eight,

nine and ten it doesn't really matter what content they learn in six and seven." Although referring specifically to the school in which she taught, Janet's comment here highlighted her own interest in skills development and connected to her previous comments made in the initial interview.

Janet also thought that "the emphasis of my skills has to change here from (her previous school)". For example, she realised that there was a greater need in this school for a focus on language skills. In commenting on a worksheet given to the class in the second lesson I observed this week, Janet said that although it had not been designed by her, it was "a nice little exercise" which got pupils to "use a little bit of language which is a skill, to draw a picture then which is another skill".

### *Illustrations and representations of reality*

Janet's view of geography, her view of the pupils she taught and her reading of research all led to her attaching importance to the use of illustrations and representations of reality in her classroom practice.

In describing her view of geography she said, "Geography is a very very visual subject and so I have to constantly think if . are my words creating the picture for the children that I want them to create or am I creating something totally alien." In addition, she explained that she was "trying to put myself in the mind of these children and trying to create for myself their mind pictures, um . which are often very different from . from mine and and trying to correct them if you like, perhaps by by showing a picture".

Janet used much more than "pictures" in helping her pupils to develop mind pictures. For example, in the first lesson, she helped pupils to visualise the earth's shape by asking one of the girls to go to the front of the class and spin around. She then used the movement of this girl's blazer to explain the shape of the earth. In addition to movement, Janet made use of gesture to illustrate meaning. For example, in the second lesson, she used gesture to

help develop a mind picture of the movement seen in the swells at sea during earthquakes and, in the third lesson, she again made use of gesture when describing the movement of air from the sea over the land.

At one point in the first lesson, Janet used the light from the overhead projector together with her fist to demonstrate day and night - "shadow behind my fist" - repeating a similar demonstration twice more when she observed that pupils were making errors in their worksheets. The first time she moved a globe around the light of the overhead projector and the second time she used her own head to represent the earth as she moved around the overhead projector.

In the interview, Janet explained that she enabled pupils to gain greater understanding by using "transparencies a lot - pictures from books and things like that". In the second lesson alone, Janet used pictures of a thunderstorm, a tornado, a cyclone, an earthquake, oil spills and, finally, a transparency that illustrated the effects of global warming. She also referred pupils to books where they would be able to find other pictures which they could "look up if you're interested".

In the following interview, Janet mentioned that the resources in this school were more limited than those in her previous school and that she needed to build up overhead transparencies of illustrations and representations of reality which she could use in lessons.

Diagrams and maps were two of the most frequently used forms of illustration and representation. For example, Janet drew the outline of a cumulus nimbus cloud on the chalkboard when pupils were finding it difficult to give her a description of this phenomenon.

Much of the third lesson centred around the reading of a graph and relating some of the information gained by doing so to a map of India. When first looking at the map, Janet asked pupils to identify certain features on it - probably in an effort to orientate them. She

also suggested that pupils colour in the sea on their maps so that they would be able to distinguish the coastline more easily - a strategy that I recalled Lilian using in her lessons, too.

I began to understand that Janet's classroom practice was partly informed by her reading of research findings when she told me in an interview that "research has shown that . . . seventy percent of children in standard six don't perceive three-dimensionally". Her use of illustration and representation was also linked to her view of her pupils which was inherent in her comment made in the following interview when she said that the "concrete is very important because many of these children won't move beyond the stage of concrete operations". Coherent connections between Janet's theory and practice are illustrated in each of these examples.

Janet also used verbal illustrations such as similes and metaphors to help her pupils create vivid mind pictures. For example, she likened the earth's movement during an earthquake to a "whip" seen at a circus. Geographical terminology itself 'concretised' some abstract notions, for example the North and South "Poles".

While the advantages of using both verbal and non-verbal illustrations and representation are clear, the difficulties associated with their use were not immediately as obvious to either Janet or myself; nevertheless, I noticed certain incidents which began to highlight these. For example, Janet needed to tell the class in the first lesson, "You can't see the pole because there's not really one there" - suggesting the more abstract nature of geographical terminology, knowledge and understanding. In the second lesson, she needed to explain the perspective of a picture that featured in the worksheet she had given to pupils. It appeared that while geography might lend itself to visual representation, pupils' perceptions of these were not straightforward. I was reminded of the difficulty that Kate's pupils had experienced with similar aspects of their work.

In the third lesson I overheard the two pupils in front of me (who appeared to argue good-naturedly about their work a lot of the time) discuss whether a line on their maps was a river or not which suggested that maps as representations of reality were not necessarily that easy to follow either.

When questioned about this in the interview in Week 2, Janet seemed more confident than I that children were able to make connections between reality and representations of reality. She felt that while children in this particular school might experience some difficulties with this aspect of their work, for the pupils in her previous school, reading representations of reality had been “an automatic thing”. In explaining why she thought so she said, “When children are little - pre-school - they are exposed to books and they are shown a diagram of a cow and so they learn to make a connection between a a dog and a picture of a dog or a cow and a picture of a cow or whatever . . . I mean some of these picture books are really very diagrammatic. You know they don’t really look anything like real reality but they have symbols that indicate that this is a cow. It has udders and it has horns and it’s brown and white so therefore . it’s a cow. Um so I think that . children who have been exposed to that kind of thing find it easier to make that connection in geography and we do a lot of that sort of thing - a lot of diagrammatic work, a lot of photograph work and I anticipate that there probably will be more problems with the interpretation of that amongst these children than what we’ve had at (her previous school).”

During an interview, I suggested to Janet that not only was she trying to “match” representations with aspects of reality but that she was also trying to match representations with aspects of reality and with pupils’ thinking. She agreed with this interpretation, saying that “it’s definitely a triangular thing”.

The gaps between pupils’ mind pictures, teachers’ mind pictures, representations of reality and reality itself, Janet said, while not unique to the study of geography, could be addressed by geography teachers in particular. Janet said that she believed that geography

had a vital role to play here in that it used so much in the way of pictorial and graphic representation. She said that “much of knowledge is represented graphically now rather than verbally. You pick up a *Time* magazine and there’s an article on ecology of South Africa and there’ll be written words and there’ll be graphs and the graphs will tell you something far quicker than having to sit down and read the article”. Janet also said, “A photograph of Johannesburg can tell you far more than a whole written article in the newspaper so I think that that is something that that is a role that geography can play in educating children.” Janet summed up these views in an interview by saying that “one of the contributions that geography has to make . . . is in graphicacy”.

While the close connections between Janet’s thinking about the value of learning through representations and her classroom practice is clear in the above description, the contradiction between elements of her thinking and between her thinking and her classroom practice became clearer to me as the study progressed.

### *Terminology*

Many of Janet’s questions in class related to terminology. For example, in the first lesson, she asked pupils the “meaning of geod” and, in the second lesson, she ensured that pupils understood the terminology she used in her descriptions and explanations - for example, “velocity”, “high earthquake risk” as well as words that were not as closely related to geography such as “disaster”.

Janet also encouraged pupils to use the correct terms in their explanations and descriptions. For example, in the first lesson, she asked the class to provide the correct term for the earth’s “waist”. She, herself, sometimes made use of non-geographical terminology in her own descriptions and explanations. For example, in the first lesson, she said that the earth did not get “speedwobbles” when it moved because of the tilt of the axis. I was struck by the links between language and mind-pictures in this explanation.

Janet also made use of synonyms in her explanations. For example, she told pupils that “cyclone” was used more frequently than “hurricane” in South Africa.

In the third lesson, before explaining how to read a map using isohyets, Janet reminded the class that they had studied “isohyets” previously and then reminded them of the definition of this word. Other terms dealt with in the third lesson included “paddy fields”, “sewing” and “subsistence”.

While helping pupils with their worksheets in the third lesson, Janet explained to a pupil how she should “say the answer” and then provided the phrase “south along the coast” as a possible description.

### *Classroom interaction*

Classroom interactions were largely structured by the two-part structure of Janet’s lessons - oral teacher-initiated questions to pupils in the first section of the lesson and pupils’ work on written exercises in the second.

Once again, Janet’s encouraging invitations to pupils to answer her questions connected with the value she placed on respect and infused the classroom with a less formal atmosphere than teacher-initiated questions might have done. Her respect for her pupils was evident in both the tone and structure of her questions although she was as yet unable to identify all pupils by name. She explained that “although I’m not naming names, I still respect that particular child as an individual and what they have to offer in the classroom”. An example of an encouraging question was “Would you like to try the answer?”. She did not always praise pupils’ responses but once or twice she said, “Good, that’s excellent.” More often, Janet said “Yes” as she listened to pupils’ responses.

Janet encouraged the expansion and development of pupils' initial responses by providing them with either some examples of or clues to answers and, in the third lesson, when a pupil's response to a question was incorrect, Janet pointed to aspects of the graph under study and asked further questions to help the pupil recognise and correct her own error.

Unprompted by me, Janet explained in an interview that she often moved towards pupils when they were speaking to her in class - either asking or answering questions - because she found it difficult to follow what they were saying. Initially she said that their "accents are poor" but then corrected herself by saying that that was a "qualitative statement"; she went on to say that pupils' accents were unfamiliar to her and that their "diction is poor" in that they tended to "mumble". In moving towards them, she hoped to "pick up what they're saying". She said that there were times when she still did not hear them but that "it isn't always worth labouring it". She added that she had "had cases where I've had to get the child to repeat it three times and eventually somebody had to interpret for me". She was worried that this sort of interaction embarrassed pupils and she hoped that her ear would become "more attuned to them".

In the second lesson, there were many more pupil-initiated questions than in the first and third lessons of this week - in fact, more than I had observed in any other class throughout the study. It was clear that pupils were very interested in disasters and that this interest fuelled their active participation in the lesson.

Where Janet did not have the information necessary to answer pupils questions, she admitted to this and then provided possible answers, substantiating her thinking.

The pupil-initiated questions in the first and third lessons differed from those in the second lesson about disasters. In these lessons, most questions required Janet's help as pupils were responding to the worksheet. Janet used these questions to either repeat earlier explanations or to provide additional explanations usually to individual pupils.

While Janet always responded to these requests for help, she did not always provide pupils with the answers, rather encouraging them to work them out themselves. For example, I overheard her tell a pupil, “Look at it on your graph. That’s what your graph’s for, dear.” After helping another pupil with her query by asking a series of questions, Janet concluded the interaction by saying, “Well done. Not so hard was it?”

In the third lesson, it appeared that one pupil had been absent and so had missed a section of work. Janet invited the class to respond to a series of questions that she asked, encouraging greater peer interaction and making use of this pupil’s questions to revise other pupils’ recently acquired knowledge.

Similarly, when another pupil asked what Janet described as “a good question” in this lesson, she threw the question over to the class for response again encouraging greater peer interaction than seen in either of the first two lessons. Such interaction was further facilitated in this lesson when Janet made use of peer-evaluation by asking pupils if they agreed with another pupil’s response to a question.

As she moved around the class while pupils completed the worksheet, Janet occasionally said “Well done” to individual pupils and, at one stage, put a stamp in a pupil’s book for her good work. Other pupils asked to see this confirming Janet’s belief that such rewards were highly motivational for pupils.

During the first lesson, while helping one of the girls in the front of the classroom, Janet showed some frustration by groaning through a clenched jaw.

While they responded to worksheets, pupils chatted to each other, most conversations appearing to be work-related.

In the third lesson, Janet gave the class a choice as to whether they wanted to answer the worksheet in their books or on paper.

Only very occasionally did Janet sit at her desk while pupils worked on worksheets or written exercises. When she did, pupils then went up to her at the desk when they had queries. I noticed that in the third lesson, Janet sat at her desk and began to read the lesson descriptions on the previous two lessons which I had handed to her before the beginning of this lesson. Once she became engrossed in these, it became more difficult for pupils to gain her attention.

Janet's was sensitive to her pupils' possible embarrassment in having their errors pointed out. In the first lesson, after she had had several queries from pupils during the second part of the lesson and had corrected several errors individually, she called the whole class to attention telling them that many of them were doing what she had told them not to do. She also said that she had known that they were going to have "this problem" but that it was important that they did the exercise themselves so that they had the opportunity to become aware of their mistakes.

Another example that highlighted Janet's attitude to errors was found in the comment she made to a pupil after she noticed an error in her work. Janet pointed it out and said that it did not matter and that she could rub it out. Later in this lesson, she suggested that pupils write in pencil if they were not sure of the answers.

Janet adopted a similar approach in dealing with work she considered more difficult. For example, at the beginning of the third lesson, Janet told the class that they might find the worksheet they would need to work on later in the lesson "difficult" but that the information she would provide would help them to deal with it. In this way, she suggested that difficulties were not insurmountable.

Janet's sensitivity to her pupils was also evident in her response to a pupil who had raised her hand to ask a question but then lowered it again when Janet appeared to ignore her. At a later stage in the lesson, Janet apologised to a pupil and asked her to ask her question.

On the other hand, I was surprised to note what appeared to be a lack of sensitivity in her response to the pupil who went up to Janet at her desk saying that she was sick. As Janet wrote the required sick note, she commented, “You’re always sick. What’s wrong with you?”

### *Pupils’ experiences*

Janet incorporated pupils’ own experiences into her questions and then linked these and their explanations to geographical explanations. For example, in the first lesson she asked pupils what the day/night line was in Durban and then followed their responses with the question “What’s happening to the sun?” Later in this lesson, she asked pupils how many had been fishing with their dads and then went on to ask what they had observed about the position of the sunrise.

In the second lesson, Janet linked some of the geographical concepts about thunder and lightning to pupils’ own experiences and to their common sense knowledge gained in daily experiences and learning in more informal situations. She asked them why they should not stand under a tree in thunderstorms, where they could position themselves to be safer and why this position might be safer. In addition, she asked who was afraid of thunderstorms.

Later in this lesson, Janet asked the class if any of them had experienced swells at sea and also described her own experiences in this regard. Then, when describing the possible future effects of the destruction of the ozone layer by the year 2020, Janet also described the kinds of clothing it might then be necessary to wear. She also asked the pupils to work out how old they would be in 2020, a question that stimulated lively discussion amongst the girls.

One of the questions on the worksheet that Janet gave the class in the second lesson required that they describe a “dramatic event” that had happened in their street. Janet then described such an event that had recently occurred where she lived.

In the third lesson, Janet compared the amount of rainfall in the monsoon areas shown on the graph with the amount of rainfall in Durban and in Kimberley. Later in this lesson, she drew on pupils' experiences of warm beach sand.

Similarly, Janet referred to various past events as well as topics of current interest. For example, in the second lesson, Janet reminded pupils of Cyclone Demoina which had damaged areas in KwaZulu-Natal some years before. During this lesson, in response to a pupil's question, Janet provided information about the number and frequency of satellites over South Africa and the United States. She mentioned, too, that it was possible to link up personal computers at home to these satellites.

In responding to a pupil's question about how hurricanes were named, Janet made reference to the "feminist movement in the United States" and explained the impact of this on the names subsequently given to hurricanes.

I noticed that in addition to various pictures and information relating specifically to geography, there was a copy of the new South African map (with pictures of the provincial premiers) displayed at the back of the classroom. I also noticed an article on AIDS which reminded me that Janet had mentioned that she had used the hand-shaking method of demonstrating how quickly AIDS spreads after which a pupil had asked her if you could catch AIDS by shaking hands.

In an interview, Janet told me that she thought pupils' experiences "can be a starting point for or should be a starting point for their . um . for for the correct content". It seemed that she equated these experiences with common sense knowledge - a concept which is more fully developed in the section dealing with contradictions at the end of Week 1.

### *Teachers' autonomy and power versus the syllabus*

In discussing her classroom practice during Week 1 in the following interview, Janet said that she thought that individual teachers did have choices in how to “tackle” aspects of the syllabus but admitted that “a lot of my colleagues won’t agree with me”. Janet herself appeared to manipulate the contents of the syllabus and even omit sections without any undue concern.

In response to my question, she explained that a major influence on her development as a teacher had been her involvement in “syllabus committees” and in “curriculum development and so on”. She said that this had “changed my whole view of of . of my teaching”. She went on to say that she did not think that she had ever been “a conventional geography teacher” which was possibly why she “went into curriculum development in the first place”. She defined conventional teachers as being quite content to merely follow what is set out in the syllabus.

Janet included the following as reasons for teachers not getting involved in curriculum development: “intellectual limitations to a certain extent”, “getting bogged down in the time limits, the time constraints”, “time management”, “priorities” and - especially in the case of men - their involvement in sport. Janet admitted that teaching geography did not require as much marking or preparation as subjects such as the languages or in history, a comment which suggested that she had had more time to devote to these extra-mural activities.

Janet’s more optimistic view concerning a teacher’s capacity for both manipulating the existing syllabus in the classroom and for influencing the construction of a future syllabus was evident in her discourse in both the second and the final interviews. It is likely that her own involvement in syllabus committees had empowered her and changed her view of the contributions teachers could make in this respect. In an interview, she said that at that time

“teachers do have a voice in changing syllabi” and that “workshops that involve this level” were essential.

As with the other teachers involved in the study, Janet acknowledged the “time limit” of lessons and the constraints these imposed on allowing lessons to go off “at a tangent”. She believed that such time limits constrained her when faced with the possibility of pupils’ alternative and unexpected responses to her questions. Generally, however, time constraints featured less often and less emphatically in Janet’s discourse than in that of the other teachers in this study.

### ***Contradictions in theory/practice relationships***

#### ***Geographical knowledge versus the common sense knowledge of pupils’ experiences***

The contradictions in Janet’s view of knowledge arose from her belief that, on the one hand, geographical knowledge, a “human science”, was based on common sense knowledge which she described as innate and as having been learned informally through lived experiences and, on the other hand, her view of geography as “abstract” knowledge which needed to be “connected” to common sense knowledge.

In the interview on the lessons observed during Week 1, Janet said that “geography tends to be . a lot of common sense knowledge” and went on to say, “I feel quite strongly, especially in geography perhaps, that the knowledge is inside every child. They haven’t made the connections . and . they have to be helped perhaps in some cases to make those connections and they also have to be trained to use their brains to make the connections.”

I thought it likely that Janet’s view of common sense knowledge was closely connected to her view of geography as a “human science”. In response to a comment I had made on the worksheet on disasters, Janet said, “I think that geography is very definitely a human-based science now”. She explained that even in dealing with the seasons, there was a lot of

emphasis on “the human aspects of it”. For example, she explained that asked the following questions in lessons dealing with this topic: “What do you like about summer?” “Are you looking forward to summer?” “What do you eat during summer?”

While believing that geography tended to be “common sense” and “human-based”, Janet also admitted to the “abstract” nature of geography. Certainly I had become aware of some of the abstract nature of certain concepts associated with geography - including space and shape - in the first lesson I observed. Janet believed it was important to concretise these abstract concepts. For example, she explained to me that prior to teaching the day/night line, she usually gave pupils a list of instructions which required that they draw “a circle diameter five centimetres, draw a perpendicular line directly through the centre of the circle, right take your protractor, put it along that perpendicular line, measure twenty three and a half degrees from the top”. After this, they “spend a lesson talking about seasons, just what they are like, what do they like about summer, what don’t they like about summer, what are the days like in summer, what do they do in summer”.

Despite this kind of preparation, Janet said that pupils “still battle” with abstractions. She thought that “perhaps the perceptual development isn’t ready for that as yet”. Janet was uncertain whether teaching certain concepts ought to be delayed until pupils were better able to deal with them but she also felt that if these concepts were introduced not as “theoretical knowledge” but as “particular skills - perceptual ability, manipulation” it would be of benefit to pupils even if they were not ready to deal with abstractions. This statement clearly connected with her preference for skills rather than content and it was possible that she partly resolved the contradictions in her thinking about geographical knowledge by focusing on skills in her teaching and testing.

Another aspect to the contradictions in Janet’s view of knowledge emerged as I began to analyse her classroom discourse and to compare this to her view of geography and the way in which she taught from pupils’ experiences. I began to notice that geographical knowledge and discourse sometimes contradicted more common sense understandings and

explanations of the world. For instance common sense knowledge and everyday discourse includes “The sun rises” and “The sun sets” rather than the geographically correct and more abstract “The earth revolves around the sun” when referring to day and night.

An example of such a contradiction was used by Janet, herself, in the first lesson when dealing with the seasons. She initially said “The sun is coming towards us” and then changed the construction to “The earth will change position”. In another description and explanation in this lesson, Janet used the words “appear to move” once again suggesting the difference between geographical knowledge and common sense knowledge, between real knowledge and the illusions found in the everyday world.

Differences between geographical knowledge and everyday explanation underlay Janet’s words in the second lesson when she spoke of the lack of truth in the idea that the earth “swallows” you up during an earthquake.

Associated with the contradictions between geographical knowledge and everyday or common sense knowledge was the difficulty pupils experienced in converting their theoretical knowledge into practice. For example, a pupil’s question suggested that even with her theoretical understanding of the term “waterspout”, she found it difficult to identify this feature in a picture. Once again, I was reminded of the difficulties experienced by Kate’s pupils.

Such contradictions suggested that beginning the development of geographical knowledge with pupils experience and common sense knowledge may be problematic in that the contradictions between this type of knowledge and formal geographical knowledge could make it difficult for pupils to connect the two - a fundamental principle of Janet’s practice.

Despite these examples of contradictions having been described in the fieldnotes and discussed in the subsequent interview, Janet said that such contradictions did not happen very often and that, even where they did, pupils’ experiences and their common sense

knowledge were still starting points for developing knowledge and skills. I suspected that Janet either did not follow some aspects of my argument - possibly because I was not articulating it very clearly - or that she disagreed with my stance because her responses changed from “Yes” to “Mmnn” at this point of the interview.

Janet appeared to be satisfied with the way in which she resolved the contradictions between innate knowledge or that gained from everyday experience in an informal way and more formally articulated, established and connected geographical knowledge.

### **Janet’s development - thinking aloud in exploring practice**

In monitoring the effects of the study on Janet’s thinking and her work as a teacher, I was particularly aware of the way in which my written lesson descriptions acted as a mirror for her providing a reflection - albeit an interpreted one - of her classroom practice. During this case, it was the process of reflection rather than the developments or shifts in Janet’s thinking and/or practice that caught my attention.

Janet’s comment on the “chaotic” nature of her first lesson revealed that lesson descriptions sometimes reflect unexpected pictures. In turn, her comment had surprised me because I had not seen this lesson in this light myself.

Janet was also surprised that I had made comments about the fast pace of her lessons. She said, “I was a bit surprised that you found the pace of my lessons quite fast” and went on to say that she felt that she accomplished very little in lessons - “It’s just another little step and then another little step so I felt the pace is quite slow” adding “I don’t get anywhere”.

In discussing this view, I explained that although she might not be making much progress in terms of the syllabus, I thought she used “a variety of different skills all almost together” so that sometimes there “were very rich moments” in her lessons. Janet

responded by saying, “I hear what you’re saying” and said that perhaps her own brain worked very fast.

In exploring my description of the limited praise she gave to her pupils, Janet suggested that this practice might “be something to do with the flow of the lesson”.

As she reflected on my descriptions, Janet’s discourse during interviews sometimes resembled thinking aloud. For example, when discussing her use of illustrations and representations of reality, she wondered, “What are you trying to do really? Um you’re trying to . . . develop children’s knowledge. You’re also . . . trying to develop the skill of looking at a picture and working out what it is and matching those because it’s actually quite important.”

The value of reflection is further developed both in Chapter 7 in terms of teachers’ power identities and in Chapter 8 in terms of the research methods employed in this study.

## **WEEK 2**

### **Fieldwork continued**

I observed a further three lessons in the second week of the study. The first of these, with standard 6 E was a repetition of the lesson Janet had given to standard 6 C, the first lesson of Week 1. The second lesson involved standard 6 A pupils making study aids in groups and the third lesson, with standard 7 D, was essentially revision in preparation for a forthcoming test on monsoon areas.

In the middle of this week I conducted my second formal interview with Janet, parts of which were included in the sub-section relating to Week 1 as some of the discussions centred around issues connected to those lessons. The final interview, which took place after the completion of all lesson observations for this study, also referred to lessons

observed in Week 2, therefore, both the second and the final interviews are referred to in this week.

### **Janet's development - tightening focus and practice**

In this case, as with the previous two, there were no substantial shifts or developments in the teacher's thinking and practice; instead, I noticed - especially when revisiting both the original fieldnotes and lesson descriptions as well as the transcripts of interviews while writing the final draft of this chapter - the same tightening in Janet's focus and practice that had been evident in that of Marion and Lilian's. Janet appeared more confident in both her classroom practice and in the explanations she gave for her practice during the last interview. In addition, I noticed that her classroom discourse was used somewhat differently in that she began to highlight her practice and the thinking behind this for her pupils. I interpreted these subtle shifts and developments as meaning that Janet was herself more aware of the thinking that underlay her practice. As a result of this increased awareness, her theory/practice relationships appeared more closely connected.

During this week, I also noticed that Janet praised pupils more frequently than she had previously. This practice was confirmed as a development in the final interview when she said that she had become aware that she had not given much in way praise after reading my lesson descriptions.

I thought that the second lesson where standard 6 A pupils developed study aids in groups illustrated the stage Janet was at in terms of her development towards incorporating group work in her classes - a practice she had identified as being one she would like to use to a greater extent. In this lesson, while allowing pupils greater responsibility for the activities involved in constructing the study aid, Janet monitored pupils' activities very closely and I was not sure just how comfortable she really felt with this new structure to her lesson.

## **Theory/practice relationships**

### ***Connections between classroom practice and views expressed***

#### ***Structure***

Janet introduced each of the lessons in the second week of the study by outlining the plan for the lesson and/or by reminding pupils of the content covered in their previous lessons. For example, she began the second lesson by reminding pupils of the section that they had just completed as well as their forthcoming test. She used this latter reminder to introduce the lesson's focus - that of constructing study guides. She then went on to outline the plan for the lesson.

The third lesson began with Janet telling pupils that in that lesson she wanted to finish a section with them that would be included in their forthcoming test. She reminded them of the content of this test saying that it would include work "up to but not including disasters".

The first and third lessons of this week followed the same two-part structure identified in Janet's lessons during Week 1, i.e. the initial questioning and teaching section of the lesson was followed by pupils answering questions on a worksheet.

In an interview, Janet explained that because she did not yet know the needs of pupils at this school - although she realised that these were different to those of the pupils at her previous school - and because she was still "kind of feeling the way", she had relied on "a pattern in my lessons". Janet's belief in drawing on pupils' own contexts was connected to this strategy for feeling her way. She also explained that she was drawing on "a very limited experiential basis" and did not yet know "what they know". In the final interview, she described herself as "working blind because I don't actually know what they know". She anticipated that "my lessons will change" and become "less structured" in time;

nevertheless, she also felt that it was likely that while teaching in this school her lessons would retain greater structure than those in her previous school because of the discipline problems amongst these pupils and the lack of “a work ethic”. She felt that these pupils might not be able to cope with less structured lessons.

Also closely connected to Janet’s need for a structure in her lessons were her views on children’s learning. She intimated that children liked structure and that they learned best when a teacher developed their knowledge “little bit by little bit so that they’re constantly learning something new but you’re building on what they already know and then you go a little step further and you build some more and you go a little step further and build some more”.

When questioned further, Janet admitted that the pattern that I had identified and described in my fieldnotes was one that she had used “a lot - often” justifying this in her next sentence by saying that “it’s one that works”; nevertheless, she maintained that “it might not be a pattern that I would use as consistently as you saw”. It appeared that although Janet did not entirely approve of such structured lessons, she was currently using it as a kind of security blanket during this period of unfamiliarity. She said, “It’s definitely a pattern that works - it’s structured, it’s ordered, you know where you’re going, the kids know where you’re going”. Issues relating to structure are further developed in the section dealing with contradictions at the end of this week.

Janet also explained that she thought “varied activities” during lessons were preferable since pupils found it difficult to concentrate for long periods of time. She believed that this view accounted for the way in which she often divided the lesson into sections. She also said that it was difficult for her to keep her own concentration going for long periods of time. “It’s exhausting” she said. “You know you’ve got to think three steps ahead of them all the time you know.”

### *Control and discipline*

In addition to using lesson structure as a means of control, Janet used other strategies to control and discipline pupils. In this week of the study, I noted her firmer control over pupils' responses to her questions as well as her stronger control in monitoring their activities during both sections of her lessons as well as during the group activity in the second lesson.

In the first lesson with 6 E, pupils raised their hands after which Janet nominated an individual to respond. This more controlled interaction occurred more frequently in this class than in any of the classes that I had observed the previous week. Yet this pattern was not followed rigidly because when a few pupils did call out their responses, Janet 'picked up' on these answers and integrated them in her teaching explanations and descriptions without reprimanding pupils. After Janet had nominated a pupil to answer a question and other pupils tried to call out their responses, she said, "Let this lady answer".

Although Janet had few classroom rules, the one relating to pupils not writing during the teacher-centred section of lessons was implemented strictly. At several points in the first lesson, Janet asked a couple of pupils to put their pens down while she was asking questions and teaching. When a pupil continued to write while Janet moved purposefully towards her in the back row saying, "I've now had enough" and removed her pen and paper.

In the final interview, Janet explained that she felt that pupils did not listen to her instructions if they were writing while she was talking. In addition, she said that if pupils wrote down information while she was teaching "they finish earlier and disrupt the class". She added that "it doesn't bug me with the older ones because they can manage because they're more efficient".

At the beginning of the second lesson, Janet told a pupil who indicated that she had not been listening to Janet's questions and, as a result, was not able to provide a response to the question directed at her to "listen". A moment later, she also told other pupils to "stop giggling".

The group work of the second lesson was carefully monitored, Janet checking on the pupils sitting both inside the classroom and those who had moved outside into the corridors. When she found a pupil sitting doing nothing by herself, Janet asked if she was not doing anything after which the pupil joined a group. Janet also told another group that they could not do anything else during this time.

Janet also monitored pupils' use of time carefully during this lesson. It appeared that she had thought that these pupils would complete creating their study aids during the lesson and, indeed, that she was encouraging them to do so. Several times during the lesson she mentioned the amount of time that they had left before the bell was due to ring. She also checked on the time that the bell would ring by using the intercom through to the front office.

In the third lesson, Janet walked around the classroom checking pupils' progress as they answered questions on their worksheets.

Once again, in the subsequent interview, Janet said that at that stage she was "finding the work ethic just so different" at this school. As a result, she said "I haven't sat down very often. I've kind of stood over them with a great big stick . . . because I have noticed that they down tools the minute I take my eyes off them". She hoped that this would change in the future but seemed doubtful that it would. Issues of control are linked to issues of structure in the discussion on contradictions in Janet's theory/practice relationships at the end of this week.

### *Terminology*

Terminology and the correct spelling of vocabulary again played an important role in the first lesson of the second week - possibly an even greater role because the pupils in this class were weaker academically than those in the classes already observed.

At one point in the lesson, Janet wrote "Circle of illumination" on the chalkboard and reminded the class that they had had to look up "illumination" in their dictionaries. Later she encouraged pupils to provide a variety of descriptions and synonyms for "twilight".

Spelling was also dealt with in the 6 E lesson. A pupil asked Janet for the correct spelling of "revolution". This Janet then wrote on the chalkboard and followed it with "elliptical" which was contained in the answer to the following question on the worksheet pupils were working on. When reminding these pupils of their forthcoming test, Janet said that they needed to learn the vocabulary as well.

The vocabulary dealt with in the second lesson related more to learning strategies than to geographical concepts - for example "keywords" and "colour code" - and Janet also checked pupils' understanding of these words.

In the third lesson, Janet introduced the term "isohyet" after pupils had seen these as "squiggles" on their maps. Janet wrote the term on the board and also provided a definition and an explanation of their function on a map.

### *The use of questions*

In the final interview, Janet and I discussed the two types of questions she most frequently used. The first type were those questions which drew on pupils' past knowledge as gained from their life experiences. Janet said that the purpose of these questions was not to test knowledge but to "stimulate an interest and to keep them thinking". On the other hand, in

a revision lesson, questions were aimed at helping pupils consolidate their knowledge. She said that in asking these questions “you are trying to point out to kids that they ought to know the answer to this particular question”. Janet explained that by using revision questions she was, in essence, drawing on pupils’ “past knowledge” in order to get to where she was going in that lesson. In addition, she felt that revision questions also helped pupils “to know where they’re going”.

My own analysis of Janet’s questions became more complex during this week - and again during the final stages of analysis when writing up the final drafts of this chapter - in that I identified three different types of questions in lessons. It is possible that this more complex analysis was related to both the increasingly complexity as well as to the sharper focus of Janet’s classroom practice as the study progressed.

The most frequently used questions were those which related to revision tasks. These were sometimes prefaced with the words “Cast your minds back . . .” Another example was “Who remembers how to read a climate graph?”

Similar to revision questions were those questions which required pupils to recall their previous experiences outside the more formal classroom learning environment. For example, Janet began a question which referred to the sand on the beach in summer with the words, “Let’s go back a bit further . . .” These were the types of questions which Janet categorised as questions to stimulate interest but which I saw as helping to develop pupils’ responses and understanding by situating these within their past and current life experiences. In this way, Janet helped pupils to connect their common sense knowledge to geographical concepts.

The third lesson was particularly rich in questions which encouraged pupils to provide reasons for events they had experienced before. Janet also asked, “Have you ever asked yourself why it’s like that?” a question which itself illustrated her approach to and view of learning in that it highlighted the need to question one’s experiences and observations.

Interestingly, this was the very process that Janet, herself, was involved in as she reflected on her classroom practice and the thinking behind it while reading my lesson descriptions. I wondered if her heightened consciousness of this reflective learning process was partially responsible for her asking this particular question of her pupils.

Janet also tried to get pupils to imagine situations by prefacing questions with “Can you imagine . . . ?” or “What would you feel if . . . ?” For example, one of these questions related to 24 hours of darkness. Once again, these questions illustrated Janet’s interest in helping pupils to link geographical concepts to their daily lives.

The third kind of question used was that which directed pupils’ attention to the visual material on display and encouraged them to observe carefully or to focus on particular features of this material. For example, in the third lesson Janet said, “Let’s see if we can make sense of the squiggles” in directing pupils’ attention to the isohyets on the map being studied.

One of Janet’s questions required that pupils sequence the order of seasons in each hemisphere and then draw connections between this information and the diagram on the overhead projector.

In posing questions Janet told pupils “to think carefully” and she frequently repeated their responses to her questions integrating them in the subsequent statements and/or questions she used.

When a 6 E pupil struggled to provide an answer to one of her questions, Janet said, “Okay, let me see if I can give you a clue”. The “clue” was itself contained in another question.

In discussing the structure of her questions with me, Janet said that she tried not to “give the kind of questions you know where you kind of raise your voice at the end and expect a

specific word. I try consciously to avoid those". She thought that the questions beginning with the conversational "Can you remember . . . ?" were "a ruse really for the entire class" as well as a way in which she got her "own train of thought going back to where you want it to go". She said that this technique helped when "you're thinking pretty quickly" and simultaneously "trying to think of where you're going and phrasing questions to get you where you're going without being too specific in the questions".

Janet said that she tried to avoid questions where "there's only one answer that can be given". She said that it would "drive me mad if I were sitting in a class having that done to me all the time". She admitted that "there very often is a specific answer that I want but I don't want to phrase (the question) like that because sometimes you do get answers that are correct that you may not have thought of . which also it can be quite interesting you know and I mean it can lead the lesson off into a tangent although . you need to know where to stop it". These comments revealed Janet's concern for pupils' perspectives and her tolerance of alternative and even unexpected responses.

In the second lesson, Janet asked pupils to provide additional and alternative responses to her questions on learning strategies, frequently asking pupils to think off "another way" to present information. Asking for additional responses in the form of additional reasons to those initially provided was again a feature of the third lesson.

### *Pupils' experiences*

Once again this week, Janet used her pupils' experiences to help them to develop their understanding of geographical concepts. For example, by asking pupils about their experiences of light and water, she developed their understanding of the "nature" of these phenomena. Similarly, pupils' past knowledge gained through their experience of the beach, sun and sand was connected to the geography of Asia and to geographical concepts.

When, in the third lesson, pupils had difficulty in providing the correct response to one of Janet's questions, she told the class to "think about us" adding, "When do we have summer and winter?" In this way, pupils' realities were used as they constructed their responses to Janet's questions.

Janet's ideas expressed in subsequent interviews again confirmed the importance to her of pupils' lived realities in her teaching. In criticising the notes currently used by teachers in this school, Janet outlined some of the changes she envisioned for future lessons. She said that she would "actually start with photographs of" the suburb in which the school was located. Then she said that because many of the pupils were not residents of this suburb she would need to go into the surrounding suburbs - historically a black township and a coloured area - to take further photographs and "just to get a feel for it before I even start". Through such procedures, Janet hoped to better understand and then make greater use of aspects of pupils' contexts and daily lives.

In discussing the content of lessons given to standard seven pupils at this school, Janet again indicated that she would make changes that would allow pupils to work with more relevant material. She said, "In fact, I wouldn't even teach monsoons in standard seven. I don't think it's relevant to the average standard seven kid and I wouldn't even teach it but they were doing it so I did it." The significance of Janet's confidence in manipulating the syllabus is further developed in Chapter 7.

In addition to geographical knowledge, Janet sometimes added other information "as a matter of interest". For example, she mentioned that the first explorer to the Antarctic went in summer but that because he had been unable to see the stars, he had had to return in winter. Janet also made reference to the South African team at the Commonwealth Games and mentioned that one day per time zone was needed for one's body to recover from flights across vast distances.

## *Skills*

Janet distinguished between skills and content knowledge. For example, in an interview, she said that “the skills involved in the worksheet made it seem new” although the content of the worksheet was knowledge pupils had dealt with in previous lessons.

Most of the questions classified as falling into the third category of questions Janet used in lessons were those which also helped pupils to develop a range of skills. In an interview, Janet linked the reading of maps to a number of skills. For example, she said that “reading the key would be a skill”. She also believed that working with maps developed pupils’ observation skills.

In describing the tests she was most likely to set, Janet said they would contain “the kind of questions . . . where as many of the answers as possible are actually there - on the paper. They need to know how to use the material well to get the various data, so although obviously the knowledge will help them in terms of the content knowledge in terms of knowing what to look for as well . . . um and there there has to be some content but again the content is in the context of utilising the material that is given to them”. The skills associated with reading and manipulating data (e.g. comparison) were encouraged in this way.

The pupils, however, did not find such tests particularly easy. Janet acknowledged that the standard seven pupils had not done as well on the test as she had anticipated. She said that she had expected the marks to have been higher “considering that many answers were actually there” on the question paper.

Janet criticised the notes used by the other teachers at this school because “the whole emphasis” was on content rather than on skills.

Additional comments relating to skills have been included in the following sub-section as well as the later one dealing with illustrations and representations.

### ***Learning, studying and testing***

For Janet, learning was facilitated through the use of a variety of skills stimulated into use and further developed by questions. In addition, her classroom practice took cognisance of the need for pupils to study for tests and examinations.

The focus of the second lesson was on learning strategies and techniques in that the pupils were required to construct their own study aids. Janet began the lesson by asking the class, "What is a study aid?" Some of the descriptions that pupils and Janet herself provided in the ensuing discussion included the terms "pattern", "summary", "keywords", "colour code", "diagrams", "mind-mapping", "images", "arrows" and "flow drawings".

Janet went on to explain and describe those techniques she herself found particularly useful and partially illustrated the beginnings of a study aid using these ideas on the chalkboard.

This strategy illustrated Janet's view of learning and also connected closely to her view of geography - i.e. knowledge is best learned when it is illustrated in some way and geography is visual in nature.

In the subsequent interview, Janet explained that incorporating the making of study aids in her classes had been as a result of listening to a colleague's complaint which, she said, had "just triggered a thought in my mind". Although she stressed that she saw learning geography as acquiring a set of skills rather than as "a content-based subject" as "a lot of people do", she believed that studying geography for examinations could contribute to the acquisition of good study methods and skills. As a result of this thinking, she "did a little

experiment with the sixes” and, after reflecting on the test results, concluded that this exercise in developing one’s own study aids was very effective.

Although Janet found weaknesses in this experiment - for example, she felt that she should have given pupils a specific time limit to construct these and discouraged them from making their study aids “beautiful” by colouring them in etcetera - she believed that it had been effective and was “something to be developed”. Her ability to reflect on her past practice helped her to plan for more effective practice in the future. She felt that the weaknesses of the exercise had been her “fault” and that she would know how to obviate these the next time she used it in class. Janet described the exercise as “worthwhile” because not only were pupils learning content knowledge but they “were talking about what they did. They had to make decisions. They had to work in a group”.

For Janet, collaborative learning - despite the possibility of the teacher losing at least some of her control over pupils - had advantages for pupils. She said, “I don’t believe in dead silence in the classroom because children can learn from one another. If a kid doesn’t know what’s going on and another does . . . both of them are learning something in explaining it but it is difficult sometimes to keep control over . . . especially in the weaker groups”.

Janet also spoke of the “mind-mapping” technique that had recently been introduced to pupils in this school and said that she had noticed that a number of pupils had tried to use this technique when planning their essays in their English lesson.

The reminders that Janet gave to her classes about their forthcoming test suggested that she gave tests section by section. In the following interview, she confirmed that this was her practice and provided the following reasons for it. Firstly, she felt that testing pupils’ knowledge section by section helped them to consolidate knowledge. This reason connected with her belief that new knowledge was best learned from a foundation of past knowledge. Consolidated knowledge would form such a basis.

The second reason she gave for testing section by section was one that was linked to schools as structured systems. She said, “In most schools you do have to have so many marks in one exam term” and that “tests do happen to come up section by section” as marks are required for term reports. The effects of structured systems on teachers’ power is discussed in Chapter 7.

The third reason Janet gave for testing section by section arose from her view of pupils’ learning abilities. She thought that weaker pupils in particular coped better when tested in this way and that “they often battle with a large chunk of work”. She said, too, that many pupils were not able to concentrate for long enough to sit and learn for a long period of time as would be required when testing several sections of work at the same time.

In the final interview, Janet said that the standard six test results had been “very pleasing” and she felt that pupils “had grasped the concept and they were able to work with their with their perceptions” despite any confusion that they had displayed in the lessons. She thought that these good results were partly due to the study methods which she had implemented with some classes.

### *Illustrations and representations of reality*

A variety of illustrations and representations of reality again featured in the lessons during Week 2, the most frequently used being overhead transparencies - including both photographic and diagrammatic material - and diagrams on the chalkboard. Once again, Janet’s questions relating to these illustrations encouraged pupils in a careful reading of them by focusing on the details depicted in them.

In the first lesson, Janet used her body to illustrate the “bend” in the earth. Later in the lesson, she used the light provided by the overhead projector, a pencil to represent the earth’s axis and her fist to illustrate the position of the axis “parallel to the sun”. Once again, this demonstration served to highlight the need for and the importance of

concretising geographical concepts for pupils. The need for Janet's repetition of this demonstration - as had occurred in the previous week with another standard 6 class - also served to illustrate the difficulties pupils had in visualising and understanding these concepts even when they were represented in more concrete ways. This difficulty is again referred to in the later sub-section on the contradictions evident in Janet's work this week.

The third lesson of this week was particularly rich in visual material. Pupils each had access to an atlas and Janet had copied the relevant material from these onto overhead transparencies. On the latter, she had also drawn additional information such as the wind directions which formed the basis for her questions dealing with the relationship of the wind to land forms. At times, Janet referred to charts also found on maps in the atlas.

Several times in this lesson, Janet made use of several visual sources simultaneously. In addition to the pupils' atlases and the maps on overhead transparencies, she made use of the globe to point out the relative size of land masses as well as diagrams on the board to illustrate particular points she made. Gesture also featured in this lesson as it had in previous ones.

During an interview, Janet criticised the way in which mapwork was taught at this school saying it was presented "out of context". She said that taught like this "it puts kids off the subject. They hate it because they think geography's mapwork. They hate mapwork and um . it's dull and so as soon as you put in in context it has meaning". For Janet, a map is "geography's tool - it's not an end in itself". She went on to explain how she had used it in the lesson on monsoons. She said that the map used here was a method of "depicting rainfall" - in particular, she pointed to the key used in the map again describing it as "a concept or a tool" that was used for "illustrating the information". She said that, in effect, she was telling the class that if they studied the map, they could find out something about monsoons.

Janet described a question in the recent “skills-based test” that she had given to the standard seven pupils. It had required pupils to locate Jaipur on the map in the atlas - a task which she said involved “a skill” - “and then to put it on their sketch map in the correct place so it’s another skill in . in basically orientation, matching etcetera”. For Janet, “matching pictures” and “seeing perceptively” were both “definitely skills that I do consciously foster”. She said that she was “quite surprised that other geography teachers don’t always do it because to me that it the essence of or part of what the subject’s all about”.

At times, Janet used one illustration to help “orientate” pupils in understanding another by helping them make connections between these representations. In the third lesson, Janet once again told pupils to colour in the sea on their maps in their worksheets so that they would be able to identify the coastline more easily.

Janet’s classroom discourse highlighted the visual nature of much of her lesson content. For example, she frequently asked pupils, “Can you see that, all of you?” or “Can you match the picture?” or variations on these questions. Some of Janet’s questions required pupils to describe their observations using the correct terminology.

In an interview, Janet spoke of her astonishment at discovering that other teachers did not make use of illustrations - particularly photographs - as she did in lessons. She told me that she had first realised that pupils saw photographs on transparencies as unusual when they had responded with enthusiasm to the ones that she had shown in a lesson and had asked to be shown more in the following lesson. She also recounted a conversation about the use of photographs where the other geography teachers had said, “But we don’t do that!” Her response had been, “Well, how on earth do you teach the subject if you don’t do that?” She went on to say, “I was quite stunned that they didn’t do it and they were quite stunned because they’d never thought of doing it.” She concluded by saying that “I can’t teach without” illustrations and representations.

Once again, in the final interview, Janet spoke of the contribution the study of geography could make in developing “graphic skills” which she believed to be an important part of children’s education. During this discussion, Janet said that she was able to “think in pictures” and that she often did so.

Janet said that “there is a particular skill at looking at a picture”. She went on to explain in this way: “I mean a drawing of a cow - some cows - don’t look anything like a cow does in real life but they’re stylised and a child can recognise others and can recognise . black and white patches and assume right well then that’s . a cow.” She felt that some of the illustrations she used in teaching geography were also “stylised”. This idea appeared to be confirmed when pupils did not appear to notice or become concerned about the inaccuracies in the diagram showing the positioning of the earth around the sun in the lesson on the seasons.

Despite the notion of stylistic representation, it appeared that the observation skills required in Janet’s lessons depended on more than mere recognition of styles or symbols. For example, a pupil mistook a map of India for South Africa because, as Janet herself explained, “the shape is similar”.

In discussing this example, Janet said that “the definite skill” of “spatial perception” was needed. She went on to describe the “weirdest shapes” some pupils produced when required to do a sketch map from the atlas. She said, “A number of kids had the weirdest shape and they had the book in front of them - they had the atlas in front of them - and yet - a lot of them were fine - but there were some that really did not have the shape at all.” Problems of perception are again referred to under the sub-section on contradictions at the end of this week.

Although I did not observe Janet using video material in any of the lessons I observed, a pupil did ask at the beginning of the second lesson whether they were going to finish watching a video they had been watching in a previous lesson. In the subsequent

interview, I asked Janet about the use of videos as a teaching and learning tool and she cited reasons for her use of videos as teaching tools. The first of these connected to her belief in working with children's realities. She said that "children do watch T.V. a lot" and so this was a familiar medium for them. The second reason was connected to the 'richness' of video material as a teaching and learning medium. She said, "You can show so much in a video" and explained that in spite of seeing one video "year after year after year", she was "still seeing new things in it". She felt, too, that videos captured children's imaginations and also gave information that the teacher could then utilise in lessons. In this way, Janet attempted to broaden her pupils' experiential knowledge. She admitted, though, that in practice she was a little "lazy" about directing pupils' attention to "specific areas" in video material in order to ensure they got "the most out of it".

### *Classroom interaction*

Classroom interaction centred around Janet's questions to pupils and their responses, pupil-initiated questions and Janet's responses to these, and Janet's monitoring of pupils as they responded to worksheets or worked in groups in the second lesson.

As described in the section dealing with Janet's use of questions, many of her questions were inviting in that they were informally phrased. For example, she encouraged one pupil in the standard six class to "give it a bash" when the pupil was hesitant about responding to a question. The phrasing of this question also suggested Janet's flexible rather than punitive attitude to errors. A similar view was revealed in an interview when Janet discussed the experiment she had done where pupils created study aids. She noted the enthusiasm one of the classes showed on seeing another class's study aids on the pinboard in the classroom. Although she had doubted that this class would be able to construct their study aids on their own, she had also thought "maybe I shouldn't take it away from them, maybe I should let them have a bash".

Janet attitude to errors was again highlighted in her response to an omission she had made in this lesson. She interrupted herself to say, “Sorry, I forgot to tell you . . .” and then filled pupils in on the information that she had omitted. In this way, errors were seen as mistakes to be corrected rather than as events to be punished.

At one point in the first lesson, Janet encouraged wider participation by saying “Let’s have somebody different” to answer the next question she posed. I also noted that Janet encouraged more pupils who had not raised their hands to attempt to answer her questions in the third lesson. Her invitations to do so included, “Would you like to try?” I wondered whether this practice constituted a change in practice but Janet explained to me that in revision lessons where all pupils should be familiar with the work under discussion, she was more likely to prompt pupils who had not raised their hands. She said that in that lesson, “all of the children should have known the answers to all of the questions that were asked”.

In the third lesson, Janet pronounced one pupil’s response to be “excellent” and said “Well done” after another’s response. In the third lesson, a pupil’s question pointed to a contradiction she had perceived. After Janet had provided an explanation for this, she told the pupil that it had been a “good question” and that she had been “quite observant”. I thought that Janet was providing more praise in lessons this week than previously and she later confirmed this in the final interview saying that this development was as result of reading my lesson descriptions.

Towards the end of the first lesson, Janet asked the class whether they had any questions but none were forthcoming; however, pupils did ask questions as they worked on their worksheets. Janet did not always respond to these by providing direct answers but instead often told pupils to “go back to your notes”.

Janet walked around the classroom and checked pupils’ work as they responded to the worksheets she had provided. Pupils used this opportunity to ask her questions for further

explanations of the work. During this time, most pupils worked individually and quite quietly, some talking quietly to each other. When a pupil was slow in commencing a task that Janet had given the class, she said, "Come on. Get going. Quickly."

At one point in the first lesson, Janet asked the class if she could move on to the next worksheet but some pupils indicated that they were not yet ready. When Janet noticed the "noise level's rising", she surmised that "quite a few of you have finished" and suggested that they "look at the second worksheet".

Pupils checked the answers in their completed worksheets themselves - either in response to the information provided by each other and as elicited by Janet's nomination of pupils who raised their hands, or in response to the information that she, herself, provided. While going over a worksheet, a pupil asked Janet to "wait, Miss" after which Janet repeated the answers just covered, a practice she frequently followed without specific requests from pupils.

While working on the climate graph, Janet asked the class, "Who couldn't do it?" When one pupil answered "Me", Janet went over to help her after which two other pupils indicated that they, too, needed individual assistance from her.

After a period of considerable concentration and apparent interest in the content of the third lesson, the class experienced a break in concentration and Janet needed to work hard to regain their attention. Initially, she said, "Hush, quietly, you're losing interest" and, a few minutes later, she again told several pupils who were still talking to "Sshh". This she repeated once more a few minutes later. She then helped them to regain their concentration by using a question which direct their attention to an aspect of the map being studied.

In the subsequent interview, Janet said that she felt that that particular lesson had been taxing for the pupils in that it had required fifty five minutes of concentration from them.

She described the lesson as having been “teacher-centred” and “quite a lot to expect any kid to sit through”. She felt that it was generally better to vary pupils’ activities more than she had done in this lesson. Despite her comments in this regard, I had been struck by the pupils’ level of concentration and interest prior to the break in their attention and believed that it was indicative of Janet’s capacity to engage pupils in the learning process through the use of questions in conjunction with illustrations and representations of reality.

In the second lesson the usual pattern of interaction was changed as pupils constructed their study aids in groups. This involved greater peer interaction than in any of the previous lessons observed. Pupils talked about and discussed their ideas together. At the same time they consulted their notes and made judgements on the relative importance of information. It was this lesson - which Janet described as an experiment - that I thought illustrated her contradictory position in relating to structure and control on the one hand and developing group work and pupils’ responsibility on the other hand.

### ***Contradictions in theory/practice relationships***

#### ***Structure and control versus group work and pupils’ responsibility***

Janet’s contradictory values were evident in the second lesson when she tried to marry her interest in trying out group work exercises in class and her interest in promoting and developing pupils’ responsibility with her interest in providing structure - a pattern which she believed worked as reported earlier - and her interest in control - particularly as perceived in her comments about the lack of a “work ethic” in this school. Clearly, this was not an easy route to take and it required that she relinquish her control of the learning process - at least to some extent. The previous sub-sections have highlighted the more specific techniques Janet used in this regard - providing examples of aspects of study aids and monitoring the time and pupils’ activities.

In addition, Janet's rather ambivalent attitude to my descriptions of the structure of her lessons suggested that while she relied on it because she saw it as functional, she did not approve of the rigidity it suggested. I thought that there were a variety of reasons that constrained Janet in her wish to implement more group work with her classes. While some of these constraints were associated with the structures found in schools - including factors relating to the pupils themselves - I wondered whether there were other factors that related more closely to Janet herself that also acted as constraints in this regard. Chapter 7 introduces a variety of components of power which encourage or constrain teachers in developing coherent theory/practice relationships.

### *Connecting illustrations and representations to aspects of reality*

As described in previous sub-sections, Janet used questions to help pupils to make connections between illustrations and representations and geographical knowledge which might otherwise be of too abstract a nature - especially for pupils whose cognitive and intellectual abilities and potential she saw to be limited - to easily comprehend and learn. While the choice of this practice appeared common-sensical - so much so that it did not really require much justification - the difficulties pupils had in making the required connections have been mentioned above.

As a result of observing their difficulties, I sensed that there were gaps between illustrations and representation on the one hand and the aspects of reality that were illustrated and represented on the other. These difficulties and gaps suggested that learning from illustration and representation was not a straightforward process. There seemed to be a bridge between illustrations and reality that required construction and crossing. While I was not able to offer a construction of this bridge myself, I felt that some of the issues that had arisen in discussing perception in Kate's case might have been related to this. While Janet provided some explanation of the ways in which pupils acquired an understanding of language and symbolic representation through pictures, I did not feel that her explanation covered all significant areas. In addition, her explanation did not explain the difficulties

that pupils experienced in this aspect of work. In Chapter 7, the importance of teachers' theoretical consciousness is outlined in respect to theory/practice relationships.

### **WEEK 3**

#### **Fieldwork - completion**

I observed two lessons in the final week of this case study. In the first of these, standard 6 E wrote a test and then drew a title page for the next section of the syllabus to be covered in class and, in the second, with standard 6 C, Janet went over the recently written test and then introduced the next section of the syllabus. The latter part of each of these lessons dealt with the same topic - tides and eclipses - but the content and presentation were very different. These differences form the focus of the contradictions in Janet's work this week

The final interview - also referred to in Week 2 - took place early in the following week after I had completed all lesson observations and after Janet had had the opportunity to read all these descriptions and to view aspects of videotaped material. She commented that her daughter had watched the videotapes with greater interest than she, herself, had done. I thought that this comment served to confirm the impressions and thoughts I had had during the first case with Lynn when I had found that she made fewer comments in response to videotaped material than in response to lesson descriptions.

In the final interview, I asked Janet what she had thought of the lesson descriptions and how accurately she thought they had reflected her own view of her teaching. She laughingly remembered her description of her first lesson as "chaotic" and went on to say that she did not think the descriptions were a "a totally different picture at all" although she did think "it may be a limited picture at a particular moment in time". Because of her particular circumstances - working in a new school context with pupils she did not know well - she thought I had seen only a "partial picture" of her work.

As in the initial interview, I was struck by Janet's honesty in the later interviews in revealing certain aspects behind her practice - her reference to using an activity as a "filler" because the following section to be taught had not yet been prepared and to her own "laziness" when working with video material. In answer to one of my questions during an interview, Janet said that she had not really been concerned about my presence because I had told her "not to do anything special" and because I had said that I was not there to criticise her. Certainly, I had no sense that she was trying to impress me in any way in her choice of classroom practice.

## **Theory/practice relationships**

### ***Contradictions in classroom practice***

#### ***Structure***

In the first lesson, after pupils had completed writing the test and Janet had collected in all their test papers she told the class that they would be starting the next section of the syllabus which was on "tides and eclipses". She asked pupils to define the term "eclipse" - encouraging them to draw on their previous knowledge and experiences of eclipses - and then told them to "do a title page" in their books for this section of the syllabus.

After some time had passed, I felt that pupils had been given a lot of time to write the title but noticed that some of those pupils around me had not yet done so. A little later, as I observed some pupils drawing pictures in addition to writing the words "Tides and Eclipses", I began to realise that a "title page" should contain more than words. This was confirmed for me when Janet told a pupil to "draw a picture to go with" the title. To the next pupil-initiated question, Janet said that the pupil should draw "any kind of picture you can think of". She went on to explain that that was why she had asked the class if they knew about tides and eclipses earlier in the lesson, a question that seemed to have been lost on this particular pupil. I was also reminded of the difficulties I had already observed

in Janet's practice based on the belief that studying illustrations and representations of reality helped pupils to develop an understanding of more abstract geographical concepts and events.

A little later in the lesson, the pupil next to me asked Janet to draw an eclipse for her. Janet did not do this but handed this pupil an overhead transparency of an eclipse and moved on down the row. As the noise levels in the classroom increased, Janet began to realise that pupils were unable to draw eclipses because of their lack of knowledge of these phenomena.

Requiring pupils to produce illustrations and/or representations of tides or eclipses prior to their discussing these in any detail and prior to their seeing illustrations and representations provided by Janet in class constituted a change in structure from previous lessons observed - both in that of the lesson and in learning procedures - and one that appeared to influence the control and discipline in the classroom as well as the general classroom interaction.

It soon became clear that pupils' lack of knowledge and experience of eclipses was largely responsible for their inability to complete the task Janet had set for them in the remainder of this lesson. Towards the end of the lesson, when Janet was holding up transparencies of eclipses, a pupil commented that these occurred quite often which suggested that certain pupils had at least heard of these events; however, it appeared that the majority were quite baffled and right at the end of the lesson I observed that a pupil near me still had a totally blank page in front of her!

I noticed that Janet reverted to her usual structure in the second lesson of the week. After going over the test with the pupils and writing down their test results in her markbook, she called for pupils' attention telling them to stop digging in their bags, looking out of windows etcetera and to do nothing else but look at her. She then said that she was starting a new section and that she wanted to spend the rest of the lesson "building up

some kind of idea of what an eclipse is". In this lesson, Janet reverted to her usual pattern of working with pupils' experiences and prior knowledge for a period of time and connecting these to geographical concepts before requiring them to produce illustrations or representations of these.

The differences between these two lessons puzzled me since Janet's interest in structure had been evident in her previous practice and largely confirmed in interviews. Until this point, I had considered the theory/practice relationships in regard to this aspect of her work as being fairly coherent. The only inconsistency here had been my sense that Janet was concerned that structure suggested rigidity or a lack of creativity on her part. I had seen her interest in structure as being closely linked to her idea that new knowledge was best acquired when developed from the basis of previously acquired knowledge. In addition, I thought her interest in structure was connected to her view that there were sequences in which geographical concepts were best learned. For example, she told me in the final interview that when she had discovered that pupils had not yet studied the phases of the moon when she embarked on the section dealing with eclipses and tides, she felt that she "had to change tactics a little bit there" and deal with phases of the moon first. Finally her interest in structure had been expressed in connection with the pupils in this particular school - their limited conceptual abilities and the lack of an appropriate work ethic. So why, I wondered, had she changed her classroom practice in the first lesson this week?

In the final interview, Janet said that she had been surprised that pupils had not known about eclipses. She said, "I think maybe smaller children get in in societies like ours get given books like *The Book of Knowledge* or whatever as a matter of course. You know those kind of books in which there are pictures of eclipses etcetera and presumably these children haven't had that kind of experience". While I agreed with her analysis of the situation, I thought that it seemed that Janet had forgotten her earlier statements about the limited experiences and common sense knowledge of these pupils. Her earlier decision had been to proceed with these pupils as if they knew nothing because she had discovered that

they did not understand terms like “vegetation” and did not have a clear picture of what monsoons were like.

As I embarked on the more formal analyses of the theory/practice relationships in the five participating teachers’ work, I came to understand the complexities involved in sustaining consistently coherent relationships. In addition, as my definitions of power and my understanding of its role in theory/practice relationships developed, I was able to provide possible reasons for the contradictions described above. A detailed analysis of these issues is provided in Chapter 7.

### *Connections between classroom practice and views expressed*

#### *Control and discipline*

I noted that Janet needed to exert firmer control in both of the lessons observed this week and that this control had less effect than that she had used in previous lessons. It was possible that the writing of a test in the first lesson and the handing back of a test in the second lesson had caused pupils to be more unsettled than usual.

Janet began the test lesson by telling pupils that all they needed were pens, pencils and protractors and that no books were to be out on desks during this time. She told the class to ensure that they had written their names on the test paper. As she was handing out the test papers, she twice asked the class to be quiet and also repeated several instructions already given. In the subsequent interview, she said that she was “probably” aware of the repetition she had used at this point in the lesson. She said, “I don’t think I do it deliberately but they don’t listen” and that this was a weak class. She listed these weaknesses as including poor concentration, possible hyperactivity and “learning problems of some description”. In addition, she pointed out that the “Zulu girls” - of whom there were several in this class - also had language difficulties.

Once all pupils had received a question paper, Janet pointed out “one omission” on the paper and wrote the information pupils needed to include on one of the diagrams on the chalkboard.

As pupils wrote the test, Janet frequently walked around the class and passed protractors from one pupil to another when they indicated that they needed them. At one point, she showed a pupil where to write the answer on her test paper. For brief periods of time, she sat at or stood next to her desk in the front of the classroom.

After half an hour, Janet began to collect in the test papers, walking around as pupils held them in the air. Pupils who had finished writing the test put their heads on the desks and Janet did not allow any talking during this time.

These pupils seemed to be over-excited and unwilling to work in the last part of the lesson and I wondered whether this was due to their anxiety about the test in the first part of the lesson. In the subsequent interview, Janet said that she thought “6 E probably do get quite fussed about tests”. In response to a question from me she said that she was not surprised that many of them had finished the test early, firstly, because it was not a long test and, secondly, because the pupils in this class had limited concentration spans.

During the remainder of the lesson, while working on their title pages pupils appeared very restless. At one point, Janet asked them to “please keep the noise level down” and, a moment later, she commented that there was “so much talking going on”, again asking the class to “keep it down”. She then got up from her desk where she had been sitting marking the tests and began walking around the class again.

Not much later, after Janet had resumed her seat at her desk, she commented to a group of pupils that they were “talking very loudly” and that she could hear their conversation from where she was sitting. During this stage of the lesson, I was amazed at my apparent invisibility. Pupils sitting near me continued their conversations around me as if I were

both deaf and blind! Certainly my presence did not seem to encourage them to work harder. Several girls also walked around the classroom talking to other pupils and sometimes looking at their title pages. Once again, Janet got up and walked around looking at pupils' books over their shoulders, scolding some for not having produced much. At one point, a pupil told others to "Sshh" but this, too, had little effect on the noise levels. Finally, Janet told pupils to sit in their seats and be "absolutely silent". This instruction she repeated in a loud voice. She then said that it seemed that several pupils did not know what an eclipse was. She explained that she had decided to show them some pictures then although she had initially planned to save them for later.

Before Janet was able to greet the class at the end of the lesson, she called "Ladies" twice before "Standard sixes" more loudly to get their attention.

At the beginning of the second lesson, Janet called the attention of the class by saying "Silence" and then "Hush" and then "Ladies" twice. She then announced that she was going to return their tests and said that she expected them to co-operate as she wanted to hand these out individually. Before going over the test, Janet told the class that she wanted their attention and that any queries they might have about the test should wait until afterwards. In this way, she eliminated individual pupils queries' about marks which may have caused breaks in concentration or in the flow of the lesson's activity.

After this, when Janet wanted to write pupils' test marks into her markbook, she called for silence telling pupils that they should read a book if they could not be quiet. During this lesson, Janet referred to her "irritation" when telling pupils to stop rocking on their chairs. Towards the end of the lesson, she needed to repeat this instruction.

In the final interview, Janet described the "destructive influences" some individual pupils had on classes. She spoke of a couple who "hype the others up" and of one who she described as "a nasty piece of work who takes offence to everything you say to her anyway which you don't need either". She felt that these individuals negatively influenced

the entire class's behaviour. In addition, I wondered whether that the disruptive behaviour in the first lesson of this week had been due to Janet departing from her usual lesson structure in the first lesson as described in the earlier sub-section relating to contradictions.

### *Classroom interaction*

Standard 6 E did not appear to be too well prepared for their test. They took a while to settle down, talking to each other quite a bit. Several pupils did not have the protractors required for the test and one did not have a pen. Janet identified those pupils who did have protractors and passed these items to them during the course of the test. She told the pupil without a pen that she was "afraid" that she would have to "sort herself out".

The first pupil to complete the test did so within twenty minutes. She handed her work to Janet who read it while standing next to her. This pupil then appeared to fall asleep at her desk. Once Janet had collected all the test papers, she gently woke this girl with a hand on her back and asked whether a protractor belonged to her.

While pupils were settling down to work on their title page, there seemed to be an argument amongst some pupils at the back of the classroom concerning a lost poster but, although Janet overheard some of this, she did not get involved.

An example of miscommunication occurred during this lesson when a pupil, on seeing an illustration of an eclipse, commented that it resembled an eye. Janet, not hearing correctly, spoke of the dangers of looking at an eclipse with a naked eye and read a caption from the illustration she had found in a magazine. She then realised that the pupil's comment had been a description of the eclipse and agreed that it did indeed resemble an eye.

Janet explained to me in an interview that getting pupils to do title pages was "really a filler" because she had completed the previous section of work and was waiting for her

colleagues to give her the work for the following section. She said, “You expect something to be done and it isn’t so then you have to fill in time for one or two periods.” This explanation partially explained the change in Janet’s structure and the resulting lack of control during this lesson. Once again, I was struck by Janet’s honesty in explaining this to me - I considered that some teachers (probably myself included) might have been reluctant to have offered such an explanation thinking it smacked of laziness on the teacher’s part.

In the second lesson, Janet chose to hand back the tests to pupils individually. She told the class that she was “very pleased” with all the results which she described as “very good”. In our discussion on testing, Janet mentioned that the pupils had done better in this test than she had expected but that she was “not sure why”. She later said, “I think perhaps the test was fairly easy but there wasn’t anything to be gained in making it difficult either.” She also suggested that her experiment with pupils where they created their own study aids may have been influential.

In handing back the tests, Janet called out the name of the pupil who then walked up to the front to fetch her test. The first pupil named had got “full marks” and the class clapped after Janet announced her result. The rest of the tests were not in academic order. After pupils had identified themselves, Janet often said, “Well done” as she handed the test over. I wondered if Janet was using this method of returning tests in order to learn pupils’ names. Once or twice during this process, Janet told the class to be quiet using her customary “Hush” and “Ladies”.

While Janet provided some of the answers while going over the test, at various points she encouraged pupils to provide these. During this time, she noticed that she had made a marking error. She told the class that she would deal with the adjustment to their marks as a result of this later in the lesson. Once again, Janet’s non-punitive attitude to errors - her own included - was highlighted.

After going over the test, Janet invited pupil input asking, “Any questions? Any arguments?” Once she had seated herself at her desk, eight or nine pupils formed a queue to speak to her. In each case, Janet examined their question papers before either explaining to pupils where they had lost marks or, in a couple of cases, changing the marks she had given. At one point, she used a protractor to check a pupil’s diagram.

In order to write pupils’ test marks into her markbook, Janet called out pupils’ names one by one. After each pupil responded by calling out her mark, Janet frequently repeated this mark before writing it down. Sometimes she said “Well done”. Once or twice, she asked the class to keep quiet - “Ladies, sshh please”.

In an interview, Janet explained that “the only way I learn names is when I mark the work, when I see the name and look at the kid’s face”. Yet, she said, that entering the marks in this fashion did not serve this purpose only since she used this time to give pupils some kind of personal acknowledgement. She explained that she normally followed this procedure “even when I do know them” rather than just “dish(ing)” out tests.

Janet also explained that entering marks in her markbook in this way was customary for her. She said that if she were to enter them in her markbook prior to going over the tests in class, she would need to change marks where errors had occurred during the marking process. She also pointed to possible disadvantages to this method as well saying that pupils, while “generally honest”, had at times called out incorrect results to be entered. Janet said, “Inevitably someone comes to you afterwards and says ‘So and so didn’t give you the right mark’.” She also acknowledged that some pupils might feel embarrassed when calling out their mark in class and said that “I have often had kids come to me at the desk because they know the system you know and give (their mark) to me”. Janet showed some sympathy for such pupils and said that she did not “make an issue of it”.

During the process of entering test marks, Janet mispronounced an African pupil’s name and the class laughed. Janet tried to correct her pronunciation before telling the pupil

concerned to come to her afterwards to help her to say it correctly “without this lot butting in”. Again, Janet’s sensitivity to pupils and their possible embarrassment was evident.

On the other hand, Janet responded with clear disapproval when it was found that one pupil in the class had not written this test. Janet told her that by the time “you get to high school you need to be responsible for your own actions”. She pointed out that another pupil who had been absent had come to her to explain this and had written the test in the corridor during the first part of the lesson. In addition, Janet said that she took all the standard six classes and that she was not able to keep track of each individual pupil. Once again she repeated that high school pupils needed to be responsible for themselves. She concluded by saying that she was “afraid” this pupil would now have to “get 0” for this test.

During the second section of the second lesson, pupils’ contributions in terms of questions and answers were greater than had occurred in the first lesson. In the final interview, Janet said that she rarely deferred questions from pupils because she considered their questions “genuine queries” and, where possible, attempted to answer them immediately. She explained that she had deferred one pupil’s questions because “it wasn’t possible to answer her immediately without destroying the point of the lesson”; nevertheless, she thought that “as far as possible when a child does ask a question they should be answered because it is a genuine expression of interest and that you one doesn’t really want to kill that interest”. She added that “it’s rather flattering in some ways that the child is expressing interest in whatever whatever you’re doing so I although it isn’t always possible to answer as readily” as one would like to, she usually tried to do so.

### ***Illustrations and representations of reality***

As already explained, Janet deviated from her usual pattern of using illustrations and representations of reality in the first of these two lessons this week. Instead of showing

pupils illustrations and representations of eclipses and tides, she expected them to provide such illustrations for the title page of this section. Although some pupils did respond to her initial questions and provide some descriptions and explanations of eclipses, it soon became clear that there were many more pupils at a loss as how to illustrate these events.

When Janet then decided that she would show some pictures she discovered that the overhead projector was not working so she held up a transparency of an eclipse of the sun and described what she hoped pupils could see. She then held up a transparency of an eclipse of the moon after which she said pupils should have a “better picture of what an eclipse is”. Later in the lesson Janet also found a picture of an eclipse in a magazine in the classroom.

In the second lesson, Janet reverted to her pattern of using illustrations in order to direct pupils’ thinking. The first was an overhead transparency of an eclipse of the sun. She also explained the perspective of transparencies where she felt such an explanation to be necessary.

When a pupil in this class said that “we don’t have eclipses here”, Janet corrected this perception and explained that not all people might see the eclipse. She then went on to demonstrate this concept by moving to the one side of the room and asking pupils to hold up one hand in front of their eyes nearest her. They did this and when Janet asked if they could see her, they responded in the negative. Janet then moved to the other side of the room and asked the same question. This time the pupils said that they could see her. Janet asked why this was so and the girls attempted an explanation after which Janet provided a clearer explanation connecting common sense knowledge derived from this experience to geographical concepts.

A pupil-initiated question referred to a picture of the earth taken from the moon. The pupil wanted to know whether this was a “real” picture. Janet responded by saying that although that particular picture was a drawing, they would see similar “real” pictures in a

video in their next lesson. I thought this an interesting question since it highlighted further complexities in the differences between “real” pictures, representations and reality!

The next picture Janet displayed on the overhead projector showed the relationship between the moon, earth and sun. Once again, concepts of space were important. Janet further illustrated the relationships between these objects by likening them to members of “a busy family” all “doing their own thing” and who did not always meet at mealtimes.

Janet used gesture to illustrate her response to a pupil’s question concerning the length of time of an eclipse.

### *The use of questions*

As already described, Janet reverted to her previous pattern of asking questions to build pupils’ understanding in the second lesson this week. For example, she began the work on eclipses by asking the class if they had any idea of what an eclipse was and then went on to ask further questions and prompt pupils into providing fuller descriptions. These questions initially drew on what pupils’ might “experience” and “see” during an eclipse.

She then went on to asking questions relating to an overhead transparency of an eclipse of the sun, the questions directing pupils’ observations and developing their understanding of this event. Janet followed her usual pattern of repeating and/or elaborating on pupils’ responses to her questions.

In discussing the test in an interview, Janet mentioned that the questions she had posed were “probably different” from those the pupils had previously encountered. She explained that in the test she had “made use of . the development of of a few concepts . . . that were not necessarily content”. An example of this was a question that demanded “tabling which is a skill” and Janet said it requiring pupils to “develop a table from . from basically from general knowledge” rather than from information that had been in their

notes. Janet saw such exercise as “linking up” “common knowledge” with “geographical knowledge”.

In this interview, Janet also described the sort of questions she had asked her classes when they first began the study of the seasons. She said, “In fact, when I started out doing the seasons I’d done a whole thing with ‘What are spring colours? What are winter colours? What are the autumn colours? What festivals do we have in spring?’ Although we had to relate it to the northern hemisphere. ‘Easter. What are the colours of Easter? Why? Easter-spring? What is the what is the symbol of Easter? The Easter bunny, the Easter chick, the Easter egg? The rebirth’.” Once again, it was clear that these questions were closely connected to Janet’s interest in drawing on pupils’ previous common sense knowledge. On the other hand, her comment that some of their responses had to be related to the northern hemisphere struck me as ironical given Janet’s stance on developing geographical knowledge from pupils’ common sense knowledge derived from their own experience.

### *Learning strategies*

In going over the test in the second lesson, Janet pointed to various learning strategies she thought might be helpful for pupils. For example, she told the class that it was important that they retain their tests for future reference. She explained that at the end of the year when revising for the final examinations they should go back to study all their tests. To this end she explained that while they did not have to “write out corrections”, they should write in the correct answer if they had got it wrong.

Janet demonstrated how pupils should have drawn in the equator with a protractor. She then also demonstrated how it should not have been drawn, clarifying the differences between the two methods.

Throughout this lesson, Janet explained the rationale behind both questions and answers rather than just providing correct answers. She also explained what had been required in different answers and pointed to the complexity of some of the questions. For example, she said to pupils that in the one question, there were “a number of things you had to deal with here”. When dealing with another, she explained the need to for pupils to “sequence” their responses. She pointed out a “clue” to the answer in one question. In this way, Janet taught pupils show to read between the lines of questions and to understand them from an examiner’s perspective.

Similarly, Janet drew on the examiner’s point of view when explaining to pupils the need for detailed explanations in their responses saying “I don’t know unless you tell me”. Later she said, “Don’t tell me 24 hours - 24 hours of what?” and added that unless they gave this information “How would I know?”

### ***Geographical knowledge***

In the final week of the study the flexibility allowed when providing answers to geography questions and the importance of sequencing sections of geographical knowledge for pupils’ learning were highlighted.

In the second lesson, Janet’s classroom discourse suggested that the responses to the test questions were not rigidly prescribed. For example, she told pupils that in answering the one questions she wanted them “to say something about . . .”. In addition, she said that “something like that was acceptable”. At times, Janet provided two possible answers to questions where she thought this viable. It seemed that quite a bit of leeway had been allowed for pupils to create individual responses when writing the test and that multiple responses were sometimes possible.

Several times in the final interview, Janet spoke of her belief in the need to sequence the teaching of geographical knowledge. For example, she said, “You can’t do eclipses

without phases of the moon because you have no concept of movement.” She further explained this idea saying, “An eclipse only occurs at full moon for example or new moon and if you haven’t done what full moon and new moon is then you’re not going to know what I’m talking about when I say ‘What phases of the moon?’”

Another example showing Janet’s view of the importance of sequential learning in geography was found in our discussion of longitude and time and the seasons. When complaining that the teachers at this school sequenced the learning of geographical knowledge badly, Janet said, “Longitude and time . . . should have occurred even before they did the seasons so I just said, ‘I’m not going to do that now. It’s too late’.”

This view of the need to sequence the learning of geographical concepts was closely connected to Janet’s view of building knowledge through learning steps - teaching “little bit by little bit” - and building new knowledge on previously acquired knowledge.

At times the work engaged in by other teachers in the school influenced the work that Janet herself covered. For example, while she did not think monsoons were relevant to “the average standard seven kid” she said that other teachers in the school “were doing it so I did it”. At other times, she chose to ignore their decisions when she disagreed with them. She said that although she believed that she would change the way in which she taught the following year, she did not think it “worth changing or mentioning changing” at this point because “that’s going to put everybody’s backs up”. She acknowledged, too, that the way in which other teachers in the school worked “may be different from what I would do but it still works”.

### *Terminology*

Each of the lessons observed in this week contained references to terminology. For example, in the first lesson, after mentioning the next section they were about to study, Janet asked the class what an eclipse was and one pupil responded with a description after

which Janet asked for a few additional responses. Janet did not, however, pay as much attention to developing pupils understanding of this phenomenon as she usually did.

In the second lesson, Janet pointed to the similarity between the words “equal” and “equator”. Later in the lesson, Janet used and then explained the term “retina” when discussing the danger of looking at the sun. The term “reflection” was also explained in this connection.

### ***Pupils’ experience and their prior knowledge***

As mentioned above and described in the previous subsection dealing with the contradictions evident in Janet’s practice this week, less attention than usual was given to pupils’ experiences and prior knowledge of eclipses.

In going over the test in the second lesson, Janet used examples from pupils’ own experiences to help them to develop correct responses. For example, she referred to the weather in Durban that month. Later in the lesson, Janet asked the class whether they had had experience of seeing “spots” in front of their eyes when looking at the sun and, in developing pupils’ understanding of the term “reflection”, Janet drew on their experience and knowledge of mirrors.

### **Janet’s development - puzzles and inconsistencies**

This week had presented puzzles for me in terms of Janet’s development. After the tightened focus evident in Week 2, I had expected a continuation of this trend. Instead the first lesson of the week had presented me with contradictions and I had not really understood the reasons behind the changed structure in this lesson. In addition, I was not sure that Janet had provided me with an adequate explanation of it.

In the final interview, Janet commented that while she was uncertain that any changes in her thinking or practice had occurred during the study, she had become more “aware” that she did not often “reward” pupils after they had answered questions correctly. She went on to say that she thought that her involvement in the study had been part of “a learning process”.

In responding to my question as to whether she thought she engaged in good teaching practice, Janet said that she did not know whether “I’m doing a good job of teaching” these pupils. She said that she would have been able to say she had done so at her previous school but that she was not sure that she was “rising to the particular demands of” this school. She concluded that she did not think she could really answer my question yet and would probably need another year or so in which to evaluate her work. She went on to say that she felt that she would have to “change strategies” in order “to cope with the demands of the racial mix”. Janet then changed the term “race” to “sub-cultures” and said that these demands would “take a bit of getting used to”. She felt that many of these pupils needed “enrichment” and that she was “not too sure how to give it to them at this stage”. She viewed her own future learning of this aspect of her work as developmental saying that “I’ll probably have to discover as I go along”.

In this final interview, I asked Janet how she explained the coherence that I had observed in the theory/practice relationships in her work. This question led her to reflect on the influences of her past development as a teacher.

While there were personal factors that appeared to have influence Janet’s approach to her work - like Lilian, she felt that she would “suffer from boredom - excruciating boredom - if I had to do the same thing all the time” - she saw herself as having “changed the philosophies” underlying her teaching and her view of geography as a result of the reading she had done as well as her engagement in committee work relating to the teaching of geography as a school subject. She said, “I’ve done a lot of . reading er I don’t know whether you would call it research as such but I suppose it is in a sense er quite a bit

of research in terms of geography and where the subject is going and where it should be going and um . I I won't say that that I'm a specialist in it at all but I have perhaps done more work than the average teacher has done in that particular . section. I've been very active in the Natal Geographical Association um and I'm now on the syllabus sub-committee etcetera and which have made me stop and think and I think that in the last three years my view of of geography and teaching of geography has changed. I think it's been an on-going process. I think it has constantly been changing throughout the the last seven or eight years of my teaching". This view of her development suggested that involvement in activities beyond classroom practice is valuable in helping teachers think about their classroom practice. The connections between such involvement, teachers' perceptions of power and their identities, and theory/practice relationships in classrooms are explored in Chapter 7.

For Janet, geography was "one of the most dynamic subjects where you really can change the philosophy - your teaching philosophy. In fact, it lends itself to that really". Once again in the final interview, she spoke of the contributions she saw geography being able to make to children's education. She said, "Children need to be literate and numerate and orate and now they need to be graphate as well and maybe they even need to be mediate as well now". She explained this thinking by saying, "Obviously you have to be numerate because you're working with figures. You have to be literate as well but . graphicacy is one of the . particular contributions that the subject can make". She pointed to the way in which articles in magazines such as *Time* were illustrated with graphs and sketches. She said that "very often you can pick up the gist of what's being said without having to read the text by looking at those pictures if you know how to read them properly".

Janet pointed out that although schools concentrate on teaching the more traditional skills of numeracy and literacy, "there are other ways of expressing oneself and schools don't foster that. They really don't foster that. And yet there are ways if you think about it".

## CONCLUSION

At the end of the three weeks during which I had worked with Janet, I concluded that there were close connections between her views of knowledge and learning and her classroom practice. Because she believed that children first learned about much of the world in a relatively informal manner and in doing so acquired common sense knowledge, she saw her task as drawing on that fund of knowledge in order to connect these to deeper understandings and formal geographical concepts. As a result, her practice rested on questioning pupils and helping them to draw on their personal experiences.

In addition, Janet's view of geography as essentially a visual subject best learned through the study of illustrations and representations of reality closely connected with her use of such illustrations and representations as a basis for her questions.

Despite these close connections, there appeared to be gaps between reality and illustrations and representations of such reality. Janet acknowledged these gaps and believed that they could be closed through the development and use of skills. She believed that acquiring these skills was relatively unproblematic since they rested on stylistic devices which could be learned and transferred. Much of her classroom practice rested on this view. I have highlighted, however, those times when pupils did not learn from illustrations and representations as clearly as Janet's theory and discourse suggested.

The more problematic contradiction was that between common sense knowledge and geographical concepts. For Janet, such contradictions were rare and, even where they did occur, pupils' common sense knowledge was still seen as a useful starting point in the teaching/learning process. In this way, she dissolved the contradiction I had set up for exploration.

This chapter concludes Section B, the five case studies which served as a basis for the two stories of this project. The focus in each of the chapters in this section has been on

description and on the initial stages of analysis through the organisation of the data collected. The final drafts of these chapters were completed two years after I had written the last fieldnotes after the last lesson observed in Janet's classroom. While I had worked closely from the original lesson descriptions given to the teachers during the case studies, in writing the final drafts of Chapter 2 - 6 I became aware of the distance between the experience of observation and the act of documentation. Part of my learning to work as a researcher was learning to work with the associated tensions and the possible contradictions that this involved. Section C takes the project beyond description and pushes the distancing process even further in that I offer explanations for the theory/practice relationships in Chapter 7 and also detail aspects of my learning process as a researcher in Chapter 8.

## **Section C**

# **POWER AND IDENTITY IN THEORY/PRACTICE RELATIONSHIPS**

## OVERVIEW

Section C comprises three chapters each of which addresses issues of power and identity in theory/practice relationships.

Chapter 7 introduces the concept of power identity and provides an analysis of the place and role of teachers' power identities in the theory/practice relationships described in each of the case studies found in Section B. There are two related foci in this chapter - firstly, the influence of components of power on teachers' identities and secondly, the influence of power identities on both theory/practice relationships in teachers' work and on their professional development.

In Chapter 8, the epistemological foundations for the methodological decisions taken in this study are explicated. In essence, this chapter reveals the theory/practice relationships in the qualitative approach followed in this research project. The power identities of both myself, the researcher, and of the methodology used are examined.

Chapter 9, the final chapter of this dissertation, provides concluding comments in the form of questions and suggestions for understanding theory/practice relationships in terms of rationality, in teacher education and in teachers' professional development. As such, the chapter opens up possibilities for future teacher education programmes based on the conception of rationality offered here.

Section C is thus structured along two dimensions. Firstly, the more specific orientation arises from the data in each of the two stories found in Section B. This data is examined in relation to power and identity in theory/practice relationships in the work of the five participating teachers as well as in my work as a qualitative researcher. Chapters 7 and 8 present these analyses.

In the second more general orientation, the data from the case studies is used to inform questions and suggestions relating to conceptions of rationality and to teacher education and teachers' professional development. In this way, the lessons learned from data collected during the empirical study at the micro level are developed and related to issues at the macro level. Chapter 9 presents these questions and suggestions in terms of possibilities.

Each of these dimensions attempts to address a number of questions which, when teased apart, can be formulated as found below :

**Power identities  
and theory/practice relationships**

**Power identities  
and professional development**

**Specific Orientation**

1. How did power identities influence the theory/practice relationships in the work of the 5 participating teachers?

2. How did power identities influence the professional development of these teachers during the course of the project?

**General Orientation**

*for Rationality*

3. How can one understand coherent and contradictory relationships between theory and practice? i.e. How can rationality best be conceptualised?

4. How does change in thinking and in practice occur? i.e. What is the role of rationality in change and development?

*for Teacher Education*

5. How can teacher education programmes best be presented in order to empower teachers through theoretical knowledge?
6. How can action research projects best be planned in order to empower teachers and contribute to their development?

The above outline illustrates the links that can be made between grounded data derived from case studies and broader decisions which inform general programme development - in this case curriculum development in teacher education. In addition, the outline draws attention to the connections between grounded data, programme development and theoretical conceptions of rationality.

## Chapter Seven

### **POWER AND IDENTITY IN THE THEORY/PRACTICE RELATIONSHIPS IN THE FIVE CASE STUDIES**

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The chapter begins with an explanation of how power and identity as the analytical categories were derived - a methodological note - as well as a brief outline of those definitions of power and identity that informed this analysis. In this first section, an attempt is made to open up and make transparent the conceptual leaps between data collection, data organisation or semi-analysis, the use of existing theory and the development of grounded theory.

The second section, which constitutes the bulk of the chapter, compares the five teachers involved in this study in an attempt to address Questions 1 and 2 as outlined in the introduction to Section C. These comparisons relate to both the theory/practice relationships evident in the teachers' work as well as to the differing degrees of development in their theoretical orientations and classroom practice during the course of my work with them. Possible explanations for these relationships and for the differing degrees of development are based upon components of power identified in the data - both those mentioned by the participating teachers as well as those developed through my own interpretation of the theory/practice relationships described in Section B.

## **POWER AND IDENTITY AS ANALYTICAL CATEGORIES - A METHODOLOGICAL NOTE**

While I had been exposed to theoretical conceptions of power and identity in prior studies as well as through my informal reading, and while my initial proposal for this project made mention of the empowerment of participating teachers through action research, when I began the project I did not expect to draw on theories of power and identity in order to understand the theory/practice relationships under study. Later, with the benefit of hindsight, I realised that during the empirical work in classrooms, I had been aware of the different degrees of power exerted by the individual teachers; however, I did not begin to articulate this awareness until the fifth case study was underway and I became aware that Janet's perception of herself was one important factor in her decisions to follow or to deviate from the syllabus. At the time, however, I did not pursue this line of enquiry but proceeded to organise the data collected in each of the case studies.

This organisation constituted rereading all the fieldnotes and transcripts and reworking the data in terms of the trends or patterns and the contradictory elements in and between aspects of each teacher's work and discourse. In addition, I drew a chronological map of each case which traced the teacher's development over the three or four week period. Having organised the data in this more manageable form, I began work on another draft of the case study chapters using the four voices technique.

Before completing the rewriting of the first case study chapter, I found myself explaining Lynn's development during the period we had worked together in terms of her perception of herself as relatively powerful - as having and using power in the classroom. In addition, I began to explore her understanding of power as found both in her discourse and her practice. With these ideas in mind, I commenced reworking the second case study chapter using the four voice technique. It was at this point that I realised that although neither Lynn nor Kate had been my first choice as participating teacher, the data collected in these first two cases offered some significant opposing viewpoints and practices. I spent time

mining these differences and sketching the ideas on which this analytical chapter is based. Once again, I theorised that it was Kate's conception of the power of science and her perception of herself as relatively powerless both in the school in which she taught and the wider education system that were crucial in understanding the contradictions in the theory/practice relationships in her work and the limited degree of development that took place during my time of working with her.

While my interpretation and understanding of power and identity changed and developed as I continued to analyse the data from the subsequent case studies, this early comparison marked the point at which I began to theorise around these issues in relation to the five participating teachers' work and their professional development. The case study chapters were written in their final form at the same time that I reworked and edited the final draft of this analytical chapter. In doing so, I also drew on two papers I had presented at conferences: *Voice, Identity and Power : Classroom Teachers as Collaborative Researchers* (Wickham 1994c) and *An Academic's Voice : Beyond Challenges Towards Possibilities* (Wickham 1994e). In each of these papers I had begun to theorise issues related to the concepts of identity and power but had not yet transferred these ideas to the final analysis of the work of the five participating teachers in this project .

As can be seen from this description of the organisational and analytical processes, the analytical categories of power and identity were most clearly articulated by asking "why" after I had organised the "what" of the data. Once I had established the patterns of coherence and contradiction in the data, I began to focus on and develop questions around the key areas of contradiction found in the teachers' work as well as the relative shifts in their thinking and practice. It was the questions I asked around the negative cases, the puzzles and dislocations as well as the dissonant moments in teachers' work - rather than the coherent and consistent aspects of their work - that led me to develop theoretical explanations around power. These explanations broadened and deepened my understanding not just of how teachers work but also of how theory is used or ignored, how it might be better placed and used in teacher education programmes and how

theory/practice contradictions might best be conceptualised in developing an understanding of rationality.

A philosophical and more detailed explanation of the methodology used in developing grounded data is provided in Chapter 8.

## **SELECTED THEORIES RELATING TO TEACHER IDENTITY AND POWER**

Both the extent of teachers' power and the nature of their professional identities have been topics of debate in recent years. In developing and refining the concept of teachers' power identities, I have drawn on theorists involved in this debate both in South Africa and internationally. In addition, in attempting to develop closer conceptual links between the overarching themes of identity and power I have drawn on George H. Mead's view of the 'me' and the 'I' roles in the development of the self, Michel Foucault's conception of power and the work of Thomas Popkewitz who has related a similar view of power more closely to teacher education and to teachers' professional development. Finally, I have developed connections between teachers' power identities and the theory/practice relationships in their work.

The following section outlines selected aspects of theories relating to teacher identity and to views of power and its role in change and development. In addition, the contributions these theories and views have made to my thesis are highlighted.

### **Teacher identity**

Teachers' identities have been variously described in relation to the nature and degree of power they have been perceived to hold and exert. In developing my understanding of teachers' power identities, I compared two views of teachers' identities found in the recent

literature: firstly, the view of teachers as mere “pedagogical clerks” (Giroux & McLaren in Popkewitz 1987 : 279), and, secondly, the notion of teacher as “agents of transformation” (Davidoff & van den Berg 1991 : 30-33). While each of these views was useful in helping me to develop the concept of teachers’ power identities, I believe that they neither adequately reflect the everyday realities of the five teachers with whom I worked in this study nor do they offer a useful analysis of the power that shapes their identities.

The view that teachers are merely “implementers of policy curriculum and the research findings of others” (Cochran-Smith & Lytle 1990 : 2), and “educational technicians” (Giroux & McLaren in Popkewitz 1987 : 279) rests on the recognition of the trend towards the proletarianisation of pedagogy. This trend has led to tendencies in work organisation and work processes under capitalism which result in an increased division of labour, the separation of conception from the execution of tasks, increased controls over each step of the labour process, increased volumes of work and the downgrading of skills levels (Dinsmore in Popkewitz 1987 : 135). Proponents of this view highlight the management controls which affect classroom practice and which give the lie to the notion that teachers are accorded classroom autonomy and, therefore, professional status, within the larger bureaucratic structures.

While teachers in South Africa have not been unaffected by the trend towards the proletarianisation of pedagogy, this has not been the only factor which has influenced their identity. During the years of apartheid rule, teacher identity was also influenced by Fundamental Pedagogics, a subject enforced in colleges of education as well as some university-based teacher education programmes. Educationalists working within Fundamental Pedagogics described it as a value-free science which discovered and taught universally valid knowledge about education. Its opponents, on the other hand, described it as “an ideological activity masquerading under the name of legitimate education theory” (Davidoff & van den Berg 1991 : 28) and pointed to its social, cultural and political origins as well as to its connections to apartheid education.

Ironically, although the educationalists who developed Fundamental Pedagogics disguised their own values as scientific truths in order to realise their own political interests, education in South Africa was presented as depoliticised and its ideological nature remained hidden for many of those educated within its limits. Two of the most dangerous legacies of Fundamental Pedagogics have been firstly, the belief that education can be value-free and, therefore, divorced from political power, and secondly, the belief that scientific enterprise can reveal objective reality and universal truths. Each of these beliefs has contributed to teachers' theories about education and has shaped both their professional identity and their classroom practice.

For example, for teachers who understand curriculum as content to be identified, compartmentalised and broken into manageable pieces for transmission from teacher to learner in the most efficient way, learning is reduced to the mastery of accepted definitions. In working in this way, teachers are themselves reduced to a form of "classroom manager" (Giroux & McLaren in Popkewitz 1987 : 268) who pursues a technical interest in education. Not only does the reification of knowledge inhibit critical inquiry in both teacher and learner, but it encourages conformity and subservience to authority. As a result, teacher education institutions which included Fundamental Pedagogics in the curriculum operated in the interests of the state and "served apartheid well" (Davidoff & van den Berg 1991 : 25).

Strongly opposed to the view of teachers as uncritical transmitters of knowledge is that which presents teachers as potential key players not only in the transformation of education but, as "cultural workers in classrooms", as key players or agents in the transformation of society (Giroux & McLaren in Popkewitz 1987 : 285). This view, too, has found its way into teacher education programmes in South Africa - usually as progressive theory in liberal white universities - the assumption being that such theory contributes to teachers' identities as critical practitioners.

The catch words in progressive education theory in South Africa in the late 1980's and early 1990's were 'emancipation', 'empowerment' and 'transformation'. These terms fuelled the move towards the introduction of action research and reflective practice as useful approaches for both pre-service and in-service teacher education programmes. For example, Walker writes: "I assumed that practitioner engagement in action research would logically (and inevitably) develop into critical reflection on schooling and society. My own writing at that time reveals a confident assumption that the action research process has the 'potential to re-insert teacher agency into the struggle within education for the transformative schools, which aim to transform self and the social relations . . . rather than simply reproducing them'" (Walker 1993 : 97).

Each of the above views of teacher identity - even where these views diverge - relies heavily on the influences of social systems and structures. These views are "conceived of primarily in terms of the 'social object'" and the emphasis is placed on "the persuasive influence of a normatively co-ordinated legitimate order as an overall determinant or 'programmer' of social conduct" (Giddens 1984 : 30).

I, too, have argued for the connections between teachers' personal epistemologies, their classroom practice and the ways in which such practice influences learners' perceptions, their epistemologies and their views of their place in the world. In 1992 I wrote that "a focus on the role of the personal epistemologies of individual teachers and their influence on what children learn in classrooms and how they apply this knowledge to their actions and interactions in society will provide a clearer understanding of the role that teachers can play as agents of change", and that "if we are serious about transforming education in South Africa, it is essential that we first transform teacher education programmes" (Wickham 1992b : 2 & 6).

As a result of the analysis completed for this Ph.D. project, I now argue that teacher education for transformation is more complex than is provided for in social theories based on a subject-object dualism. Such theories view teacher education programmes and

schooling as social structures which influence and shape teacher identity and their work in particular ways. While still favouring a view of teacher education as a progressive force for transformation, I believe that the assumptions underlying action research and teacher education programmes for empowerment need to be more critically and carefully studied. I argue that to be an agent of transformation requires that one have a powerful identity - i.e. the capacity to change one's historical position and to make changes in the social arena. In addition, I argue that the components of power identified and described in the second section of this chapter are important influences on teacher identity and need to be considered in the development of future teacher education programmes and action research projects. Finally, I argue that while the two views of teachers' identities described above do not adequately reflect the realities of the five participating teachers, these inadequacies, themselves, provide useful lessons in developing a more complex view of teacher identity and the way in which they interact with social institutions.

I found that developing a more complex view of teacher identity was difficult work. This was partly due to the methodology required for such inquiry and partly due to the fragmented nature of identity in the late twentieth century. Bullough points to this latter difficulty when he writes that "no set of images is more slippery . . . yet of greater importance educationally than those associated with conceptions of self, the kind of person we imagine ourselves to be and how that person is supposed to relate to the world" (Bullough 1994 : 199). He quotes Gergen (1991) who writes that "images associated with self are slippery in part because of the impact of the vast cultural and social changes brought by the shift from a modern to a postmodern age where place and person are seldom long-linked. Coherence of self, the sameness that we take as proof of having a core identity, has become increasingly difficult to achieve and maintain" (Bullough 1994 : 199).

Bullough warns, too, that personal identity (as reflected in images, stories and metaphors) may be at odds with institutionally preferred identity because institutionalised discourses press conformity and discourage the use of alternative metaphors. In this way,

“institutionalised discourses anonymously co-author teachers’ stories”. (Bullough 1994 : 201).

Similarly, Popkewitz recognises the “potency of an institutional context not only for channelling thought and action, but also for reinforcing and legitimating social values” (1981 : 189). He draws on Foucault to argue that “the structural relations that are part of the organisation of social life” also become part of “the conceptions of self so that individuals engage in their own self-regulation” (Popkewitz 1987 : 219). Thus, institutionalised structures come to shape possibilities for individuals not only through laws and regulations, but also by structuring “rules of the possible”.

In addition to taking into account the close links between professional identity and other aspects of identity - for example, personal and political identity and their associated values - when developing a complex view of teacher identity, I argue that it is necessary to understand that the links between different facets of identity are “complex, shifting and argumentative” (MacLure 1993 : 383).

Mead’s description of the phases of the ‘me’ and ‘I’ roles in the development of the self provides both a basis for understanding the fragmented, fluid and precarious nature of identity as well as a basis for understanding the relative degrees of power different individual teachers are able to wield.

Mead describes the ‘me’ role as that which is “constituted by social relations” (Mead 1934 : 213) and which gives rise to a “conventional habitual individual” (1934 : 197). This view of the development of self presupposes social processes in which individuals are implicated and in which they empirically interact with one another. Through engagement in these social processes the individual takes on the attitudes of the “generalised other” (1934 : xxiv) and learns about appropriate social conduct.

Since there are many contexts and possible environments in which social processes occur, there are many possible 'me' roles which individuals may develop. Mead writes that "we divide ourselves up with in all sorts of different selves with reference to our acquaintances" (1934 : 142) and develop various elementary selves which constitute a complete self.

The 'I' aspect of the self is that which becomes aware of the social 'me' and which "reacts to the self which arises through the taking of the attitudes of others" (1934 : 194). In a way, this 'I' is "an historical figure" since it reacts as "the spokesman of the self of the second, or minute, or day ago" (1934 : 194). If the 'me' is the organised set of attitudes of others which one assumes, the 'I' is the response of the self to the attitudes of others, i.e. the 'I' responds to the social situation which the individual experiences. In addition, the 'I's' response is "the answer which the individual makes to the attitude which others take towards him when he assumes an attitude towards them" (1934 : 177).

The 'I' response can be distinguished from the 'me' response in various important ways. The former is the more creative and provides a sense of freedom and of initiative. While the 'me' response is governed by the attitudes of the generalised other, the 'I' response to the 'me' contains a novel element and one that is not known until the response is made by the self.

It is through the 'I' aspect of self that one is able to reflect or, as Mead puts it, to "get outside oneself" and to "be an object to oneself" (1934 : 138). Mead writes that reflection arises only under the conditions of self-consciousness and that this is linked to the "power of analysis" (1934 : 94) in that the individual isolates certain elements or categories of experience and distinguishes them from others, sometimes recombining them, and then explains the part or the role such elements play in the whole. This involves adopting "an objective, impersonal attitude" to oneself (1934 : 138). Such reflective thinking is preparatory to social action.

It is also through the 'I' response that the individual is able to "reform the order of things" (1934 : 168) and, through the action that it initiates, change the social structure. The reorganisation of social structures occurs through the emergence of the novel elements initiated by the 'I'. So, although the self is essentially a social structure which arises in social experience, "we are not simply bound by the community" (1934 : 168); rather "we are engaged in a conversation in which what we say is listened to by the community and its response is one which is affected by what we have to say" (1934 : 168). Mead believes that challenging the social system through such conversations is not only a right but a duty.

According to Mead, the living act of the 'I' "never gets directly into reflective experience. It is only after the act has taken place that we can catch it in our memory and place it in terms of that which we have done. It is that 'I' which we may be said to be continually trying to realise, and to realise through the actual conduct itself" (1934 : 203).

The combination of the 'I' and 'me' roles constitute a self, the essence of which is cognitive - self-consciousness rather than affective experience. "The 'I' both calls out the 'me' and responds to it. Taken together they constitute a personality as it appears in social experience" (1934 : 178). The self, therefore, is essentially a social process going on with these two distinguishable phases.

Teacher identity can be conceptualised within the framework of these two aspects of self. The 'me' aspect of teacher identity is that which is shaped and influenced by social structures and forces while the 'I' aspect of teacher identity is that which responds to this conventional self, challenging the constraints and limitations within which it operates. The 'I' role reflects on the 'me' role and creates new responses for action.

Mead's "conventional habitual individual" (1934 : 197) can be compared to the "routinized social practices" (1984 :2) that Giddens attributes to human agents whose knowledgeability of social rules is vital in their production and reproduction of day-to-day

social encounters. These activities draw upon and reproduce structural features of wider social systems. Similarly, the more powerful 'I' role described by Mead can be likened to Giddens' description of the social actor who monitors not just his/her actions but who also monitors this monitoring. As a result of this process, there are times when the social actor intervenes in the world or refrains from intervening in order to "make a difference" (Giddens 1984 : 14). Making a difference is, in effect, an exercise of power and signifies the "transformative capacity" (Giddens 1984 :14) of the individual. The "dialectic of control in social systems" forms the basis of Giddens' theory of structuration and is vital for understanding the interrelationships between teachers and schools as presented in this chapter.

The emphasis given to the 'me' and 'I' roles by individual teachers differs i.e. some teachers' classroom practice will reflect the conventional and habitual image of the 'me' role while others teachers' classroom practice will be innovative and creative. For Mead, it is largely the individual's capacity for "reflective intelligence" (1934 : 91) that constitutes the power of that individual to become an object to him/herself - a necessary precondition for challenging the social structures which shape attitude and behaviour. Similarly, Giddens writes of the individual's capacity for reflexivity and "discursive consciousness" (1984 : 5) as contributing to involvement in powerful action that initiates change.

In addition, given the dynamic relationship between the 'me' and the 'I' roles, the emphasis given to these roles by individual teachers shifts - sometimes within short periods of time, such as within lessons and interviews, but also over time as a result of changes in thinking or exposure to new social contexts.

These shifts in emphasis reflect shifts in capacity - in effect, shifts in power. I drew on Michel Foucault's conception of power and on the work of Thomas Popkewitz in understanding of the nature of power which shapes the capacity of teachers to develop the 'I' response to the 'me' of the self.

## **Power in conceptualisations of teacher identity**

Foucault describes both a juridical conception of power and a Marxist conception of power (Foucault in Gordon 1980 : 88), and opposes these with a third conception of power which is central to the analysis of the theory/practice relationships in the work of the five teachers who participated in this project.

The juridical or liberal conception of political power poses power as an original right, similar to a commodity which can be transferred or alienated, either wholly or partially, through a legal act. Power is viewed as concrete, something which every individual holds and whose partial or total cession enables political power or sovereignty to be established. Constitution of political power obeys the model of a legal transaction involving a contractual type of exchange. The *raison d'être* of political power is found in the contract.

The Marxist conception of power rests on the economic functionality of power since power is conceived primarily in terms of the role it plays in the maintenance simultaneously of the relations of production and of a class domination which the development and specific forms of the forces of production have rendered possible. The *raison d'être* of political power is found in the economy.

Foucault opposes each of these views and provides a third view of power. He writes that power is “neither given, nor exchanged, nor recovered but rather exercised, and it only exists in action” (Foucault in Gordon 1980 : 89). In addition, he writes that “power is not primarily the maintenance and reproduction of economic relations, but is above all a relation of force” (Foucault in Gordon 1980 : 89). As such, it needs to be analysed in terms of struggle and conflict. In this chapter I demonstrate that the constitution and development of teachers’ power identities involves **daily struggle in action within conflicting relations of force** as does the maintenance and exercise of their power identities over time.

Foucault also describes the manifold relations of power in the social body as well as the shifting nature of power. He writes that:

“power is not to be taken to be a phenomenon of one individual’s consolidated and homogenous domination over others, or that of one group or class over others. Power, if we do not take too distant a view of it, is not that which makes a difference between those who exclusively possess and retain it, and those who do not have it and submit to it. Power must be analysed as something which circulates, or rather as something which only functions in the form of a chain. It is never localised here or there, never in anybody’s hands, never appropriated as a commodity or piece of wealth. Power is employed and exercised through a net-like organisation. And not only do individuals circulate between its threads; they are always in the position of simultaneously undergoing and exercising this power. They are not only its inert or consenting target; they are always also the elements of its articulation. In other words, individuals are the vehicles of power, not its points of application” (Foucault in Gordon 1980 : 99).

Popkewitz, too, criticises a two dimensional and static view of the concept of power. He draws on the work of Bourdieu who provides the idea of “the social space in which epistemologies operate and of the patterns of social relations which constitute the field of social power . . . power as relational” (1991 : 5). Popkewitz points out that a dichotomous view of power as found in the dualism of empowered/disempowered and oppressor/oppressed loses sight of the subtle ways in which power circulates and operates in multiple sites through the actions and practices of individuals within many sub-cultures and through “multiple agendas within social factions of movements” and “a multiplicity of relations . . . within and among groups at any one time” (1991 : 222).

Popkewitz writes of the effects of power as it “circulates through institutional practices and the discourses of daily life (1991 : 23). Here “power is embodied in the ways that individuals construct boundaries for themselves . . . and envision possibilities” (1991 :

223). In describing power as relational and regional, Popkewitz highlights the way in which it is “intricately bound to the rules, standards, and styles of reasoning by which individuals speak, think, and act in producing their everyday world” (1991 : 223). These ideas echo Foucault’s view of power as “a machinery that no one owns” (Foucault 1980 : 156) and the view of the individual as both constituted by power and, simultaneously, “its vehicle” (Foucault 1980 : 99).

Foucault’s theory of micro-powers was developed in opposition to the model of oppression based on the view that power is located within a single socio-political apparatus; instead, his theory insinuates power-relations into every nook and cranny of modern life. For example, the micro-powers of discipline, regulation and control are conceptualised as diffused, decentralised and relatively independent of the functioning of the state.

Of particular interest to this project is Foucault’s conception of pastoral power, a component of the micro-powers dispersed within complex networks of social control (Foucault in Kritzman 1990 : x). He distinguishes between political power and pastoral power in that in the former power is wielded over legal subjects, whereas in the latter it is wielded over live individuals (Foucault in Kritzman 1990 : 67).

Foucault describes pastoral power as power that is nurturing and caring, and that has the welfare of individuals as its initial and final goal. “It is positive power, in the sense that caring altruistically for another is positive: it involves a gift” (Forrester 1994 : 18). The role of pastoral power is to “constantly ensure, sustain and improve the lives of each and every one” (Foucault in Gordon 1988 : 67). It is “salvation-oriented . . . altruistic . . . and individualising . . . coextensive and continuous with life . . . (and) linked to the production of truth - the truth of the individual himself” (Foucault 1983 : 214 quoted by Forrester 1994 : 13).

Pastoral practices form a “technology of power” (Foucault 1988 :63) for the management of people and are illustrated in the power exerted by institutions such as the church over its members or the clinic over its patients. The school, too, in its position of being ‘in loco parentis’ exerts power and control over pupils in a variety of ways - one of which is through the pastoral power exercised by teachers over their pupils. In such systems, writes Foucault, the subjected subject is the only subject, a product of “coercive individualisation” and a feature of modern society (Foucault 1977 : 239). The second section of this chapter makes references to the pastoral technology of power used in classrooms, micro-mechanisms of power including techniques and procedures for exclusion from power, as well as apparatuses of surveillance.

Foucault conceived of the struggle against social domination as against the exploitation of the products of individuals and groups; he characterised it as a struggle “against that which ties the individual to himself and submits him to others” (Foucault 1983 : 212 quoted in Forrester 1994 : 18). Against this, Foucault saw the need for a time of struggle for a new subjectivity - an alternative way of being a modern individual. For him this had, of necessity, to be non-Christian; to escape from the hermeneutics of the self, from the pastoral injunction to singularise. The extent to which teachers, themselves, engage in this struggle and the extent to which they encourage their pupils to do so is examined in the second section of this chapter.

While a dichotomous view of the world of power produces overarching definitions and homogenises others, a relational view of power such as that described by Foucault and Popkewitz produces descriptions of individual moments of power - times when power is held and times when power is lost. The relative nature of power is best understood in terms of the multiple sites of micropowers in society. For example, while teachers exert power over their pupils, power is also exerted over them both in the specific school context and in the wider education system. In addition, pupils who contest and resist teachers’ power constitute yet another force in classrooms. Furthermore, the dynamics of

the power relations between the system, the school, the teacher and her pupils are not constant.

I have come to understand teachers' power identities in terms of these definitions of power. They, too, are not constant but shift in relation to the other micropowers which impact on their everyday realities. In addition, I understand teachers' power identities as dependent on their conceptions and perceptions of power which, themselves, change according to the relations of power teachers find themselves in and which they construct for themselves with their pupils, their colleagues in their institutions as well as with the authority figures in these institutions and the wider social system. Therefore, in examining teachers' power identities, other sources of power also need to be examined.

While the definition of pastoral power is useful in understanding aspects of the practice and discourse found in the five case studies in Section B, in the second section of this chapter I question the distinctions Foucault makes between pastoral and political power. In addition, I argue that the concept of pastoral power is insufficient in developing an understanding of teachers' power. While pastoral power is most closely related to the technologies of power that teachers employ in classrooms, the base for their power identities is much broader base than this and, I argue, includes elements of political power.

The second half of this chapter identifies components of power - both normative and non-normative - which impact on teachers' power identities. The struggle for a powerful identity, I argue, occurs through action, i.e. processes which, when analysed, demonstrate relations of force which shift and require teachers' ongoing engagement. In this way, I develop a view of power as processual since it is through engagement in processes that power is struggled for and either diminished or retained.

## **The role of power in teacher change and development**

In addition to providing an explanation of the role of components of power in shaping teacher identity, the second section of this chapter also offers an explanation of the role of power in teacher change and development. In developing my argument for the centrality of power identity in change and development, I have developed the view of power as processual and drawn on the postmodern view of change.

Rather than use the catch words ‘empowerment’, ‘emancipation’ and ‘transformation’ which are too ambitious for the work of this project, I have chosen to use the terms ‘change’ and ‘development’ to describe the shifts in teachers’ thinking and practice. These terms are, I believe, more appropriate in describing the more subtle and nuanced changes that occurred as a result of the collaborative engagement described in Section B. In addition, these terms better reflect the views of power as processual and identity as fluid and unstable.

According to Foucault, wherever there is a power relation there is the possibility of resistance; consequently, we can never be ensnared by power because we can always modify its grip in determinate conditions and according to a precise strategy (Foucault in Kritzman 1990 : 123). Power and resistance, therefore, need to be understood and analysed in “tactical and strategic terms”: “each offensive from the one side serves as leverage for a counter-offensive from the other” (Foucault in Gordon 1980 : 163). Power is conceived of as “a productive network which runs through the whole social body” and needs to be considered as “much more than as a negative instance whose function is repression” (Foucault in Gordon 1980 : 119).

Positive instances and effects of components of power in shaping teachers’ identities, their thinking, classroom practice and professional development are highlighted in the second section of this chapter. The importance of these effects is further developed in Chapter 9 in terms of possibilities for future teacher education programmes.

In her critique of environmental education and research on South Africa, Janse van Rensburg draws on postmodern perspectives on change which challenge the modernist understanding of what change is and how it comes about. Janse van Rensburg quotes Doll who argues that the “modern view towards change” is largely conservative in that it is committed to change within certain well-defined parameters, but “fearful of it lest change break those parameters” (1995 : 167). Doll points out that twentieth century thinking tends to espouse a Newtonian perspective and “in Newton’s ideal universe, stability, not change, was the desired goal. Change which is associated with chaos, complexity, confusion and uncertainty is not a part of modernist thinking” (quoted by Janse van Rensburg 1995 : 167).

On the other hand, quantum physics and postmodernism with their emphasis on a finite world, complexity and chaos (as opposed to harmony, order and uniformity) encourage a view of change as discontinuities, disruptions or breaks in practice and discourse which can only be described after the event. In addition, “complexity assumes reality to be web-like with multiple interacting forces” and observers as being “inside rather than outside the web” (Doll quoted by Janse van Rensburg 1995 : 167).

Distinctions can also be made between “transformatory” and “accumulative” change. In the latter, there is external control while internal reorganisation through interaction is found in the former. Transformatory change recognises and allows for indecision and indeterminacy, reflects the difficulties of identifying and understanding change and its nature of change, and requires ongoing struggle. Accumulative change, being incremental, is closely tied to previously existing structures (Janse van Rensburg 1995 : 167).

In examining the effects of different components of power on teacher change and development, I highlight the lack of clarity that accompanies these processes and distinguish between transformatory and accumulative change. I also demonstrate the indeterminate nature of change and development and the way in which it is better understood in retrospect. This theme is also found in my description of my own

development as a qualitative researcher in Chapter 8 where I highlight the time it took for me to understand the shifts in my thinking and the processes through which I needed to work in order to do so.

In the second section of this chapter I argue for the centrality of teachers' power identities in change and development. In other words, when teachers feel powerful or see themselves as having degrees of power, they are more likely to engage in projects of self-development. I argue, too, that transformatory change requires degrees of and special relations between different components of power and I illustrate the ways in which certain components of power oppose and counterbalance others and so encourage teachers to contest prevailing conditions and hegemonies.

## **GROUNDED THEORY RELATING TO TEACHERS' POWER IDENTITIES**

This section of this chapter begins with a definition of teachers' power identities and a brief introduction to the seven components of power identified in my analysis of the five case studies found in Section B. In the remainder of the chapter, each of the seven components of power is further defined and described. The effects of these components of power in shaping teachers' power identities and the influences of these on both the theory/practice relationships in the five teachers' work and on their professional development during the period of collaboration are highlighted.

Although they have been teased apart and presented under separate headings, the seven components of power are not discrete entities. I refer to the complex relationships between them, and between them and the other relations of power as well as those processes that engage teachers in daily struggle in action. I illustrate the shifts in teachers' power identities in relation to time and to context as well as in relation to their thinking and practice. These shifts serve to further blur the boundaries between the seven

components of power dealt with here. The linkages between teachers' power identities and their personal epistemologies are also clarified.

### **Defining teachers' power identities**

I have come to understand and to define teachers' power identities as teachers' capacities to use components of power as resources which enable them to develop greater control over aspects of their daily lives - in the case of this particular project, over the theory/practice relationships in their work and over their professional development. These capacities are closely linked to the creative 'I' aspect of the self which challenges the 'me' role and, therefore, the prevailing attitudes to knowledge and to classroom practice.

I have come to understand, too, that capacity changes not only over time and according to context but that it shifts in subtle ways from situation to situation - almost from moment to moment. Janet, the fifth teacher in this project, captured this perspective when she told me that while she did not think the descriptions I had written of her lessons were "a totally different picture at all", she did think "it may be a limited picture at a particular moment in time". By this she meant that the classroom practice I had observed was a reflection of her particular circumstances at that time, i.e. working in a new school context with pupils she did not know well. She understood that I had seen only a "partial picture" of her work. Similarly, I now understand that I had only seen a partial picture of her power identity.

In addition to being discernible in moments of power, capacity is also evident in patterns of both thinking and action - teachers' discourse in classrooms and in interviews and in their classroom practice. I have learned that while capacity can be either consciously or unconsciously held, it is when a teacher becomes more aware of her capacity that she strengthens her power identity. In other words, capacity brought to consciousness itself becomes a resource - and so another component of power.

Drawing on Mead's two phases of the development of self and the notion of power as processual, I conceive of power identity as being always under construction. My interpretation of the data from the five case studies suggests that teachers' power identities are influenced in a variety of ways and by a number of factors - both positive and negative effects, external and internal factors, normative and non-normative forces and by both current and historical events.

A lack of capacity, or a teacher's inability to harness and to use components of power as resources, functions as a constraint and weakens her power identity. Teachers who lack capacity over extended periods of time feel disempowered, confused and frustrated. I argue that these teachers are more likely to experience greater dissonance between the theory/practice relationships in their work and that they are also less likely to engage in projects of professional development.

I identified and developed the following components of power in my analysis of the data collected in the five case studies. I do not suggest that they are exclusive, nor do I suggest that they are generalisable to all teachers in all contexts; nevertheless, I believe that they offer a micro-analysis of components of power many teachers will be able to recognise. (A more detailed explanation of the power of qualitative research to offer generalisations and broader perspectives is developed in Chapter 8.)

### **Introducing seven components of power**

In a project which recognises the importance of teachers' voices, it is appropriate to examine the component of power most frequently mentioned by the teachers, themselves, at the beginning of this section. Teachers perceived **structural components of power** to be the most important constraints on their classroom practice and, hence, on their capacity to achieve coherent theory/practice relationships in their work. In describing the structural factors mentioned by the five teachers and in considering the impact of these forces on their work and development, the duality of structure as explicated by Giddens' theory of

structuration is highlighted, i.e. the interaction between human agents - knowledgeable and reflective social actors - and social institutions is emphasised.

While it was the negative effects of structural components of power that were most frequently mentioned by the participating teachers, I noted that some of them used structural factors to their advantage. These differences are mentioned and the possible reasons behind them are explored.

While recognising the crucial effects of structural factors, I argue that these reflect only one component of power in teachers' contexts and that their power identities are influenced by other factors which can and do effectively challenge and sometimes outweigh the negative effects of structural factors.

The second component of power, **teachers' subject identities**, was not as directly referred to by teachers as that relating to structural factors but was implicit in their discourse. The concept of teachers' subject identities refers to teachers' views on the nature of the knowledge they teach and the value they place on this knowledge. I argue that teachers' subject identities form important bases from which they work and, as such, influence their power identities. In effect, teachers' subject identities highlight the extent to which an individual teacher identifies with her teaching subject. Subject identities are also influenced by teachers' conceptions of the importance of their teaching subjects relative to the prevailing hierarchies of knowledge and serve to highlight the connections between teachers' personal epistemologies and their power identities.

Thirdly, **teachers' theoretical consciousness** - their ability to conceptualise, articulate and argue for their beliefs and views on knowledge, learning and education - are important components of power which shape their power identities. Fourthly, **teachers' reflexive power** or their capacity to reflect on their practice as well as their positions within educational institutions and the attendant power structures and relations increases and strengthens their capacities to recognise coherence and/or dissonance in their work - an

important first step towards implementing changes in thinking and practice. I argue, too, that these two components of power are most influential when they operate in conjunction, i.e. when a teacher has a strong theoretical consciousness against which to evaluate her experiences and reflections, the likelihood of her resolving contradictions in her thinking and practice is greater.

Also closely associated with theoretical consciousness and reflexivity is a fifth component of power - that of **teachers' imaginations**. Without imagination, teachers' capacities to envision new and alternative possibilities for educational projects and practice are limited. I argue that unless teachers are able to move beyond critique and reflection and develop a language of possibility and a plan for the implementation of possibilities, they will not develop practices of power. This argument also illustrates that practices of power are based on the prior development of components of power.

There are two further factors that were significant in shaping the five teachers' perceptions of their relative power and, therefore, their power identities. The first of these refers to **teachers' political consciousness** - both their broader ideological beliefs and values as well as their perceptions of and views on the politics of their own locations in schools and the wider communities. In this sub-section, the extent to which the participating teachers were able to recognise links between the political and the pedagogical are described and the effect of such recognition on the theory/practice relationships in their work and their development is outlined.

The seventh and final component of power offered in this thesis is that of **teachers' personal histories** which includes teachers' own experiences as learners - in both formal and informal settings - as well a variety of life experiences that shaped their perceptions of self and, therefore, their power identities.

In further developing descriptions of and explanations for the importance of these components of power in the remainder of this chapter, I draw on examples of teachers' practice and discourse found in the five case studies.

## **Structural factors**

Each of the teachers with whom I collaborated partially explained the contradictions between her theory and practice by citing what she viewed as being external constraints, i.e. those structures and systems within specific school contexts and in the wider educational and social communities that acted as constraints. An analysis of teachers' discourse in interviews highlighted the ways in which institutional structures shaped possibilities for them not only through laws and regulations, but also by structuring conceptual "rules of the possible" (Popkewitz 1991 : 219) which channel thought and action and reinforce and legitimate social values (Popkewitz 1981 : 189). In this way, non-normative and normative components of power become fused and "the structural relations that are part of the organisation of social life" become part of "the conceptions of self so that individuals engage in their own self-regulation" (Popkewitz after Foucault 1991 : 5).

While teachers tended to refer to structural factors as external to themselves, the interpretation offered in this chapter points to the interaction of human beings and social institutions and highlights the ways in which teachers reproduced their contexts. This interpretation rests on the duality of structure where the constitution of agents and structures are not viewed as two independently given sets of phenomena, a dualism, but represent a duality. According to this view "the structural properties of social systems are both medium and outcome of the practices they recursively organise" (Giddens 1984 : 25).

In comparing the teachers' perceptions of and responses to structural factors, differences between teachers and their respective power identities are highlighted. These differences suggest that the control exerted by structural factors is not absolute but that structural factors are only one component of power in teachers' contexts. The complexity in

understanding teachers' responses to structural factors is illustrated in a comparison of Kate and Lilian's cases. Despite the differences in the number of years teaching experience and in their positions of power, Kate and Lilian were the two teachers who appeared to be the most affected by structural constraints. This suggests that while inexperience might be important in explaining a lack of capacity, power cannot be simply associated with greater experience or with a higher position in the hierarchy in a school.

The structural factors cited by teachers included the external standard 10 examination, the emphasis on testing and examinations within schools, school syllabuses, insufficient time, administrative duties, extra-curricular activities, the hierarchical structures both in the schools and the wider systems, and issues relating to gender. The importance of the pupils, themselves, and of class size were also mentioned. While several of these factors are connected to the trend towards the proletarianisation of pedagogy identified by international theorists, others are more closely linked to the historical structures in the South African education system as well as the changes that had begun to take place in schools in this country in 1993 and 1994.

Rather than providing an explanation for or critique of the structural factors identified by the teachers, this sub-section focuses on teachers' perceptions of these components of power and on their capacities to deal with them in everyday action.

### ***The external standard 10 examination***

The gatekeeper role played by the external standard 10 examination was particularly well explained by Marion, the mathematics teacher. She said that a pupil who had gained a good matriculation result in mathematics was more likely to be accepted at a university, the gateway to "so many other things". In this way, Marion's discourse highlighted the expectations and values of the community that her school served. She saw herself as being responsible not only for her pupils' learning of mathematics but also for their gaining entry

to university education and the resulting upward mobility and financial rewards with which such education has become associated.

Marion's acceptance of her role in this regard - in effect, the fusion of normative and non-normative components of power and the resulting strength of the 'me' role - was partly responsible for the contradictions between her discourse and classroom practice - especially between her expressed preference for a discovery-based approach to learning and her adherence to more traditional approaches to classroom practice. The conflict set up by the 'me' and the 'I' roles which respond to a given situation in different ways is also illustrated here.

The narrowing of Marion's vision - further elaborated upon in the sub-section dealing with teachers' imaginative abilities - was reflected in her use of metaphor. She spoke of the "matric exam" as lying "at the end of the tunnel" which suggested the constraints she felt this examination imposed on her. She compared herself to the teachers with whom she had worked in the United States and described them as being "much freer" than her.

While I wondered to what extent Marion made use of certain structural arrangements - particularly those related to examinations - to justify classroom practice with which she was fairly comfortable - her frequent references to the "matric exam" in motivating her pupils during lessons suggested that they, too, shared her perception of this examination as a gatekeeper to "better things".

In addition to illustrating the way in which normative and non-normative components of power become fused, the external standard 10 examination can be understood as acting as a form of "dressage" (Foucault 1980 : 161) which exercises a disciplinary and controlling function on both teachers and pupils alike. In addition, it illustrates its force as a technology of power - one that relies not on traditional relations of force but on what Foucault calls "an inspecting gaze" (Foucault 1980 : 155). The weight of the gaze of the standard 10 external examination and its associated values served to constrain teachers'

thinking and classroom practice. By interiorising this gaze and these values, individual teachers exercise surveillance over, and against, themselves. Foucault describes such technologies of power as “superb formulae” because power is exercised continuously and “for what turns out to be a minimal cost” (Foucault 1980 : 155).

Just as teachers are constrained in their classroom practice by the external standard 10 examination, so they use this as a device to control and discipline their pupils. Evidence of this can be seen in teachers’ discourse. For example, while some teachers - for example, Kate and Marion - used this strategy quite overtly, other teachers who attempted to base their classroom practice on factors other than examinations - such as the relevance of knowledge to pupil’s everyday lives - nevertheless included references to examinations in their classroom discourse. These references served not only to help pupils develop techniques for answering examination questions but also to emphasise the importance of the external examination in assessing pupils’ progress and worth.

The discipline teachers associated with the preparation and writing of external examinations not only set the boundaries for their classroom practice as well as their interaction with pupils, but may have also shaped pupils’ views of themselves. For example, I had noticed contradictions between Lilian’s strategies for the management and control of the test situation I had observed - which were linked to the preparation she thought necessary for standard 10 pupils for their final matriculation examination - and her belief in treating pupils - even those in standard six - as adults.

Lilian attempted to straddle the divide between her wish to develop pupils’ broader perspectives on historical knowledge and the need to prepare them for an external examination by focusing on the skills required for preparing for and writing examinations. A skills-based approach rather than the just the need to memorise facts helped her to meet the demands of the external examination while maintaining a focus on her personal epistemology. Balancing the tensions between these foci was not easy as Lilian herself acknowledged.

Unlike Marion and Lilian, Kate, still an inexperienced teacher, had no balancing strategies in place. As a result, the contradictions between her ideal practice and her actual practice were more obvious. In effect, these were contradictions between the 'me' and the 'I' roles. When these contradictions loomed large - especially during interviews - Kate pointed to the power of structural factors. In effect, these arguments represented a dissolution, rather than the resolution, of the theory/practice contradictions in her work. Teachers who continue to dissolve rather than confront such contradictions are released from pedagogical responsibility - in effect, they take refuge in structural factors. This stance confirms their powerlessness. In Kate's case, I noted that the emphasis she gave to structural factors and the importance of learning biology through memorisation became more rather than less evident during the course of my work with her.

### ***The emphasis on testing and examinations***

It was not only the external standard 10 examination that teachers cited as an important constraint on their work; the emphasis placed on testing and examinations within the school for all lower standards was also mentioned. In certain schools, this emphasis constituted a culture of testing rather than a culture of teaching and learning!

Lilian, in particular, spoke of her attempts to cut down on time-consuming tests and the associated marking but said that "if you want results by the end and if you really have . the learning of the child at heart, you can't skip (tests and examinations)". She explained that the school's regulation requiring that each class write three tests per term meant that "when you have nine classes you barely finish with the one lot of tests when you have to set the next". The incongruity of this regulation was highlighted in Lilian's use of the term "madness" when she explained that were she to try to keep to it she would do very little teaching in a nine-day cycle - especially in the standard six and seven classes which had only three lessons during the course of this cycle.

Similarly, in an interview Janet pointed to the way in which school regulations influenced the way in which she tested pupils' knowledge. She said that one of her reasons for testing section by section was because "you do have to have so many marks in one exam term" and that these marks are required for term reports.

Lynn, too, believed that "examinations and marks" inhibited her ability to "develop enquiring minds" in her pupils. Her method of dealing with this constraint and balancing it against her personal epistemology was to teach from her pupils' own experiences wherever possible. She combined this with a skills-based approach emphasising those skills which were required in writing examinations. For example, although one of the chief goals of the lesson on elements of play production was to prepare pupils for a possible examination question, Lynn worked from the pupils' own experience when helping them to "find the vocabulary" necessary to cope with such a question. I noted, too, that the skills incorporated in Lynn's lessons went beyond those required in examinations. For example, the lesson on play production also included the development of those skills required for good listening, participation in social discussion and knowledge construction and the passing of value-judgements. In addition, by encouraging pupils to reflect on their past experience and to listen to the reflections of others, Lynn enriched her pupils' understanding of that experience.

Other strategies teachers used to help to balance the tensions introduced by tests and examinations included encouraging pupils to adopt an examiner's perspective, using highly motivational teaching material and practice (e.g. competition, pupil presentations) and encouraging pupils to relate the knowledge under study to their own life experiences.

One of the effects of the emphasis given to testing and examinations was pointed out by Marion when she said that she did not consider using alternative forms of appraisal because "we have too many tests in the school anyway . . . and so I avoid testing under any other conditions". A similar reason may have been behind Janet's reluctance to explore the other methods of appraisal - for example, "peer-peer" appraisal - that she said

she would like to employ. In addition, I thought it possible that structural factors constrained teachers' imaginations, an important component of power referred to later in this chapter.

### *School syllabuses*

Closely allied to the above factors in teachers' discourse was that of school syllabuses. Interestingly, however, it was in their response to this factor that I perceived important differences between individual teachers. These differences centred on the extent to which they adhered to or deviated from the syllabuses and were closely linked to their attitudes to the syllabuses as containers of knowledge and to their teacher identities. It was also in relation to these responses that other components of power on which teachers drew came into sharper focus.

Kate appeared to be the teacher most firmly rooted in the syllabus. She said that her work with her standard 10 class "was definitely geared towards finishing the syllabus" and so she felt she had to "teach them" rather than provide opportunities for discussion. At this stage in her career, Kate lacked the experience which might have enabled her to move more freely within the syllabus. Kate's 'me' role was given emphasis over that of her 'I' role. She was further constrained by her view of the syllabus as an entire entity as reflected in her words - "you'd have to change the entire syllabus" if you wanted to "drop" one section "because . . . it's all linked together".

On the other hand, Kate said that her work with the standard 6 experimental class where there was no syllabus had provided her with greater freedom and had been much more enjoyable. I also noted that when encouraged by me, she moved beyond her view of herself as "just a teacher" and made suggestions for changes to the syllabus that related to both its form and content; unfortunately, these shifts in thinking were temporary. I would argue that Kate's power identity and her 'I' role were not sufficiently strong to sustain this more risky thinking or to transform her thinking into practice.

Kate's difficulties in sustaining alternative visions of her role vis a vis the syllabus - and so challenging the constraints it imposed - was compounded by the way in which various structural factors were intricately related in her thinking. For example, she made connections between the unrealistic demands of the syllabus and the difficulties she experienced with pupils' behaviour. She felt that because pupils were not able to understand the work, they were frustrated and misbehaved in class. In order to confront the challenges imposed by the syllabus, Kate also needed to re-consider her views of pupils and the causes of their difficulties. This task, in itself, required her to draw on other components of power.

In spite of her strong criticisms of the South African mathematics syllabuses, Marion's classroom practice largely supported the system of which she had become a part. She said that "the sort of maths that we teach doesn't lend itself to self-discovery as far as methods are concerned" and "in this country where we are dealing with fairly high level algebraic processes . . . the chance of their discovering method for themselves is not great". In addition, she spoke with enthusiasm of alternative approaches to teaching and learning mathematics. This suggested to me that teachers' insights and enthusiasm were insufficient in empowering them to initiate counter-hegemonic practices even where these were articulated and approved of. Further comments on this issue are made in the sub-section dealing with theoretical consciousness.

I thought that the teachers who were most confident in manipulating the syllabuses were Janet and Lilian. While Lilian admitted that she was "bound by the material that should be covered", she admitted to rearranging the syllabus to suit both her personal epistemology and the needs of her pupils. - "I'm bound by the material that should be covered . . . but my way is of making it as interesting as it is possible" revealing her acceptance of the syllabus and her method of resolving the contradictory elements in her work as a teacher of history. She said that it was necessary to "use everything in the book or not in the book" to enable pupils to enjoy their learning.

In an interview, Janet drew links between teachers' over-reliance on the syllabus and their insecurity. While similar views were expressed by other participants, there was a stronger relationship between Janet's discourse and her practice in this regard than in the other cases. I noticed Janet's confidence in omitting sections of the syllabus when she felt it was appropriate to do so. This was in line with her view that individual teachers had "quite a lot of autonomy . . . within the syllabus". Reasons for Janet's more optimistic view of teachers' power is best understood when related to both the creative 'I' and to other components of power - especially her past experience on syllabus committees and her theoretical consciousness.

One of the most important constraints associated with each of the three factors dealt with above - the external standard 10 examination, the emphasis on tests and examinations within the schools and the school syllabuses - was that of time.

### *Time constraints*

All teachers said that a lack of time constrained their classroom practice and influenced the learning of their pupils. For example, Lynn pointed to the lack of time for "debate" and "challenge" over "contentious issues". She also said that insufficient time did not allow pupils the opportunity to develop their own ideas or perspectives.

Similarly, Kate explained that as a result of time constraints, she "wouldn't spend a long time working on" aspects of the syllabus even though she might know that "pupils have not understood" and that "their concepts in their minds are wrong"; instead, she explained that she resorted to telling pupils "to learn it off by heart". Kate also said group work was an approach she would like to try but that it "takes quite a bit of work and preparation and most times (teachers) haven't had time to do it". She concluded this discussion by saying that she "would like more time and less content" in the syllabuses so that she could spend longer periods of time working with pupils to develop their understanding.

Lilian also believed that having additional time at her disposal would allow her to further develop pupils' skills, especially those relating to thinking and reasoning. She also explained how time influenced her choice of teaching methods especially in standards nine and ten. She said that "to a large extent" it was not possible to use story-telling with these pupils "because you try to finish the standard nine syllabus to start on the standard ten syllabus that bit earlier". By doing this, there would be more time for revision for the final standard ten examination. The links between teachers' perceptions of the syllabuses, the external examinations, time constraints and their classroom practice are illustrated in Lilian's explanations.

I noted that when Marion spoke of time constraints to her pupils, she did so in order to justify her classroom practice. For example, she explained to her class that she was dictating notes to them in order to save time. In addition to highlighting the way in which time constrained teachers' choices in their classroom practice, this example captures the balancing act by which teachers maintained the tensions between their ideal practice and the realities involved in their actual situations.

Despite Janet's more flexible approach in dealing with the syllabus, she was sympathetic to teachers who felt "bogged down in the time limits". She recalled having often heard teachers say 'I don't have time to do this' and 'I don't have time to do that' and agreed that needing to "get through a certain body of work" before examinations constrained teachers who wished to pursue a research-based approach to learning. Janet also spoke of the "time limit" of individual lessons and the constraints this imposed on teachers' encouragement of pupils to explore topics or to go off "at a tangent". She felt that in this respect she limited her pupils' opportunities to provide alternative responses to her questions.

Generally, however, time constraints featured less often and less emphatically in Janet's discourse than in that of the other teachers in this study. Janet, herself, suggested possible reasons for this. She said that teaching geography did not require as much marking or

preparation as some other subjects such as the languages or history. She also thought that teachers' lack of "time management" may have contributed to the difficulties they experienced. I would argue, too, that Janet's power identity gave her the capacity to deal with various structural components of power so that she was less influenced by as many as these as were other teachers in the study.

In addition to completing the syllabuses and setting and marking tests and examinations, teachers' time and energies were consumed by heavy markloads. This was emphasised by Lilian who mentioned in one of our discussions that she was due to collect "one hundred and forty-odd projects" from pupils the next day.

The way in which individual teachers dealt with these aspects of their work varied. Marion told me that "over the years" as the numbers of pupils per class had increased along with the number of lessons per week, she had found that "it's just not possible to mark that much". On the other hand, Lilian said that when she cut down on this aspect of her work, she "would always have a bad feeling about this". When she had approached her school principal, she had received no sympathy or support; instead, the principal's response suggested that the "distribution of power known as discipline, with its structures and hierarchies, its inspections, exercises and methods of training and conditioning" (Foucault 1980 : 158) was in place.

### ***Administrative duties and extra-curricular activities***

For some teachers, time was further limited by administrative duties and extra-curricular activities. Here again, however, my analysis of the data collected in the five cases suggests that these factors can serve as opportunities for teachers' development rather than as constraints on their practice. The reasons behind individual teachers' perceptions and constructions of these factors and their effects are complex.

Lilian's case illustrates the increasing burden of administrative duties and extra-curricular activities as well as some of their ill-effects. These have been detailed in Week 3 of Chapter 5. The burden of these duties and activities appeared to have increased the difficulties and resulting stress she experienced. I thought that despite her choice of and commitment to a research-based approach to teaching and learning, her workload was taking its toll: at times, she appeared 'burnt out', low on motivation and morale. After detailing her workload, Lilian confided that her friends "tell me that I am a fool" to continue to pursue a research-based approach to learning in her current circumstances.

On the other hand, I thought it likely that Janet's past and current involvement in certain extra-curricular activities had empowered her and changed her view of the contributions teachers can make to education outside the classroom as seen in several of her comments, e.g. "teachers do have a voice in changing syllabi". This theme is further developed in the last section of this chapter which refers to teachers' personal histories.

It is possible to understand the differences in the effects of additional duties and activities when taking into consideration the social contexts within which individual teachers work. Additional duties and extra-curricula activities are more likely to be empowering when they are supported by the other school structures. Janet had spoken of the support she had had in her previous school as well as that she continued to experience whereas Lilian felt that she had received little support, recognition or thanks for her hard work from others.

### ***Hierarchical structures within schools and education systems***

The extent of the support teachers felt they received within hierarchical structures and from both colleagues and persons in authority within schools and education systems appeared to be important. Lilian and Kate spoke with some anger and appeared to be fairly alienated while Janet, although she had encountered difficulties when staff members had changed in her former school and although she was still getting accustomed to her new teaching environment, appeared well integrated in the wider system.

I thought that the lack of support given to Lilian's participation in this study by her school principal was significant and also compared this to the attitude of the principal at the school in which Janet taught. The reasons Lilian gave for the principal's lack of support suggested that principals were wary of the power wielded by school inspectors - "you have an inspection on your hands" - as well as that of parents. Lilian described the latter as "very powerful now" since they not only made greater financial contributions than previously (and schools are now more dependent on these than ever before) but because parents have become key partners in school governance. Both the complex nature of power and the way in which it circulates in institutions is illustrated here.

This was again highlighted in Lilian suggestion that certain teachers' structures themselves had power. For example, she said that the History Teachers' Association in KwaZulu-Natal had fought for and was able to implement particular approaches to teaching history in this province. On the other hand, she also pointed out that this power was limited since provincial structures were still bound by national rules.

I also compared Janet and Kate's perceptions of the support they received from senior staff in their respective schools. Janet spoke of her previous school principal who had "nurtured" her and "let her develop" particular approaches to classroom practice. On the other hand, Kate felt that she was not given sufficient support and her discourse suggested that the male members of staff may have disapproved of her lack of discipline. (This idea is further elaborated upon in the sub-section dealing with gender issues.) In addition, Kate felt that there was little motivation amongst many of the staff members at her school and she mentioned one staff member's reluctance to share worksheets and notes.

The effects of these perceptions became clear during the study. While Janet was less concerned about others' perceptions of her as a teacher (including my own), Kate admitted to her concerns in this regard. Not only did she want me to observe her pupils behaving well in class and not making a noise, she felt awkward when challenging authority - either that represented by the syllabus or the school rules and regulations.

## *Pupils*

Pupils gave a more specific flavour to the structural constraints within schools in that teachers referred to the ways in which pupils shaped the culture of the school - and even individual classes within the school - as well as influenced their practice. For example, both Kate and Janet believed that the socio-economic class of their pupils influenced their classroom practice; however, once again their attitudes to these influences differed considerably. Here again, I interpreted their different attitudes and perceptions in terms of their respective power identities and the components of power on which they were able to draw.

While Janet acknowledged that her new pupils' limitations acted as constraints on some of her previous classroom practice - so much so that she felt uncertain whether or not she was "rising to the particular demands of" this school - she also saw these limitations as providing her with opportunities to explore and develop alternative approaches to teaching. For example, she spoke of the greater emphasis she needed to give to language skills as well as the need for her to develop new interests - "points of contact" - with which to reach the coloured pupils she now taught. She also mentioned pupils' poor concentration, possible hyperactivity and "learning problems" as areas of weakness - all factors she felt that she needed to learn to deal with.

In addition, the notion of "a work ethic" had become central to much of Janet's thinking about the differences between her past and present pupils. In this way, the challenges presented by her new pupils prompted her to formulate and clarify her own thinking about the importance of a work ethic in order to "find a way of dealing with it". In effect, developing her understanding of the teaching and learning process and learning new skills was increasing Janet's capacity and had the potential to further strengthen her power identity.

At the time of the case study, she anticipated that “my lessons will change” and become “less structured”; nevertheless, she also felt that it was likely that while she taught in this school her lessons would retain greater structure than those she had taught in her previous school. She felt that these pupils might not be able to cope with less structured lessons. Janet also drew on her previous theoretical learning in explaining her thinking about her pupils. She said that the emphasis given to the “concrete is very important (in her lessons) because many of these children won’t move beyond the stage of concrete operations”. Further comments relating to Janet’s theoretical consciousness are made in the relevant sub-section.

Kate found it more difficult to deal with the influences exerted by her pupils and her relative powerlessness in this regard was highlighted in her discourse. She said that she felt “out of control of the situation” with Tyrone and that her pupils’ socio-economic living conditions were sometimes “too much to deal with”. She did not have as broad or as complex an understanding of the causes underlying pupils’ difficulties as did Janet. Similarly, her inability to envision alternative ways of “dealing” with them was both a function of her lack of capacity and served to confirm her weak power identity. Once again, the interconnections between the components of power in the construction of power identity are highlighted.

Both Marion and Lilian also recognised the influence of pupils on their classroom practice and each had developed both greater flexibility and more philosophical approaches to these influences. For example, Marion appeared relatively unperturbed when lessons did not pan out as she had hoped, saying only that “that happens with groups of children”. Lilian explained that she had changed her plans for one lesson because a pupil who was frequently absent from school had been present in class that day. Lilian then made use of the opportunity to ascertain the extent to which this pupil was coping with the work. As a result of this intervention, she was not able to fully explore certain other avenues of the lesson as planned. Her more philosophical approach to these unexpected occurrences was evident in her comment: “My lessons go or don’t go. I can’t help it. That’s how I teach.

On that particular day. Tomorrow might be completely different. You see, that's what teaching's about. But you know that yourself."

Lilian's frequent references to pupils' laziness - their non-participation in lessons, not consulting dictionaries etc. - and her belief that the number of discipline problems at the school was increasing not only influenced her teaching practice but also exacerbated the other difficulties she experienced. She said, "It's a draining of energy just to have to cope with the discipline problem." Lilian also mentioned her awareness of the effect of the stigmatisation of some pupils' by others - "an antipathy towards the clever ones amongst the lazy ones" which made the former "nervous in the eyes of their fellows", affected classroom interaction and, therefore, her teaching as well.

Pupils' capacities to deal with the questions she posed was another area in which Lilian spoke of her pupils' influence on her classroom practice. She said that she tried to avoid asking lower grade pupils difficult questions reserving these for the more "intelligent" pupils. When she felt that the answers to questions required merely "simple learning", she asked lower grade pupils to respond.

Many of the teachers' comments mentioned above also illustrate the shifts that teachers are required to make during lessons and the need for them to be comfortable with their lack of control over certain aspects. I would argue that such flexibility both reflects and facilitates the development of teachers' power identities.

### ***Gender issues***

Although all the participating teachers in this project were women, gender issues which were related to structural factors were experienced in different ways. Lynn, Lilian and Janet worked in girls' schools, Kate in a co-educational school and Marion in a boys' school. In addition to the discipline problems both Kate and Marion associated with boys, they taught in schools where men held most of the senior positions.

Once again, it was Kate who appeared to find gender issues relating to structural components of power particularly constraining. In addition to describing herself as “just a teacher”, her discourse suggested that she thought her gender contributed to her lack of power both in the classroom and in the wider educational context. For example, she mentioned a lack of “support” from the head of department, a senior male teacher, when it came to disciplining pupils. In addition, her husband appeared to encourage her to use a more authoritarian approach to discipline rather than attempting to understand her ideal view of classroom practice in this regard and to provide suggestions in line with this.

The implications for women teachers’ power, identity and roles in initiating change within schools is raised in these examples. Unless teacher education programmes are able to empower women to understand, confront and change those gender related structural factors, it is unlikely that women teachers - especially those working in boys’ schools and in co-educational schools - will develop power identities and/or challenge current social structures in schools.

In addition to the issues of gender within her particular school, Kate also referred to the male-dominated choices in the construction of the biology syllabus and suggested that topics of interest to girls were not included. Despite engaging in such critique and expressing her wish for “a more feminine approach to the subject”, Kate’s ‘me’ role was evident in elements of own classroom practice and in her discourse in interviews, both of which contained sexist overtones.

Although Marion also worked in a co-educational school where most of the senior positions were held by men, there were several possible reasons for her not experiencing the same lack of power in terms of gender. For one thing, the community in which her school was situated was populated by middle-class, white professionals who valued education. Parents also tended to have closer links with the school. For example, mothers worked in the tuck shop and were available to ferry teams to sports meetings in the

afternoons. In addition, as an older woman and an experienced teacher, Marion was accorded more respect in the classroom by the pupils. It is possible, too, that her status as a mathematics teacher was partly responsible for these differences.

It is important to note that issues of gender were not limited to teachers' discourse relating to structures and systems in education. For example, Lynn's sensitivity to gender issues featured in her English language lessons and in our discussions about her views on knowledge. These aspects are linked to other components of power later in this chapter.

### *Class size*

One of the concerns of many teachers in South Africa in the 1990's is the growth in pupil numbers within classes. Once again, this factor needs to be understood in the light of the workload carried by teachers and the effect that they believe class size to have on their classroom practice.

Lynn thought that the almost conversational interaction that she engaged in with her pupils was facilitated by the small class size at the private school where she taught. In speaking of the importance of class size to her, she was adamant that she could "not teach huge classes" because "I have to have a response". Pupils' responses, she said, helped her to "know what's going on" and provided her with "some sense of achievement after each lesson". She stated that she could not "just teach rote talking to forty kids and say well if you know ten percent have got it then it's great".

Each of the other four teachers taught in schools where the average class size was much larger than that in Lynn's school. Lilian described the increasing numbers of pupils per class as "madness" - there were thirty-eight pupils in her standard six class - and said that the "ideal" class size would not exceed twenty-five pupils.

Class size affected not only teacher-pupil interaction but also limited the chances of teachers like Marion who were not comfortable with noise introducing group activities. In addition, the numbers of pupils per class led to teachers marking less work from individual pupils.

### ***Conclusion***

In this sub-section I have referred to those structural factors cited by the participating teachers and have highlighted the different ways in which the teachers experienced the constraints and opportunities associated with these factors. I have also highlighted the differences in individual teachers' responses to these factors in order to demonstrate that the influence of structural factors is not uniform. This suggests that other aspects of teachers' experiences need to be considered when evaluating the influence of structural components of power.

While acknowledging that challenging the structural components of power and introducing new forms of pedagogy in the face of the associated constraints is not easy, neither, I would argue, is it impossible. I thought it significant that Lilian spoke of the "courage" that teachers require to experiment and to use innovative approaches to classroom practice. I believe that the following components of power go some way towards providing for this "courage" which forms an essential part of teachers' power identities.

### **Teachers' subject identities**

The extent to which the five participating teachers identified themselves with the subjects that they taught was crucial in shaping their power identities and, hence, providing them with the "courage" to confront and deal with structural components of power. Teachers' subject identities were themselves constructed in a number of ways and were closely connected to the value and importance attached to the teaching subject both in particular

school contexts as well as in the traditional conceptions of knowledge hierarchies found in the wider education and social structures and systems. In particular, the value that the teacher, herself, placed on the subject she taught was significant in determining the strength of her subject identity and, hence, her power identity. Frequently it was this factor - the value that that teacher, herself, placed on the subject she taught rather than the attitudes of the generalised other - that provided her not only with a strong 'I' role and response which both contributed to and reflected her power identity.

My analysis of the cases of Lynn and Kate revealed both interesting contradictions within each teacher's thinking and also significantly different subject identities. Lynn had a strong subject identity - she described herself as "a drama teacher who teaches literature" - and saw her teaching subjects and herself as relatively powerful. This perception prevailed despite the lower value she thought drama was generally accorded in the curriculum. I believe that it was Lynn's perception of herself and her subject as relatively powerful that contributed to her capacity to implement changes and to shift her teaching practice in line with her thinking - largely without direction from me as described in Chapter 2. This illustrates the importance of the 'I' response in effecting change.

On the other hand, although Kate saw "science" as relatively powerful in that it produced "factual" knowledge, her subject identity was weakened by her view of the knowledge contained in the biology syllabus as being largely irrelevant to pupils and sometimes "wrong" or outdated. Her subject identity was further weakened by her view of herself as "just a teacher" unable to influence syllabus content or to implement her ideal methods of teaching in biology classes. Kate's weak subject identity was both a result of and reinforced by the contradictions in the theory/practice relationships in her work. As a result, she was unable to engage in her professional growth in the same way that Lynn did; instead, Kate looked to me for direction for changes in practice. While both 'me' and 'I' roles are discernible in the contradictions between elements of Kate's discourse and her practice, the emphasis given to the 'me' role is evident in her responses to these contradictions.

Further analysis of these two cases facilitated my understanding of the linkages between power identity and personal epistemology. Lynn's subject identity was based on her view of the role of drama in the development of universal values. Her interest in developing pupils' personal understanding and their value systems in order to cope with life was connected to her belief in the inherent value of drama and literature studies. This had been clear in the initial interview when she had attempted to capture her personal epistemology by saying that "the nature of my work . . . goes beyond the concepts of what is right and wrong. It goes into areas of value-centred judgements, of taking information . . . and using information in order to explore the far greater concept of life and where the pupil is and what she . . . needs in order to cope with that life".

Contrary to Lynn's own belief in the importance and value of her teaching subject - indeed the very power of drama - she felt that the subject was not acknowledged by others as being important in the school curriculum. Despite the prevalence of others' perceptions, Lynn's subject identity was sufficiently powerful to override these negative forces. I believe that her recognition of herself as a powerful force was an important factor in her recognition of the constraints she placed on her pupils' potential development, particularly through her questioning techniques, and that this gave her the impetus to work towards changing this practice.

By comparison, Kate's subject identity was confused. There were three factors that contributed to this confusion, the first of which is dealt with more fully in the sub-section relating to theoretical consciousness. At this point, it is sufficient to mention that her view of "science" as a means of producing "factual" knowledge contradicted her view that aspects of knowledge contained in the biology syllabus were "wrong" and outdated. The latter view also contradicted her statement that there was little to debate or contest in the study of biology. It was Kate's continued reliance on her view of science as "facts" - especially in the face of the contradictions just mentioned - that weakened her identification with the subject and hindered her capacity to move more freely within and contest the knowledge contained in the syllabus.

The second factor which weakened Kate's subject identity was the low value she placed on the acquisition of knowledge of biology. She said that she thought that there was little in the biology syllabus that was "relevant" to the "life situations" of her pupils. This view was again illustrated in her questions which gave emphasis to memorisation of structure-function relationships and terminology as well as the discipline required by this approach to learning.

Finally, Kate's subject identity was weakened because the methods she felt that she had to use in teaching biology were not those she believed to be ideal. Rather than exploring methods involving "debate" and "discussion", she felt that as a biology teacher she had to teach "facts". Not being able to work towards coherent theory/practice relationships - i.e. to marry her ideal teaching practice with her teaching subject - Kate felt herself to be relatively powerless and lacked the confidence to challenge or ignore the structural factors already mentioned.

Marion provided a useful counterpoint to Kate in that while they shared certain contradictory views and practices, Marion's stronger subject identity enabled her to paper over many of the contradictory elements in her discourse and gaps in theory/practice relationships. Like Kate, Marion recognised the power accorded her teaching subject in the education system and in the wider social community. This recognition was reflected in the pressure placed on pupils - particularly boys - to take mathematics as a school subject, its role as a "gatekeeper" to tertiary studies as well as the acknowledgement she recognised she received from others who assumed she must be "bright" to be a mathematics teacher. Yet, unlike Kate, Marion, herself, argued for the importance of mathematics in a variety of careers and in everyday life. In our last interview, she also spoke of her own interest in and love for mathematics. She said that "maths is very much in my daily life and I use it all the time but that's because I love it". She spoke, too, of the pleasure she experienced after having worked on mathematics problems and compared this to the "nice feeling" she had "when I've balanced everything and I know where everything is" after doing the family and domestic bookkeeping.

I thought that Marion's strong interest in and love of mathematics was reflected in much of her classroom practice and distinguished it from that of Kate's - especially in terms of her interaction with pupils. This stronger subject identity was bolstered by the closer connections between other elements of Marion's classroom practice and her views of knowledge and learning than was evident in Kate's case. In addition, I noted that where there were theory/practice contradictions in Marion's work, she had achieved and continued to sustain a comfortable balance between these. For example, she balanced her view of mathematics as an important subject for study against the realities of her pupils' limitations. In addition, Marion had achieved some measure of comfort in balancing some of the contradictions involved in teaching a subject which some, like Kate, might perceive as highly factual and as having little to debate or discuss with a view of learning as "discovery" and problem-solving. To some extent, therefore, Marion had achieved a balance between the 'me' and 'I' roles and responses.

While I believe that her strong subject identity provided for more coherent theory/practice relationships in Marion's work, contradictions remained. The importance of non-mathematical knowledge areas to Marion was interesting in that while it connected to much of her practice and discourse (her letters to Bryte, her trip to the Schools' Festival in Grahamstown and even her criticism of school policy that required that all pupils study mathematics), it suggested that she had reservations about the power of mathematics as a medium for pupils' learning experiences. The fractured nature of her subject identity is highlighted when compared to aspects of Lilian and Janet's views on the subjects they taught and the connections between these views and their classroom practice. In each of these cases, the teachers concerned had stronger subject identities and there were fewer contradictions evident in their work.

In Chapter 5 I pointed to the connections between Lilian's view of her subject, the value she accorded to its study and aspects of her classroom practice. She saw history as a training ground for the development of thinking skills. She said that "in history . . . you have to think" and that, therefore, "story-telling alone is not enough". She also described

history “a discipline and if your thoughts are not disciplined you can’t be a good history pupil”. Her teaching practice frequently reflected these views as she often involved pupils in research-based learning and in the interpretation of information.

I believe that it was Lilian’s strong subject identity that bolstered her commitment to teaching in this way despite the structural constraints which she faced. On the other hand, Lilian’s case also illustrates that a strong subject identity is but one component of power. Lilian’s discourse frequently reflected her feelings of disempowerment and of frustration.

Like Lilian, Janet’s strong subject identity lay in the contribution that saw geography being able to make to the development of pupils’ skills. In our first interview, she used that phrase “thinking spatially” and later she said that “one of the contributions that geography has to make . . . is in graphicacy”. She explained the importance of acquiring these skills in terms of the way in which information was communicated in the media. For example, she said that “much of knowledge is represented graphically now rather than verbally. You pick up a *Time* magazine and there’s an article on ecology of South Africa and there’ll be written words and there’ll be graphs and the graphs will tell you something far quicker than having to sit down and read the article”. In addition, she said that “a photograph of Johannesburg can tell you far more than a whole written article in the newspaper”.

The close connections between these views which reflected her subject identity and her classroom practice were evident. Janet herself was conscious of these connections saying that “matching pictures” and “seeing perceptively” were “definitely skills that I do consciously foster”. For her, “that is the essence of or part of what the subject’s all about”.

I also thought that Janet’s strong views on the contribution geography had to make was partly as a result of her recently having re-evaluated her thinking about teaching - not just in relation to “different teaching styles” but also “different views of the subject . . . of what the subject actually is and what it means to education in general”. This thinking together

with own reading and formal study - "I don't know whether you would call it research as such" - had strengthened her subject identity. For Janet, geography was "one of the most dynamic subjects where you really can change the philosophy - your teaching philosophy. In fact, it lends itself to that really".

In this sub-section, have argued for the importance of subject identity in developing coherent theory/practice relationships and demonstrated the connections between subject identity and engagements in professional development. In addition, I have illustrated the connections between subject identity, the 'me' and 'I' roles and responses and power identity.

### **Teachers' theoretical consciousness**

While the teachers with whom I worked did not usually express their beliefs and views in formal theoretical discourse, it was possible to identify aspects of those beliefs and views that informed their classroom practice and discourse. I was also aware that certain teachers were both more conscious of and more articulate in communicating the beliefs and views that underpinned their practice than were others. In this sub-section I argue that teachers who were more theoretically conscious were better able to identify and confront the contradictions in their work than those teachers who were less theoretically conscious. In this sense, theoretical consciousness served as a component of power enabling them to understand more clearly their practice and the dissonant moments within it. In addition, it was theoretical consciousness that contributed to the 'I' roles and responses that led to the possibility for professional change and development.

In analysing the contradictions in the five teachers' work, I identified two types of contradictions: firstly, those that resulted from teachers holding, simultaneously, opposing theoretical standpoints or values; and, secondly, those that resulted from gaps between teachers' theoretical views and their classroom practice. It is important to note that it is

possible for both types of contradictions to be present simultaneously in a single teacher's work.

In Chapter 3, I highlighted the differences between Kate's view of science and her ideal view of teaching and learning. I argued that the classical, standard view of science which holds that the natural world is real and objective and that its characteristics cannot be determined by the preferences or the intentions of observers underpinned Kate's views of the nature of knowledge in science and biology. I pointed to the structuralist-functionalist ontology inherent in this view and drew connections between it and aspects of Kate's classroom practice - for example, her use of models and/or diagrams on the chalkboard and overhead projector to explain structure in terms of function. The contradictions between this classroom practice and Kate's view of good classroom practice - for example, encouraging pupils to work from their prior knowledge - were highlighted. Kate, herself, was well aware of aspects of these contradictions.

I would argue that Kate's theoretical consciousness in respect to both scientific knowledge and learning was naive with strong contradictory elements. Her views on science should be understood as a reflection of much of the wider discourse - also found in syllabuses and textbooks - which has constructed scientific endeavour as objective study in which factual knowledge is discovered. In addition, it is a reflection of the emphasis that has been given to the basic nature of science rather than its application in school and university educational programmes in South Africa. As such, Kate's theoretical consciousness can be seen to have arisen as a result of the social processes she had experienced. (In the last sub-section of this chapter, the influences of Kate's own educational background - for example, her initial training as a "scientist" which did not seem to have been fused with a training programme as a science teacher - are highlighted.)

Similarly, I would argue that Kate's views of learning need to be understood in terms of much of the discourse of 'radical pedagogy' found in 'enlightened' teacher education programmes which bear little relationship to the practices and patterns of 'real' school life.

Kate said that her H.D.E. year of study had provided her only with idealistic theories which were difficult to implement in the classroom where the realities of discipline and control are the “main thing” on which teachers need to concentrate. She also felt that insufficient attention had been given to issues relating to discipline in favour of getting pupils to “interact”. She compared the university’s ideal view of the classroom with her reality - “I’m in this place and I’m faced with trying to control and discipline, you know, and a lot of pupils”.

These comments highlight the difficulty Kate experienced in translating theoretical knowledge into practice and, indeed, in understanding its relevance to her context. She was typically a teacher who found herself caught in the paradigmatic clash between the modernist conception of science and progressive educational theory. The contradictions between elements of her discourse and her classroom practice can also be understood in terms of the conflicts within and between the ‘me’ and the ‘I’ roles of her developing self. While she favoured aspects of the ‘radical pedagogy’ to which she had been exposed, these conflicted with the conventional views of science she had acquired. Furthermore, in some ways each of these views conflicted with the experiences she had in classrooms.

Kate’s theoretical naiveté was also evident in her views on socio-economic class, her stereotyping of boys and girls as well as her explanation of pupils’ resistance which was limited to their unwillingness to think for themselves. I would argue that her lack of capacity in terms of theoretical consciousness weakened other components of power - in particular, her reflexive power and her ability to imagine alternative practice.

Being theoretically naive, when contradictions between her view of science and her ideal views of classroom practice were raised in interviews, Kate was unable to use these opportunities in the same way that Lynn did. Her capacity for recognising contradictions and sustaining the tensions between them in an effort to resolve them was limited. As a result, her ability to engage in professional development and envision alternative practice was also limited; instead, she continued to hold uncritical and traditional views of science,

and to explain the impossibility of resolving the contradictions by pointing to the structural factors she faced - in effect, falling back on the 'me' response.

Another difference in the contradictions in Lynn and Kate's work is significant. Where contradictions arose in Lynn's work, they were a matter of gaps between theory and practice rather than inconsistent views at the theoretical level. Not only were these theory/practice gaps easier to close than the paradigmatic chasms experienced by Kate, Lynn appeared to have an intuitive grasp of the theory underlying her practice and was better able to articulate this than Kate. For example, she described language as "a visual and physical thing" and said that for her it was "audible and visible movement". Kate, on the other hand, was not able to offer any explanation for the important role she believed language to play in learning even once she had become more aware of the attention that she instinctively gave to language in her lessons.

Lynn's greater theoretical consciousness, evident in her ability to understand and articulate the power of drama, also contributed to her strong subject identity. For example she explained that "role-play . . . the central technique that we use in drama" allowed pupils to "live through" other experiences. "Transference", "reflection" and "empathy" were important aspects of role-play which she saw as significant in facilitating pupils' developing understanding of life. According to Lynn, merely reading text "can never altogether be totally satisfactory" because it is not sufficient to get pupils "to absorb values and make them part of one" as did role-play. She said that if she had her way, she would teach most of what she does "through drama practice".

I believe that Lynn's ability to theorise around the role drama can play in pupils' lives and development was a reflection of the drama syllabus which created more critical perspectives than did the syllabuses for science and biology. In this way, Lynn's theoretical consciousness, while different to that of Kate's, had arisen in a similar fashion - through social processes - but the construction itself favoured the development of the 'I' role over that of the 'me' role.

In addition to theory/practice gaps in Lynn's work, there were also more fundamental contradictions related to her views of universal values and culturally-based knowledge. The former also contradicted her ideal views of classroom practice which emphasised the importance of pupils' working from their prior experience and building personal meaning and understanding. These contradictions were more difficult to bridge and, I suspect, were responsible for the uneven nature of Lynn's development.

Although my work with the participating teachers suggested that contradictions in discourse and between discourse and classroom practice are not easily resolved, I believe that there was some evidence to suggest that collaborative work of this nature does facilitate the development of teachers' theoretical consciousness. For example, during the relatively brief time that I worked with Kate her discourse suggested that she was developing a greater awareness of the danger of using "culture" as an superficial explanatory construct. Rather than using "culture" as a monolithic concept and as the scapegoat for the difficulties African pupils experienced, she began to take into account both African pupils' historical circumstances and the need for the current syllabuses to be restructured.

Although important, Kate's awareness in this regard did not have the more complex theoretical understanding found in Janet's discourse. In discussing her coloured pupils' academic backgrounds and the way in which these had contributed to the "different work ethic" she encountered amongst these pupils, Janet pointed to "content-based" lessons where "the teacher stands up in the front of the lesson and teaches and then they have a test". She also said that these pupils had not had "a history of . . . worksheets and consolidation exercises and things like that" and that they would "have to be trained into that way of doing things". In addition, Janet spoke of the "cultural gaps" between her own frames of reference and those of the coloured pupils in this school. Janet's theories of language and concept acquisition and learning through representations and illustrations of reality also guided her hypotheses relating to the difficulties these pupils encountered.

Janet's awareness of different theoretical perspectives underlying classroom practice was evident in the initial interview where she spoke of her excitement in analysing the differences between the two teachers in the task. In this interview, she drew connections between possible views on knowledge and learning held by Teachers A and B and their planned classroom practice. I believe that her stronger theoretical consciousness was related to her recent experiences in the networking sub-committee where participants from historically different education departments examined different approaches to the syllabus. I thought, too, that Janet's heightened awareness of both different perspectives underlying teaching approaches and the difficulties involved in changing one's practice may have been related to her current experiences in a new school. At one point, she said, "I'm having to change whether I want to change or whether I don't want to change. I'm having to change." In addition, Janet's plans to embark on a Master's degree in curriculum studies may have fostered her theoretical consciousness.

Having, argued for the importance of theoretical consciousness, I also point to its limitations as a component of power contributing to teacher's power identities. My analysis of the data suggests that achieving coherent theory/practice relationships is difficult even when theory is understood and clearly articulated. This is because theoretical consciousness, alone, is insufficient in helping teachers transform their practice. Marion's case illustrates the point that different components of power interact in complex ways.

While a variety of factors - for example, Marion's centrality in the classroom - may have been responsible for limiting her capacity to change aspects of her classroom practice and so bring these in closer relationship to her expressed views about knowledge and learning, I believe that her underdeveloped theoretical consciousness was particularly significant. Although her theoretical consciousness was opposed to the official syllabus - more so than either Kate's or Lynn's - she was unable to implement practices in opposition to this. Although she initially spoke with enthusiasm of the approach to learning mathematics through writing, she had not developed strong theoretical foundations for this approach.

Her reluctance to pursue this approach after initial attempts had been disappointing may be understood in the light of this.

I also thought Marion's view of what contributes to good teaching - experience which provides the teacher with knowledge of the mistakes people are likely to make - reflected an underdeveloped view of both teaching and learning processes as well as professional development.

Interesting Marion's classroom discourse reflected that she, herself, understood that there could be gaps between pupils' knowledge and their application of it and that theory doesn't automatically translate into practice. Her case well illustrates both that theoretical consciousness, in order to be effective, needs to be well developed.

On the other hand, Lilian's case demonstrates that theoretical consciousness is only one component of power. While her views relating to knowledge and learning and her classroom practice were closely related, and while she demonstrated a good grasp of the reasons underlying her practice, it appeared that this was not sufficient in helping Lilian face the structural factors that threatened to overwhelm her. To some extent it appeared as if her theoretical consciousness was burnt out in its capacity to provide her with power! Being an experienced and reflective teacher and one whose theoretical consciousness was well developed, Lilian continued to battle on; nevertheless, her case illustrates why it is that other teachers without these components of power abandon the language of critique and theory and resort to the more familiar transmission technologies. Liberal phrases and slogans easily succumb to powerful conservative forces mediated in day-to-day living and working arrangements.

Through Lilian's case - in particular, in interpreting the contradictions between logical connections versus human motivation and agency in history - I became more aware that although different theories may contradict each other they can also simultaneously overlap. I learned that these contradictions and overlaps resulted in teachers holding and

articulating contradictory theories relatively comfortably - frequently, in fact, without their being conscious of the contradictions..

The uneven nature of theoretical consciousness was illustrated in Janet's case. For example, although she was able to articulate her ideas about the way in which she thought pupils made connections between illustrations and representations on the one hand and aspects of reality on the other, Janet did not explain the difficulties pupils had in terms of making those connections, i.e. she was able to explain why they worked when they did but was not able to explain why they did not when they did not - except to say that children lacked experience. The questions of what constituted experience and how it connected with learning as well as the contradictions between common sense knowledge gained through experience and more formal and established geographical knowledge were not as well theorised.

Gaps in theoretical knowledge may lead to teachers feeling overwhelmed by structural constraints - in Janet's case, the limited capacity of her pupils, the lack of a "work ethic" etc. - which, in turn, could lead to intellectual paralysis articulated in a language of impossibility which serves to further disempower.

Some might argue that Kate's case study suggests that resolving contradictions in belief and practice is not the task that teachers in Kate's position are - or even should be - most focused on; instead, they might continue, young and inexperienced teachers are - and need to be - primarily concerned with coping with the demands of the syllabuses by mastering content knowledge and the practicalities of transmitting this knowledge while controlling pupils. These arguments are most likely to be put forward by those who believe that teachers do not have theories or those who say that teachers neither resort to theory nor do they notice the lack of it. My argument is that while achieving cohesion between theory and practice is no easy business, theoretical consciousness is an important component of power and teacher education programmes are doing student teachers a disservice if they

do not enable teachers to access, understand, employ and, themselves, construct theoretical knowledge.

Suggestions for developing theoretical consciousness - both in teacher education programmes and through action research processes - and, therefore, a strong personal epistemology and power identity are provided in the final chapter of this dissertation.

### **Teachers' reflexive power**

This sub-section argues for the power of reflection, its valuable contribution to teachers' power identities and its vital role in calling forth the 'I' response, working towards coherent theory/practice relationships and in teachers' professional development. Once again, the connections between this component of power and the other components of power discussed in this chapter are highlighted.

I understand reflection as a form of interrogation - the interrogation of self. As such, it functions as a technology of self and involves the subject in work upon herself producing and mastering her own existence. A critically reflexive consciousness facilitates an awareness of the patterns that organise social life - the "historical a priori" that conditions "what we can say" (Foucault quoted in Arac 1988). Mead writes that it is reflective behaviour that "makes possible the purposive control and organisation by the individual organism of its conduct" (Mead 1934 : 91).

In addition to this broader, social level of awareness, personal assumptions may also be brought to consciousness and frameworks for thinking and practice may be better understood as a result of reflection. The connections between reflexive power and theoretical consciousness are illustrated here: as new insights are constructed through reflection, we come to know our lives, our thinking and ourselves in new ways.

Where an individual's reflexive power is strong, the process of reflection serves to

demystify knowledge and to make visible relations of power - described by Foucault as among the best hidden things in the social body (Kritzman 1990 : 118) - both in the social fabric of everyday life and in the construction of knowledge. In this way, critique is encouraged and situations are made problematic and, therefore, potentially alterable. When combined with other components of power, reflection enables us to pave the way for a new reality to emerge.

As a result of my engagement in this project, I became more aware that the individual's ability to exercise reflexive power is dependent on a variety of factors - including other components of power. In addition, the shifting and uneven nature of this component of power became clearer to me the more I analysed the responses of the five teachers who participated in this study.

This project encouraged these teachers to reflect on their thinking about knowledge and learning and to examine their classroom practice in the light of this thinking. In this process, opposing standpoints - contradictions, tensions and puzzles - between their thinking and practice as well as within their thinking and practice were highlighted. Teachers who were more capable of engaging in reflection were those teachers who both enjoyed greater degrees of reflexive power and who, simultaneously, gave themselves the opportunity for developing greater reflexive power. Marion's comment made after she had read the first set of lesson descriptions I had written captures both the notion of the power of reflection and its role in further empowering her. She said that while reading these descriptions "I suddenly thought I'm going to learn a lot from this because it's not often you can have someone analyse and I'm going to learn to think probably better myself about what I'm doing and why I'm doing it so I think I'll come out richer for it which is a good idea." This comment also illustrates that power is embodied in the manner in which people gain knowledge and use the knowledge to intervene in social affairs (Popkewitz 1991 : 30).

Through my engagement in this project I learned about the researcher's role in initiating and facilitating reflection in collaborative research. Details relating to both this role and the skills required for it have been provided in Chapter 8 in the discussions on lesson descriptions as reflective mirrors and on questions which introduce and sustain tensions in theory/practice relationships. This discussion also highlights the important roles of both language and contradiction in reflection.

A comparison of Lynn and Kate's ability to engage in reflection illustrates the differences in teachers' reflexive powers and the contribution this component of power makes to teachers' power identities. In Lynn's case, as she reflected on aspects of her practice, she was surprised at the inconsistencies she became aware of in her work - most particularly, those between the questions she posed to pupils and her belief that she provided the space for them to construct personal meanings. As she focused on the structure of her questions - apparent invitations to dialogue - the structure of the power relationships in her classroom and the associated constraints on her pupils' thinking became visible. Lynn's questions became a major site of struggle for her development as she worked to transform aspects of her practice - in particular, her linguistic utterances.

At the beginning of the case, the control and the associated constraints that Lynn exerted over her pupils' thinking were hidden largely by her practice of transparency and by her involving pupils in knowledge construction. This control was hidden not only from the pupils but from both Lynn and, initially, myself, too. Her discourse which referred to "personal understanding" and pupil independence obscured the power she wielded in the classroom as did the conversational style of her teaching. Once Lynn began to read my lesson descriptions and to watch the video-tapes of her lessons, she began to question aspects of her practice.

Lynn's reflexive power was crucial in to her development during the period of the project. Reflection facilitated her developing consciousness of her power and empowered her to work towards change in her practice. In other words, because she saw herself as having

the capacity to exercise power, Lynn also felt that she had the capacity to work towards greater coherence in her work - to bring her practice more closely in line with her views and beliefs about knowledge and learning.

I would argue that Lynn's ability to engage in reflection was partly due to her understanding of the power of reflection - in effect, her theoretical consciousness in this regard. This was fostered by her understanding and skilled usage of language which enabled her to recognise the loaded nature of her own classroom discourse. Recognition of ambiguous scripts is itself a question of power. In addition, Lynn's reflexive power was connected to her strong subject identity and the value she accorded drama. Each of these components of power combined to develop a strong 'I' response to the 'me' role Lynn saw in elements of her classroom practice.

Despite Lynn's development as described above, contradictory elements in respect to both her thinking and practice remained. While a longer period of collaboration may have encouraged her to initiate other changes, I believe that the contradictions in Lynn's work were related to the contradictions in the rational standpoints that informed it - i.e. the contradictions between universal values and constructivist ideals. (I have also considered the possibility that the notion of universal issues and values was more important for a playwright/actor to believe than for a researcher working within my framework.)

In many ways, the contradictions between the universal values and personal meaning came to symbolise for me the difficulties and tensions experienced by teachers who attempt to follow a critical and constructivist approach in their classroom practice. As such, these contradictions capture the tensions inherent in opposing standpoints on rationality. The ways in which teachers like Lynn are able to ignore or to dissolve these contradictions suggests that rationality - like development and change - is not uniform. Further comments relating to contradiction in rationality are made in both Chapter 8 in discussing the epistemological foundations for this project and in Chapter 9 where possibilities for

conceptualising rationality and for planning teacher education and development programmes are described.

In Kate's case, she had shown enthusiasm for the process of reflection during the initial interview and I thought that her discourse suggested that she understood aspects of the process and its value. For example, she explained that she would "go back and analyse (her lessons) and think about what I've done" in planning for future changes. In a later interview, Kate recognised that my lesson descriptions provided her with another perspective and said, "I think you pick up things which I wouldn't have picked up".

Despite this, Kate's development did not follow a similar path to that of Lynn's; instead, this case illustrated both that there are degrees of reflexive power and that other skills and abilities - including other components of power - are necessary in facilitating development through reflection. Certainly, during this research project I came to view the process of reflection much as viewed the process of research - messy and difficult processes which did not necessarily lead to clarity or to shifts in thinking and practice.

Kate's reflexive power was more limited than that of Lynn's and she appeared to experience greater difficulties during the process of reflection than Lynn had done. For example, there were times when she found my questions difficult to understand and, when responding to them, she frequently resorted to descriptions of her classroom practice or past experiences as a learner rather than providing explanations for the specific practice highlighted in my question or the lesson descriptions.

Lynn had also not found it easy to consider her own thinking that had prompted her practice and pondered, "How does one go back on one's thinking?" At the end of the third day's observation, Lynn commented that she felt uncertain about her own thinking saying that she did not know what she thought and that her thinking changed all the time. I thought that it was possible that her thinking was in a state of flux as a result of reflecting on it and that, because of the nature of her work and her strong subject identity, she was

open to other ways of thinking and that, in responding to these, she found her thoughts confused. Towards the end of the project, however, Lynn not only became more confident in her ability to articulate her thoughts, she was also more aware of the greater extent to which she had begun to engage with conceptual issues. For example, she commented that prior to the project, she had “never really become articulate about” the role of imagination in the learning process. This comment also pointed to the connections between reflection and theoretical consciousness.

While I believe that there are a range of reasons for Kate’s weaker reflexive power, I would argue that one of the chief differences between Kate and Lynn lay in the extent to which reflection took place in conjunction with or against a background of theoretical consciousness. Kate’s reflections were similar to her strategies for learning. They entailed recall - the recollection of past memories and previous lessons while Lynn, on the other hand, had a stronger theoretical basis as a resource from which to work. Lynn’s recall techniques and naive theoretical consciousness were too limited to provide her with the necessary reflexive power to interrogate and deconstruct her teaching practice.

Although Kate’s reflexive power was limited and she was unable to engage in internal reorganisation in the same way that Lynn had done, she did begin to explore a possible reconstruction of the biology syllabus as well as some developments in her thinking and classroom practice. As a result, she began to experience a sense of her potential power.

Each of the other three case studies deepened my understanding of reflexive power. Marion’s discourse pointed to the importance of vulnerability in the process of reflection and confirmed my view that the capacity to take risks is important in facilitating development and effecting change. Although Marion spoke of vulnerability as something she approved of believing that it was as important in good teachers as in learners, I came to question the extent to which she allowed herself to be vulnerable in her classroom. I suspected that the comfort she derived from her central position in the classroom mitigated against her implementing alternative practice. She had clearly mastered, if not

perfected, her current teaching approaches and learning a new strategy would have required her to step into unknown and possibly risky territory.

Just as my analysis of Lynn's case had helped me understand that power is often hidden rather than obvious and that relinquishing traditional power relationships is neither easy nor necessarily possible, it was only after spending time on analysing the data collected for Marion's case - which required considerable reflection on my part - that I became aware of the contradictions between aspects of her theories and her classroom practice. In this way, I learned that time, effort and patience are important aspects of the reflective process. Marion, herself, had highlighted this in telling me that it was too soon to tell how her recent year in Philadelphia had influenced her thinking. She said that she expected to "look back in a year or so's time and see what I learned and I will probably find that I have learned things that I didn't expect to learn". This comment emphasised the way in which learning - which involves development and change - is best understood "in retrospect".

Later in the project both Lilian and Janet pointed to the dangers involved in being vulnerable. Lilian said that teaching in traditional patterns allowed teachers to "feel secure and safe" because there was no "experimenting" involved and Janet described teachers who were over-reliant on the syllabus as "invariably terribly insecure".

Despite Lilian's approval of teachers who were prepared to take risks, I questioned her willingness to risk being vulnerable at times in the research process. I noticed her lack of ease with the reflection involved in the analysis of Teacher A and B's lesson introductions in the first interview. She said that although she "didn't mind" analysing these lesson introductions, she had not really enjoyed the exercise. I considered this surprising given Lilian's commitment to a research-based approach to teaching history and one that encouraged a personal interpretation of the data collected.

The difficulties involved in reflection and its connections to other components of power and to language skills was illustrated for me in one of Lilian's comments in the second

interview when she said that “I can’t always give a reason for what I do because it comes involuntarily. It just comes”. She explained that while she prepared lessons “on a broad basis”, she no longer thought about “how I present individual little facts”.

In Lilian’s case, too, I thought that reflection could lead to feelings of despair - even paralysis. Lilian said that the more she thought about the structural constraints that she faced “the less I seem to be able to solve them . because we’ve been warned from two years ago that you would get bigger classes, you would have less free periods and so on . and we must change our teaching methods. I have tried to do that. I have tried . to change my testing methods”. Once again, this illustrated for me the complexity of power identity and the interdependence of components of power - in this case, the need to combine reflexive power with teachers’ imaginations, the following component of power outlined in this chapter.

Working on Janet’s case confirmed for me that reflection can be encouraged through more formal processes, for example, through working on syllabus committees. It appeared as if Janet’s involvement in both the social and the cognitive processes provided through this work - for example, analysis and comparison - had facilitated the reflective process which, in turn, had influenced her theoretical consciousness.

During one of my interviews with Janet, she reflected on her experiment in helping pupils to create their own study aids. She said that although there had been weaknesses in this experiment - for example, she felt that she should have given pupils a specific time limit to construct their study aids and discouraged them from making these “beautiful” by colouring them in etceteras - she believed that it had been an effective exercise and was “something to be developed”. Her ability to reflect on her past practice helped her to plan for more effective practice in the future. Furthermore, I thought it interesting that she considered the weaknesses of the exercise to have been her “fault”. This allocation of blame provided her with opportunities for changing her practice in future. I suspected that her ability to assume this responsibility during reflection was significant for both the

development of her power identity and coherent theory/practice relationships. In addition, I thought its significance that Janet was the teacher who appeared to be least affected by structural constraints.

Although this sub-section has argued for the power of reflection, it has also pointed to the limitations of reflection, the lack of comfort teachers experience during reflection and the difficulties involved in resolving contradictions which arise during the process of reflection. As such, it points to the precarious nature of teachers' power identities

### **Teachers' imaginations**

In this sub-section I argue that while theoretical consciousness and reflection form the preconditions for planning and acting in that they make situations problematic and, therefore, potentially alterable, teachers needed to go beyond critique and to develop projects of possibility. It is in developing projects of possibility that teachers' imaginations play a vital role - and so, as a valuable resource, become yet another component of power on which to draw when developing more coherent theory/practice relationships.

As described in each of the case study chapters, developing a new vision of alternative classroom practice is not easy. It involves struggle. Although a teacher may be able to draw on her theoretical consciousness and have both the will and the skills to engage in reflection, translating rhetoric into a plan for action is no easy task - especially when this requires the introduction of a novel element in traditional practice. The struggle requires that teachers push beyond an analysis of their discourse and practice and beyond the recognition of contradictions and power relations towards transformatory productive practice.

Transformatory productive practice requires the development of projects of possibility which demand new discourses and new narratives with which to shape new practices. Again it needs to be stressed that such projects do not arise out of an individual's free

choice but are “rather those options available in a situation when one simultaneously takes into account both the coercive encouragement of particular social/political forms and limited range of capacities those forms encourage” (Simon 1992 : 21). Thus, teachers need to hold the tensions between structural constraints and ideal practice, negotiating a real possibility for future classroom practice.

The difficulties that teachers experienced in articulating their past and current thinking and in justifying past and current classroom practice were compounded as they struggled to imagine alternative possibilities for practice. Once again, language skills were central to this task. In this case, “a language of possibility” (Simon 1992 : 58) not only helps construct possibilities and, therefore, the world, but it opens up a way forward to transforming the present by providing conditions that encourage “nourishing convictions that summon up the courage to imagine a different world and to struggle for it” (Giroux quoted in Simon 1992 : 13).

The potential power of new visions lies in their ability to restructure the field of action and provide perspectives to guide counter-hegemonic practice. Conceptualisation of alternative pedagogy provides teachers with perspectives to guide new practice. Since these practices have the potential to challenge existing boundaries - both those of the teachers as well as their pupils - they frequently demand that teachers teach “against the grain” (Simon 1992). Without these visions as vehicles of transformation, it is difficult to move beyond present action. Where the participating teachers in this project were able to imagine new possibilities and begin to shape plans for their implementation, they not only developed practices of power but also contributed to their own power identities.

The importance of imagination was recognised by Lynn who quoted an ex-colleague who had said that “imagination does not only belong to your drama teacher or your art teacher or your cultural teacher” but was an essential quality for every teacher. Lynn described imagination as having more to do with “how you push the parameters” than with “visualising things”. She also said that she did not believe that many of the techniques that

she used in the classroom were the exclusive preserve of teachers of drama; rather, these techniques “should be essential for any teacher forget about the subject”. Once again, I recognise the interdependence of different components of power - Lynn’s identity as a drama teacher and her view of the value of its study, her capacity for articulating her theories and engaging in reflection, and her ability to imagine alternative practice each contributed to her power identity and to her Lynn’s development during the period of my work and her.

While Marion had a degree of theoretical consciousness - she had done “a lot of reading and a lot of listening” on the topic of pupils’ learning through writing - she had not been “totally convinced of it yet because I’ve not been able to put it into practice myself”. At the time of final analysis I wondered about the extent to which Marion’s impatience - she herself had admitted to being a “very impatient person” - contributed to her lack of success in imagining alternative practice.

In addition, I considered that the comfort Marion experienced in the more repetitive aspects of working as a mathematics teacher may also have been a factor that constrained her in imagining alternative practice. When comparing herself to other teachers, she said that “I very seldom want to go any further than the school maths. That’s enough for me.” She said that she would rather spend her time “finding ways of getting that across to pupils” than pursuing higher level mathematics knowledge. On the other hand, she acknowledged that some teachers found teaching the same processes repetitive and some pupils, she said, were “like the sort of people who are looking for new things all the time and don’t get the same sort of pleasure out of repeating processes”.

Furthermore, as mentioned in the sub-section dealing with subject identity, Marion had reservations about mathematics as a medium for learning about important life experiences. I thought that these reservations may have arisen from her limited vision of mathematics learning and her lack of an alternative view of mathematics teaching which, had she had

one, might have encouraged her in following a more problem-solving approach to teaching mathematics.

Despite these limitations, when Marion spoke of the effects of her involvement in the study, she said that she had begun thinking of ways to introduce lessons and concepts that “I’ve never thought of before”. This comment points to the need for teachers’ imaginations and highlights both its power and that of collaborative research.

Kate’s tendency to look to me for suggestions for change in her practice have already been mentioned. Even when Kate did begin to imagine other possibilities, she resorted to structural constraints to explain the difficulties involved in implementing these plans. For example, when imagining allowing pupils to devise their own experiment, she said that if the experiment did not succeed, “we could say ‘Okay that experiment was wrong. How can we adapt it?’” (An interesting aside - I thought that Kate’s thinking here was typical of the traditional assumptions held by scientists - i.e. the empirical procedure or the experiment was seen to be “wrong” rather than the conceptualisation or hypothesis being tested!) Kate went on to say that this approach to learning would provide pupils with “a far more clearer understanding” but then concluded her discussion by saying “but you see, we don’t really have time” to try to do this.

Lilian likened imagination to experimentation and her discourse made reference to the struggle involved in developing alternative forms of pedagogy. For example, in response to my question, she said that teachers who taught as Teacher A did, did so because it was “convenient” and demanded “very little preparation”. Similarly, Janet made connections between creativity and imaginative power. She said that a teacher who believed that there is “only one way of thinking” would be likely to work in a “teacher-orientated” classroom and would “find it very difficult to cope with a child in the class that might be a divergent thinker”.

During my observations of Janet's lessons, I had seen evidence of her own imaginative teaching practice - in particular, the use of photographs on overhead transparencies. When I commented on her use of these, she recounted a conversation where the other geography teachers in the school, on hearing of this practice, had said, "But we don't do that!" Her response had been, "Well, how on earth do you teach the subject if you don't do that?" She went on to say, "I was quite stunned that they didn't do it and they were quite stunned because they'd never thought of doing it."

In our last interview, Janet also highlighted the difficulties of envisioning and developing alternative practice when I asked her if she thought she was a good teacher. She said that she did not think she could really answer my question yet and would probably need another year or so in her new school before she would be in a position to evaluate her work. She viewed her own future learning as developmental saying that "I'll probably have to discover as I go along". I thought that this comment illustrated that the power to recognise one's own inadequacy was a prerequisite to imagining alternative practice. The power to imagine possibilities and the power to transform productive practice appeared to be connected to higher levels of power - each level requiring various skills and expertise in employing them.

### **Teachers' political consciousness**

As can be seen in Chapters 2 - 6, issues of control were central features of each of the classrooms included in this study. Every teacher had strategies which she used - sometimes, I suspected, unconsciously - to assert and maintain her power in the classroom. These strategies ranged from structuring the learning environment to reprimanding pupils for bad behaviour, from subtle and apparently democratic measures of control to those that were overtly authoritarian. It was through an analysis of the differences in these approaches - and, in certain instances, in the absences within a teacher's approach - that it became possible to gauge teachers' political consciousness.

I have found it useful to distinguish between political consciousness and pastoral power and to illustrate these differences by comparing teachers' strategies for control and discipline. In this sub-section I argue that while teachers' pastoral power accounts for aspects of the 'me' role and responses in their identities and practice, political consciousness forms an important component of power which influences and further develops their power identities. The extent to which teachers were able to move beyond the pastoral role and response and give emphasis to political issues and factors was important in shaping their power identities.

Traditionally, pastoral power is part and parcel of the roles teachers have played. As a teacher, it has been one's responsibility to act as a guide and to help pupils towards acquiring knowledge. On the other hand, teachers' political consciousness refers to their awareness of both their own roles and those of their pupils beyond the classroom. I argue that it is this consciousness that encourages a teacher to move beyond the mode of pastoral power and to work towards her pupils' greater development as citizens of the world rather than as pupils in classrooms..

Once again, in illustrating political consciousness as a component of power, this sub-section refers to the difficulties of accessing and maintaining power as well as the difficulties involved in confronting power - both that of others and that that one wields oneself. Once again, I argue for the importance of language and contradiction in the recognition of the 'me' and 'I' roles and in the struggle for the development of power identity.

Lynn's political consciousness was evident in her stated goal to help pupils "to cope with life" as opposed to gaining knowledge in order to pass examinations. Furthermore, she hoped to help them acquire the skills to "go out there and do it themselves" and so reach beyond her - and beyond her classroom power and control. I would argue that it was through her recognition of the aspects of political power within her work - in particular, her control exercised through the use of questions which constrained pupils - that

encouraged Lynn to initiate changes in her teaching practice. In this way, her political consciousness encouraged her to develop closer and more coherent connections in theory/practice relationships.

The contradictory elements in Lynn's work - for example, her practice of "giving" pupils the answers and of providing a limited learning space in which she imposed her own value judgements - can be understood in the light of the pastoral power she exerted. Although she encouraged pupils to deconstruct the assumptions and values they and others espoused, frequently her own assumptions and values went unchallenged - until she had developed a critical awareness of hidden strategies of domination in her practice. I believe that it was Lynn's political consciousness that enhanced her capacity to recognise the contradictions in her work and to change her practice.

Lilian's political consciousness was evident in her attempts to link the contents of the history syllabus to current political events - particularly those in South Africa. For example, she said that one particular section of the syllabus "brings me very much to the South African situation as it was a short while ago". Much of her classroom discourse stressed the importance of human rights and the need for tolerance. She was fully conscious of these linkages offering explanations and justifications for them to me in interviews. For example, she said that the emphasis currently given to human rights by the African National Congress led her to give greater attention to the Rights of Man and Citizen when dealing with the consequences of the French Revolution. I noticed that there were close connections between her theory and practice in this regard.

I also interpreted the emphasis that Lilian gave to the development of the skills pupils required for reading and interpretation in areas beyond their textbooks as further evidence of her political consciousness. During one lesson, she said that she hoped that the girls had watched President Mandela's inauguration ceremony on television and had noticed the comment about the 60% illiteracy rate in South Africa. When some pupils seemed surprised about this, Lilian told them to "keep your eyes and ears open for current affairs".

Linked to the encouragement she gave to pupils to read the media critically was the emphasis Lilian gave to bias and to the importance of contextual, social and human factors in the construction of historical knowledge and in learning about history. Once again, I thought that it was Lilian's own political consciousness that led her to work towards heightening the political consciousness of her pupils in these ways.

There were also strong elements of pastoral power in Lilian's work and these - bolstered by structural constraints - served to introduce inconsistent elements in the theory/ practice relationships. It may have been that the unresolved tensions between her political consciousness and her pastoral power were partly responsible for the frustration and anger that I sensed underlying aspects of Lilian's discourse.

Although there were considerable differences between Kate and Marion's cases, I would argue that the emphasis that they each gave to pastoral power prohibited them from developing a more exploratory mode of learning for pupils and in developing more coherent theory/practice relationships in their own work.

Kate was less able to move beyond pastoral power than either Lilian or Marion; instead, she remained ensnared in the 'me' role - the role of the teacher as 'critical parent' concerned with issues of manners and socially acceptable behaviour. This role was also partly responsible for her stressing the importance of memorising knowledge for examination purposes. I also thought that Kate's pastoral power was evident in her wish to nurture her pupils' "self-confidence" and to help them to "believe in themselves" and develop an "identity". (The latter was ironic since aspects of Kate's own identity were weak). Her exercise of pastoral power was also reflected in her questions which checked pupils' past knowledge and understanding gained in previous lessons rather than challenging them in any way or drawing on knowledge gained in other life contexts.

In Marion's case, the emphasis she gave to pastoral power was connected to her views of pupils and the teacher's role in the classroom. She presented herself as a warm, maternal

figure exercising firm and confident control over pupils' behaviour and learning.

Describing herself as a mathematics teacher "that enjoys the teaching of maths", Marion said that she enjoyed "getting others to succeed . . . seeing the pennies drop" and recalled that she got "quite excited" on seeing a pupil's "eyes light up" as he grasped a concept she was teaching.

Marion justified her approach by referring to the importance of the centrality of the mathematics teacher and the need for "proper procedures" for tests and examinations - symbolic measures of control. Although her disciplinary measures were less obtrusive than those of Kate's, their more hidden nature did not make them any the less constraining. I thought it significant that although Marion recognised some of her disciplinary strategies (e.g. punishing the whole class) as being not always fair or "just", she made no plans to change these because she saw them as measures that worked.

In addition to examining the participating teachers' strategies for control, I noticed the effects of absences on their discourse and practice. In comparing the five teachers I began to realise that these absences in practice were as telling as the presences. For example, the absences in Marion's subject identity, in her theoretical consciousness and in her imagination affected both the extent to which she could incorporate new teaching strategies and relinquish her control associated with pastoral power. At other times, it was the strong presences in teachers' thinking and practice that constrained them in developing other forms of interaction. For example, Kate's emphasis on controlling behaviour and the emphasis Marion gave to examinations as hurdles over which one needed to jump in the course of one's school journey inhibited the introduction of their preferred forms of practice.

These last comments once again serve to illustrate the interconnections between different components of power.

## **Teachers' personal histories**

The final component of power dealt with in this thesis is that of teachers' personal histories. During an interview Lilian pointed to the influence of individual teachers' personalities on their style of teaching saying that "you can have the same material being taught with the same notes, the same textbook, by three different teachers and it will be three different lessons. Completely different lessons". In this sub-section I argue that teachers' personal histories and their construction of these prior experiences serve as components of power in that they provide opportunities for and/or constraints on teachers' power identities. In addition to shaping teachers' personalities, personal histories also play a role as social processes in the development of both the 'me' and the 'I' roles in theory/practice relationships and in teachers' professional development.

Teachers' personal histories as learners were important influences on their thinking and classroom practice as teachers. These influences, however, were not necessarily similar in effect or straightforward as can be seen in a comparison of Kate and Lilian's cases.

During each of the interviews, Kate referred to her experiences first as a school pupil and then as a student at university. In particular she mentioned the difficulties she had experienced and the strategy of rote learning that she had employed in order to overcome these difficulties. I believe that these experiences had not only influenced Kate's thinking about knowledge and learning and her classroom practice, but her power identity as well. In addition, I interpreted Kate's lack of capacity in relation to other components of power in the light of her personal history. For example, her initial training as a "scientist" which did not seem to have been fused with a training programme as a science teacher - as highlighted in her discourse which divorced her three years of training as a scientist and researcher from the one year she had spent in a teacher education programme - was reflected in the contradictions in the theory/practice relationships in her work.

The comparisons that Kate made between herself and her twin sister, as well as those between herself and her other classmates indicated a lack of self-confidence. I thought that if both particular versions of identity and visions of possibility are drawn from experience, it was small wonder that she saw herself as “just a teacher” who had “to stand out of all . . . all of it”.

Kate’s comments about the teacher education programmes she had attended at university suggest support for the view that “teachers learn more about teaching from the thousands of hours spent as pupils in classrooms than they do from their relatively brief time under the tutelage of teacher educators” (Labaree 1992 : 139).

On the other hand, Lilian’s early experiences as a school pupil, while also influential in shaping her classroom practice, served not so much as constraints as to highlight the need for alternative practice. In the initial interview, Lilian recalled having “hated” her history lessons at school. In a later interview she explained that while at university she had come to “thoroughly” enjoy history and had decided that of her three teaching subjects - English and German were the other two - she would most like to teach history “but as I would have liked to be taught, not as I was taught”.

In addition to having influenced her approach to teaching and learning history, Lilian’s personal experiences as a learner had also influenced some of the specific practices she employed in the classroom. For example, she ascribed her practice of encouraging turn-taking through pupils raising their hands to her experience “at Varsity”. She said that when other people had called out answers, she had become “annoyed because I hadn’t even had time to think about it”.

In Marion’s case, too, there was evidence that her personal history had been influential. While not necessarily agreeing with her comment that it was her lengthy previous experience that had led to her success as a teacher, I would argue that her previous life

experiences had influenced both her thinking about knowledge and learning, her power identity and the way in which she engaged in this project.

For example, in spite of the lack of early encouragement from her parents to study in a more formal academic environment, Marion's more recent experiences - especially the year she had spent in Berkeley, California and her role as a parent - had been powerful factors in broadening her views not only of knowledge and learning but of herself as a woman. In addition, her previous success as a mathematics teacher - particularly in helping pupils pass the standard 10 examination - had been significant in shaping both her power identity and her classroom practice. It is interesting to note that her past success in this area also contributed to the constraints which inhibited her in developing alternative forms of practice.

During an interview with Janet I asked her what she thought had been the major influences on her development as a teacher. She said that she believed that her involvement in "syllabus committees" and in "curriculum development and so on" during the previous three years had "changed my whole view of of . of my teaching". She went on to say that she did not think that she had ever been "a conventional geography teacher" - she defined conventional teachers as being quite content to merely follow what is set out in the syllabus - which was possibly why she "went into curriculum development in the first place". During this interview Janet stressed the on-going nature of her own professional development; she thought that she had "been changing throughout the the last seven or eight years of my teaching". Her comments here highlight the 'me' and 'I' roles and phases of teacher identity and the need for ongoing struggle in the processes involved in learning and in developing practices of power.

## CONCLUSION

In this chapter I have theorised the nature and role of teachers' power identities and described seven interlinked components of power that influence these identities. I have argued that the stronger a teacher's power identity, the greater will be her capacity to identify contradictions in the theory/practice relationships in her work, to confront these and to resolve or balance the tensions resulting from these contradictions. In this way, teachers' power identities are crucial not only to an understanding of theory/practice relationships but to an understanding of teachers' professional development as well.

Ultimately this chapter has attempted to answer the primary research question that informed this project: To what extent did the five teachers' theoretical conceptions influence their classroom practice? In essence, answering this question has required several phases. Firstly, I examined each teacher's classroom practice and discourse and completed a comparative analysis of these aspects in order to develop an understanding of the connections and contradictions in the theory/practice relationships in her work.

After completing this I embarked on yet another level of analysis - that involving a comparison of the results of the theory/practice analyses in relation to both the structural opportunities and constraints within each teacher's context - historical and current - and to six other interlinked components of power. In essence, this was a comparison of the power identities of the five participating teachers in that the analysis involved an examination of the extent to which each teacher was able to utilise components of power in order to work towards coherent theory/practice relationships.

In illustrating the contributions made by the seven components of power to teachers' power identities, I have highlighted the complexities of this analysis, the blurred boundaries between the seven components of power and linked them to the shifting nature of power and identity described at the beginning of this chapter. The following chapter provides a more detailed and theoretical explanation for the epistemological basis for the

methodology which has been partially described throughout Section B and in this chapter while in Chapter 9 possibilities for both rationality and for teacher education programmes are developed.

## Chapter Eight

### **POWER AND IDENTITY IN QUALITATIVE RESEARCH**

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I had three major goals - closely interlinked - when deciding on the writing of this chapter. Firstly, I wanted to trace my changing epistemological position which had been only partially captured in the second story in each of the case study chapters, the story of my struggle - a rite of passage - to achieve coherent theory/practice relationships in qualitative research. The empirical work for this project was, in essence, a journey of personal development and one that impacted on and shifted - sometimes in subtle and nuanced ways - my epistemology and theoretical views about research. Clarifying these shifts was my first goal in writing this chapter.

The second goal - closely linked to the first - was to clarify the research design and the practices and processes used in the five case studies. While the second story in each of the case study chapters refers to the practices and procedures I followed, this narrative account needed to be sharpened by providing a more theoretical and analytical account of the research methodology used.

In clarifying the connections between my personal epistemology and the methodological decisions made, the social and transactional nature of this project is highlighted. The influence of my own understandings, interests and values on my research practice and, therefore, on the descriptions, interpretations and grounded theory I offer in this thesis are described.

Each of these goals is important when documenting a qualitative study since their achievement both enhances the transparency of the research process and contributes to the credibility of the stories told and the conclusions drawn. In working towards these goals, a third goal emerged.

This third goal reflects my current major interest which itself developed as a result of my engagement in this project. In clarifying my epistemological position and in evaluating the strengths and limitations of the methodology used in this project - in fact, in analysing the theory/practice relationships of myself as the researcher - I found that I needed to confront issues related to the identity and power in two areas: firstly the identity and power of qualitative research as a means of investigating the world and generating truth-claims about its nature, and, secondly, the identity and power of the qualitative researcher as the chief research instrument. Thus, my third goal is to offer a power identity - a profile of the strengths and limitations - of qualitative research.

I believe that it was the experience of living the difficulties of data collection and analysis that most helped me reach the perspective from which this chapter is written. This perspective, therefore, is grounded in the research experience and is centred around personal development. Given this, I believe that it is appropriate that this chapter follows rather than precedes the five case study chapters since it reflects the epistemological position into which I **grew** through those case studies. This position and my conceptions of rationality were clarified through the processes of data collection and analysis as well as during the process of writing the final drafts of Chapters 2 - 7. While I had degrees of both theoretical and intuitive understanding of many of the issues described in this chapter prior to undertaking the first case study, this understanding was significantly enhanced by my development as a qualitative researcher in the field. The rite of passage followed in my research practice influenced the rite of passage in my thinking about research. In this way, this project most empowered me through my learning in action.

The first section of this chapter, entitled definitions of scientific knowledge and practice, describes the influences of my theoretical studies and my experiences as a novice qualitative researcher on my views relating to scientific knowledge and practice. Writing this section of the chapter - which required bringing to consciousness my personal epistemology and coming clean about my definitions of science - involved considerable reflection in an attempt to uncover the interests, values and experiences that had informed the research design and its processes. The second section focuses on methodology rather than epistemology and deals with the research design and the procedures followed during different aspects of the research process. In each of these sections, issues relating to the identity and power of qualitative research are highlighted.

## **DEFINITIONS OF SCIENTIFIC KNOWLEDGE AND PRACTICE**

I found that in asking the question ‘What constitutes scientific practice?’, I also needed to ask ‘What counts as rationality?’ and to define the status of qualitative research, i.e. its identity and power in the generation of knowledge. In providing a response to these questions, I summarised the developments in my personal epistemology from a point prior to the commencement of this study to the point at which I completed the empirical analysis of the five case studies presented in Chapters 2 - 6 and the development of the grounded theory presented in Chapter 7.

### **Developing consciousness of my personal epistemology**

In many ways, my development towards greater consciousness of my personal epistemology paralleled aspects of some teachers’ development towards consciousness of their theories of knowledge and learning. For example, as I had found it reductionist to categorise the participating teachers’ views, I found it simplistic to categorise either my past or current personal epistemology. In the same way that I had recognised contradictions in the teachers’ views and classroom practice and between their views and practice, I recognised contradictions and dissonant moments in my views of knowledge

and rationality. Similarly, while the challenges provided by this study have been empowering and crucial to my own development, there have been periods when I have felt powerless and hopeless as I struggled to meet these challenges.

Prior to writing this chapter, I embarked on an attempt to construct a map of social theories showing chronological developments as well as significant connections between different theories. I did this in order to understand their influences on my personal epistemology and to locate myself on this conceptual map. It was this exercise in research that made me aware of the difficulties I now have in establishing discrete categories and in positioning myself within any of these. As a result of choosing an emergent research design and working with the data inductively in order to develop grounded theory, I learned to span divides and juggle juxtapositions with increasing awareness and ease. Increasingly, I am centred in shifts and contradictions, comfortably fragmented. I now believe that the extent to which individuals have the capacity to work the paradoxes and to deal with anomalies, juxtapositions and ambiguities in multiple realities where opposites coexist is an important indicator of power identity.

Despite such contradictions, there are identifiable trends and patterns in my personal epistemology and I describe these and the influences upon them in the following section.

### **My initial definitions of scientific knowledge and practice**

In developing the conceptual map mentioned above, it became clear to me that my Master's degree in Education (Social Theory) - and, in particular, my study of the social construction of scientific knowledge - completed the year prior to commencing this project had been a significant influence on my thinking.

These studies had traced the origins of Western definitions of science and the challenges posed by the Enlightenment philosophers against the intellectual authority of tradition, divine revelation and faith which had been established in its main outlines in the thirteenth

century by St Thomas Aquinas, amongst other leading Catholic theologians. I noted that aspects of Auguste Comte's early characterisation of science - especially the proposition that science neither admires nor condemns the facts, but simply regards them as objects of observation - continued to be strongly held values of both empiricist philosophers and many scientists and had contributed to the powerful identity of scientific practice and knowledge.

My view of the early critiques of science - ranging from those of Emile Durkheim to Karl Marx, from Karl Mannheim to proponents of the "strong programme" in the sociology of science tradition - was that they did little to challenge this identity since they drew back from the conclusion that scientific knowledge was socially contingent and stated that while the realms of natural science and the historical and social disciplines ran parallel, they were distinct. Where sociologists attempted to expose some of the myths surrounding science, they were criticised for following the very practices of science that they condemned. For example Larry Laudan wrote that David Bloor was keen to "scientise sociology" (Brown 1984 : 50) which seemed to contradict Bloor's purpose in subjecting science to sociological analysis!

Similarly, aspects of Jurgen Habermas' theories of knowledge-constitutive interests and communicative competence were described by other theorists as responses to criticisms that science levels at 'pretenders' to the powerful identity and status provided by the term 'scientific knowledge' i.e. their lack of scientific character and rational procedures for testing, validating or rejecting hypotheses (Habermas 1982, Ottman 1982).

Later and more critical perspectives on positivist definitions of science strengthened my own interest in qualitative research. In turn, each of the following perspectives was of particular significance: Karl Popper's recognition of theory-dependent observation, Paul Feyerabend's view that in the future science will be studied as an historical phenomenon "together with other fairy tales such as the myths of 'primitive' societies" (Chalmers 1978 : 142), and the suggestion that discourse analysis holds the key to developing an

understanding of science as a social activity and scientific knowledge as a social construction (Gilbert & Mulkay 1984, Woolgar 1988).

Not only was I fiercely anti-positivist when I commenced this study but science as mythology was a concept that had influenced my thinking. I understood myth as a way of ordering experience, of revealing, making and communicating patterns of meaning, and its primary function as providing explanations for the complexities encountered in lived experiences. In a paper entitled *Developing Consciousness in Scientific Discourse or Science and Other Fairy Tales*, I argued that recognising the social nature of science was an important step towards escaping the constraints previously imposed by scientific research and was crucial if scientists wanted to open up new methodologies and new fields of knowledge (Wickham 1992a : 17-18).

The conclusion to this paper accurately sums up my position at that time: “At this stage there appears to be little chance of a quick escape from the constraints imposed by the ideology of science. Respect for scientific rationality is deeply embedded in our own culture and, therefore, it is hard to treat science purely as an object of study without using its methodologies and the organisation of discourse and text seen to be scientifically acceptable. Nevertheless change does happen and the awareness that both the social and the natural sciences have unscientific processes is an important start. We need to work towards developing alternative methods of literary expression - methods which play down the rhetorical distance between subject and object, between researcher and researched object. In addition, we need to find ways to ‘interrogate self’, i.e. to maintain a critical stance towards our own analytic and representational techniques. This involves critical reflection on our practice.

“To conclude, we need to recognise science as a social activity. Unless we do so, we will remain on the bandwagon of scientific research onto which so many of us have scrambled. We need to take the brave and unorthodox step of disclaiming to be scientific in the traditional sense in our quest for knowledge - instead, we need to recognise and then

explore our most human qualities - intuition, emotion, dreams, experience, inspiration, faith etc. Perhaps the bottom line is, more than anything else, we need to redefine 'science'."

My view and definition of science provided here were bolstered by my study of critical theory and interest in action research. The former's critique of instrumental rationality and its focus on the complex relationships between knowledge and society (Gibson 1986) were clearly allied to my conception of science as a social construction. Two of the central issues of critical theory - those of emancipation and social change - are also central to action research, a democratic mode of research employing self-reflective inquiry which seeks to enable those who are traditionally the objects of enquiry to develop the capacity to examine and transform their own practices (Carr & Kemmis 1986, Elliot 1991, Walker 1993,1994).

At the beginning stages of this project, writing a first draft of a 'methods chapter', I described myself as following a "constructivist" position which assumed that people are "knowing, active, purposive, adaptive self-aware beings whose knowledge and purposes have consequences for their actions" (Hewson and Hewson 1989 : 192). I wrote that according to constructivism, people construct their own knowledge using their existing knowledge in order to do so and that, since teachers' personal meanings were the focal point of this project - understanding the ways in which teachers' constructed their views about knowledge and learning - this was inevitably the epistemological approach required for this study.

My early methodological decisions rested on the assumption that there was no 'real world' of the classroom, of learning and of teaching; instead, I believed there to be many such worlds, "perhaps nested within one another, perhaps occupying parallel universes which frequently, albeit unpredictably, intrude on one another" (Shulman 1986: 7). As the project progressed, however, I became more and more dependent on the notion of a 'real world' - one that the case study teachers participated in and which I was attempting to

depict so that others would recognise it as being part of their own realities. It is in depicting such realities - providing such a representation - that I believe both the potential power and the real limitations of qualitative research processes lie.

### **My rite of passage towards redefining my personal view of science**

As reflected in the second story in the case study chapters - that of myself as researcher - despite the influences of theorists such as Feyerabend and arguments relating to personal constructions, I did worry about aspects of methodology - especially issues relating to representation and representivity - throughout the processes of data collection and data analysis as well as during the process of writing the final draft of this thesis.

The most frequent underlying concern I experienced related to the value of my methodology in generating accurate descriptions and worthwhile knowledge (about teacher's thinking and classroom practice and the relationships between these), and ideas (about teachers' power identities) as well as my conclusions relating to teacher education programmes and conceptions of rationality. Phrased in traditional scientific terms, these were concerns about objectivity, reliability and validity. Phrased in common sense discourse, I asked myself the following questions: Why should people believe me? What makes my stories true for other people? How do my descriptions correspond to/relate to reality? What counts as adequate description? How do and should we discriminate between competing accounts? Although couched in different terms, these questions raise similar concerns to those related to objectivity, reliability and validity and are important questions for qualitative researchers to consider - especially as they are intricately connected to issues of identity and power.

I began to see that what I needed was to develop some kind of correspondence theory - an argument which would persuade others that my interpretation was true not only for me (or even for them) but that it corresponded with the lived realities of the five participating teachers. I came to understand that a theory of truth, which would provide the rationale

for comparing my descriptions and accounts with those that others might construct, required an account of the relationships between “the intransitive realm” and “the transitive realm” (Bhaskar quoted by Allan : 1996) and an account of the relationships between propositions and the objects they described. (These two realms are outlined below.) In developing such an argument I recognised that I would, simultaneously, be developing an account of the power of qualitative research to make correspondence between these two realms and that, should I succeed in doing so, I would be arguing for the identity of qualitative research as scientific practice and the knowledge produced in such studies as scientific knowledge, rationally constructed.

I grew to understand that a correspondence theory of truth needs to sustain the creative tensions between the intransitive domain of science - those levels which do not change with our theoretical knowledge and experiences of them but which are relatively stable and enduring - and the transitive domain which comprises the epistemic tools through which scientists attempt to account for the ontic. I recognised, too, that, unlike traditional correspondence theory which was relatively unproblematic, I needed to work towards the development of a complex account of the relationships between propositions and the objects/events they described.

This understanding developed through my experiences - during both data collection and analysis - of the very real danger associated with forgetting that objects and events exist independently of the researcher and her interpretation. The result was intellectual paralysis: I felt that there was no point in struggling with the project if all the data was reduced to my interpretation and did not reflect the world of the participating teachers or those of whoever might read my final accounts. On the other hand, I needed to bear in mind that human activity - including the act of interpretation - is responsible for producing constant conjunctions of events. The recognition that thought exists independently of systems and structures of discourse and that, although it is often hidden, it always animates everyday behaviour was useful to remember (Foucault in Kritzman 1990 :155).

In time, I developed the necessary tactics and techniques as well as the skills to use these in order to sustain the tensions between these two perspectives.

The way in which I pulsed between the empirical and theoretical phases in this research project - between theory and practice - while sometimes disconcerting, reflected the need for both perspectives. While involved with the empirical work for this study in schools, action research and teachers' development as a result of our collaboration seemed the most important issues. As a result, the skills required to provide teachers with a reflective mirror took centre stage. Once out of the field, however, teachers' empowerment and development became less of an issue and I moved towards a more theoretical - even philosophical - stance in analysing and theorising the relationships between teachers' thinking and their classroom practice. At one point I worried about these shifts and the apparent lack of coherence between certain aspects of the project. Now I understand these in terms of different stages required by a view of research as local criticism.

## **Local criticism**

Foucault's arguments for "discontinuous, particular and local criticism" versus "global totalitarian theories" (Foucault in Gordon 1980 : 80) sit comfortably with my criticism of positivist and modernist approaches to science and also provide a theoretical justification for the research design used in this project. According to Foucault, global totalitarian theories do not provide useful tools for local research; in fact, he writes that "the attempt to think in terms of a totality has proved a hindrance to research" and that "theoretical unity" needs to be "put into abeyance" to some extent when attempting empirical studies (Foucault in Gordon 1980 : 81).

On the other hand, local criticism - "an autonomous, non-centralised kind of theoretical production" and "its validity" which is not "dependent on the approval of established regimes of thought" (Foucault in Gordon 1980 : 81) - connects closely with qualitative

research which seeks a deep understanding of some phenomenon experienced by a specific group in a specific context (Maykut & Morehouse 1994).

The development of local criticism is connected to the insurrection of subjugated knowledges of which Foucault defines two strands. The first refers to historical contents that have been “buried and disguised in a functionalist coherence or formal systemisation” (Foucault in Gordon 1980 : 81). The emergence of historical contents allows the rediscovery of the ruptural effects of conflict and struggle that the order imposed by functionalist or systematising thought is designed to mask. Subjugated knowledges are thus those blocs of historical knowledge which were present but which were disguised within the body of functionalist and systematising theory and which criticism - which obviously draws upon scholarship - is able to reveal.

The second strand of subjugated knowledges refers to a whole set of knowledges that “have been disqualified as inadequate to their task or insufficiently elaborated: naive knowledges, located low down on the hierarchy, beneath the required level of cognition or specificity. Through the re-emergence of these low-ranking knowledges - and which involve popular knowledge though it is far from being a general commonsense knowledge but is on the contrary a particular, local regional knowledge, a differential knowledge incapable of unanimity and which owes its force only to the harshness with which it is opposed by everything surrounding it - that it is through the re-appearance of this knowledge, of these local popular knowledges, these disqualified knowledges, that criticism performs its work” (Foucault in Gordon 1980 : 82).

Criticism, therefore, is the methodology through which subjugated knowledges, which are concerned with “a historical knowledge of struggles” (Foucault in Gordon 1980 : 82) re-emerge. The aspects of this project which connect with local criticism and subjugated knowledges are described in the second section of this chapter.

Foucault terms the painstaking rediscovery of struggles together with their conflict “genealogy” (Foucault in Gordon 1980 : 83), and writes of the challenge they provide to globalising discourses since they “entertain the claims to attention of local, discontinuous, disqualified, illegitimate knowledges against the claims of a unitary body of theory which would filter, hierarchise and order them in the name of some true knowledge and some arbitrary idea of what constitutes a science and its objects” (Foucault in Gordon 1980 : 83).

Foucault calls genealogies “anti-sciences” in that they oppose “the effects of the centralising powers which are linked to the institution and functioning of an organised scientific discourse” (Foucault in Gordon 1980 : 84). It is against the effects of the power of a discourse that is considered to be scientific that the genealogy wages its struggle. A genealogy, therefore, is an attempt to emancipate historical knowledges from that subjection, to render them capable of opposition and of struggle against the coercion of a theoretical, unitary, formal and scientific discourse. The reactivation of local knowledges, therefore, stands in opposition to the scientific hierarchisation of knowledges and the effects intrinsic to their power.

In addition to the term genealogy, which refers to the tactics whereby subjugated knowledges are released, Foucault makes use of the term “archaeology”, which refers to the appropriate methodology for the analysis of local discursivities. Archaeology involves an ascending analysis of power - one that connects with the notion of grounded theory that qualitative research favours. Foucault writes that “one must not attempt some kind of deduction of power starting from its centre and aimed at the discovery of the extent to which it permeates into the base, of the degree to which it reproduces itself down to and including the most molecular elements of society. One must rather conduct an ascending analysis of power, starting from its infinitesimal mechanisms, which each have their own history, their own trajectory, their own techniques and tactics, and then see how these mechanisms of power have been and continue to be invested, colonised, utilised,

involved, transformed, displaced, extended etc. by ever more general mechanisms and by forms of global domination” (Foucault in Gordon 1980 : 99).

Foucault’s view of research challenges the identity and power of traditional scientific research which he describes as “an instrument of domination” utilising “disciplinary power” - codes of discourse and normalisation - invented by bourgeois society and conformed to by Western scientists. Foucault writes that while “it is quite possible that the major mechanisms of power have been accompanied by ideological productions”, he does not believe that what has taken place can be said to be only ideological. He writes: “It is both much more and much less than ideology. It is the production of effective instruments for the formation and accumulation of knowledge - methods of observation, techniques of registration, procedures for investigation and research, apparatuses of control. All this means that power, when it is exercised through these subtle mechanisms, cannot but evolve, organise and put into circulation a knowledge or rather apparatuses of knowledge which are not ideological constructs” (Foucault in Gordon 1980 : 102).

Foucault’s view of research as local criticism serves to invert the “system of right” (Foucault in Gordon 1980 : 95) in that “specific intellectuals” function to produce “truth” which he describes as “a thing of this world . . . produced only by virtue of multiple forms of constraint (and which) induces regular effects of power” (Foucault in Gordon 1980 : 131). In developing a correspondence theory of truth, I have taken cognisance of Foucault’s words: “Each society has a regime of truth, its ‘general politics’ of truth: i.e. the types of discourse which it accepts and makes function as true, the mechanisms and instances which enable one to distinguish true and false statements, the means by which each is sanctioned; the techniques and procedures accorded value in the acquisition of truth, the status of those who are charged with saying what counts as true (Foucault in Gordon 1980 : 131).

Foucault argues that it is in terms of the politics of truth of a society that the work of the specific intellectual can take on general significance and that her local specific struggle can

have effects and implications. It is here that the battle for truth or around truth takes place, i.e. around “the ensemble of rules according to which the truth and false are separated and specific effects of power attached to the true” (Foucault in Gordon 1980 : 132). ‘Truth’, therefore, is “linked in a circular relation with systems of power which produce and sustain it and to effects of power which it induces and which extend it” and creates a “regime of truth” (Foucault in Gordon 1980 : 132).

As this research project progressed, I began to detect key features of Foucault’s concept of research - local criticism which leads to the emergence of subjugated knowledges - and his concepts of genealogy and archaeology in both my definitions of science and research as well as in the research design and the practices and processes I developed during the course of the study. In addition, my attempt to explicate a correspondence theory of truth connects to Foucault’s concept of the specific intellectual’s contribution to the battle to overturn the regime of truth and invert the system of right.

Once I was further into the process of writing up the final draft of this thesis, I began to articulate my concerns about the “subtle mechanisms” of local criticism - especially the “politics of truth” hidden in discourse. In arguing for the accuracy of my descriptions and the truth of my conceptions of teachers’ power identity, I found myself not only arguing for the power of qualitative research but developing a “regime of truth” around this methodology. These concerns, which illustrate both the shifts in my thinking and the disturbing and disrupting effects of my rite of passage, are further elaborated upon in the remainder of this chapter.

### **Key features in my current definitions of scientific knowledge and practice**

While fighting shy of definitive definitions, in writing this chapter I found I needed to identify key features of the term ‘research’ which leads to scientific knowledge and practice. At the time of writing the final draft of this thesis, I defined research as

constituting inquiries into aspects of our world and our experiences of these. Research is undertaken in order to learn more about these aspects and experiences not only to widen our knowledge and enhance our understanding of them but also to help us make decisions which we believe will lead to better life experiences.

The knowledge generated in these inquiries is “essentially contestable” (Gallie quoted by Geertz 1973 : 29) since the researcher, an integral part of the social reality investigated as well as the processes of investigation, constructs a plan for investigation as well as descriptions and explanations of reality. Instrumental rationality with its ideals of objective and value-free investigation provides an inadequate framework within which to understand the complexities of these plans, investigative processes, descriptions and explanations, let alone the open-ended dialectic between them and between the researcher and her reality.

Two of the most significant features included in my definition of scientific research are those that were significant features of my research experience and which provide for rigour at various levels of the research process. These features are **language** and **reflexivity**. In the following section, I explain the importance of these two features in providing qualitative research with its power in knowledge generation. I also point to the associated limitations.

During the time of this project, I was embedded in language - the language of established theorists I have read and heard; of teachers in classrooms and in interviews; my language in fieldnotes, in interviews, in analysis and the writing of this thesis as well as the language of critical friends who have read my words. Indeed, there were times when I lived the experience of believing that there was no reality beyond these words - a vastly more discomfoting experience than reading about the theoretical notion in texts!

Language has been both the context and the chief tool of the project. Teachers' words - thought, uttered or acted upon - provided much of the data for this project and my words provided for the interpretation and grounded theory related to this data. Not only did

these discourses have contexts - for example, teachers' different teaching subjects and schools - and histories - for example, my previous studies - they had different purposes and agendas. Language directed both the teachers' thinking and that of mine to aspects of our realities and shaped our constructions and experiences of these.

Given that language is more than a system of sounds, symbols and signs for communication and given that it is never neutral, how then, I asked myself, could I ensure a discourse of truth? How could I ensure that the language used throughout the research process - both that of teachers and my own - accurately represented our realities and constructions?

Not only was I anxious to provide responses to the above questions, I felt considerable concern about my level of anxiety to do so because I recognised that this represented a shift in my thinking from a more constructivist or postmodern stance to a more realist and modern one. I experienced much of the research process as a struggle not just to access and investigate lived realities and conceptions of reality, but as constant struggle to subject the relationship between language and reality to close scrutiny.

I came to understand this as aspects of the researcher's struggles for representivity and representation and to recognise the place of reflexivity in these struggles. Reflexivity involves clarifying and revealing ordinarily hidden structures, values, assumptions and conventions within our action and experience at the same time drawing on a review of historically shaping influences. As such, reflexivity serves as a power balance to the assumed neutrality of language and yet itself contributes to the power identity of research methodologies that employ it.

Language that more accurately represents both conceptions and lived experiences - those of the researcher, the subjects and the recipients of the research findings - and reflexivity - subjecting the process of research and the researcher's interpretations to close scrutiny - provide for greater credibility and validity. In the same way that I define good teaching as

requiring reflective practitioners, I define good, scientific and rational research as requiring reflective practitioners.

Furthermore, during the course of the project, I came to understand that theoretical knowledge and understanding of the nature of language and the importance of reflexivity as outlined above is insufficient when carrying out local criticism. It was not enough that I was knowledgeable in these fields. I also required considerable expertise: I needed to have at my disposal a range of techniques and the skills to use them. Qualitative research methodologies, with their emphasis on language and reflexivity, are ideal practice grounds for developing such techniques and skills.

Put starkly, I view the theoretical or conceptual and the practical or empirical as not discrete (which might be labelled a positivist response) but important components of the complex process of knowledge generation which feed into one another, informing each other as the researcher pulsates between them without collapsing each into the other (which might be labelled a postmodern response). Keeping alive the tensions between these components and knowing when to give emphasis to one or the other are also vital aspects of the researcher's expertise.

The difficulties I experienced in developing processes and techniques for inquiry and a measure of expertise in using these have been described in Chapters 2 -7. The second section of this chapter describes both the power and the limitations of these and their contributions in providing power identity to qualitative research.

## **THE RESEARCH DESIGN AND ITS PROCESSES**

While the research design and its processes are described below as integrated and epistemologically coherent, the descriptions provided in the researcher's voice in Chapters 2-7 highlight the emergent nature of both the design and the processes and relate the difficulties I experienced in its conceptualisation and implementation.

In taking as its focus the real material everyday lives and struggles of teachers, this project employed case study and participant observation methodologies. These methodologies also encouraged the collaborative nature of the research process and elements of action research to develop in some of the case studies.

### **Case study methodology**

In order for endogenous knowledge to be constructed and for teachers to contextualise their thinking, the data collected for this project and the theory developed during analysis needed to be grounded in the everyday fabric of teachers' practice and discourse. Theories which are socially and historically constructed in this way challenge the value of positivist notions of universality and objectivity and so facilitate our reconceptualisation of rationality and the renegotiation of definitions of 'science' and 'research'. They also challenge the technological consciousness which has characterised the more traditional quantitative research methodologies and the perspectives and practices which support them.

Case study methodology connects with Foucault's concept of local criticism and is well suited for use in a qualitative, exploratory research design since it encourages interpretation and allows for complexity and a richness of detail. Seemingly trivial and taken-for-granted aspects embedded in the fabric of everyday reality can be highlighted in an effort to reveal and understand micro mechanisms of power - their manifestations and relations. According to Foucault, the theme of 'struggle' only really becomes operative if one establishes concretely - in each particular case - who is engaged in struggle, what the struggle is about, and how, where, by what means and according to what rationality it evolves (Foucault in Gordon 1980).

The case study has been described as "the concrete universal" by Elliot Eisner (1991 :203) who argues that each case study provides for the development of generalisations -

retrospective as well as anticipatory. Each of these, he argues, raises levels of consciousness: retrospective generalisation encourages the reconstruction of one's past and a better understanding of it by reading of others' concrete and particular experiences; and anticipatory generalisation heightens one's consciousness when encountering similar situations and qualities.

At each of these levels the concept of generalisability is connected to both issues of representivity and representation and to issues of power. These connections are highlighted in the following characterisation of this project as employing case study methodology.

The project focused on five teachers in classrooms in schools within wider communities in South Africa in 1993 and 1994. In the case study descriptions, I attempted to demonstrate the ways in which the concrete contexts in which both the teachers and I operated influenced our thinking and practice. Including five teachers from five separate schools provided for a multi-site study, each teacher being equivalent to a separate site, and encouraged comparisons across sites and the emergence of potential generalisations.

The local context of teachers' personal meanings, embedded or nested as they were within other contexts - including teaching subjects and the culture of the school communities - was enhanced by this eco-systemic approach to data collection which took into account more general systems of organised relations in exploring teachers' thinking and classroom practice.

Despite this emphasis on case study, local criticism and local contexts, more generalise issues relating to theory/practice relationships and to power identity were raised in descriptions, interpretations and in the grounded theory offered. Recognition of these by critical friends and readers of this text suggest that aspects of the case studies are representative of others' realities and, therefore, have the power to offer generalisations. While these generalisations may not be universally applicable, insights and understandings

developed through local criticism are transferable to similar social contexts where human beings face and struggle with similar issues. As such, there is a basis for the argument that case study methodology can be employed to investigate general issues and that qualitative representations have value and power in developing understanding and knowledge not only for the researcher but also for readers of these representations.

The collaborative aspect of the case study approach to knowledge-generation provides opportunities for the development of and increased understanding for others, too - especially the empowerment of participants who would normally be termed the 'objects' of study.

One of the consequences of teachers' lack of professional identity has been that little value has been placed on research conducted by them. Academic researchers - universities, technikons and research communities - often view teacher research as ineffectual and unimportant at worst, and as supplemental to academic and scientific research at best. Although more attention has recently been given to teachers' knowledge bases, traditional research processes frequently make teachers' contributions invisible, obscuring their voices and therefore offering little opportunity for empowerment.

Setting the data collection processes within classroom in schools and using teachers' voices in the processes of interpretation and theory generation provided the space and opportunity for teachers to contribute to knowledge, itself potentially an identity-changing process. Interestingly, while it is often subjugated knowledges that teachers' voices offer, their stories and ideas are recognisable - and, therefore, partly generalisable.

Collaborative research for teacher empowerment requires a redefinition of the traditional roles where teachers are the objects of researchers' investigations and then the consumers and implementers of the findings; instead, research needs to be conceptualised as a circular process in which people are both the providers and the recipients of research findings. Democratisation of the research process demands that the researcher 'come clean' - open

up her agendas and subjectivities. I found that giving teachers' access to my fieldnotes, the videotapes of their lessons and the transcripts of interviews as well as conference papers that I had written, not only built the necessary trust and aided collaboration, but also, importantly, demystified the processes of research and knowledge construction for them.

The difficulties involved in selecting the five teachers for the case studies have been described in the case study chapters (Chapters 2 - 6) - for example, only certain teachers agreed to participate in the study and selection was further constrained by national and local events that occurred in South Africa in 1993 and 1994. In retrospect, it was fortunate that I finally worked with five teachers - white women - who shared similar contexts because this narrowed focus allowed me to develop a more coherent analysis of the theory/practice relationships in teachers' work in white middle-class schools in South Africa in 1993 and 1994. Clearly, the cases form a particular grouping of teachers and, therefore, the grounded theory has limitations in that aspects of it may not be applicable to all teachers in all classrooms. On the other hand, the notion of power identity in the achievement of coherent theory/practice relationships is not so narrow as to be unrelated to human beings who are involved in similar struggles, not only in the field of education.

### **Participant observation methodology**

Participant observation methodology centrally links the researcher with the findings of the study by recognising that the researcher is the main investigative tool. One of the challenges of participant observation is for the researcher to simultaneously establish rapport and a working relationship with the subjects whilst also maintaining a distance. While I did not actually teach during the periods of observation in classrooms, I wore at least three hats - those of researcher, of teacher and of pupil - and the perspectives of all three roles were reflected in my fieldnotes.

Prior to entering classrooms for observation, I had been alerted to the concept of theory-dependent observation and I understood observation as a mediated process. I recognised

that the task or object selected for study, the observer's frame of reference and the purpose of observation, among other factors, would influence what was perceived, recorded, analysed, and ultimately described by the observer. On another level, I knew that the technological observation tools - from paper and pens to video cameras - would further influence and constrain what was observed, recorded, analysed and described. Each of these levels of mediation led to questions concerning selectivity and representivity. Similarly, my awareness of a third level of mediation - that provided by my understanding of language as described in the section dealing with key features in my definition of scientific research practice - further complicated these questions.

One of the processes I introduced to combat the dangers related to selectivity in observation and representation in documentation was the sharing of my fieldnotes with participating teachers. Although this practice might be regarded as problematic and fraught with difficulties, I found that my previous experiences of critiquing student teachers helped to prepare me for frank discussions on classroom practice with the participating teachers. In addition, since teachers themselves are familiar with lesson observations (albeit for less democratic reasons than those that pertained to this study) those teachers who agreed to participate in the project had all had some experience of being observed in the classroom situation and of discussing their classroom practice.

The exercise of sharing my fieldnotes was also an invitation to the teachers to wear another hat, too - that of a more critical practitioner. In essence, teachers became researchers of their own practice as they observed their practice through the reflective mirror provided by my fieldnotes. Such collaboration not only facilitates the development of more accurate recordings and, therefore, grounded theory but also, as described by Lytle and Cochran-Smith, each separate piece of teacher research has the potential to inform subsequent activities in the individual participating teacher's classroom (Lytle and Cochran-Smith 1990 : 85).

By sharing my fieldnotes and by using them as a basis for interviews, I integrated important aspects of the study: observations and interviews; teachers' thinking and practice; and my voice and those of the teachers. In this way, forms of triangulation were set up which contributed to the power of the design and its processes. These forms of triangulation are further elaborated upon in the sections dealing with lesson descriptions and interviews.

The use of participant observation methodology and the reflective mirror process helped me to confront a major difficulty in this research project - the investigation and identification of thoughts which had not been fully developed by those thinking them! In the past researchers hesitated to investigate teachers' thought processes in so far as they addressed the content of the curriculum; that is, how teachers actually think about the process of teaching content to children so as to foster understanding during the interactive phase of teaching (McNamara 1991 : 113). More recently, however, action research and democratic, co-operative research options within classroom settings have opened up this field, researchers arguing that teachers' underlying assumptions and beliefs about knowledge can be revealed through such research procedures so that teachers are able to address them (Grant 1991; Griffiths & Tann 1992; Gudmundsdottir 1991; Onosko 1991).

The kind of teachers' thinking I examined was "open-ended, ill-structured, and deeply embedded in a rich complex knowledge base. As such it threaten(ed) to be intractable" (Kuhn 1992 : 156). One of my first goals, therefore, was to develop a tool which would facilitate the development of and, simultaneously, reveal teachers' thinking in order to make it accessible to both myself and to them. In effect, this involved 'bringing to consciousness' teachers' personal epistemologies - their theories of knowledge and learning.

My attempts to "get inside teachers' heads" (Elbaz 1991 : 18) through a variety of interlinking processes - the initial task provided at the first interview, the use of my lessons

descriptions, which served as reflective mirrors, and through questions and the use of argument in interviews - are outlined below.

### **The initial task**

I had included the initial task in the pilot questionnaire which I had tested with adult students studying towards Higher Diplomas in Education (Post-School) and (Technical) at Technikon Natal. This questionnaire differed from the final questionnaire both in form and in content. The former was divided into three sections. The first of these concerned information relating to teachers' names, places of work, years of experience as well as subjects and standards or levels taught by them. The second section included questions which required respondents to consider, describe and justify their classroom practice, particularly the teaching methods and strategies they used and those they avoided. In this section, there were also questions which probed in an attempt to ascertain whether the respondents would be willing to reflect on their own practice and to assess their interest in their professional development.

The third section of the questionnaire incorporated the task which was adapted from that used by Hewson and Hewson as outlined in their paper "Analysis and Use of a Task for Identifying Conceptions of Teaching Science" (1989). (A copy of the pilot questionnaire can be found in Appendix A.) The task required an analysis and discussion of two imaginary teachers' lesson introductions. I believed that these introductions reflected two different approaches to thinking about knowledge and learning - two different personal epistemologies. When testing the task in the pilot questionnaire, respondents were asked to provide written responses to the three questions which followed the two lesson introductions.

After my analysis of the pilot questionnaire I decided that the task should be the focus of the selection procedure and that the responses should be provided orally in interview-type situations rather than in written form. While my analysis of the pilot questionnaire

suggested that the task was a very useful tool, I was worried that respondents did not, for various reasons, analyse and discuss the two extracts in sufficient detail when providing written responses. By focusing on the questions concerning the task in a discussion-type interview, I believed that I would be able to stimulate and encourage teachers to further develop their arguments and thinking.

In deciding on this approach, “traditional empirical methods which concentrate on minimising bias in order to maximise the objectivity and generalisability of the knowledge generated” were overturned in favour of “a more ‘natural’ tell-it-like-it-is approach” (Dant 1992 : 177). This approach was more appropriate in the context of this project since one of its aims was to understand teachers’ knowledge and experiences of classrooms and schools from their own perspectives. Conversation around Teacher A and Teacher B’s lesson introductions encouraged teachers to provide their interpretations and understandings, using their own language and categories.

As a result of these changes, the final questionnaire was not so much a questionnaire as an interview schedule. (A copy of this questionnaire is provided in Appendix B together with a possible response to the task.) The interviews began with teachers completing the questions relating to their qualifications, and teaching experience in writing. They then read the two lesson introductions and we began a discussion by addressing the two questions included after each lesson introduction: “In your view, is good teaching happening in this classroom?” and “Please give reasons for your answer.” These discussions were audiotaped and later transcribed.

The last section of the questionnaire contained questions which served two functions: firstly, to test the extent to which teachers would be willing to critically reflect on their own practice and, secondly, to encourage teachers to identify aspects of their practice that they wanted to change. When given the choice, many teachers preferred to answer these questions orally rather than in written form. These responses were then audiotaped and transcribed.

All the above responses were summarised and analysed in terms of the categories presented in the section on the initial interview in each of the case study chapters.

The strengths and weaknesses relating to the initial task given to teachers in the initial interview have also been presented in the case study chapters. For example, while the task focused their thinking around everyday classroom practice and encouraged them to share their views, particularly on learning, the stereotypical views implicit in the lesson introductions were criticised by some teachers as artificial, a view that may have influenced their responses.

I attempted to overcome the difficulties I experienced relating to accurate representations of teachers' meanings and views expressed in these initial interviews by sharing my interpretations with them. This I did by providing each teacher with a copy of my summary and interpretation of their thinking about knowledge and learning. After they had had the opportunity to study this, a follow-up interview was held where teachers commented on my analysis. This process of participant verification through triangulation of the data is further elaborated upon in the following section on lesson descriptions.

In each of the five cases, the initial interviews provided me with baseline data with which to begin classroom observations. In all of the five cases, however, these data reflected only a portion of teachers' views and their classroom practice. At times, too, aspects of the views expressed in this initial interview were not reflected in teachers' practice. While these contradictions were significant focal points for analysis in this study - an exploration of theory/practice relationships - they suggest that interview situations employing qualitative methodologies need to be carefully monitored and the data subjected to close scrutiny. These concerns are elaborated on in the later section relating to the interviews which took place during the course of the project.

## **Lesson descriptions**

Descriptions of teachers' classroom practice and interactions were powerful tools - both for myself, the primary researcher, and for teachers as they began to identify, retrieve, create and develop theoretical perspectives. As the foundation upon which much of the research was built, these lesson descriptions needed to be detailed, accurate and sensitive. In order to develop such descriptions I made use of other tools and techniques which encouraged a recording of the active, flexible, adaptive processes that occurred in the teaching/learning situations I observed. Combining the fieldnotes written during lessons with replays of the videotaped sections of lessons, I compiled lesson descriptions which both provided for the identification of patterns and trends in teachers' classroom practice and served as reflective mirrors when teachers read and responded to these in interviews. (Examples of lesson descriptions are provided in Appendix C.)

In order to observe a range of each teacher's teaching strategies, I observed a variety of different types of lessons. For example, teachers were observed teaching new sections of the syllabus to pupils as well as revising material already taught; they were observed providing pupils' with homework assignments and handing back marked assignments. I observed test situations - pupils writing tests and having marked tests returned to them - and preparation for exams. Wherever possible, both theoretical and practical lessons were observed.

While it is likely that aspects of teachers' classroom practice were rehearsed for my benefit, the regular and repeated periods of observation meant that teachers did not have time to prepare all the lessons I observed in detail. Over the three week period that I spent in each teacher's classroom, I noted consistent patterns in their classroom practice but also took note of negative cases. The importance of these will be mentioned in the section dealing with data analysis.

In Chapters 2 - 6 I described my concerns relating to both the use of a video camera in classrooms as well as the accuracy of the fieldnotes and lesson descriptions I wrote. The power and the limitations of these tools as I experienced them is highlighted below.

Although I had initially been concerned about the possible effects of my presence and that of the video camera on both the participating teacher and her pupils, by being 'always' present, we ceased to be special stimuli. I gauged 'extinction time', or the time during which indifferent familiarity set in, largely by gut instinct after observing the teachers' and pupils' responses to me for a few days at the beginning of each case study. Generally, I was surprised by pupils' lack of interest in my presence.

Technological records, such as videotapes, provide permanent records of action and allow for "in-depth analysis of streams of behaviour" (Evertson and Green 1986 : 176). Viewing them after the period of classroom observation refreshed my memory and helped me build in more detailed description when writing the final lesson descriptions. In this way, the videotapes provided for methodological triangulation of the data I wrote in fieldnotes during lessons and provided for greater accuracy and reliability.

I had planned for the videotaped material to be used to provide teachers with opportunities to recollect, reflect and critique their thinking and decision-making while teaching. I had used a similar process when working with student teachers in microteaching classes at Technikon Natal and hoped that the 'critical eye' and questioning skills I had developed there would stand me in good stead in this study. I found, however, that setting up the necessary equipment and co-ordinating this was not worth the effort involved since teachers did not respond as well as I had anticipated to this form of stimulation. The chief value of the videotaped material was for me in developing comprehensive lesson descriptions.

Initially, I had hoped to supplement my lesson descriptions with journals written by teachers during the period of observation but teachers said that they did not have time for written reflections. I came to realise that designing collaborative research processes requires an understanding of the constraints under which all participants work and live and that unless all participants valued the processes, it was unlikely that they would be able to be used. Not only does this point to the constraints involved in collaborative endeavours, it again highlights the difficulty of translating theoretical knowledge about qualitative research into empirical research practice.

I began writing my fieldnotes before the commencement of each case study and continued to keep these throughout the observation period. In the fieldnotes written prior to my entering the classroom, I attempted to depict my assumptions and expectations as fully as possible. Put up front like this, as suggested by Bogdan and Biklen (1992 : 123), they could be confronted and measured against what emerged during the course of the study.

In addition to descriptions of the teaching/learning processes I observed, my fieldnotes included methodological notes and theoretical notes as well as personal notes and comments. The reflective sections of the fieldnotes were an attempt to acknowledge and, thus, monitor observer effect.

The skills that I worked hard to develop to enable me to provide detailed and accurate descriptions included astute observation, innovative thinking and a high degree of literacy. I worked hard to ‘hear’ the language of the teacher not as mere sounds unproblematically transmitting meaning and knowledge but as value-laden and ideological cultural technology. Describing these observations and explaining my interpretations of them required skilful and sensitive writing. Maturana’s description of a scientist as “a person with a passion for explaining” and the research process as including “artist-like processes” which are traditionally “filtered out of ordinary research writing” (in Steier 1992 : 4) accurately reflects my experience of this aspect of the research process..

Sharing these fieldnotes with participating teachers was, in effect, my 'coming clean' about the difficulties and concerns I experienced - methodological and theoretical. It also connected to the triangulation process described in the sub-section describing my concerns relating to selectivity and representation. Teachers' verification of my fieldnotes strengthened the validity of these in that they authenticated the data at three levels (Maxwell 1992 : 288). Firstly, the primary level or descriptive level, required that teachers confirm the accuracy of the accounts. Secondly, the secondary level or interpretive level, required that teachers confirm the interpretation, meaning or the construction of the events, actions, interactions and discourse described. The third level, the theoretical level, refers to the semi-analytical voice used in the fieldnotes and required that teachers confirm the initial theoretical explanations towards which I was working. This last level will again be mentioned in the sub-section dealing with analysis.

While this process of participant verification is linked to the notions of democracy and empowerment inherent in collaborative research and action research, my experience was that the power relations between primary researcher and secondary researcher can never be neutralised. This difficulty - which is itself connected to questions relating to representation, to accuracy and to truth - is further elaborated upon in the following sub-section.

## **Interviews**

As explained in Chapters 2 - 6, there were two purposes to the interviews. Firstly, they provided teachers with opportunities to explain their classroom practice, often directly in response to questions from me - either oral or written in the lesson descriptions - and secondly, opportunities to confirm or dispute my descriptions of their lessons. In this way, interviews were connected to both data-collection and teacher-validation of the work in progress.

Generally, interviews were conducted after two or three lessons had been observed and after teachers had had the opportunity of reading the lesson descriptions written on these lessons. As described in Chapters 2 - 6, during the first case study I was not able to provide Lynn with up to date descriptions; however, with practice, my proficiency in this regard improved. In addition, in Lilian's case, because of her busy work schedule, the final interview took place a couple of weeks after the last lesson observed. This last case provides an example of the ways in which the daily lives of teachers can and do influence and limit the research process in collaborative research. All of the interviews were audiotaped and then later fully transcribed. (Examples of interview transcripts can be found in Appendix D.)

The interviews were based not on abstractions couched in theoretical or universalistic terms, but on the teachers' particular and concrete circumstances as described in my lesson descriptions of their classroom practice and their classroom discourse, each of which provided fertile and accessible material for critique. Foucault's concept of local criticism underpins this approach to data collection and research: teachers' interview discourse was grounded in the realities of the lived experiences and relations within which they found themselves in schools.

Dialogue and criticism were powerful tools in uncovering and recognising both the inadequacies of and the inconsistencies in teachers' thinking and practice as well as previously accepted educational myths. Critical theorists such as Habermas (1971) have given emphasis to the importance of conversation and dialogue in the development of human understanding while Freire (1973) gave attention to the role of dialogue in the development of critical consciousness.

Critique of discourse and deconstruction of perceived constraints has the potential to bring teachers face to face with their taken-for-granted thinking and practice. 'Critique' in this sense is distinguished from 'critical' and the latter's connection with modernist conceptions of rationality. 'Critique' infers deconstruction based on oppositional thinking

which reveals power relations which manifest themselves in the fabric of everyday life. As the participating teachers in this project began to articulate, construct and deconstruct their own theories, in a very real sense they came to know themselves both as persons and as teachers. This process highlights the emancipatory interest and the identity-changing potential of the collaborative research processes.

Although the fieldnotes were, in themselves, valuable tools for stimulating teacher's responses in interviews, I also made use of questions and argument to further develop thinking. My questions functioned to encourage teachers to interrogate their practice and the social forms out of which it arose while the use of "dialogic argument" (Kuhn 1992 : 157) encouraged them to think aloud, formulating justifications for and judgements of their classroom practice. Kuhn writes that "it is in argument that we find the most significant way in which higher order thinking and reasoning figure in the lives of most people" (1992 : 155).

Much of the power of qualitative research lies in the use of such processes where the researcher has opportunities to clarify responses and to ask questions which prompt fuller responses than those initially given.

In explaining the rationale for their teaching and assessment strategies in these interviews, teachers began to bring to consciousness those theories on which their teaching strategies were based. As these were articulated, not only did teachers come to understand their practice and themselves in new ways but contradictions began to emerge. The contradictions, when noticed, highlighted and addressed, were particularly useful foci for analysis for me. For the teachers, they provided points at which they could work in order to achieve greater coherence in theory/practice relationships because they required that they "make explicit certain reasoning about actions in order that such reasoning become vulnerable to change, and challenge formal models" (Morgan 1993 : 124).

In interviews I again found that theoretical knowledge and understanding of the importance of questioning, dialogue and criticism was insufficient and that I needed to develop a number of skills. The real power of the qualitative researcher lies in being able to use a range of skills and techniques in stimulating thought and eliciting responses. In addition, I needed to work on my ability to deconstruct discourse in process in order to highlight contradictory statements and to learn to judge when and how to make use of conceptual and theoretical categories.

I also came to realise that at times the need for sensitivity was more important than the exercise of skills - especially when eliciting and reconstructing teachers' arguments (Kuhn 1992, Fenstermacher & Richardson 1993, Morgan 1993, Vasquez-Levy 1993). Developing and sustaining tensions in the face of teachers who tended to dissolve rather than resolve conflicts required persistence and perseverance on the one hand and gentle caution and empathy on the other. I found that while keeping the tensions alive in contradictions fuelled the process of critique, there were times when it was wiser to refrain from further questions and argument. Becoming familiar with silences and their meanings was also essential. Recognising the evaluative framework and language of my lesson descriptions and my own discourse and making my subjectivities available to the participating teachers went some way in encouraging a degree of openness and confidence in the interview discussions.

As described above, the lesson descriptions provided for more than discussion in interviews since they were accounts which not merely represented but also had the potential to transform reality. Skilful representation and discussion around these representations and teachers' realities encouraged participating teachers to develop a greater sensitivity to their work and to their identities. Research, therefore, not only "informs teaching behaviours" but can be used as "food for thought" eliciting "practical arguments that lead to action" (Fenstermacher & Richardson 1993 : 101). Engaging teachers in the process of identifying and reconstructing their theories through argument encourages them and sustains them in the process of change.

The role of criticism in emancipation and transformation is closely connected to action research and, clearly, the researcher who is interested in empowering teachers is much more than a collector of data in classrooms. Her role, identity and power undergo subtle shifts. While she relinquishes her role as ‘expert’, her expertise is vital and places her in a very strong position during collaboration. In particular, her expertise is necessary when taking on the role of ‘the other’, the dialogic partner who questions and even leads the teacher but avoids intruding into the explanation or judging the teacher’s reasoning. Here the expertise of the researcher lies in not presenting herself as the researcher. Walking the line between empathy and distantiation is a difficult but necessary condition of collaborative research where the researcher’s social location is contradictory.

In this project, a primary function of my role as ‘the other’ was in holding up a reflective mirror which enabled participating teachers to decentre themselves through the processes of distantiation and critique. In addition, and very importantly, I needed to provide the conceptual categories to fuel the process of teacher empowerment and to enable the teachers to work towards new realities articulated in “a language of possibility” (Simon 1992 : 30). Without this second stage in the process, there was a real danger that both the teachers and I would feel overwhelmed by the structural constraints described in Chapter 7.

While I believe that I experienced some success at the first stage of this process, I had only limited success at the second. There are several complex reasons for this (some of which have been described in Chapter 7), many related to issues of power.

Firstly, I was aware that teachers were not able to tell me everything they knew or thought during the interview sessions. This is one of the limitations of any interview situation. People know more than they can tell. But, more importantly, there were times when I sensed that their responses were further constrained because they lacked the capacity or power to contest some of my descriptions and interpretations. It was not that they disagreed with these or found specific aspects to criticise; nor was it because they felt

uncomfortable in doing so. Rather, their difficulty related to their lack of ease, a lack of familiarity with the research process and their role in it (despite my explanations) as well as their limited understanding of the concepts and language that I used. It seemed as if the teachers needed a degree of power in order to be further empowered through the research process.

While teachers' voices did provide for greater authentication of the data collected and they were able to validate data at the level of concrete description and, sometimes, at the level of interpretation, their voices at these levels of verification neither suggested nor necessarily led to their empowerment. The relationships between voice, power and identity are complex and shifting and I found that although collaborative research provides space in which teachers can contest the prevailing hegemony, empowerment requires both finding a voice, itself a complex procedure, and embarking on a project of pedagogical possibility. As reported in Chapter 7, not all the participating teachers had the capacity or power identity to move in this direction and, as explained in this subsection, there were limitations to the power that I, as researcher, was able to exercise to help teachers to this second stage.

Despite the strategies I introduced to minimise the power relations between us, because of the differences mentioned above, power was never neutralised. While spending more time on each case study and working with each teacher for longer periods may have helped aspects of this process, I doubt that power would ever have been eliminated; instead, my experience and current thinking are reflected in Foucault's notion of power as "something which circulates", which is "neither given, nor exchanged, nor recovered but rather exercised" and which "exists only in action" (in Gordon 1980 : 89). The implications of this together with strategies for the management of power relations - rather than their elimination or neutralisation - need serious attention by all those committed to research designed for empowerment.

The complexities of power relations are again mentioned in Chapter 9 both in terms of conceptions of rationality and programmes for teacher empowerment.

## **Data analysis**

Shortly after completing the fieldwork for the fifth case study, I had two sets of data for each of the five case studies - lesson descriptions and interview transcripts. The process of analysis, however, did not begin only once the above data had been collected; instead, certain stages of the process of analysis overlapped with the fieldwork. In addition to being integrated in this way, there was a range of stages as well as several levels of analysis which emerged over the time of the project. These stages and levels can be conceptualised in the following way.

Analysis began during the initial interviews in each case when I began looking for trends and patterns in each teacher's thinking to provide me with a focus for classroom observation. The analysis of teacher's discourse during and after the initial interviews centred on their conceptions of knowledge and of learning as well as their ideas about classroom practice.

During the subsequent interviews with teachers, I attempted to analyse their discourse in process before making my own responses to them and framing further questions and arguments. While transcribing these audiotapes, I was aware of further stages of analytical thinking.

Analysis had been part and parcel of my observations of teachers' classroom practice and my writing of the lesson descriptions. Not only did my "ways of knowing" influence my "ways of seeing" (Shulman 1991), but my ways of writing - from my choice of words to the tone of my voice - reflected my way of seeing - the interpretations and constructions I gave to the reality I observed. In other words, the lesson descriptions were already distanced from reality because they were based on the meaning that reality had for me. My

understanding of this in terms of the transitive and intransitive realms became clearer during the final stages of analysis and the writing of this thesis.

This perspective is captured in Van Manen's description of qualitative accounts: "We need to realise . . . that experiential accounts or lived experience descriptions . . . are never identical to lived experience itself. All recollections of experiences, reflections on experiences, descriptions of experiences . . . are already transformations of those experiences . . . (thus) we need to find access to life's living dimensions while realising that the meanings we bring to the surface from the depths of life's oceans have already lost the natural quiver of their undisturbed existence" (Van Manen 1990 : 54). I have described elsewhere both in this chapter and in the case study chapters my concerns related to this aspect of representation as well as the strategies I employed in order to strengthen the relationships between my description and the reality I observed.

My subsequent organisation and summarisation of the data in terms of individual cases' chronological developments as presented in Chapters 2 - 6 required closer analysis as I found myself arranging stories and arguments. The analysis provided in these chapters I have termed semi-analysis in order to distinguish it from the grounded theory presented in Chapter 7.

The latter was based on a comparison across the five cases and reflects a finer analysis of the power identities of the five participating teachers in terms of the theory/practice relationships described in Chapters 2 - 6. The theoretical understanding offered in Chapter 7 "goes beyond concrete description and interpretation and explicitly addresses the theoretical constructions that the researcher brings to, or develops during, the study" (Maxwell 1992 : 291). As such, it offers an explanation of a phenomenon - in this case, the place and role of power identity in theory/practice relationships in teachers' work. The final chapter of this thesis, in moving beyond the five cases into conceptions of rationality and areas of teacher education programmes, provides yet another level of analysis.

The analysis of both teachers' discourse and their classroom practice followed the processes recommended by Maykut and Morehouse: "The task of the qualitative researcher is to find patterns within words (and actions) and to present those patterns for others to inspect while at the same time staying as close to the construction of the world as the participants originally experienced it" (Maykut & Morehouse 1994 : 18). I began by developing loose categories which were later clustered before proceeding to note larger patterns and themes as well as relations between these. I also looked for contradictions within these patterns and for negative cases. This level of semi-analysis is presented in the descriptions of the cases in Chapter 2 - 6.

As explained in the methodological notes at the beginning of Chapter 7, while I had been aware of the different degrees of power exerted by individual teachers during the empirical stage of this project, I only began to articulate this awareness at the time of the fifth case study. The notion of power identity and the theory presented in Chapter 7 developed during the later period of data-organisation and continued during the process of semi-analysis and while writing up the descriptive accounts of the case studies. Final analysis, however, was completed only after all the case study chapters had been written. It was at this point that I was able to compare patterns and themes across cases and to work at the level of theory rather than description and interpretation. This, too, required "a close examination of people's words, actions, and documents in order to discern patterns of meaning which emerged from this data" (Maykut & Morehouse 1994 : 16).

The above description of the stages and levels of analysis illustrates an ascending analysis which connects with Foucault's notion of archaeology in local criticism. Analysis commenced at the base with the "molecular elements" and "infinitesimal mechanisms" of teachers' classroom practice and proceeded to components or "mechanisms of power" within individual teachers, in schools and in conceptions of rationality.

Letting patterns emerge is the hallmark of qualitative research. This suggests that the researcher should 'let the data do the talking' - an easier process than the one I

experienced. I found that the data did more and more talking the harder and the longer I worked with it. Not only that, the process of working with the data - through the stages of organisation, semi-analysis and final analysis - also involved developing considerable understanding of the process as well as a range of skills.

Much of the analytical work constituted deconstruction and reconstruction of the data. Deconstruction required reading and re-reading the lesson descriptions and transcripts in order to categorise the data. At times, I revisited the fieldnotes and the videotaped material to check my constructions in the lesson descriptions. Similarly, after writing the first chronological accounts of each case study, I felt the need to 'trawl the transcripts' again. In these ways, deconstruction of the data overlapped with reconstruction - the development of the final accounts of Chapters 2 - 6 and the construction of the arguments of this thesis.

At times, it was tempting to overlook negative cases and the contradictions which disturbed the flow not only of the consistent patterns in the teachers' work but of the arguments I was building. I initially interpreted contradictions in teachers' practice and discourse and between their practice and discourse as evidence of incoherence but later I came to recognise and accept the centrality of contradiction. Instead of characterising teachers' epistemologies as incoherent, I began to view them as flexible and responsive.

This shift in my thinking related to both my increased tolerance for ambiguity as well as my developing understanding of personal epistemologies and of rationality. This shift also reflects the way in which the research process and the research topic as well as my personal and professional development became enmeshed. Qualitative research has the power to initiate the process of me-search and personal growth.

In building arguments I worked for plausibility - a concept I again refer to in Chapter 9 as being important in the conceptualisation of scientific rationality. I strove for clarity and confidence rather than certainty. Although I did not use participant verification at the final

level of theoretical analysis, teachers' actions and their voices remained the basis for this analysis. I related the definitions, interpretations and conclusions in this grounded theory to those of established researchers and theorists working in the fields of knowledge, power and education. In this way, a form of theoretical triangulation emerged in the blending of all these voices.

In addition, critical friends who had been involved in peer debriefing through their reading of my conference papers as well as chapters of this thesis have recognised situations and ideas and found them applicable and transferable to their own realities. This once again points to the power of qualitative research in generating not only credible accounts of others' realities but also generalisable theory.

The linkages and overlaps between the deconstruction and reconstruction of teachers' discourse during interviews is connected to the collaborative researcher's role as 'the other'. During interviews I attempted to help teachers firstly, to critically examine their theories and secondly, to work towards new realities. Deconstruction of their language illuminated codes of culture and, in some instances, encouraged teachers to interrogate the social forms which produced them. Simon writes that such deconstruction fosters teachers' identities as cultural workers by linking the political and the pedagogical and revealing "the extent to which dominant knowledge forms and ways of knowing are productive of the exploitation and the constriction of human capacities (Simon 1992 : 85).

Reconstruction involved my attempts to enable the teacher to imagine new possibilities for practice. This is imaginative and creative work - the business of working towards that "which is not yet" (Simon 1992 : 30) - and the springboard for the emancipatory interest. Together the researcher and the teacher work at constructing alternative visions of practice and of reality. The researcher's role is that of a transformative intellectual whose expertise lies in enabling others to construct such visions.

Through my engagement in this aspect of the project, I learned that the work of deconstruction and reconstruction requires that the researcher understand the anatomy of change and development and her difficult role in this. In taking on the role of 'the other', the researcher needs to drive the process while allowing the teacher to retain ownership of her development and practice.

As I have intimated, the writing of this thesis was not just a final phase occurring after analysis; it was, itself, part of the analytical process. In fact, I found writing and rewriting to be integral to theory-generation. Editing, too, functioned to finetune descriptions and interpretations rather than to merely polish grammar.

Once again at this stage of the process, I strove to integrate all aspects of the work. Given the detail provided and the length of the final document, this was not easy. It frequently required having several files open on the computer and switching between them in order to record new ideas as they developed and to locate similar ideas and references in other chapters. I also found that the sometimes tedious task of revisiting previously written material - particularly conference papers and earlier drafts of some of the chapters of this thesis - proved helpful in reminding me of thoughts and feelings I had had at different stages of the project.

While writing the case study chapters, I found that I was telling two stories - one with the participating teacher as the focus and one with myself, as researcher, as the focus. Bullough writes that it is through story that we create a purposeful coherence of meanings and impose a pattern (Bullough 1994 : 199). My two stories helped me to create a structure for this thesis. Story is an appropriate framework for the documentation of a qualitative research project and story has been used as a device to "access teachers' images of self" (Clark 1988 quoted by Bullough 1994 : 199), to study teaching (Cortazzi 1993) and to illustrate contradiction (Eron & Lund 1993).

The difficulties in teasing these two stories apart are not insignificant in that they reflect a view of enmeshed reality. An important aspect of the power of qualitative research procedures and practices lies in the researcher's ability to tease apart as well as to draw relationships between different elements of reality. As explained in Chapter 1, the four voice technique used in the story-telling served to both blend and to distinguish the stories. It also encouraged a blending of description and interpretation with theoretical perspectives. In these ways, it provided for a richer conception of scientific rationality in line with Richard Rorty's views on the documentation of research. Rorty wrote, "If we get rid of traditional notions of 'objectivity' and 'scientific method' we shall be able to see the social scientists as continuous with literature - as interpreting other people to us, and thus enlarging and deepening our sense of community" (Cherryholmes 1980 : 203).

## **CONCLUSION**

This chapter has concluded the story of my rite of passage into qualitative research. While I suspect that being a qualitative researcher means that learning never ends, I feel that I have already learned much that is integral to qualitative research through my involvement in this project. This is, in itself, indicative of the power of qualitative research processes. Not only have I shifted conceptual positions and deepened my understanding of the practices and processes of qualitative research, I have become more flexible and developed a greater sense of ease with ambiguity - even a degree of chaos. This has allowed me to work more comfortably with complexity and with contradiction.

I am better able to recognise the opposing strands of modern and postmodern approaches to knowledge and to research in my thinking. I still favour coherence but as an ideal provoking the need to work towards achieving consistent theory/practice relationships. I still believe theory to be an important guide in that it illuminates practice much as a reflective mirror might do. No longer, however, do I struggle for complete resolution between theory and practice. In addition, I am comfortable with the tensions between modern and postmodern approaches to research and rationality.

As a result of my engagement in this project, I have developed new work habits and strategies that take greater cognisance of my personal rhythms and the limitations of creative outputs. I am better able to create structure in process rather than working according to predetermined boundaries. This has helped me to deal with the unexpected - even to invite it - and to incorporate the results of it. In other words, to some extent at least, I have learned to relinquish control to see what might happen. Ultimately my involvement in qualitative research is affecting the way in which I look at life and at myself.

Chapter 9, the final chapter of this thesis, draws on the importance of contradiction in theory/practice relationships as well as issues related to language and critical reflection and highlights their centrality in envisioning possibilities for conceptions of rationality and for teacher education programmes.

## Chapter Nine

### **CONCLUDING COMMENTS - OPENING UP POSSIBILITIES**

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This chapter begins with a summary of this study and a description of its value and achievements. The various foci of the study are highlighted and the connections between them are traced. Mention is also made of what the study has not attempted to do.

The remainder of the chapter provides comments in the way of opening up possibilities for both conceptions of rationality and for teacher education programmes. This is, I believe, an appropriate way of concluding a project which can be characterised as the work of a “specific intellectual” (Foucault 1980 : 126) - one who examines particular cases for problems that are both concrete and general.

In describing these concluding comments as possibilities, questions and suggestions are ‘floated’ rather than couched in definitive terms. The possibilities suggested for rationality and teacher education have been grounded in the theories developed around both theory/practice relationships and power identity in this study. In addition, they have been crucially informed by my understanding of issues relating to language and to reflexivity.

#### **A SUMMARY OF THE STUDY, ITS VALUE AND ACHIEVEMENTS**

This study has spanned several overlapping areas and closely interwoven themes. Much of the work during the later stages of this project has been focused on understanding the interconnections between these areas and themes and in attempting to produce coherent descriptions of them. While attempting to tease apart the different foci of the study in

order to highlight them, I have avoided presenting them as discrete. Rather I have worked to demonstrate the entanglements and complexities by pointing to the ways in which these areas and themes are enmeshed.

These different areas and their associated foci can best be understood in terms of both the different phases of the project - initially, the fieldwork in classrooms and, later, the final analytical and theoretical work - as well as the framework provided by the two stories - those of the teachers and that of mine, the novice qualitative researcher.

### **Descriptions generated through fieldwork**

Two sets of descriptions with narrative lines were generated through the fieldwork completed for this study - firstly, descriptions of the theory/practice relationships in the work of the five participating teachers and, secondly, descriptions of the processes and procedures followed in generating this first set of descriptions. Both sets of descriptions are provided in the two stories in Chapters 2 - 6.

The fieldwork with the teachers involved observation of their classroom practice and interviews based on my descriptions of these observations. While the lesson descriptions included a range of the everyday realities experienced by each teacher in her classroom, the focus was on views of knowledge and learning - teachers' personal epistemologies. In addition, I described historical and current influences on these views and located them within broader social epistemologies.

In addition to providing the data for the five cases - each case being "a concrete universal" (Eisner 1991 : 203) - these descriptions provided reflective mirrors to stimulate teachers' thinking and development. Descriptions of the effects of these reflective mirrors in terms of the shifts and developments in teachers' thinking and practice, and the relationships between their thinking and practice provided the narrative elements in these accounts.

These descriptive stories contained the initial theoretical work - referred to as semi-analysis - which later informed the grounded theory presented in Chapter 7.

While completing the fieldwork for the five cases, I reflected on the process of gaining access to schools, the procedures and difficulties of data-collection, organisation and semi-analysis, as well as my concerns around representivity and representation. These reflections were documented as the second descriptive story - also with a strong narrative emphasis - found in Chapters 2 - 6. This detailed description was initially developed in the interests of transparency - a feature of qualitative research - but later it, too, informed my theoretical understanding of scientific rationality and of theory/practice relationships in qualitative research.

Elements common to these two overlapping sets of descriptions are theory/practice relationships - both consistent patterns as well as contradictions - and shifts and developments in understanding and in practice. In the same way that the lesson descriptions and the questions I asked during interviews provided a reflective mirror to stimulate teachers' professional development, the meta-analysis of my practice as a novice researcher documented in reflective descriptions provided a stimulus to my thinking about science and rationality changing both my understanding and my research practice.

In essence, the strong narrative elements in the two sets of descriptions highlight stories of struggles for new subjectivities - both the teachers' struggles and that of my own. In each of the case studies, my descriptions and questions served "to disturb (teachers') mental habits; the way they do and think things, to dissipate what is familiar and accepted, to re-examine rules and institutions . . . to participate in the formation of a political will" (Foucault in Kritzman 1990 : xvi). Similarly, reflections on my research practice offered me fresh perspectives from which to critique my previous thinking. They illuminated my assumptions and set up challenges for modes of thought that I had not previously considered.

## **Formal theoretical analysis**

The later more formal theoretical phase of the project was grounded in these two sets of descriptions generated during the earlier fieldwork phase. The writing and analysis of each descriptive story led to my comparing elements within them - aspects of the participating teachers' work and their developments during the study and the shifts in my thinking and practice from the stage of initial conceptualisation of the project through to the stage of constructing final complex arguments and theses about the data collected.

The descriptions of the theory/practice relationships in the work of the five participating teachers - particularly those aspects concerning contradiction and development - provided the basis for the concept of power identity and a formal theoretical analysis of its place and role in theory/practice relationships. In developing the concept of power identity I drew on the work on George H. Mead, Michel Foucault and Thomas Popkewitz. Mead's concept of the development of identity through the 'me' and 'I' roles, responses and phases in the development of self and Foucault's notion of power as relational were crucial.

In Chapter 7 I defined teachers' power identities as teachers' capacities to use components of power as resources which enable them to develop greater control over the theory/practice relationships in their work and over their professional development. I argued that because capacity changes not only over time and according to context but that because it shifts in subtle ways from situation to situation - almost from moment to moment - power needs to be constantly struggled for and that it is achieved through the processes in which we engage in our everyday lives.

I identified seven components of power that, in complex ways, strengthen and also limit teachers' power identities. Although each of these components of power was defined and described in a separate sub-section, I illustrated the ways in which they interrelate and are interdependent. In this way I attempted to demonstrate the complexity involved in the

struggle for power. In addition, the inevitability and importance of contradiction in this struggle and in the development of coherent theory/practice relationships was highlighted.

The descriptions of my rite of passage into qualitative research also informed my understanding of theory/practice relationships in research - in essence, the relationships between epistemology and methodology as presented in Chapter 8. In this chapter, I described my concerns arising out of my research practice as well as those concerns which were related to the contradictions between and shifts within my views and definitions of research and scientific rationality and my research practice.

I have argued that this project has helped me to better locate myself theoretically and philosophically. In Chapter 8 I described my journey from a strong relativist position - where I labelled myself in terms of constructivist and postmodern discourse - to an equally strong need to provide an account of the real world as experienced by the five participating teachers as well as an account which would be recognised as 'true' by others who read these descriptive stories. As the term 'truth' became part of my vocabulary, I recognised the need for a theory of truth - one which would embrace the power relations in force in the generation of truth.

Much of this journey involved engaging in local criticism and, as a result, I now argue for greater complementarity between different approaches to knowledge and understanding. Despite the different discourses in use, I no longer see only differences between traditional modern and more recent postmodern approaches to knowledge construction. In this project I have found that the similarities between approaches are best understood in terms of representation and representivity. I have understood the former as the need to present data and conclusions not from only the researcher's perspective but in such a way that they represent as accurately as possible the experiences and understandings of others - most especially the research subjects. I have understood representivity in terms of characteristics which are not merely concrete and local but which can be more generally applicable to similar situations.

In each of these definitions, however, contradiction rather than uniformity is highlighted. I have argued for the importance and the inevitability of contradiction. Rather than wishing to simply dissolve contradictions, I have suggested that these tensions be kept alive as they provide vital points for development. This is a different view of contradiction from that with which I began this study.

In Chapter 8 I attempted to illustrate the way in which I transcended my initial hypotheses and beliefs about knowledge and research and have argued that the research experience constituted a valuable journey which was crucial in developing my current understanding. Foucault would argue that experience has resulted in the new constitution of the subject!

Another result of my journey is that I have developed a better perspective from which to critique qualitative research since I have become more aware of both its power and its limitations. I have argued for the power of local criticism to uncover and illuminate subjugated knowledges (in this case, the views and beliefs of teachers who have been historically marginalised in the generation of knowledge) and to overturn traditional hierarchies (particularly the notion of objectivity in traditional scientific rationality).

Central to my analysis of the power of qualitative research have been issues relating to language and reflexivity and the contributions each of these makes to the development of a correspondence theory of truth. Language and reflexivity provide the links between the two realms described in Chapter 8 - that of the relatively stable and enduring intransitive domain and that of the transitive domain which involves the epistemic tools used by scientists. I have attempted to illustrate the complexity of the linkages between these two realms and the way in which they shift according to social contexts, individual interpretations and the different phases of projects.

In Chapter 8 I have argued for the need for the researcher's expertise in a number of areas and attempted to highlight the skills researchers require in order to be key tools in the research process. These skills are intricately connected to issues of language and

reflexivity. In addition, I have argued that the researcher needs to understand the importance of these skills in terms of the different requirements of the different phases of the research project.

At no time do I argue that qualitative research has a monopoly on the generation of truth - at either the descriptive or the analytical levels. Indeed, as both my concerns and the shifts in my thinking and practice have illustrated, quite the opposite has been the case. While acknowledging the power of language and reflexivity, I have pointed to their limitations. In effect, while language and reflexivity have the potential to provide for powerful qualitative research, this is achieved through their contributing to a power balance - a statement which itself well illustrates the importance of contradiction!

Finally, I have extended the insights gained about theory/practice relationships and the power of qualitative research to possibilities for conceptualising rationality and for teacher education programmes. These possibilities are presented in this chapter and conclude this thesis.

It should be noted that while I have worked towards developing greater theoretical understanding of the data collected in the fieldwork phase of the project and linking this understanding to issues relating to epistemology, rationality, power and qualitative research, at no time have I attempted a study which focuses on these issues; hence I have not provided an historical account of developments within these fields nor have I engaged in many of the debates central to them. Rather, I have tried to develop a sense of the limited spaces and the overlapping areas between all these fields. This has been achieved through the descriptions and analyses of the theory/practice relationships in the work of the five participating teachers and through the descriptions and analysis of my work as a novice qualitative researcher. The emphasis of this project, therefore, is on the specific and local contexts and the development of grounded theory within these contexts; consequently, I believe that the project and its value is best judged in this light.

## **Opening up possibilities**

In the closing stages of this thesis I offer possibilities for conceptions of rationality and for teacher education programmes. These possibilities rest on the analysis of the specificity of the mechanisms of theory/practice relationships and the role of power identities in these relationships. This analysis enabled me to build little by little “strategic knowledge” (Foucault in Gordon 1990 : xiv) to open up possibilities in these areas. In the same way that lesson descriptions, questions and argument encouraged teachers to begin to articulate a language of possibility and to envision new forms of teaching and learning, the more formal analyses of this study provided for the possibilities presented in this chapter. As such, these possibilities have been derived from my analysis of the discursive practice and production of life illustrating once again the power of qualitative research to move beyond description and explanation.

My understanding of ‘possibility’ has been guided by Roger Simon’s definition: “those options available in a situation when one simultaneously takes into account both the coercive encouragement of particular social and political forms and the limited range of capacities those forms encourage” (Simon 1992 : 21). As such “a language of possibility does not have to dissolve into a reified utopianism, instead it can be developed as a precondition for nourishing convictions that summon up the courage to imagine a different and more just world and to struggle for it” (Giroux quoted in Simon 1992 : 13).

Since I believe that possibilities for teacher education should rest upon conceptualisations of rationality, I present the possibilities for the latter first.

## **POSSIBILITIES FOR CONCEPTUALISING RATIONALITY**

According to Foucault, reason is self-created (Kritzman 1990 : 20) and rationality resides on a base of human practice and human history (Kritzman 1990 : 37). Certainly, the view offered here is one that I have developed as a result of reflective research practice.

In seeking to pinpoint the key features of my developing and current conceptions of rationality, I revisited the journey represented in Chapters 1 - 8 a number of times. This I did by re-reading both my descriptions and analyses, summarising those issues related to my thinking about knowledge and research within each of these and then identifying key features.

In doing so, I kept two key questions in mind. The first of these was: How can one understand coherent and contradictory relationships between theory and practice? or How can rationality best be conceptualised? The second question focused on how change in thinking and in practice occurs, i.e. What is the role of rationality in change and development?

As a result of this investigation - another level of analysis - I found the key features to be those of shift and development. They were key features in the work of both the participating teachers and that of mine as researcher. They were also key features in my understanding of both power and identity. Certainly shift and development were key features of the me-search project within the research project. Given their centrality, I believe shift and development need to be key features informing the possibilities raised for conceptions of rationality in this chapter.

The shifts and developments that occurred during the course of this project were subtle but complex. At times, shifts were synonymous with development: they represented a degree of progress in either teachers' thinking and/or practice or in my understanding and/or practice. Often these developments were an expansion or elaboration of previous

understanding and/or practice. These developmental shifts were evolutionary in nature. At other times, the shifts that occurred represented a displacement of thinking and/or practice - and sometimes a displacement of self, too. Frequently, I experienced displacement as an uncomfortable prelude to transformation. These shifts were more fundamental than those associated with development but each had important effects.

I noticed that even subtle shifts in thinking upset the balance of established practice and that, conversely, developments represented in new decisions for practice disturbed established patterns of thought. In this way, a dynamic relationship between theory and practice was created and maintained.

In Chapters 2 - 8 there are many references to the difficulties experienced in relation to shifts and developments in both the participating teachers' work and in that of my own research practice. I first noted these difficulties during the first case study when I attempted to identify consistent and contradictory patterns in Lynn's teaching practice but found this difficult to do as she, herself, began to shift and develop as a result of our collaboration. The difficulties reached a peak for me when I noted the shifts and developments within my own epistemology and research practice. In particular, my need to introduce a correspondence theory of truth and a discourse of truth took me by surprise since it conflicted with the more constructivist approach with which I had begun the study. The switchback effect of the research process began to translate into a new understanding of theory/practice relationships and also of rationality. Within and between shifts and developments, I experienced moments when tensions were resolved - later, though, further shifts highlighted new contradictions or new manifestations of those previously apparently resolved.

As I began to understand the shifts and developments in my thinking and practice and to accommodate these, I experienced a greater degree of comfort and also found that I was able to work with a more comprehensive range of perspectives, skills and techniques. Later still, I began to understand that my core identity had not been lost during periods of

conflict and displacement but that these experiences had, in fact, enhanced my capacity as a researcher enabling me to develop a stronger power identity.

This characterisation of shift and development illustrates the important role of contradiction - both within thinking and practice and between thinking and practice. During the course of this study I developed a greater appreciation of contradiction as I not only began to accept its inevitability but also to place a higher value on its important role in stimulating change and development.

Frequently, it was contradictions that highlighted the need to work towards greater complementarity in approaches to knowledge and research. Complementarity meant embracing a 'both/and' perspective rather the dichotomous 'either/or' approach. I began to understand Foucault's view that different forms of rationality "engender one another, oppose and pursue one another" (Foucault in Kritzman 1990 : 29). In looking for similarities and interconnections between epistemological perspectives and approaches to knowledge and research, I began to perceive transformations in rationality rather than divides. Complementarity offers the possibility of a more embracing and richer view of rationality than those offered by either the modern or postmodern approaches.

The dynamic nature of theory/practice relationships and the important role of contradiction described above raise the possibility of conceptualising rationality as relationality. Such a conception accords with the view that reason is entangled with the process of experience and that its development can only be understood in terms of the overlapping spaces and tensions between theory and practice, between subject and object, between signifiers and signified. Awareness of contextual and interdependent factors and influences contribute to this conception of rationality as relationality.

Rationality as dynamic relationality opposes the possibility of establishing discrete categories or established hierarchies of order. In addition, this view of rationality which embraces shift and contradiction also opposes the more traditional view that gives

emphasis to uniformity and universality. A view of dynamic relationality is sceptical with regard to fixed points of reference thus opening the possibility for a plurality of narratives - both conflicting and consistent - in order to capture as many perspectives as possible. In this way I learned that contradiction favours possibility in that it opens up options and new ways for thinking and practice.

While patterns of and within theory/practice relationships may be identified and frozen in representations - and the difficulties associated with these have been described in this thesis - these patterns and relationships cannot, themselves, be frozen. The view of rationality offered here, unlike a reductionist view of uniformity, accepts and allows for shift and development and it is possible that this fluidity may even require contradictions in theory/practice relationships - the possibility of modernist answers to postmodern questions and vice versa!

In the same way that I learned of shifts and contradictions and then related these to conceptions of rationality, I also learned about power, i.e. through observing and interviewing the five participating teachers in this study, through my own reflective practice as researcher and through the analysis of the strengths and limitations of qualitative research and the perspectives that underlie it, I developed a greater awareness and understanding of the role of power in theory/practice relationships and in identity. In particular, I learned of the omnipresent nature of power relations - the impossibility of neutralising these - as well as the shifting character of power. Once again, contradictions, shifts and developments are central to the possibilities offered relating to power and rationality.

Although power relations cannot be neutralised, there is always the possibility that power can be displaced and will shift. Sometimes, as a result of this, power will be diminished but at other times it will be developed and strengthened. New challenges that arise as power shifts occur provide possibilities for new struggles: as one's sense of ease and familiarity recedes, one needs to engage anew in the tasks associated with empowerment.

Empowerment, therefore, needs to be constantly struggled for and, I have argued, both theoretical knowledge and practical skills and expertise are important components of this struggle.

This view of power makes a significant contribution to a view of rationality as relationality since power relations not only structure the fields of knowledge and learning (i.e. what can be known and learned) but also theory/practice relationships (i.e. the extent to which these relationships can be coherent and/or contradictory).

During this project, I learned that language and reflexivity also have important contributions to make to conceptions of rationality. They are each important in critique and in representation - two important aspects of knowledge construction - and in attempts to capture these processes with their accompanying shifts and developments. I learned that language constitutes the relationship between researchers and reality in that it is through language that meaning is contextualised. In this way, meaning which is interpretation cannot be divorced from the processes that bring it forth. Intertextuality - such as collaborative research and the use of triangulation - not only works towards developing accurate representations of meanings but contributes to credibility and plausibility in scientific rationality. It is through language and reflexivity that tensions between signifiers and signified are highlighted. Together they provide for a power balance which leads to clarity and confidence rather than certainty. In addition, the dynamic relationships between language and reflexivity and between a theoretical understanding of these issues and the practical skills required for their implementation contributed to my understanding of the view of rationality as relationality offered here.

The suggestions for teacher education programmes presented below are based on the key features of this view of rationality as relationality.

## **POSSIBILITIES FOR TEACHER EDUCATION PROGRAMMES**

Once again I considered two questions in developing possibilities for teacher education programmes. The first of these related to the presentation of theory in such programmes, i.e. How can teacher education programmes best be presented in order to empower teachers through theoretical knowledge?

The second question related to action research projects in teacher education, i.e. How can action research projects best be planned in order to empower teachers and contribute to their development?

These questions are also connected to that which formed the focus of this research project - What is the relationship between teachers' views of knowledge and learning and their classroom practice? - in that they seek to understand the influence of theory and research on teachers' classroom practice and their roles in teacher empowerment.

In responding to these questions, I focused on the development of teachers' power identities and extended the possibilities for conceptions of rationality presented above. Once again contradictions in theory/practice relationships, the shifting nature of power and issues relating to language and to reflexivity are central to the possibilities offered for teacher education programmes.

The possibilities raised below relate to the aims of teacher education programmes, methodologies for teaching and learning (i.e. the form of these programmes), and the theories to be included in the curricula (i.e. the content of these programmes). In writing of these possibilities, I have used the term 'teacher' to refer to both student teachers in initial teacher education programmes as well as those practising teachers involved in in-service courses for professional development; the term 'programme', therefore, is also used broadly and encompasses more formal courses of several years' duration as well as

courses - including projects for teacher development - that are less formal in nature and shorter in duration.

Finally, I raise possibilities for further research in teacher education.

### **Possible aims for teacher education programmes**

I see the aims of teacher education programmes as being similar to those described throughout this Ph.D. project. The project enabled both the participating teachers and myself, the primary researcher, to reconsider existing taken-for-granted ways of thinking and practice. In so doing, we discovered and constructed our own personal theories relating to teaching and learning, knowledge and research. Through using our voices in the articulation of these theories, we found ourselves discovering and constructing new identities. Shifts and developments in both thinking and practice occurred as we struggled through this journey. Certainly I - and some of the teachers, too - became empowered through the development of new visions - of self as well as of knowledge and the process of its construction. New visions encouraged new possibilities and strengthened resolve for developing new forms of practice.

As a result of the developments that occurred in this research project, I argue for a view of teacher education that rests on the reconceptualisation of education in terms of projects of possibility. I view a pedagogy of possibility as one that will encourage teachers - and, indeed, their pupils - to discover and construct their own theories and power identities. In addition, through the introduction of options teachers will be given the responsibility to act and create rather than merely to react to and within existing structures.

As suggested in Chapter 1, teacher education programmes in South Africa also need to form part of the “wider political project” (Giroux & McLaren in Popkewitz 1987 : 272) in the struggle for democracy. For schooling to develop as a form of “cultural politics” (Giroux & McLaren in Popkewitz 1987 : 269), teacher education in South Africa needs to

be “involved in the production of that which is not yet” (Simon 1992 : 14). The notion of possibility is central to this view of teacher education in that possibility connects with the development of new visions.

New visions - and contravisions - which encourage teachers to alter the terms of their practice also require that they give up old visions on which they have built themselves and their realities. This shift needs to be achieved without teachers feeling as if they are losing themselves or as if they are failures.

The suggestions I provide for both the form and content of teacher education rest on the twin concepts of theory-in-practice and learning-as-research. These concepts also serve to highlight the close connections between form and content.

### **Possible forms for teacher education programmes**

Theory-in-practice and learning-as-research are each concepts which are grounded in the data of this research project, both the participating teachers and I, the primary researcher, having engaged in these processes during the course of the project.

In this thesis I have argued for the importance of teachers’ theoretical knowledge in shaping their classroom practice. Although theoretical knowledge is one of many competing components of power which influence teachers’ work, I have argued that the better a teacher is able to articulate theory, the more coherent the theory/practice relationships in her work are likely to be. In addition, I have argued that the better developed a teacher’s theoretical knowledge is, the greater will be her capacity to use it to reflect on her practice. In pointing to the connections between theoretical knowledge and reflection, I have suggested that the recognition of contradictions rests on a combination of these two components of power.

Throughout this project I have characterised teachers' theories as that which they use in their everyday discourse to describe and explain their worlds - to themselves, to their pupils and to others. In working with the five participating teachers, I found that the descriptions and explanations they provided were generally context-dependent rather than couched in terms of traditional theoretical debates in that they referred to specific pupils, schools and teaching subjects which they saw as major influences on their classroom practice. It is this view of theory that underpins a theory-in-practice approach.

I have argued that teachers come to recognise and to develop theory as a result of reflection on practice and through the articulation of their thinking in conversations with others; consequently, I suggest that opportunities for reflection and articulation need to be central in introducing and addressing theoretical issues in teacher education and that such opportunities can best be provided through learning-as-research (me-search being a vital aspect of such research).

Rather than relying on the print media which have dominated teacher education programmes both internationally and in South Africa, theory-in-practice and learning-as-research provide teachers with opportunities to reflect on specific cases of teaching and learning - their own school experiences as learners and/or their past and current practice as teachers. While the possibilities sketched in this chapter combine both personal theories with those that are more formally established, I argue for the need to give greater emphasis to the former than has been the case in the past - particularly in the initial stages of teacher education.

This project has demonstrated that reflective practice encourages a form of local criticism; I suggest that such criticism be used to inform the curricula of teacher education programmes, participants' cultural histories and personal narratives providing for the knowledge base to be developed. I believe that in this way teachers will be able to find greater relevance in theoretical knowledge for their classroom practice. Through facilitating the accessibility of theoretical knowledge, theory-in-practice not only

encourages teachers to find meaning in theory but also empowers them to recognise or contest the accuracy of this knowledge. In this way, the relationship between theory and practice is recovered.

A teacher education programme aimed at developing theory-in-practice is essentially a research-based programme which draws on and develops endogenous bodies of knowledge to inform classroom practice. Research-based teacher education is grounded in the everyday fabric of practice and discourse and paves the way for both a critical social theory and for transformative classroom practice. Such programmes are fundamentally different to those that merely provide teachers with new methods to use in their classroom practice. Programmes that merely exchange one set of technical rules for another - albeit a better set - do not provide teachers with vital components of power but rather rob the educative relation of its complexity.

Based on a progressive agenda - one which gives emphasis to acts of construction and mediation rather than transmission - learning-as-research requires that learners take on the identity and roles of researchers and develop the skills associated with critique. A form of meta-analysis, learning-as-research can be likened to action research.

The difficulties involved in learning-as-research have been noted in this study. For example, mention was made of the difficulty with which the participating teachers brought their theories to consciousness. In addition, I was well aware of the difficulties I experienced in developing a clearer picture of my views and definitions of science and scientific practice. I suggest that initiating learning-as-research in teacher education will provide teachers with opportunities for practice in the various processes required to develop clearer personal theories through articulating the relationships between theory and practice.

In addition, learning-as-research will also provide teachers with opportunities to acknowledge and confront the difficulties they experience as they engage in developing

theory-in-practice. I believe that understanding the sources of these difficulties and developing an appreciation for the knowledge and skills required to overcome them will encourage teachers to develop a deeper understanding of these processes. In essence, they will come to understand the processes involved in knowledge and theory construction.

Implicit in teacher education involved in developing theory through learning-as-research is a view of teacher education as a collective and collaborative venture involving dialogue between teacher practitioners, teacher educators and student teachers. Establishing an open, self-critical community of enquirers requires that initial student teachers be given many more opportunities to teach in classrooms while teachers in classrooms be given more opportunities to reflect on their practice. In effect, possibilities for closer partnerships between teachers and teacher educationists need to be explored so as to involve both partners in a cycle of professional growth.

The development of a critical reflective spirit in teacher education aimed at open inquiry, critique and investigation therefore requires new structures to network efforts within and outside of tertiary institutions and school communities as well as the creation of a culture within which critical reflection can take place. I suggest that possibilities for creating a more “public space” for teacher education (Giroux & McLaren in Popkewitz 1987 : 267) than that found in closed institutions where theory and practice remain isolated should be investigated.

In this sub-section I have raised possibilities for changes in approaches to viewing theory and learning in teacher education and have pointed to the changes that will be required in organisational structures in addition to those required at the more personal and individual levels of thinking and practice. This project has illustrated that change in thinking and practice requires considerable effort and takes time. Not only is change difficult to implement but the practitioners involved - whether they be teachers or researchers - also frequently feel uncomfortable and lack confidence when trying out new methods. I have stressed the importance of theoretical knowledge in effecting change and pointed to its

connections with power identity. For example, I have argued that recognition of the crucial way personal theory affects practice is a prerequisite for any attempt made to change that practice, and that before a teacher can adequately refine, reform or transform practice, she needs to uncover her personal theories, make these explicit, and examine their consistency with her practice as well as their adequacy in guiding changes in practice.

In addition, I have argued that teachers need to be strongly committed to the changes they are working towards and that it is a firm understanding of theory that bolsters this commitment and helps them to maintain their efforts towards change. In effect, I believe that it is theoretical knowledge - particularly that accessed and developed through theory-in-practice and learning-as-research - that elevates teacher training to teacher education.

The following sub-section highlights the areas of theoretical knowledge which I suggest be included in teacher education programmes which are based on theory-in-practice and learning-as-research.

### **Possible theories for inclusion in teacher education programmes**

The following three areas of theoretical knowledge for inclusion in teacher education programmes are outlined below: theory construction as social process, power and identity, and language and reflexivity. Once again, I stress that each of these theoretical areas needs to be accessed through teachers' own lived realities - i.e. through theory-in-practice and learning-as-research - before being extended to include more formally established theories. In other words, each of these theoretical areas needs to be intricately related to the teacher's own experience and practice.

### *Theory construction as social process*

Not only will teacher education programmes employing theory-in-practice and learning-as-research enable teachers to engage in the process of theory construction themselves but the understanding gained through this experience will enable teachers to locate more formally established theoretical knowledge historically and culturally. In developing a critical social theory attention needs to be given to the connections between the development of different knowledges - including that of science - and the wider social processes. Learning how different knowledges are established, modified and transformed is essential to understanding the relationships between power and knowledge and between the political and the pedagogical. Theory-in-practice makes it possible to unveil these connections and to make them explicit.

Teachers who understand that theories are socially and historically constructed are in more powerful positions to challenge positivist notions of universality and objectivity. In effect, teacher educationists and their students who study the social processes of knowledge construction are involved in renegotiating definitions of 'science' and 'research'. The construction of new definitions and the associated discourses offer challenges to traditional hierarchies and to the technological consciousness characterising teacher education programmes which give emphasis to technical and transmission approaches to teaching and learning.

Teachers with a view of knowledge as socially and historically constructed are more likely to engage in a critical pedagogy and to develop new visions and possibilities for practice. They are more likely to develop a view of schools as "sites of cultural politics organised through modes of semiotic production that employ various cultural technologies for representing, displaying, and facilitating the mediation of knowledge claims about the world and ourselves" (Simon 1992 : 40). As a result, they are more likely to make problematic cultural givens - a prerequisite for making situations potentially alterable.

They are more likely to develop a healthy scepticism towards educational myths - recognising and challenging these after comparing them to the theories they have themselves developed through theory-in-practice and learning-as-research. In addition, they are more likely to work towards the communal aspect of knowledge construction and to encourage a multiplicity of perspectives.

Knowledge about theory construction and the processes it involves - accessed and developed as described in this chapter - needs to be used as a basis for developing appropriate skills, practices and methods of teaching, i.e. this theoretical knowledge should not be separated from either the process of its construction nor its mediation to others.

### ***Identity and Power***

Identity and power have been two of the key concepts used in the analysis of theory/practice relationships in this study. I have argued that identity - and, in particular, power identity - is crucial in the development of coherent theory/practice relationships and in developing and sustaining the processes that facilitate change. I have also pointed to the ways in which teachers come to know themselves and to develop perceptions of themselves as relatively powerful.

I believe that the processes that contribute towards the development of a powerful identity are inherent in teacher education programmes employing theory-in-practice and learning-as-research. Not only do these programmes empower teachers through the development of theoretical knowledge but they also demand a different view of what it is to be a teacher to that found in programmes based on a traditional training orientation. Rearticulating teachers' work in terms of research - not only of an individual teacher's classroom practice but as research which contributes to the development of an endogenous body of knowledge in a spirit - redefines teachers as critical theorists. In

addition, the suggestion that teachers and their contributions are essential to the task of knowledge construction raises new possibilities for power relations: those who have been considered marginal can no longer be ignored.

In this project I have also illustrated how teachers' personal histories and lived realities act as components of power - enabling or constraining them in their work and strengthening or limiting their power identities. I believe that teacher education programmes have paid too little attention to the centrality of conceptions of self to teacher development and have given too little attention to the development of theories of identity. I suggest that the inclusion of a theory of self-production in teacher education programmes would help teachers to understand how people give meaning to their lives through the complex historical, cultural and political forms that they embody and produce. I believe that developing theoretical knowledge of power and identity and the processes associated with self-production will further strengthen teachers' power identities.

I understand a theory of self-production as essentially an analysis of power relations - an analysis which also serves to authenticate individual teacher's lived experiences. As such, a theory of self-production highlights the connections between identity and power and between lived experiences and power identity.

In both the stories of the teachers and that of my own development as researcher, I have highlighted the complexities of power relations. I have characterised power as omnipresent and shifting, and as a force which cannot be transferred but which needs to be constantly struggled for; empowerment, therefore, is an ongoing process rather than a final state or product. In addition, I have argued that rather than seeking to neutralise power in collaborative projects, power needs to be recognised and managed.

In addition to pointing to the complexities of power relations in this project, I have illustrated different levels or stages of developing power - for example, the power to recognise contradictions, the power to imagine new possibilities for practice, and the

power to transform productive practices. I have also argued that a degree of power is necessary in order for participants to benefit from projects and programmes that seek to empower them. Finally, I have suggested that while collaborative research provides the space in which teachers can contest the prevailing hegemony, empowerment requires both finding a voice and embarking on a project of pedagogical possibility.

Each of the above arguments serves to highlight the complex and fluid connections between power and identity and, I believe, the need for teachers to access and develop theoretical knowledge relating to power and identity. In order to develop power identities teachers need to understand the nature of power as well as its role in the development of identity, in working towards coherent theory/practice relationships and in change. Researching their own work and the contexts within which they live will provide them with opportunities for learning about power - in both its positive and negative moments. Through analysing the power relations in cultural politics and after making these relations and structures explicit, teachers will be better able to criticise, justify and/or rearrange them. Teacher education programmes which employ theory-in-practice and learning-as-research provide opportunities for constructing strategies for participating in power struggles and for evaluating these strategies. In this way teachers' theoretical knowledge of power will be grounded in experience and the connections between this knowledge, their identities and lived realities will be forged.

Here again, I argue that theoretical knowledge needs to be connected to both the processes of its construction and to the processes in which teachers engage in their daily lives. Since skills and expertise are required in addition to theoretical knowledge when engaging in the "perpetual battle" for power (Foucault 1979 : 26), teachers need to recognise and learn to employ components of power and technologies of power in their work.

## *Language and reflexivity*

In this thesis I have argued that although collaborative research projects are not easy routes to teacher empowerment, they do involve powerful processes through which teachers begin to uncover and recognise interests and ideologies - both personal and political. While empowerment may be too strong a description of the experiences of some of the participating teachers in this study, I was aware of the development in consciousness they experienced - empowering moments in conversations signifying a sense of freedom and the beginning of hope for new forms of practice. In addition, I have demonstrated the ways in which levels of meta-analysis in this project provided for my own personal and professional development. I believe that these developments rest on the use of theory-in-practice and learning-as-research which defined much of the work of the project.

Two of the most important tools used in theory-in-practice and learning-as-research are those of language and reflexivity - recurring themes throughout this thesis. I have argued that language and reflexivity each play important roles in the development of theoretical knowledge and of power identities. For example, I have demonstrated how language and reflexivity enabled both the teachers and myself to recognise contradictions within and between our theory and practice and to facilitate change in theory and practice. Very often it was these contradictions that were focal points for development and change.

Together language and reflexivity made visible our thinking and practice that would otherwise have remained hidden. Both the teachers and I became more conscious of aspects of our practice as well as the theory that contributed to such practice. In addition, it was through language and reflexivity that we were able to envision alternative practice and to understand change retrospectively. As a result of my engagement in this project, I have come to view language and reflexivity as powerful tools that themselves contribute to empowerment.

In addition to writing of their value, I have also recorded my anxieties relating to language and reflection as tools in qualitative research processes. I have acknowledged their limitations and weaknesses as well as the difficulties I had in employing them in this project. My concerns about subjectivity and the need for a discourse of truth were based on these experiences. I have argued that it was partly as a result of my theoretical understanding of language and reflexivity as well as my commitment to the principles of qualitative research that I was able to persevere in the face of these difficulties.

I believe that language and reflexivity are fundamental to teacher education programmes based on theory-in-practice and learning-as-research. In addition, I believe that theoretical knowledge of these areas - once again accessed and developed through theory-in-practice and learning-as-research - should be included in such programmes.

A theoretical understanding of language as socially constructed text can be developed through an examination of the internal politics of styles in texts - both personal narratives and formally established theories. For example, such an examination could illuminate how text can work to silent voices. In addition to situating texts historically, practice in discourse analysis would help teachers to acquire some expertise in interrogating the codes and signifiers in texts and in recognising and locating contradictions and gaps. As was the case in this research project, the tensions evident in teachers' discourse are likely to provide fertile and accessible material for critique. In time, they would discover that it is possible to release from the text possibilities that provide new insights and critical readings regarding human understanding and social practices (Giroux & McLaren in Popkewitz 1987 : 289).

I argue, therefore, that the development of teachers' sensitivity to the power of language rests on both theoretical knowledge and the practical skills required for the analysis and interpretation of discourse and texts. A teacher's capacity to use language not only enables her to clearly articulate the implicit commitments in her own practice but also to share

these within a wider critical community. Through language teachers are able to engage in dialogue and debate - the social engagement which is an important aspect of theory construction.

Through theory-in-practice and learning-as-research teachers become critics of their own experiences and situations. In so doing they move through and learn of different levels of reflection. For example, initially teachers may reflect on their own classroom practice as well as on their personal histories. This level of reflection highlights assumptions, predispositions and commitments. In effect, subjectivities and identities are constructed. A further level of reflection is raised when teachers begin to consider the connections between their classroom experiences and the wider social, economic and political conditions. Monitoring both their own personal and professional development as well as the changes in wider conditions will also encourage teachers to develop theoretical knowledge relating to change.

The theories described in this sub-section are each linked to the research processes that have been made explicit and analysed in this project. While I do not suggest that they alone shape the content of teacher education programmes, I believe that their inclusion in such programmes would enrich both the programmes and the participants by providing opportunities for developing strong power identities and coherent theory/practice relationships.

### ***Possibilities for further research on teacher education***

This final sub-section raises both possible questions for further research in teacher education as well as possibilities for research methodologies. In each case, the possibilities raised are connected to both the potential power of and the difficulties of collaborative projects and qualitative research, i.e. they are linked to researching teacher education programmes which strive to incorporate theory-in-practice and learning-as-research.

I believe that possibilities for research in teacher education need to be closely connected to possibilities for research in classrooms. In effect, classrooms and schools need to become key sites for research and investigation. In addition, research efforts need to foreground the connections between schools, curriculum, teacher education and the wider social structure. In this way, research will take the form of critical appraisal of the relationships between the culture of teacher education and the dominant ideology of our society. The research position described here approximates more closely the tradition of critical theory within sociology and philosophy and provides for a more rigorous complete investigation into how teacher education curricula, programs and policies are related to the distribution of power in society and the ethical and political consequences of this relationship. I believe that research which highlights patterns of discourse that either legitimate or make problematic the content and form of schooling (Popkewitz 1987 : 8) will work towards developing new possibilities for teacher education.

Clearly the suggestions for research raised here are aimed at transforming both schooling and teacher education. I suggest, too, that the very process of teacher education described in this chapter contains within it the seeds of its own transformation through research and the research position that needs to be adopted. Teacher education based on theory-in-practice and learning-as-research will itself become a form of research, an arena where knowledge is constructed and where these constructions as well as the processes of construction are subjected to on-going criticism and evaluation.

In this view it is important that teachers, themselves, be key players in the evaluative process collaborating with each other as well as with teacher educationists and researchers in the field of education. I believe that the different perspectives such research provides will expose and pursue contradictory elements in teacher education.

Given that transmission teaching has been the norm in the majority of South African classrooms, it will be difficult to wean both teachers and those involved in teacher education of this approach. Exposed to teaching technologies which demand the

reproduction of teachers' or textbooks' 'correct answers', many teachers have had little practice in critical thinking or research skills. Furthermore, their classroom experiences have prepared them for a world of conformity and subservience to authority, and for notions of universality and a true single interpretation of truth and reality. Given these histories, developing visions of alternative practice is not an easy project. Furthermore, developing teachers' perceptions of themselves as researchers will be neither a short-term nor simple process. Despite these difficulties, the transformation of teacher education - a political and ideological enterprise - needs to be pursued.

The possibilities presented in this chapter - as well as the stories provided in this thesis - demonstrate the complexities of this task. It involves redefinitions and new visions and discourses. It requires developing and articulating new identities which, in itself, involves challenging traditional power relations. In addition, it involves working towards greater theoretical consciousness, developing practical skills and expertise, as well as recognising and exploring contradictions and shifts in thinking and practice. Self-investigation, risk-taking and collaboration are all essential elements of these processes. Ultimately the task of transformation involves on-going struggle - a struggle which both requires and contributes to power and identity.

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### A LIST OF THE DATA COLLECTED

#### FIELDNOTES

Fieldnotes were kept :

from 25 April 1993 to 11 May 1993  
from 23 August 1993 to 8 September 1993  
from 1 March 1994 to 17 March 1994  
from 9 May 1994 to 30 May 1994  
from 15 August to 31 August 1994

#### AUDIOTAPES

Audiotapes of the initial interviews and discussions for the selection of participating teachers were made on the following dates :

22 March 1993 - First teacher selected for case study one  
16 April 1993 - Possible participant for case study one  
16 April 1993 - Lynn - case study one  
19 April 1993 - Second teacher selected for case study one  
23 April 1993 - Possible participant for case study one  
23 April 1993 - Lynn - case study one  
23 April 1993 - Second teacher selected for case study one  
19 August 1993 - Kate - case study two  
1 March 1994 - Marion - case study three  
5 April 1994 - Lilian - case study four  
21 June 1994 - Janet - case study five

Audiotapes of discussions on teachers' lessons were made on the following dates :

#### **Case study one - Lynn**

27 April 1993  
4 May 1993  
7 May 1993  
11 May 1993

### **Case study two - Kate**

26 August 1993  
2 September 1993  
9 September 1993

### **Case study three - Marion**

8 March 1994  
22 March 1994  
24 March 1994

### **Case study four - Lilian**

13 May 1994  
27 July 1994

### **Case study five - Janet**

4 August 1994  
24 August 1994  
5 September 1994

## **VIDEOTAPES**

The following dates refer to lessons that I observed, videotaped and then described in some detail in conjunction with fieldnotes written during the lesson itself.

### **Case study one - Lynn**

26 April 1993	Std 9	Drama
27 April 1993	Std 8A	English
28 April 1993	Std 9	Drama
29 April 1993	Std 10	Drama
3 May 1993	Std 81	Drama
4 May 1993	Std 81	English
6 May 1993	Std 81	English
10 May 1993	Std 9	Drama
11 May 1993	Std 81	English

### **Case study two - Kate**

23 August 1993	Std 8	Biology
24 August 1993	Std 10	Biology

25 August 1993	Std 8	Biology
30 August 1993	Std 9	Biology
31 August 1993	Std 10	Biology
1 September 1993	Std 8	Biology
7 September 1993	Std 6	Biology
8 September 1993	Std 8	Biology

### **Case study three - Marion**

1 March 1994	Std 9	Maths
3 March 1994	Std 9	Maths
4 March 1994	Std 7	Maths
9 March 1994	Std 10	Maths
14 March 1994 (i)	Std 8	Maths
14 March 1994 (ii)	Std 10	Maths
16 March 1994	Std 7	Maths
17 March 1994	Std 7	Maths

### **Case study four - Lilian**

9 May 1994 (i)	Std 9	History
9 May 1994 (ii)	Std 8	History
11 May 1994	Std 10	History
16 May 1994	Std 6	History
19 May 1994 (i)	Std 10	History
19 May 1994 (ii)	Std 9	History
23 May 1994	Std 7	History
30 May 1994	Std 10	History

### **Case study five - Janet**

15 August 1994	Std 6	Geography
16 August 1994	Std 7	Geography
18 August 1994	Std 7	Geography
22 August 1994	Std 6	Geography
24 August 1994	Std 6	Geography
25 August 1994	Std 7	Geography
29 August 1994	Std 6	Geography
31 August 1994	Std 6	Geography

## **CONFERENCE PAPERS WRITTEN ON PH.D. MATERIAL**

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Wickham, S. 1993 "Teachers' Personal Epistemologies - revealing and developing teachers' thinking about knowledge and learning" Paper presented at World Council for Curriculum and Instruction - Region 2 Conference *Educational Challenges in Africa for the 21st Century : The Road Ahead* : Lagos, Nigeria

Wickham, S. 1994(a) "The importance of teachers' personal epistemologies in the transition phase in the RSA" Paper presented at Educational Association of South Africa Conference *The Transitional Phase in the RSA : Implications for Education* : Stellenbosch

Wickham, S. 1994(b) "Negotiating the Difficulties of Qualitative Research : a reflection on self and process" Paper presented at Human Sciences Research Council Conference *Knowledge, Method and the Public Good - the human sciences in a transitional society* : Pretoria

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**THE PILOT QUESTIONNAIRE**

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**AN INVESTIGATION OF TEACHERS' THEORIES OF KNOWLEDGE  
AND THEORIES OF LEARNING WITH REFERENCE TO  
THE INFLUENCE OF SUCH THEORIES ON  
TEACHERS' DECISIONS IN CLASSROOM PRACTICE**

**SECTION A**

1. Surname : \_\_\_\_\_

First names : \_\_\_\_\_

2. Qualifications held : \_\_\_\_\_

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3. Number of years teaching experience : \_\_\_\_\_

4. School at which presently employed : \_\_\_\_\_

5. School address : \_\_\_\_\_

\_\_\_\_\_

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6. School phone no. : \_\_\_\_\_

Code : \_\_\_\_\_

7. Present position held : \_\_\_\_\_

8. Subjects taught : \_\_\_\_\_

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9. Standards/Forms taught : \_\_\_\_\_

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10. Additional responsibilities at school : \_\_\_\_\_

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5. Do you believe that learning is easy? \_\_\_\_\_

6. Can you explain and elaborate on your response to question 5? \_\_\_\_\_

7. While you may have used many of the following methods and techniques, which do you believe **best** facilitate learning for your pupils.

Place an X in the box opposite those options you choose.

Textbooks	
Demonstrations	
The chalkboard and the O.H.P.	
Peer tutors	
Teacher talk and explanations	
Field expeditions/outings	
Teachers' questions	
Pupils' questions	
Pupils' written summaries	
Teachers' notes	
'Buzz' groups	
Individual research projects	
Group research projects	
Pupils' talk and explanations	
Computer-assisted learning packages	

Are there any other methods and/or techniques you prefer to employ? If so, please list these below:

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8. Try to explain why you think the methods and techniques you have identified in response to question 7 **best** facilitate learning.

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9. Refer again to the methods and techniques listed in question 7. Are there any that you avoid using? If so, please list them below:

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10. Try to explain why you avoid using these methods and techniques.

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11. Which of the following do you believe **best** helps you to evaluate and assess your pupils' learning success?

Multiple choice test	
Essay-type tests	
Short paragraph tests	
End of term/year examinations	
Individual projects	
Group project	
One-to-one discussions	
Peer evaluation	
Self evaluation	

Are there any methods or techniques you prefer to employ? If so, please list these below:

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12. Try to explain why you think the methods and techniques you have identified in response to question 11 **best** help you to evaluate and assess your pupils' learning success?

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13. Refer again to the methods and techniques suggested in question 11. Are there any that you would avoid using or would prefer not to use? If so, please list these below:

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14. Try to explain why you think these methods and techniques would not be useful in evaluation and assessment.

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20. How would you define the term “knowledge”?

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21. How would you define the term “learning”?

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22. Why would you like to be a participant in this research project?

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## SECTION C

### A TASK FOR THE IDENTIFICATION OF TEACHERS' VIEWS OF KNOWLEDGE AND LEARNING

Below you will find two teachers' introductions to their lessons. Please read through both introductions and then answer the questions that follow.

#### Teacher A

Today's lesson is an extremely important one and there will be a question on this section in your examinations next month. It's essential that you listen carefully and that you refer to the charts and diagrams in your textbooks so please have these out on the desk. The details of today's lesson can be found in Chapter 8 which begins on Page 326 in your textbooks. I suggest that you underline the most important points which need to be learnt for the exam. It's a good idea to learn these in point form - it's often easier that way. I will also be giving you a brief summary of the main points of today's lesson on the OHP. I would like you to take these down in your notebooks as I'm explaining them to you. You'll need to concentrate and work quickly but this is all good practice for those of you who want to go on to tertiary studies and will need to take notes in lectures.

For homework I will give you a worksheet on the information I will have covered in today's lesson. You'll be able to find all the answers either in Chapter 8 of the textbook or in the summary I give you on the OHP. If you listen attentively, you'll find that completing the worksheet is easy. I'll collect in the worksheet in your next lesson - that's in two day's time - and the marks you get will go towards the term mark.

Right, is everyone ready? No more talking.

## Teacher B

Today we are going to find out more about topic X by studying it and asking ourselves questions about it. Before we begin I'd like to briefly outline the procedures for today's lesson.

Firstly, you will need to split into groups of 5 and each member of each group will be given a list of questions to discuss and to attempt to answer. You will find that some of the questions are the same for all groups but some of the questions are different. I would also like each group to think of another question to add to the ones on the list. In responding to these questions you may refer to your textbooks and the books in the reference section at the back of the classroom. You may find that different books provide different answers. Jot down your ideas while you are discussing them and decide on a method of reporting back to the whole class. You may allocate a section to each group member or, if you prefer, you may nominate a spokesman for your group. When reporting back to the whole class, you can make use of the chalkboard or the OHP if you need these. During these report-backs, we'll compare your ideas and decide which make the most sense to us.

I would like you to include somewhere in your report-back your views on topic X and I'd like you to say why you think this topic has been included in our syllabus - in other words, what exactly have you learned and how has this helped you.

How much time do you think this activity is going to take you? Fifteen . . . twenty minutes? (Pupils respond.) Okay, in twenty minutes we'll begin the report-back. Quickly break into your groups.

## QUESTIONS

1. What are the main differences in the teachers' approaches to learning?
2. How do you think each of the two teachers view knowledge?
3. Identify aspects of each teacher's introduction that you like and/or dislike and try to explain why you like/dislike these.

Thank you for your co-operation.

Sharman Wickham.

### THE FINAL QUESTIONNAIRE

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In this appendix I present both the final questionnaire as well as a possible interpretation of the task it contained.

#### THE QUESTIONNAIRE

##### A TASK FOR THE IDENTIFICATION OF TEACHERS' VIEWS OF KNOWLEDGE AND LEARNING

##### SECTION A

Read the following extract which contains a teacher's introduction to a lesson.

##### Teacher A

Today's lesson is an extremely important one and there will be a question on this section in your examinations next month. It's essential that you listen carefully and that you refer to the charts and diagrams in your textbooks so please have these out on the desk. The details of today's lesson can be found in Chapter 8 which begins on Page 326 in your textbooks. I suggest that you underline the most important points which need to be learnt for the exam. It's a good idea to learn these in point form - it's often easier that way. I will also be giving you a brief summary of the main points of today's lesson on the OHP. I would like you to take these down in your notebooks as I'm explaining them to you. You'll need to concentrate and work quickly but this is all good practice for those of you who want to go on to tertiary studies and will need to take notes in lectures.

For homework I will give you a worksheet on the information I will have covered in today's lesson. You'll be able to find all the answers either in Chapter 8 of the textbook or in the summary I give you on the OHP. If you listen attentively, you'll find that completing the worksheet is easy. I'll collect in the worksheet in your next lesson - that's in two day's time - and the marks you get will go towards the term mark.

Right, is everyone ready? No more talking.

1. In your view, is good teaching happening in the lesson?
2. Please give reasons for your answer.

## Teacher B

Today we are going to find out more about topic X by studying it and asking ourselves questions about it. Before we begin I'd like to briefly outline the procedures for today's lesson.

Firstly, you will need to split into groups of 5 and each member of each group will be given a list of questions to discuss and to attempt to answer. You will find that some of the questions are the same for all groups but some of the questions are different. I would also like each group to think of another question to add to the ones on the list. In responding to these questions you may refer to your textbooks and the books in the reference section at the back of the classroom. You may find that different books provide different answers. Jot down your ideas while you are discussing them and decide on a method of reporting back to the whole class. You may allocate a section to each group member or, if you prefer, you may nominate a spokesman for your group. When reporting back to the whole class, you can make use of the chalkboard or the OHP if you need these. During these report-backs, we'll compare your ideas and decide which make the most sense to us.

I would like you to include somewhere in your report-back your views on topic X and I'd like you to say why you think this topic has been included in our syllabus - in other words, what exactly have you learned and how has this helped you.

How much time do you think this activity is going to take you? Fifteen . . . twenty minutes? (Pupils respond.) Okay, in twenty minutes we'll begin the report-back. Quickly break into your groups.

3. In your view, is good teaching happening in this classroom?
4. Please give reasons for your answer.

**SECTION B**

5. Have you enjoyed analysing these two extracts?

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6. Please give reasons for your response to question 5.

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7. Which of these two teachers do you think you most resemble?

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8. Briefly explain your response to question 7.

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9. What, if anything, would you like to change in your own teaching practice?

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10. Why would you like to make these changes?

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11. Would you like to participate in this research study?

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12. Please give reasons for your response to question 11.

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Thank you for your co-operation in completing this questionnaire.  
Sharman Wickham.

## **A POSSIBLE RESPONSE TO THE ABOVE TASK.**

The following extract is from a conference paper (Wickham 1992b) which was written in an attempt to demonstrate that teachers' personal epistemologies influence both their classroom practice and the learning outcomes for pupils in their classrooms. In the paper I argued that while the interpretations and analyses of these lesson introductions might be criticised as subjective, they were able to provide useful insights into the perceptions and values of those engaged in the task of analysis.

### **The importance of teachers' personal epistemologies**

Teacher A follows a more traditional model of classroom practice in that her approach to teaching is based on the transmission of knowledge from experts (herself and the textbook authors) to uncritical, accepting pupils who are perceived as relatively ignorant. By contrast, Teacher B follows a constructivist teaching model in that pupils are actively engaged in constructing knowledge rather than merely receiving it. She provides pupils with problems or questions rather than solutions or answers and she encourages pupils to add their questions to the list she provides. This last activity - posing problems - is an important one frequently neglected in traditional classrooms where pupils' own research skills are not developed.

Teacher B suggests that different people and different books may have different answers - pupils need to compare the information they find or themselves think of. A view of multiple realities is encouraged in this process whereas the pupils in Teacher A's class, under the threat of term marks and examinations, are presented with the teacher's version of the correct, absolute answer which they must later regurgitate. These pupils are merely reproducing knowledge but those in Teacher B's class are interpreting and constructing their own meanings. They will be doing this by reading critically, listening to more than one possible answer or solution, comparing these and evaluating them then either deciding on an answer or a combination of answers as solutions to the questions they face. At the same time, they are being introduced to research skills and will acquire some understanding of the sometimes faulty processes through which knowledge is constructed.

Even if the syllabus content to be covered by the end of the lessons is roughly similar, it is also important to consider other learning outcomes. Teacher A's conservative and rigid teaching style encourages conformity and subservience to authority, while Teacher B demonstrates greater flexibility and teaches for democratic values by using group work. Pupil empowerment is facilitated through encouraging pupil research and pupil talk. Pupil independence is encouraged in that pupils see themselves and their peers as useful resources. Pupils learn of the need to negotiate meanings and solutions. Cooperative learning is more likely to encourage pupils to listen effectively to others, to understand other points of view, to learn tolerance and to learn how to express and receive disagreement or disapproval in acceptable ways.

The classroom teacher will need to model many of these behaviours herself. Pupils will need to be provided with opportunities to set question papers or decide on other methods of evaluation such as self- and peer-assessment. The teacher will also need to provide pupils with the opportunities to upgrade their results or to challenge these. A teacher with a technicist view of education is unlikely to be comfortable with many of these suggestions and may well label them educationally unsound or even unprofessional practice.

The teacher who espouses a critical or constructivist view of knowledge and learning is more likely to take risks in the classroom and attempt new and innovative practice. She will suggest to her pupils that failure, should it happen, need not be feared. This is reflected in Teacher B's words when she says that each group needs to "attempt to answer" the questions provided.

Teacher B, in asking pupils to say why they think the topic to be studied has been included in the syllabus, encourages pupils to find relevance and meaning in their activities. For the pupils in Teacher A's class, learning new information is primarily in order to pass examinations. Not only is this implied in the teacher's warnings about term marks and examinations but in her technicist hints about how to learn (or, more correctly, how to memorise), which suggest that the information may be learned without understanding its relevance to the pupils' everyday lives.

While it is likely that she imparts a sense of urgency to her pupils, it is unlikely that she allows time for the assimilation of the new information or for reflection on it. This teacher's two references to making learning easier suggest that learning is essentially difficult and that it will only be mastered if pupils follow her instructions.

Although this analysis is not exhaustive, it serves to highlight both the ways in which teachers' conceptions of knowledge and of learning can influence their classroom practice and the ways in which these conceptions may have far-reaching effects on the ways in which pupils construct their knowledge and views about the world.

### LESSON DESCRIPTIONS

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I have provided three lesson descriptions in Appendix C.

The first two lesson descriptions are of the first lesson that I observed for this study - that in Lynn's classroom. The first of these was written on the first day of observation but, as I was dissatisfied with this as well as the other descriptions written during this first week, I rewrote these early descriptions after reviewing the videotaped material both with Lynn in the first interview and later by myself. The second description not only contains greater detail but also provides a clearer explanation of the contradictions I had first noticed in Lynn's work.

The third lesson description is of the first lesson observed in Janet's classroom, the final case study.

#### LESSON DESCRIPTION 1 - LYNN

**Monday 26 April 1993**

**2.00 p.m.**

Lynn has stressed that her subject areas - English and Drama - are concerned with developing pupils' values and helping them to make value-centred judgements. In today's lesson, these goals were pursued in conjunction with reading a play *The Doll's House* with Standard 9 pupils. It appears that other's experiences as revealed in literature and mediated through the teacher and other pupils in the class contribute to the pupils' developing value-systems and their growing ability to make value-centred judgements. In this way, Lynn hopes pupils will develop a personal understanding of life and ways in which to cope with it.

I wonder about the extent to which pupils can generalise from a play or novel to their own lives. I wonder about the extent to which they should do this? Are the values found in literature universal? Should they be?

I was interested to hear at the end of the lesson Lynn asking her pupils whether they wanted an open-book test or not. Two of the three girls said no, the one adding that the last time she did an open-book test she hadn't done well. Lynn appears to provide choices for pupils regarding assessment. I will consider this when looking at her test and examination questions.

## LESSON DESCRIPTION 2 - LYNN

### Lesson 1 : Monday 26 April

2.00 p.m.

There were only three pupils in this class - one black, one white and one Asian - nicknamed by Lynn 'The United Nations'.

In this lesson, Lynn and the pupils were reading *The Doll's House* by Ibsen.

Lynn began the lesson by helping the pupils to draw on previous research they had conducted at the beginning of the year. They had gathered information on four historical characters whose innovative thinking had influenced the course of dramatic art. In this way, Lynn helped her pupils to situate the play in terms of the events and thinking current when it was written. This allowed pupils to come to a deeper understanding of the play and to draw connections between knowledge previously compartmentalised. Lynn was critical of the pupil who "threw titles" at her and who merely presented her answers "in little boxes".

In a later discussion Lynn told me that pupils do not always find it easy to make connections between knowledge gained in different aspects of their school day but that, with practice, they do improve. She believes that education is primarily about "making connections". This links with her view that "personal understanding" is the aim of education.

In allocating reading roles for today's lesson, Lynn gave herself "the best part . . . as always". I'd be interested in her reason for doing this.

Much of the lesson centred around the analysis of two characters' words in an attempt to understand their values, motivations and personalities. In this way, pupils learn to use language as a tool to enable them to penetrate behaviour and so to move beyond a superficial understanding of words and of appearances. Lynn also encouraged the pupils to assess the worth of the values espoused by the protagonists and to pass judgements on their motivations and characters.

It appears that Lynn believes that others' experiences as revealed in literature and mediated through the teacher and other pupils in the class, contribute to the pupils' developing value systems and their growing ability to make value-centred judgements. In this way Lynn hopes pupils will develop a personal understanding of life as well as ways in which to cope with it. Literature has, for Lynn, a clear epistemic function.

Lynn encourages pupils to be critical of accepted social norms and beliefs - in this instance, not just women's lower status in society but the notion that in raising women's status the status of men must necessarily be lowered. It is such aspects of Lynn's lessons

that have alerted me to the need for analysing not just her teaching methods or the activities she provides for pupils but also her discourse, too.

In more closely analysing the teaching process in Lynn's classroom, I focus on two issues; the first, (a), relating to Lynn's role in mediating between the pupils and the values being learned and the second, (b), relating to literature as a medium through which to learn of and to develop values.

(a) Although Lynn often invites pupils' opinions and views on her own expressed ideas, she usually does so by providing pupils with a statement she supports and then asks them whether they agree. At one time in this lesson she provided them with "a false premise" and asked them whether they agreed that it was false and to explain why it was false. Very rarely does she ask them to disagree with her or to contest the statements she makes. This led me to wonder about the degree of freedom pupils have in choosing their values.

While this is contradictory to much of what Lynn says about the role of the teacher, it does not contradict but rather serves as confirmation of her belief in "universal values" which ought to be shared. If she believes that she is able to identify these and that pupils need to accept them, to what extent is she fundamentally different from the teacher who believes in objective universally valid knowledge she has gained and which pupils need to gain too? Does knowledge acquisition differ from value acquisition?

When asked during a discussion period how often pupils disagree with her, Lynn said "rarely" and went on to explain her concern about using this method of teaching. She likened it to the practice of deliberately writing the incorrect spelling on the board - although pupils are later presented with the right spelling, she said that she thinks it is likely that they will remember the wrong version. Is the teaching of values not different to the teaching of spelling, I wonder?

At the end of this discussion Lynn decided that she would change her strategy in this regard and encourage pupils to develop multi-faceted perspectives rather than make a choice between two perspectives.

I'm hoping the Lynn did not see this question as criticism as I'm not here to criticise her methods but to try to ascertain the extent to which her thinking and classroom practice are consistent. At this point it is her thinking about universal values and the degree of freedom she gives her pupils that interests me, most particularly when I compare this with her thinking about personal understanding and the need for learning space. In a nutshell, I wonder whether her notion of universal values prevents her from providing sufficient learning space for pupils to develop their own values. Put in another way, I wonder to what extent she expects pupils to adopt her values?

(b) The second area of focus relates to literature as a medium for learning about values and about how to cope with life. In achieving this aim, Lynn uses analysis of the specific concrete experience of the characters studied in the literature as a means of generating

value-centred judgements. I would like Lynn to further describe this process of learning and to tie it in with universal values. In essence the question is : How do pupils learn values - universal values - through the study of specific situations and characters depicted in literary works?

After experimenting with three different camera angles during this week, I've decided that a pupil's perspective is best but that I need to be closer to the front of the class in order to ensure louder and clearer sound recording. If this strategy doesn't work, I'll use a tape-recorder in addition to the video camera and synchronise the two sound tracks when replaying them during analysis and discussion sessions.

### **LESSON DESCRIPTION 3 - JANET**

**Monday, 15 August 1994**

**Period 4**

**11.20 - 12.10**

**Std 6C**

**No. of pupils : 27 (50% white, 50% coloured)**

Janet met me in the foyer of the school and walked me to her classroom. I waited outside until her current class had left the room and while the next group began lining up outside. I noticed that few pupils either greeted or smiled at me. This is in contrast to many other schools where pupils appear much friendlier.

1. I wondered whether Janet had noticed this and had made any comparisons with her previous school. If she had, is she able to account for this?

I set up the camera in the back corner of the class while Janet waited at the door for pupils to arrive and line up. She spoke to a couple of girls while she waited.

2. Is lining up outside classes a school ritual or one that Janet herself initiated?

When girls began entering the room I noticed the amount of noise made by their feet on the wooden floors. I had mentioned the floors to Janet when I had entered since they are unusual in a classroom. She'd said that the room had been a uniform shop before her arrival and not a classroom. She also mentioned that the noise had disturbed her initially and that she had asked for curtains to help absorb the noise.

As they entered the room, a couple of pupils told others to "Sshh", maybe in response to my presence.

Janet told the girls not to shout. I noticed that she calls them "Ladies" when addressing them - as I did when I taught.

3. Are there any reasons for this term?

After she had greeted the pupils Janet introduced me, and the class and I greeted each other.

Janet told the class which books she wanted them to get out, repeating this instruction. She showed them the worksheet they would be working on and told them that she was going to explain how to do this worksheet.

A pupil interrupted with a question which Janet initially responded to by telling her that she had not listened.

Janet began the lesson proper by asking the class to describe the shape of the earth. One of the first responses was “oval”. Janet continued to ask others until she received the answer “geod”.

Janet then asked the class why the earth was described in this way. A pupils provided a reason which Janet then repeated. She went on to ask, “How do we know?”

Janet’s next question related to the “meaning of geod” and a couple of pupils responded. To the last of these responses Janet said, “That’s exactly right.”

Janet continued her questions. During this time she remarked, “You do know - you just need to think.”

Janet then described the shape of the earth using information already supplied in pupils’ answers. She went on to ask another “why” question. When pupils appeared to be having difficulty responding, she rephrased the question providing a clue to the answer.

To help illustrate her description of the earth’s shape, Janet asked one of the girls to go to the front of the class and to spin around. She then asked the class what had happened to this girl’s blazer and went on to link their response to the shape of the earth. Janet also asked the class to provide the correct term for the “waist” of the earth. This she then wrote on the chalkboard.

Janet asked the class what the spinning motion of the earth was responsible for. There was an incorrect answer before the correct one was given.

I noticed that pupils tended to call out but that this did not appear to be a problem.

Janet again asked pupils to provide the correct term for “lit up” and this, too, was written on the board.

Janet then put on an overhead transparency and asked pupils what the “axis” was. She asked one girl if she would “like to try” the answer.

After this there was a question from a pupil at the back of the room and Janet moved down the aisle towards the girl. In responding to this question, Janet showed a photograph in a book. The same pupil asked another question to which Janet again responded. She interrupted herself to tell some girls on the other side of the room to “ssh”. In her explanation Janet said, “You can’t see the pole because there’s not really one there.”

4. Does Geography make use of many ‘concrete words’ to describe abstractions like this? If so, what implications are there for teaching the subject?

Janet went on to ask “Who remembers what the tilt of the axis is?” After a response she asked why it was important. When no responses were immediately forthcoming, Janet told the class “to think”.

A pupil then called out a response (“the seasons”) and Janet asked for a further explanation. She then pointed to the axis on the screen in the front of the room and explained its effect.

Janet then asked who could tell her what the day/night line was in Durban. Some pupils responded by providing times when it gets light. When one pupil indicated that she wasn’t awake that early, Janet humorously suggested that she was “lazy”. Janet mentioned that she has noticed that already it’s a bit lighter earlier and asked why this was so. In response to the answer to this, Janet asked, “What’s happening to the sun?”

Janet interrupted herself to tell a pupil at the back to attend. She then went on to say that “the sun is coming towards us”. I wondered if this was so and then Janet went on to say that “the earth will change position”.

5. Another rather confusing thing with Geography is that its knowledge sometimes contradicts the way in which we speak of and explain the world more informally. For instance, we say “The sun rises” and “The sun sets” rather than the world turns around. Are there many instances when Geographical knowledge is contradicted by our “common sense knowledge”?

6. Janet put on a new overhead transparency and asked a question. A pupil raised her hand to answer. Sometimes they go through this ritual, sometimes pupils just call out. There doesn’t seem to be any pattern. How does Janet feel? Does she impose any rules in this regard or is there no need to?

I notice, too, that Janet sets quite a fast pace. She speaks clearly and loudly and uses her voice as a teaching tool.

Janet does not always praise pupils’ responses but once or twice she said, “Good, that’s excellent.”

At this point she asked pupils what they noticed about the axis “in all four drawings” on the overhead transparency. In the following discussion and explanation, Janet said that the earth didn’t get “speedwobbles” when it moved because of the tilt of the axis. She asked the girls to imagine what would happen if it did. After there had been a couple of responses from pupils, she provided a few examples to further illustrate this.

Janet’s next question was, “What movement is it that causes the seasons?” A couple of pupils called out but Janet told them rotation caused day and night. Janet reminded them that “we’ve had it before”. Again some pupils called out - correctly this time - and this time Janet said, “Don’t shout at me” and also told two girls on the side of the room to listen and to concentrate. She also mentioned that if she remembered correctly she’d had “problems” with them before.

Janet directed the pupils’ attention back to the diagram on the overhead transparency with the next question which asked them about the “path” of the earth. There were a couple of responses before the term “elliptical” was mentioned. Janet said that she had been waiting for someone to give her this answer. She wrote the term on the board and repeated the phrase “fixed path”.

7. In her next description/explanation, Janet used the words “appear to move”. Here again this suggests a difference between geographical knowledge and common sense knowledge or a difference between real knowledge and illusions in the everyday world. Any comments?

Janet’s next question - “Which hemisphere is it? - seemed to be checking the girls’ previous knowledge. She also related this to the patches of sunlight they might find in certain areas in summer and winter.

Using a diagram on the board, Janet showed the class how the sun’s rays come “at us” from different angles depending on the season. She also described the effects of this on her swimming pool at home.

Janet asked the class if any of them had ever been fishing with their dads and seemed a bit surprised at how many of them answered in the affirmative. Her next question dealt with the position of the sunrise and a few girls responded before Janet got the answer she wanted.

Janet then directed the class’s attention to the worksheet she had shown them earlier. She told them to listen to the instructions she was about to give. A pupil asked to leave the room and Janet agreed to this. Janet told pupils that they needed to shade in day and night on the diagram on the worksheet. She reminded them that the earth was three-dimensional and asked for a definition of this term. This she compared to a photograph which was not three-dimensional.

Also, using the light provided by the overhead projector and her fist, Janet showed the class that there would be times when there would be “shadow behind my fist”.

8. Space and shape are clearly important concepts in Geography. After the lesson, Janet mentioned that she knew that pupils would run into difficulties in the exercise on the worksheet. Did she mean these particular pupils or do most/many pupils find this exercise difficult?

9. After Janet told the class to “get on with it” and to do the colouring in before tackling the questions on the worksheet, she moved to a particular pupil who appeared to be having difficulty. Once again I heard her say, “You do know, you just have to think.” Does she think this difficulty is related to laziness or is there some kind of conceptual gap that requires great effort and which pupils really do battle with?

Janet told the four girls sitting in front of me to “get started”.

A pupil on the opposite side of the room raised her hand and then decided to get up and move over to Janet to ask a question.

The pupils were almost all working at this point, some talking to each other as they worked. One pupil called Janet who responded with “I’m coming” before moving in her direction. Once she’d listened to this pupil, she seemed to repeat some of her earlier instructions.

Janet then called everyone’s attention to her as she moved back to the front of the room where she picked up the large globe. This time she moved the globe around the light from the overhead projector explaining the position of day and night as she did so.

10. After Janet had replaced the globe, one of the pupils in the front asked about the dent in it. I presume the pupil didn’t really think the world had a dent in it. On the other hand, of course, I don’t suppose the world is as smooth as the globe suggests. Models don’t usually capture the complexity of reality. How serious did Janet consider the pupil’s question to be?

The four girls immediately in front of me appeared to be more interested in my presence than their work but most of the others seemed to have pens/pencils in their hands.

Janet moved over to “the four” and reprimanded them for having done nothing. One gave not having any glue as an excuse but Janet told her she could stick in the worksheet at home but should do the colouring in here. Janet also said that she didn’t want them in her class if they were not going to work. Janet asked one a question after which she asked another why she hadn’t yet started. After attending to the fourth pupil in this group, Janet noticed that the one pupil she had previously reprimanded still hadn’t picked up her pen. She then mentioned “Room 13”.

11. What is “Room 13” and can Janet refuse to have a pupils in her class as she intimidated?

I noticed that after Janet left this group, the one pupil still took a while to begin any work.

Once again Janet called for the whole class’s attention telling them that many of them were doing what she had told them not to do. She said, “I knew you were going to have this problem”, but said that it was important that they do it themselves so that they would realise.

She asked them to all look at her and, using a pupil’s worksheet, drew their attention to the vertical line in the diagrams. During this demonstration she realised that this pupil (the one whose worksheet she was using) had made an error at one point but said that it didn’t matter and that she could rub it out.

Janet continued moving around the class, pointing to some pupils’ errors. Once again she decided to use the overhead projector light and her head this time in another demonstration.

While helping one of the girls in the front of the class, Janet showed some frustration by groaning through a clenched jaw!

I switched off the camera but continued to make notes.

Janet continued moving around the class, checking pupils’ work over their shoulders and sometimes stopping to question or to help.

As Janet passed one of the earlier “problems”, she said “Well done” after seeing her work. Janet also clarified for one of the others which questions on the worksheet related to which diagram.

Janet called out that pupils could use pencil if they weren’t sure of the answers.

A couple more pupils raised their hands and Janet moved to them. Other pupils just asked Janet questions as she moved near to them.

Janet called “Enough” to “the four” who were talking again.

As Janet continued her rounds, I heard her asking - once again and this late in the lesson - a question about the day/night line. Clearly some pupils take a long time to come to grips with this.

Janet told the class to fill in the spaces in the notes once they’d coloured in the diagrams.

When Janet noticed that one pupil at the back of the room had put her books to one side, she asked her if she had finished and whether she was packing up. The pupil indicated that she wanted to throw away some pencil sharpenings.

One of “the four” moved to the front and seemed to be using her head as the earth moving around the sun - mimicking Janet’s earlier demonstration!

Janet continued moving around the classroom stopping at different pupils’ desks. At one point, she patted one girl on the head and said, “You do know.” (Question 9 applies.)

Janet called to the “ladies” to “hush” and then drew their attention to the “NH” and “SH” and their meanings on the worksheet. She noticed that one pupil had already finished and said, “Well done!” and put a stamp in her book. A couple of pupils asked to see this.

12. Do these pupils respond well to this use of praise?

One of “the four” in front of me began an explanation of the work to another but this began to turn into a bit an argument. From across the room Janet called “ladies” and “ssh”.

The bell rang and Janet asked the girls to pack up. It seemed that they took quite a while to collect together their bits and pieces. Janet greeted them while they were busy doing this but I barely heard the pupils’ response as the room was quite noisy again.

Some of the pupils took quite a long time leaving and a couple spoke to Janet on their way out. A small group was still collected around one girl who was writing a note. Janet asked if the note was hers after which the girls hastily moved on.

**INTERVIEW TRANSCRIPTS**

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I have provided extracts from two interviews - again from the first and the final case studies. Interview 1 is the initial interview with Lynn where we discussed the task found in the final questionnaire. Interview 2 is the second interview I had with Janet.

**INTERVIEW 1 : THE INITIAL INTERVIEW WITH LYNN  
16 APRIL 1993**

(Lynn had just finished reading Teacher A's lesson introduction and went on to respond to the question posed in the following way.)

L: Um I don't think good teaching is happening. I think certain points that she brings out are important . um . like for instance her comments about concentration and learning to work quickly, learning to pinpoint important issues and underline. I think these are important for pupils to understand but I think the nature of this as an introduction to a lesson um is actually ant anti-teaching. It's she's given far too many instructions. She has used . one of the things I don't like is that she has literally used um a form of bribery which I don't like. Um she has missed the point that learning the best of learning occurs when pupils want to learn and the reason she's given them to learn is to get marks in the exam or get things right so the whole concentration is that education is knowing things are right or wrong. I don't agree with that. Um . . . . do you want a lot more?

I: Um . . .

L: Basically that that that's what I'm looking at. Is there anything else you want?

I: Okay. How do you think this teacher thinks that learning actually happens?

L: Um I think she's one of those rote people. Not one of the worst kinds because she is trying to focus them on um points um of interest. I wonder if they're interest though? Um . she obviously leans a lot on textbooks . on note-taking, um on worksheets and er a lot on quantitative things . instead of working towards er creating an area for the children to learn in, a learning area, a learning space where they would want to search for these things.

I: So those are the methods she uses and how does she think . the information gets from the textbooks or the notes or the worksheets into the pupils' knowledge base? How does the learning actually occur, according to her?

L: Just by taking notes . and to concentrate and work er concentration um . . . . by being able to know that there are answers and having to look for the answers . Ja?

I: Mmnn.

L: By listening.

I: Mmnn. (Pause) So knowledge is virtually transferred . .

L: Mmnn.

I: from one source to another?

L: Ja, ja.

I: A transmission process.

L: A transmission process.

L: Mmnn.

I: And then the knowledge itself? You said something just now about um education or you were being very critical of this teacher's view. She seems to think that education is for finding out what is right and what is wrong.

L: Mmnn.

I: Um that suggests that you don't think that knowledge . is right or wrong?

L: Um . .

I: What is knowledge?

L: The nature of my work - I work with um English language and I work with Drama - goes beyond the concepts of what is right and wrong. It goes into areas of um value-centred judgements, of taking information which might be what this teacher is going and using information in order to explore um the far greater concept of life and where the pupil is and what she - I use she obviously - what she needs in order to cope with that life. And I this is very general. Um we'd have to sit down and sort of divide that up into .

I: Categories?

L: into cat into categories. I don't see knowledge meaning "facts" as it were er what's the Dickens novel?

I: Um pouring ja pouring facts into empty barrels kind of thing.

L: I'm just I'm just trying to remember that whole that whole thing in Dickens. It's I think it's Nicholas Nickleby. He says "Facts, facts, facts. You must drive facts in." Facts, or that type of knowledge, encyclopaedic knowledge is useless unless the person who is um who is supposed to be taking it in knows why it is important and can learn how to use it to cope.

I: So knowledge has to be relevant?

L: Absolutely.

I: Would you say that knowledge . can be universal or do you think it becomes relative as well as relevant or needing to be relevant? Can knowledge be universal or is it . a relative commodity?

L: Oh I don't think there's (laughs) a right or wrong answer. Um I think a lot of it is relative. It's er . it's things that are culturally based. There are things that are based sexually er socially all those sorts of things. What I'm trying to do now is actually go through in my mind anything . I talk about universal values um but these are values; this is not knowledge. These are are concepts based on knowledge and experience. I'm still trying to work out whether you separate those two. Whether knowledge and experience actually go hand in hand. I don't think there's a straight answer to that. I think that (sigh) . universality . Their . experiences can be universal . but people choose different knowledge structures or knowledge forms to come to terms with those those sort of experiences.

I: So it's quite subjective?

L: I think it is. Ja.

I: Okay, we'll probably come back to that.

L: The result the result might be might not be subjective but the choices must be subjective.

I: Okay.

(Lynn then reads Teacher B's lesson introduction.)

L: Mmnn. Um this this is my type of teaching. Um there are many different er challenges happening here. The class is not only focused in on getting the right answers but um they're having to work in groups. They are being challenged socially and to cope with other opinions and to argue um to select um to negotiate er . They are learning to know . who they can depend on, who and those so from the group you are starting to get your leaders, those who can help others, those who can guide um and so um a sort of personal understanding is growing. Um . again there's no dictating where the answers are. Er the

learning area's clearly defined um they still have the confidence to know that within the area there are the answers. That they must find those answers in their own ways so there's so the whole person is being challenged not merely just certain sections of their academic thinking. Um I still think that the teacher's giving too much instruction. Um I would prefer to get them to a certain point and say right do you understand this? Now from this point on you move this way so but

I: Mmnn.

L: but that that's just a little thing.

I: Mmnn.

L: Um the idea of verbal report-backs. Again people are taking responsibility here for not only themselves but for er everyone else. They're learning about opinions. They're learning about challenges that can be thrown at them or they can throw at others. And I think it's a much more lively, exciting, efficient and effective way of teaching.

I: Mmnn.

L: And of learning.

I: Mmnn. The two teachers obviously have very different views of pupils . and what pupils can and can't do.

L: Ja.

I: Could you elaborate on that?

L: Yes well the first teacher I think is very determined to keep her place as the authority figure in the classroom, the one who knows er the one who has got all the answers, whereas um there is a greater respect for the pupils with Teacher B has a greater respect for the pupils as individuals. She's encouraging them um to come up to her, right, and not to stay in an inferior position. Um it's the the same sort of thing I I remember um at university when I heard a lecturer say um to fellow well head of department (indistinct) lecturers: "We must never let these students think we can they can do without them." And I think that should be a striving that a teacher must go for. I must get my pupils to a point where they don't need me.

I: Mmnn.

L: They can go out there and do it themselves.

I: Mmnn.

L: Teacher B will do it, Teacher A won't. Teacher B will do it because of her respect for the individual.

I: Mmnn.

L: And, more, for me Teacher B has greater confidence in the manner in which she is doing er giving this lesson because it doesn't matter to her whether they reach beyond her.

I: Mmnn.

L: When I was at J.C.E. (The Johannesburg College of Education) I always had this problem that they didn't want the kids to know if they didn't know an answer. And the general thing is, if you don't know the answer be honest and go and look for it wiith them.

I: Mmnn. And pupils from each of these classes are you've already mentioned learning different things about each other and themselves. What do you think they're also learning about the world or at least their society in each of those classes? What are pupils from the first teacher

L: I think we're back to that point of the right and the wrong. The er. the first class the first group of of children will (a) I think um judge the world in quantitative terms. Right so you get this that the person who's got the highest marks is the better person. The person who, no matter how they get those marks, is the better person whereas that becomes totally irrelevant to the other others in their search for for answers together. Um it it's the whole um social learning that occurs with Teacher B that is going to make those those kids so much different in their approach to life and how they live it and relationships with other people.

I: Mmnn.

## **INTERVIEW 2 : THE SECOND INTERVIEW WITH JANET 24 AUGUST 1994**

I: Can we start with your initial comments after you

J: Yes.

I: had started reading these (i.e. the lesson descriptions) the other day when I was here?

J: Ja, ja.

I: You said that you thought the lesson was chaotic.

J: Yes.

I: Do you still think so now that you've read through the whole . . . ?

J: Um . no perhaps less so. Um I think that er that particular lesson was chaotic, um . but it is a concept or it is an exercise perhaps I should say that all children do battle with and one thing that I have found at this school and - at the risk of being racist which it is - the coloured girls . definitely have a different work ethic and um apparently from from what I can understand from the er networking meeting that we had earlier in the term they're very content-based and the teacher stands up in front of the lesson and teaches and then they have a test so tha they they don't have a history of . um work um . worksheets and consolidation exercises and things like that. Um and so . obviously they have to be trained into that way of doing things but it's not what I'm used to because at (my previous school) I would never have had . the kind of problems that I have got here. I would say, "Get on and do the exercises." I would maybe walk around, check that they were doing it and then I could have sat down, and they would have gone on with it. And I would have gone on later to check that they had their . axes where they should have had them etcetera etcetera um . and you would have found a number that didn't but it wouldn't have been . the almost bedlam that it is . in the weaker classes here.

I: Ja. So that's quite a change for you.

J: Yes it is. And I have to find a way of dealing with it and I think it's a common problem from er talking about . er to other teachers er the sixes generally are a common problem in that they don't bring books, they don't do the work that they're supposed to do, they don't hand it in. The work ethic is just different.

I: Now I'm more used to that therefore for me it's not such a surprise. And I didn't see it as chaos.

J: Yes. I'm very glad that I didn't . that (my previous school) wasn't my only teaching post because I don't think I would have . been able to handle it here. I did teach at (another school named) for five years and but that was a long time ago but there there were similar problems and it was boys too so the problems were very similar to what they they've got here so it's not a complete culture shock. I did know what I was coming into. I expected it. But it still means a way of finding my feet and I'm not too sure what the answer is at this stage. I don't know if even the experienced teachers that have been in the school actually know the answer . at this stage either.

I: That's very useful for me to hear someone like you say something like that.

J: Ja. Look I've only been here a month but in talking to . people the general feeling is that at this stage they're not too sure what the answer . is going to be to solve that kind of problem but it's not . One thing we know that if you're going to go that multiracial - this is the headmistress's feeling and I I agree with her wholeheartedly - if we're going to do

go the the multiracial route - which we have no option but you you you it's not acceptable behaviour. The work ethic is absolutely essential and it's essential not only for the school but it's also essential in life - it's a life skill.

(A section of the interview has been omitted.)

I: Um question 4, I've got "Does Geography make use of many concrete words in order to teach abstractions?"

J: Yes I would say they do. I'd say "pole" - you know, North Pole South Pole - which don't actually exist. Ja.

I: Does that make it difficult for pupils to learn?

J: I would say no because they they you know although the North Pole isn't . the pole is an abstract concept, they've all heard about the North Pole and the South Pole and they all also know what a pole is so when they see a picture of the earth as I showed them on the transparency with a pole through it I think that it's fairly concrete if you know . They can visualise . I think I spoke to you earlier about children's mind pictures and I'm quite aware of that because Geography is a very very visual subject and so I have to constantly think if . are my words creating the picture for the children that I want them to create or am I creating something totally alien, you know, like I wanted (laughs) I don't know but do you get the idea? Something totally alien to them. And so I do use transparencies a lot - pictures from books and things like that. Um at (my previous school) I had a lot more resources and things like that er to show them either before, during or after what have you and that will take time to build up here. They do have some but um not really as much but I think that . the concrete is very important because many of these children won't move beyond the stage of concrete operations.

I: And um later on I think I had another question about . space and shape .

J: Yes, ja. The standard sixes really battle with that whole section that you saw because it is abstract and because it involves a section and because there the section perhaps isn't (indistinct) well enough. Um before I started - you came at the end, that was the end lesson of of a series - but the first lesson I'd given them . a sheet of instructions um and it it the idea of it is to follow the instructions but it's also to manipulate and to create a picture so for example the first instruction would be um "Draw a circle, diameter five centimetres. Draw a perpendicular line . directly through the centre of the circle. Right take your protractor, put it along that perpendicular line, measure twenty three and a half degrees from the top, turn it", you know, so it's . step by step and . they found that . so it's broken down. They end up with one of those those drawing that was on the transparency. Then we spend a lesson . talking about seasons. Just what are they like. What do they like about summer, what don't they like about summer, what are the days like in summer, what do they do in summer. That kind of thing so that they've got the content to do that exercise before they even start but they still battle.

I: Ja, ja, yes. No, I could see that and I found that quite interesting and then I heard you mention that um . all pupils would battle with this. Did you mean all schools and all pupils or this specific school?

J: Ja, ja. No no it's not just specifically. It it's the age I think. Perhaps the perceptual . development isn't ready for that as yet um . also . one I think one of the contributions that Geography has to make is in graphicacy and um . therefore it's all very well to say they're not they're not ready for that yet but maybe they need to be introduced to it knowing that there are problems.

I: Ja, to be made more ready?

J: To be made more ready. I don't know, I think that that's a that's a question I'm not too sure about. Maybe you should wait till later to introduce it. Maybe it should be introduced then.

I: What would you like to do?

J: Ja I do it in six because that's it's been on the syllabus and because I'm aware of it as as theoretical knowledge. I see it as um developing a particular . skill - perceptual ability, manipulation etcetera then I think there is validity in doing it.

I: Ja. I would agree. I think in so much of education people . speak about children not being ready .

J: Yes.

I : ready for this or ready for that. Right from pre-primary the whole way up.

J: They do it before. It's in the standard four textbook which I've just got and er ordered and you can see that they've done it in four. It's not new.

I: Ja.

J: You know (indistinct) standard four the standard four textbook. The whole thing is . in the textbook and how it's done in four. There's a nice little exercise that I'm actually going to copy for them sometime um all done in standard four so its' not it's not an alien concept.

I: Ja, ja. Although it may also depend on a particular approach (indistinct) people haven't done that kind of thing.

J: Ja no I would agree and I don't know how it's done in four either. You know it could just be . it could just be presented and and they don't manipulate.

I: I find it quite interesting that they're doing it in four and then you're doing it again in six but now is that not repetition?

J: Ja there's a lot of overlap right through the Geography syllabus um all the way up and I'm not too sure why. Um . what actually is the case at the moment is that there is a new syllabus for five, six and seven which was not . No new syllabus in two, three and four and no new syllabus for eight, nine and ten um so presumably when the new syllabi are brought out (indistinct) but it depends on how it's tackled. I think the concept of the seasons is something which is of general (indistinct) so I suppose if you (indistinct) far more whatever I don't know of benefit.

I: Of benefit ja. Um . what you said then - You said "it depends on how it's tackled" - now that suggests also that there's quite a lot of . autonomy that individual teachers have . within the syllabus.

J: I would say so although a lot of my colleagues won't agree with me.

I: Ja I actually think you have a different view to other people.

J: Because I've been involved in syllabus committees and . I've been involved in um curriculum development and so on.

I: What has that changed about you?

J: Well it's changed my whole view of . of of my teaching. I don't think I was ever a conventional Geography teacher as such and perhaps that's why I went into curriculum development er in the first place. If I was a conventional teacher I would have been quite . content to do what I was doing um but I do think that that teachers do have um a voice in changing syllabi at this particular moment in time. I don't know how much voice they had in the past. I don't think there was much voice, but at this particular moment in time there has to be a workshop that involves that level. Many teachers don't think beyond what's on the syllabus, and therefore it's up to people who do to er make their voices heard.

I: Why don't . enough teachers think?

J: Okay um . . (laughs) maybe it's intellectual limitations to a certain extent. Um maybe it's getting bogged down in in the time limits the time constraints that they that they have.

I: I think many teachers find those overpowering.

J: Well I I as Geography teachers as a Geography teacher I would say no. Um it's not like a language where you've got masses of marking to do. It's not like History - my Historian friends tell me that they have to prepare every lesson whereas Geography tends to be . a lot of common sense knowledge that once you've prepared it, then you've prepared it. Um and I mean I change things regularly but that's through choice. I know many teachers

who are still teaching from notes that they had in the last ten or fifteen years, so I would say not necessarily. Um perhaps it's time management. Perhaps it's priorities.

I: Mmnn.

J: Many I know many of the men are very involved in sport. Um . I I do a fair amount of sport as well but I'm perhaps less involved than the master in charge of cricket who happens to be the head of the Geography department.

I: To pick up on something else you said there about um Geography being common sense knowledge.

J: Mmnn.

I: One of my questions in the lesson description

J: Yes, yes, I saw that, yes.

I: referred to the differences between Geographical knowledge and common sense knowledge.

J: Yes, ja. I think there are obviously in that particular case um there are some differences but . . . um . how to explain it. Er there weren't that many . really but . they also . their ex their experiences can be . a starting point for or should be a starting point for their . um . for for the correct content. Um for example "The sun rises" and "The sun sets" but then how do you explain why the moon is up sometimes and not at others? You know sometimes the moon's up during the day and sometimes it's up at night so . you've now got . what's the problem you know how did that how did that one fit in?

I: Ja. So you need to take it a step further than what they initially think and

J: Yes yes ja ja. In fact that picks up on one of your other questions 'cos yu asked in in why did I say "You do know. You know, you just need to think". Um . I feel quite strongly - especially in Geography perhaps - that the knowledge is inside every child. They haven't made the connections . and . they have to be helped perhaps in some cases to make those connections and they also have to be trained to use their brains to make the connections. So often they sit there 'cos it's easier to get the right answer from the teacher.

I: I've noticed a lot of your questions are training-to-use-brains-questions.

J: Well I try to develop that ja.

I: You use questions in two ways that I can see. Particularly - one is revision

J: Yes.

I: like you do at the beginning of the lesson

J: Yes.

I: drawing on prior knowledge, I think often from prior lessons.

J: Yes yes.

I: Ja I think I've picked that up, but then questions also trying to get them to notice certain things

J: Ja, ja.

I: or making connections.

J: Connections, ja. And I know one of one of the other things you said that that I was a bit surprised about that you found the pace of my lessons quite fast. I don't think they are but then obviously that will be interesting to see on the video because somehow I do so little although so much is being done. It's just another little step and then another little step so I felt the pace is quite slow. I know I talk quickly. Um but the actual pace sometimes seems to you know I don't get anywhere.

I: I know what you're talking about. You're talking about um in terms of content, in terms of the syllabus you know how far along the syllabus

J: Ja.

I: are you going and I think for me what I'm seeing is that you're using a variety of different skills

J: Yes, ja.

I: all almost together sometimes so there were very rich moments

J: Ja.

I: although you're not moving in terms of the syllabus.

J: I hear what you're saying, ja.

I: You're using a lot of different um

J: Ja.

I: aspects (indistinct) input from various areas.

J: Yes, ja.

I: I remember . that they're drawing on prior knowledge. They're making connections. They're getting new information from you

J: Yes.

I: sometimes all of that at one time. It's a very rich although you're dealing with one aspect.

J: I hear what you're saying.

I: Ja.

J: I hear what you're saying. Ja I think that probably is . a point. Maybe my brain works (indistinct) (laughs) and I know another thing is I often ask . a question which actually has three parts. Only when it comes out do I actually realise that this is actually too much for these kids. Now I need to go back .

I: Right. I noticed where you did that once where you actually said to yourself "Okay let's ask one question at a time."

J: At a time. Ja I do it often because my I've seen where I want my question to go

I: Yes.

J: so they all come out you know so then I have to and I know I mean a kid can't they can't handle three at once. (Indistinct) do but I'm aware of it so I do usually go back and break it up.

I: Yes, ja. I don't think it's necessarily too fast

J: Ja.

I: I just think the pace is . like this is more business-like if you like.

J: Ja, ja.

I: Let's get down to business rather than

J: Yes.

I: a very slow pace. In the analytical comments that I've started mentioning at the end of the lesson descriptions I actually say that there are two sections to your lessons. The first is a sort of rather fast pace but not too fast

J: Yes.

I: and the other one is much more - or the pupils have control over the pace.

J: Yes.

I: The second part of the lesson which is pupil activity -

J: Yes, ja.

I: not that there's no pupil activity at the beginning -

J: But I'm setting the pace.

I: Ja you're the focus and you're setting the pace.

J: Yes, yes, ja. Ja no I would agree with that, yes.

I: Um your questions . (indistinct)

J: Yes, yes.

I: There seems to be no pattern as to how pupils are expected to respond. I can't see

J: Ja, you asked me that but

I: but then maybe that that's the pattern - if there isn't a pattern?

J: Ja you know I thought about it for a while and it it's obviously a pattern that I've evolved at (my previous school) and tend to continue here. One of the the problems with putting up hands is the lack of spontaneity. And the other problem with naming children is that they then sit back and don't think until they're they're asked to be and although I ob I don't know names yet so that becomes a problem. You tend to interact with certain kids and also um I suppose it again is a question of pace, because if you are going to label a child who obviously hasn't got the answer and couldn't be bothered anyway, you're going to lose the ambience of the room. I mean there are times when one has to do that just to as a disciplinary measure but immediately you are losing the interest of the lesson so I would suggest that one of the reasons why I do it that way is to keep the interest and to keep the flow going.

(A section of the interview has been omitted.)

I: Question nine I think maybe fits in with what you were saying just now about um you said some pupils are really still at concrete operational stage and maybe they won't actually move beyond that but some of them seem they they ask individually now around the class and they still haven't quite made this . leap. Are you aware of a leap that they're making as you speak to them or that they can't yet make?

J: For for the abstract . ?

I: Ja from . especially I think when they're dealing with sort of um . when you were looking at um . the equinoxes

J: Mmnn.

I: and they're not quite sure about the three-dimensional character.

J: Ja it's a problem. It is a problem because they it's difficult to . to see um er a flat surface as a three-dimensional object there. Research has shown that children don't perceive seventy percent of children in standard six don't perceive three dimensionally . and that is one of the reasons why contour mapping was thrown out in the N.E.D. (the former Natal Education Department for whites) syllabus in in er standard six. Every other department does it so it looks as if it's going to come back again but it's a very very difficult um perceptual ability for standard sixes and (indistinct) and um . short of making a model which may be the answer um . it's very difficult to actually do.

I: Ja.

J: Ja.

I: Ja a model I suppose would at least give them . the idea.

J: Yes it would ja.

I: Mmnn. Ja that also brings me to the question about the globe.

J: Oh ja. No I think that was a joke.

I: It was a joke?

J: Ja I think it was a joke. It also came perhaps because a little bit earlier um (indistinct) we discussed um the meteors hitting Jupiter and, you know, what would happen if it had hit earth. Well I mean that was their question. All kids want to know

I: Yes.

J: what's going to happen to them, how it's going to affect them you know.

I: I'm sure (laughs).

J: So (laughs) so I think that sort of sprang from that.

I: But that also links up with this idea and models as well. I mean models don't

J: Yes.

I: I mean they're representations; they're not the real thing

J: Mmnn.

I: and there there's often this gap between . a diagram or even a model and then reality

J: Mmnn.

I: and um I noticed this for instance in Biology - when I was sitting in Biology lessons - it had to do with the diagram where they see cells as if it were under the microscope (indistinct).

J: Ja, ja. I think perhaps I'm aware of it again in a school (indistinct). Many of these children don't have books in the home whereas at (my previous school) that would be an automatic thing. When children are little - pre-school - they are exposed to books and they are shown a diagram of a cow and so they learn to make a connection between a a dog and a picture of a dog or a cow and a picture of a cow or whatever (indistinct). I mean some of these picture books are really very diagrammatic. You know they really don't look anything like real reality but they have symbols that indicate that this is a cow. It has udders and it has horns and it's brown and white so therefore . it's a cow. Um so I think that . children who have been exposed to that kind of thing find it easier to make that connection in Geography and we do a lot of that sort of thing. A lot of diagrammatic work, a lot of photograph work and I anticipate that there will probably be more problems with the interpretation of that amongst these children than than what we've had at (my previous school).

I: Ja.

J: Does that answer your question?

I: Ja yes no it does it does, but I've also wondered at the same time what this whole thing tells us about knowledge and

J: Ja.

I: how we think about

J: Ja.

I: knowledge.

J: You know again it depends on your view of what you're trying to do in the classroom. Are you trying to teach them content or are you trying to teach them skills? If you're trying to teach them skills then the content becomes a vehicle to teach those particular skills and the emphasis at this school . appears to be now in six and seven developing skills because . none of these children have had the skills and if they're going to be successful in eight, nine and ten it really doesn't matter what content they learn in six and seven. It really doesn't matter. So um . sorry does that answer your question?

I: Ja, ja.

J: It's my belief anyway so I I believe that (indistinct) anyway. I must admit that the emphasis of my skills has to change here from (my previous school) but I still believe that the belief is the same.

I: Yes.

J: But the emphasis here is different.

(A section of the interview has been omitted.)

I: Given that so much of your work is representation

J: Yes.

I: because you're using pictures or graphs or . um overheads one way or the other

J: Yes.

I: so given that the work is representational and given the fact that pupils find it difficult . to always see . in a representation what they've now heard about in lessons it seems that - I'll be argumentative -

J: No I don't mind at all.

I: it seems to suggest that a lot of what you're doing when you are showing pupils things is not meeting their created pictures.

J: Ja no I would agree with that. Ja no absolutely. In fact I think that goes back to something that I said earlier that um I'm trying to put myself in the mind of these children and trying to to um create for myself their mind pictures um . which are very often very different from . from mine and trying to correct them if you like, perhaps by by showing a

picture. I mean these children have never seen a real waterspout, and they're never likely to see a real waterspout either and does it really matter if they never see a real waterspout?

I: (Laughs) Ja.

J: But you know it's um. it's just . . . because what are you trying to do really? Um you're trying to . . . develop children's knowledge. You're also as I said earlier trying to develop the skill of looking at a picture and working out what it is and matching those because it's actually quite important.

I: Now that's interesting . . . "matching"?

J: Yes.

I: You're trying to match . . . ?

J: Yes.

I: representations with reality and trying to match representations with reality and pupil . . . thinking?

J: Well that that's what I'm trying to do.

I: What you're trying to do.

J: Ja it's definitely a triangular thing 'cos what pupils . . . what I say I might - I'll never forget once . . . um a child asked me what a quarry was. I mean now that to me is something that every child knows. I don't know how (laughs). Somehow they're just supposed to know that and I tried to describe it and I . . . actually couldn't describe it. I found it quite difficult to describe - it's a hole in the ground that where people dig rock out of.

I: Ja.

J: Well what do you expect to see? Just a big hole in the ground like the Kimberley Hole? (Pause) I I actually battled to describe it you know. It's such a silly thing. I can close my eyes and see a quarry straight away.

I: Ja, me too. Do you think that this problem . . . is unique to Geography?

J: No I'm sure it's not but I think it's something that that Geography has a has a vital role to play because much of knowledge is represented graphically now rather than verbally. You pick up a *Time* magazine and there's an article on the ecology of South Africa and there'll be written words and there'll be graphs and the graphs will tell you something far quicker than having to sit down and read the article. Um Johannesburg . . . a photograph of

Johannesburg can tell you far more than a whole written article in the newspaper so I think that that is something that that is a role that Geography can play in educating children.

(A section of the interview has been omitted.)

J: Ja. One of the things that you also um mentioned . about which I find very interesting and and is that I don't . praise or compliment after . er and I found that quite interesting because . obviously I don't - again it's maybe something to do with the flow of the lesson or whatever I don't know. I also sometimes battle to hear the girls. That's one of the reasons why I walk down . to the back of the classroom. They they the accents are poor er or not poor - that's a qualitative statement .

I: They are different?

J: They are different, yes, and I'm not used to (indistinct). Their diction is poor - maybe that's what it is not the accent. The diction is poor. They tend to mumble and that's true of most kids, not just kids here. They all tend to mumble under their breath you know or muffle an answer through the back of their hand.

I: Ja.

J: And so I do tend to move towards them when they are speaking to pick up what they're saying.

I: Ja I've noticed a couple of times when you've done that and once or twice I've wondered whether you have heard because you kind of (indistinct)

J: I haven't . always.

I: whereas sometimes you or most of the time you actually integrate answers or

J: Ja.

I: repeat it.

J: Yes, ja. There are times and it isn't always worth labouring it

I: No.

J: because it again it makes the child embarrassed or or what have you.

I: Yes.

J: There are times when I don't always hear what the child has said

I: Ja.

J: and then I may just gloss over it and

I: Ja.

J: and jump on to something else simply because I don't want to . embarrass the child by making it look I mean I've had cases where I've had to get the child to repeat it three times and eventually somebody . had to interpret . for me you know so

I: Yes.

J: it isn't always worth that kind of embarrassment to the child. And it's my fault not their fault that I'm not hearing them. So hopefully as my ear becomes more attuned to them, I'll be able to hear them better.