

**A STUDY OF KNOWLEDGE REPRESENTATIONS
IN
GRADE 6 HISTORY TEXTBOOKS BEFORE
AND AFTER 1994.**

**Submitted in partial fulfilment of the requirements
for the Degree of
Master of Education (Curriculum Studies)**

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by

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Abstract

The purpose of this study is to investigate how the knowledge structures in Grade 6 History textbooks have altered since 1994 and how learners in History may be inducted differently into the discipline of History. The transformation from a ‘content-heavy’ to a ‘skills-based’ History curriculum, and the teaching of History as a ‘mode of enquiry’ has resulted in an altered form, shape and character of History, as it exists in the learning area of the Social Sciences in the National Curriculum Statement.

Bernstein’s concepts of curricula types and discourses as well as Bertram’s ‘historical gaze’ have been used to frame the study. Bloom’s Revised Taxonomy has been used to identify knowledge types and the cognitive demand of the textbooks. This study is located within the interpretive paradigm using the methodology of content analysis. It utilises the mixed-mode approach, combining both qualitative and quantitative methods. The sampling of the four textbooks (data sources) was purposive due to their popularity, accessibility, publication and prestige. Similar content in the chapter on the “History of Medical Science” was analysed across all four textbooks. Whilst the expectation of the NCS is one of high skill and high knowledge, the findings show that there seems to be a lack of congruence between curriculum requirements and textbook representations. An analysis of the two new textbooks indicate that both content of History (substantive knowledge) and historical procedures (procedural knowledge) are in danger as everyday knowledge is prioritised in its integration with substantive History knowledge in Grade 6 History textbooks. The content analysis also reveals an undeveloped sense of chronology; space and time which has implications for History learners and their appropriate induction into the discipline of History.

Key Words: everyday knowledge, school knowledge, procedural knowledge, substantive knowledge, integration, History textbooks.

Declaration

I, Pranitha Bharath, declare that this Master of Education (Curriculum Studies) dissertation is my own work and that all sources have been appropriately acknowledged. This dissertation has not been submitted to any other institutions as part of an academic qualification.

The research was conducted in Pietermaritzburg at the University of KwaZulu- Natal in the partial fulfilment of the requirements for the degree of Master of Education under the supervision of Dr. C. Bertram.



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PIETERMARITZBURG

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Table of Contents

| | |
|--|------------|
| ABSTRACT | II |
| DECLARATION | III |
| ACKNOWLEDGEMENTS | VI |
| ACRONYMS: | VII |
| CHAPTER ONE..... | 1 |
| INTRODUCTION..... | 1 |
| 1.1 Purpose of Study:..... | 1 |
| 1.2 Rationale for the study:..... | 2 |
| 1.3 Background to the Study | 3 |
| 1.3.1 General educational changes in South Africa..... | 3 |
| 1.3.2 Changes to the History curriculum in South Africa..... | 4 |
| 1.3.3 Issues of textbooks in the revision of curriculum | 6 |
| 1.4 Key Research Questions | 7 |
| 1.5 Overview of the Dissertation: | 8 |
| CHAPTER TWO..... | 10 |
| REVIEW OF RELATED LITERATURE..... | 10 |
| 2.1 Introduction | 10 |
| 2.2 Nature and purpose of History..... | 11 |
| 2.3 The History curriculum in the years of apartheid | 12 |
| 2.4 The new direction of the History curriculum in South Africa | 14 |
| 2.4.1 Educational policy changes and the History curriculum post apartheid | 14 |
| 2.4.2 Revising teacher's roles..... | 19 |
| 2.4.3 The new form, shape and character of the new History curriculum | 19 |
| 2.5 Teaching the new curriculum | 23 |
| 2.6 Textbook studies..... | 24 |
| 2.6.1 The role of textbooks..... | 26 |
| 2.6.2 The Changing History text | 27 |
| 2.6.3 Methods of analysing textbooks | 28 |
| 2.6.4 Selecting the appropriate text | 30 |
| 2.7 Learning History though the text..... | 33 |
| 2.8 Conclusion..... | 36 |
| CHAPTER THREE | 37 |
| THEORETICAL AND CONCEPTUAL FRAMEWORK..... | 37 |
| 3.1 Introduction to the chapter..... | 37 |
| 3.2 The theories of Bernstein..... | 37 |
| 3.2.1 Bernstein's theory of knowledge and curriculum | 37 |
| 3.2.2 Everyday knowledge and School knowledge | 38 |
| 3.2.3 Bernstein's models of Curriculum | 39 |
| 3.3 History as a specialised discipline | 41 |
| 3.4 Theories of knowledge and the South African discipline of History | 45 |
| 3.5 Conclusion..... | 48 |
| CHAPTER FOUR..... | 49 |
| RESEARCH DESIGN AND METHODOLOGY | 49 |
| 4.1 Introduction to the chapter..... | 49 |
| 4.2 Epistemological and ontological assumptions | 49 |
| 4.3 Sampling..... | 50 |
| 4.4 Content Analysis | 53 |
| 4.5 Quantitative Analysis | 54 |
| 4.5.1 The construction of an analytic tool | 54 |
| 4.5.2 Knowledge representations as coded in History Textbooks | 56 |

| | | |
|---|--|------------|
| 4.5.2.1 | Tabularised form of the Analytic Tool | 56 |
| 4.5.2.2 | The tool applied to all texts constituted a series of four steps: | 57 |
| 4.6 | Exemplar of Analysis | 73 |
| 4.7 | Limitations and Reliability: | 78 |
| 4.8 | Conclusion | 82 |
| CHAPTER FIVE..... | | 83 |
| FINDINGS..... | | 83 |
| 5.1 | Introduction | 83 |
| 5.2 | A Qualitative analysis:..... | 83 |
| 5.2.1 | Text A: <i>History 2000</i> , Standard 4 (1983) | 83 |
| 5.2.2 | Text B: <i>History is about change</i> , Standard 4 (1982) | 86 |
| 5.2.3 | Text C: <i>New Day-by-Day Social Sciences</i> , Grade 6 (2004)..... | 89 |
| 5.2.4 | Text D: <i>Shuters Social Sciences Grade 6 Learner’s Book</i> (2009)..... | 91 |
| 5.2.5 | A qualitative comparison of knowledge in all four textbooks | 94 |
| 5.2.5.1 | Double-pages selected from the four textbooks for knowledge comparison | 95 |
| 5.2.5.2 | Similar portions of all texts selected for comparison..... | 100 |
| 5.3 | Quantitative analysis..... | 103 |
| 5.3.1 | Knowledge representations..... | 103 |
| 5.3.2 | Cognitive Processes Expected | 109 |
| 5.3.3 | Analysis of Images | 113 |
| 5.3.4 | Language Mediation Tool-boxes | 116 |
| 5.4 | Conclusion | 116 |
| CHAPTER SIX..... | | 118 |
| DISCUSSION..... | | 118 |
| 6.1 | Introduction to the chapter..... | 118 |
| 6.2 | Reduction of substantive knowledge | 118 |
| 6.3 | Prioritising of everyday knowledge | 119 |
| 6.4 | Procedural knowledge | 121 |
| 6.5 | Provenance of sources | 121 |
| 6.6 | Increase in inclusivity | 124 |
| 6.7 | Decreased cognitive demand | 125 |
| 6.8 | Greater emphasis on oral tasks than written | 125 |
| 6.9 | Recommendations | 127 |
| 6.10 | Conclusion | 129 |
| REFERENCE LIST | | 132 |
| APPENDIX A: SHUTER & SHOOTER PUBLISHERS APPROVAL | | 141 |
| APPENDIX B: MASKEW MILLER & LONGMAN PUBLISHERS APPROVAL | | 142 |
| APPENDIX C: NASOU VIA AFRIKA PUBLISHERS APPROVAL | | 143 |
| APPENDIX D: OXFORD UNIVERSITY PRESS PUBLISHERS | | 144 |
| APPENDIX E: ETHICAL CLEARANCE CERTIFICATE..... | | 145 |

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Acronyms:

| | |
|--------------|--|
| DoE | : Department of Education |
| C2005 | : Curriculum 2005 |
| CUNY | : City University of New York |
| FET | : Further Education and Training |
| GET | : General Education and Training |
| HSS | : Human and Social Sciences |
| JET | : Joint Education Trust |
| LTSM | : Learning and Teaching Support Materials |
| NCS | : National Curriculum Statement |
| NQF | : National Qualifications Framework |
| OBE | : Outcomes-Based Education |
| RNCS | : Revised National Curriculum Statement |
| SAHP | : South African History Project |
| SID | : Specific Instructional Discourse |
| SRD | : Specific Regulative Discourse |
| SS | : Social Sciences |

CHAPTER ONE

Introduction

The function of this introductory chapter is to outline the purpose of the study, to describe the rationale and to provide a general background to the study. It includes a description of the changes to the South African curriculum after 1994. It also considers the format of the new History curriculum as it is encapsulated in the Social Sciences learning area of the *National Curriculum Statement (NCS)*. The central role of the textbooks in the curriculum is also foregrounded. All of the discussions are directed by the research questions which are explicitly stated in this chapter. Finally, an overview of the dissertation is provided to exemplify the format of the thesis.

1.1 Purpose of Study:

The purpose of the study is to investigate the knowledge structures that are represented in Grade 6 History textbooks before and after 1994. The interest after 1994 is pertinent to those textbooks prepared to represent the History section of the Social Sciences Learning Area in the NCS. The study examines the curriculum and textbook reform in the subject of History. The research is essentially a comparative study of textbooks over time. The years of publication of the textbooks are carefully selected time-markers to explore how History textbooks feature knowledge in different decades, noting the considerable transformation in education, the curriculum and more specifically the History curriculum in these decades.

The current study analyses textbooks before and after 1994 with the objective of understanding changes in knowledge structures. It attempts to show how different textbooks, because of the nature of their knowledge types, structures and their tendency to privilege some types over others, can influence and induct learners differently into the discipline of History. Recent research in the realm of knowledge construction in other fields is also fundamental to the understanding of the effects and trends of curriculum transformation. The extent to which historical knowledge (content of History) and procedural knowledge (skills in History) feature in the GET (General Education and Training) band can significantly affect how learners deal with the subject of History in its specialised form in the FET (Further Education and Training) band.

The FET has clear guidelines about History as a “construction” and the emphasis on working with sources creates questions around how the content and foundational work with sources in the GET unfolds.

1.2 Rationale for the study:

My own interest in doing this research is driven by my experience as a History teacher of 20 years as well as my honours background in History. The distinct change in the knowledge content in South Africa’s transformation curriculum prompted me to investigate how knowledge has been affected. It seems that History as a discipline has become more technically-orientated. There may be a greater emphasis on generic or everyday knowledge than on substantive knowledge. There may be implications in the form of these presentations.

My discussions with my Grade 6 learners indicate that they do not have a well-developed idea of History as I knew and understood it. They also appear to know very little about their own family History as though it is no longer significant to have this knowledge. Their ideas of the past are superficial. They appear to have incomplete understandings of events and time. I spend a great deal of time preparing them for the topic they have to study so that they have a better conception of History. My concern is that learners are not obtaining all the necessary detail which is a pre-requisite for understanding the past. This study is based on the assumption that textbooks are the primary source of material for teachers in the new curriculum.

I consider it a worthwhile exercise to investigate the change in History textbooks given the fact that both textbooks and the delivery of History education in classrooms have been revised over the past few years. I utilise the sociology of knowledge perspective, not the perspective of a historian whose aim it is to interrogate History content. I do not ask questions around historical content. My concern is about knowledge structures. The *raison d’être* of research is to generate new knowledge and textbook analysis concerning knowledge representations is a fairly new field for History in South Africa. Textbooks should not be uncontested versions of the past but should open up discussion and debate (Lindmark & Holmgren, 2009). They should be investigated to determine

whether they do, in fact, satisfy the requirements of the national curriculum. The quality of content in educational material in schools must be public concern. There should be constant and continual review of printed material so that learners, acquiring fundamental knowledge, receive material that is of academic standard while it is updated and contemporary.

1.3 Background to the Study

1.3.1 General educational changes in South Africa

South African curriculum change involved an initial ‘cleansing’ of the curriculum to remove the racist content of the past. It then implemented Curriculum 2005 (C2005) which encountered criticism and problems associated with its implementation. A subsequently *Revised National Curriculum Statement (RNCS)* came into existence. Before 1990, South African curriculum policy was characterised as “racist, Eurocentric, sexist, authoritarian, prescriptive and discriminatory” (Jansen, 1999b). Since April 1994, the national Department of Education introduced a number of educational policies that aimed at transforming education in South Africa (Hoadley & Jansen, 2002). Curriculum intervention, in the form of post-apartheid Curriculum 2005 (C2005) aimed to emphasize competencies rather than subject content, while redressing issues of inequalities and injustices of apartheid education.

C2005 advocated an integrated approach to learning as opposed to the disciplinary, subject-based approach of the past. In addition, it involved a radical reorganisation of knowledge in the GET Band, as subjects were fused into learning areas and taught thematically. The focus shifted to knowledge the learners brought to class, on everyday knowledge and the relevance of everyday life to knowledge taught in class (Hoadley & Jansen, 2002). C2005, strongly criticised for its strength on integration and weakness on conceptual coherence, failed to give structured guidelines around sequence, progression and pacing. The absence of core content created possibilities for teachers to lose areas of key knowledge. A subsequent streamlined RNCS (Grade R-9) was introduced in 2002 to explicitly address these weaknesses. This is the NCS that is presently used in South Africa. The changes in the general curriculum involved a re-organisation of the History curriculum at various points.

1.3.2 Changes to the History curriculum in South Africa

The form, shape and character of History, as it presently exists in the Social Sciences in the NCS, can only be understood by tracing the many changes that the History curriculum has experienced.

The effect of government policy in the 1990s resulted in the de-emphasis of History in schools and tertiary institutions (Chisholm, 2002). The first version of C2005, emerging in 1997, represented the fusion of History with Geography into Human and Social Sciences. This learning area had a combined set of outcomes and did not distinguish between History and Geography. The incorporation of History into the Human and Social Sciences was perceived as the confirmation of the marginality of the discipline (Report on History & Archaeology, 2000). History and a limited level of Archaeology were diluted in a disciplinary sense. Proponents of the integration supported the idea that History should not have a separate status in the junior phase (Chisholm, 2002). History curriculum change can best be described as the transition of knowledge from the 'traditional' or 'content-heavy' approach to the Outcomes-Based or 'skills-based' approach. New approaches entailed greater interpretation, debate and critical thinking while building new types of 'content' or 'knowledge' (Report on History & Archaeology, 2000).

In discouraging methods of rote learning in a subject-based, content-laden curriculum, the challenge lay in creating a History that challenged racism and sexism through teaching historical skills and knowledge (Chisholm, 2002, p. 184). In re-writing the History curriculum, historical skills and knowledge had to be taught to learners without the subject bias, content-laden and rote learning characteristic of the past curriculum. History was viewed as a subject that reinstated apartheid and History textbooks were viewed as instrumental in legitimating and promoting apartheid (Chisholm, 2008; Ndlovu, 1993).

The *Report on History and Archaeology* (2000) subsequently revealed a crisis in History studies in South Africa which itself was "consciously remaking its current History" (2000, p. 3). Reporting on the erosion of History as a discipline, it recommended that there was a need for critical and valuable History knowledge and that texts representing this discipline had to make explicit the notion of History as a debate and interpretation rather than prescription. However, the pressing concern was that the

curriculum was not effectively explaining the formation of the present. History was seen as important not only in itself, but the knowledge of the past was seen as crucial to the understanding of the present (History and Archaeology Report, 2000). Students needed criteria by which to judge the present. According to the *Report on History and Archaeology* (2000, p. 8), “we live in a society in which contemporary issues are continually understood and judged within the context of a past which has bequeathed a violent legacy of conquest, colonialism and apartheid”. It is imperative that learners be exposed to all facts so that they are allowed to interpret it and formulate their own judgements.

The crisis in History and in the general reception of C2005 resulted in a review. Recommendations by the Review Committee resulted in specific attention to content, systematic conceptual coherence and progression. According to Chisholm (2003), the debate about content was most strong about the content of History. She identifies three approaches of this debate, that there should be no content, that should be some content and whatever content there was should create a basis for challenging racism and sexism in new and creative ways through being embedded in skills and values.

The subsequent RNCS for Social Sciences in GET combined History and Geography into a single learning area. However, History and Geography had their own set of outcomes. The focus in the History curriculum of the NCS is on ‘doing History’ in the local community through the infusion of values, human rights and indigenous knowledge systems (Bertram, 2008b). This transformation was effected to facilitate the teaching of History as a “mode of enquiry” rather than a ‘body of knowledge’ (Bertram, 2008b). Whilst working with oral and written sources, learners would be able to develop interpretations of the past thereby developing critical thinking. Learners are required to locate evidence and to formulate interpretations based on the cumulative study of the evidence. In a sense, the idea of History as a ‘human construction’ is created where learners demonstrate not only ‘what’ they know but also ‘how’ they know. This type of critical thinking encourages learners to reflect, hypothesize and make deductions. The content learners are exposed to in History in the GET band should prepare them for the History that is taught as an independent disciplinary subject at the FET level. Foundational History (History in the early or primary years or the GET band) sets the grounding or scaffolding for an academic discipline. The concern of this study is

whether the History in the Social Sciences textbooks fully supports these curriculum requirements.

1.3.3 Issues of textbooks in the revision of curriculum

Successful implementation of a curriculum that displays this sense of ‘construction’ depends on effective support materials. “The place of the History textbook cannot but remain central to the cause of an improved History education”. (Report on History and Archaeology, 2000, p. 13). Some textbooks are used by teachers regardless of approaches they use because they are cheap, accessible and a teaching resource that can be used anywhere, inside or outside of the classroom. They are also purchased in bulk for the use of learners. Teachers, implementing a new curriculum, may be unsure about their own knowledge and may utilise textbooks even though they are inadequate.

Changes in the History curriculum have resulted in changes in textbooks, their methods, and approach as well their style. Textbooks have been adapted to academic historiographical changes and for their utilisation in schools. This is done because there is consensus that textbooks form essential teaching and learning support material. The previous curriculum and its texts were intended to be abandoned in favour of new texts representing the Outcomes-Based approach. ‘Alternate’ (new approach) textbooks of the 1980s were already representing a content change, espousing a ‘skills-based, discipline-led pedagogy’ (Siebörger, 2000). According to Siebörger (2000), these books were not widely used but did provide a model for future textbooks.

Presently, the Department of Education provides a catalogue for the procurement of *Learning and Teaching Support Materials* (2009) which is the official list of textbooks. Teachers use this list to make their own choices. The textbooks must be examined to ascertain the extent to which they follow curriculum specifications, recommendations and guidelines. In certain cases, they appear as though they represent the new curriculum but in fact do not. Only research and analysis like the present one can reveal patterns and tendencies in these texts.

Many studies in textbooks (Naidoo, 2009; Bertram, 2008; Foster & Nicholls, 2005; Mckinney, 2005; Kros, 2002; Gregg et al. 1998; Pritchard, 1995; Hummel, 1988; Dean et al. 1983) are directed at the FET band but few focus in the GET band (Engelbrecht, 2008). History is especially significant in its formative years (GET band) as it prepares the learner for the induction into History as a discipline when they may pursue it later as a career. This structure of the discipline of History is composed of both process and content dimensions (Dean, 2004). Dean (2004) cites Schwab's (1978) distinction of 'substantive' and 'procedural' History. 'Procedural' being the 'know-how', the methodology of historians or the procedures for conducting historical investigations and 'substantive' being the 'know-that', statements of fact or concepts of History constructed by historians in their investigations. Bertram (2008c) contends that learners will have to acquire both substantive and procedural knowledge as they represent fundamental and inter-linked aspects of History in order to be appropriately inducted into the discipline of History.

1.4 Key Research Questions

South Africa's first democratic election in 1994 has resulted in political and educational reform. A paradigm shift involved radical educational restructuring. A system that was largely Eurocentric changed to one which is said to be more inclusive and in line with the requirements of the Constitution. Whilst the *Report on History and Archaeology* (2000, p. 8) indicated that "History is a distinctive and well-established academic discipline with its own methods and discourses", the History content and pedagogy in the present NCS is significantly different from that which existed in the previous dispensation. History ceases to appear as a separate and independent subject in the GET, becoming a subject only in the FET band. The question is then whether the GET History curriculum, as reflected in Social Science textbooks, is actually preparing or 'scaffolding' learners sufficiently to cope with the discipline requirements later in the FET. The curriculum is quite explicit about the use of sources and the methods for interrogation thereof in order to arrive at conclusive arguments. The area of concern is whether these methods are adequately represented by textbooks. This study focuses on how textbooks present this knowledge to learners and assesses how knowledge has shifted in its emphasis. It examines the effect of the knowledge emphasis on learners' induction into the discipline of History.

The critical question of this research is:

1. To what extent do a range of Grade 6 History textbooks induct learners into the discipline of History?

Further sub-questions defining the parameters of the research are:

- 1.1. To what extent is everyday knowledge emphasized in these textbooks?
- 1.2. To what extent is substantive or procedural knowledge emphasized in these textbooks?
- 1.3. What is the cognitive demand and nature of the tasks?
- 1.4. To what extent is inclusive knowledge and Eurocentric knowledge featured in the textbooks?

1.5 Overview of the Dissertation:

The function of this chapter is to provide a description of the format of the thesis. I use Chapter one to clarify the purpose of the study. I define the rationale and justification for the study in a South African context. The background to the study is also detailed to show how educational policies have impacted on the changing features of the History curriculum. The key questions that direct the study are then presented. The integral role of textbooks is also fore-grounded. Finally, I categorise and distinguish between knowledge structures which form the fundamental framework for the thesis.

Chapter two reviews literature in the field of study. I examine the nature and purpose of History as well as the changing form of the History curriculum. The significant role of History textbooks and its use by teachers is considered. I also view how learning could be affected by the structure of the text. While I trace the developments in textbook research in international studies, I also note their methods of textbook analysis. My perspective, as one from the sociology of knowledge, is made explicit. The chapter discusses the assessments standards and knowledge focus frameworks of the NCS as well as describes how current textbook selections take place.

Chapter three exemplifying the theoretical framework establishes ideas of historical knowledge as two continua. The idea is created of historical knowledge as everyday and academic knowledge along one continuum. The idea of historical knowledge as substantive and procedural knowledge along another continuum is also created. The

theoretical framework exemplifies the theories and concepts that inform the study. The study is described as inculcating the eclectic approach which selectively combines Bernstein (1999) and Bloom's Revised Taxonomy (Krathwohl, 2002). Schwab's (1978) distinction between the concepts of procedural and substantive knowledge as well as Bertram's (2008c) 'historical gaze' is used to establish the features of History as a specialised discipline. It also views the Eurocentric or Inclusive nature of pre-1994 and post-1994 History textbooks.

The methodological chapter exemplifies the paradigm in which I place myself as well as the procedure and tools I use to identify, capture and analyse data. The process I use to analyse the textbooks is also detailed. The discussion and justification for the methodology and methods employed in this study are clarified. In this chapter, I state my ontological and epistemological assumptions, describe the construction of the analytic tool and provide salient examples to make explicit the tool being used in the study. The limitations of the study are also defined.

In the 'Findings' chapter, I provide both a qualitative and quantitative analysis of data. Exemplar pages from the four textbooks are included to portray the qualitative features of the analysis. Analysis of pages from another text is used to exemplify the analytic tool. Similar content from each text in this study is then extracted to demonstrate the differences in the physical presentation of knowledge in the textbooks. The quantitative data are represented on tables which are then scanned for the types of information they presented in the numbers. The table configurations facilitated discussions and descriptions about the appearance and features of the data.

Finally, Chapter six presents the overall discussion on the qualitative and quantitative data. It uses the data to describe trends and patterns in the data. Descriptions and discussions about the textbooks are then facilitated in the final conclusion. The concluding discussion links previous studies and their results with the present one and provides detail on how this study supports past research. The final chapter answers the research questions of this study.

CHAPTER TWO

Review of Related Literature

2.1 Introduction

This study focuses on the knowledge representations in History textbooks over a period of years during which South Africa experienced and overcame apartheid, achieved democracy and overhauled its education system. It attempts to investigate how knowledge is structured differently in Grade 6 History textbooks as a result of major curriculum changes. Equally important, it considers how learners in History may be influenced by the different knowledge structures.

The literature review describes the changing role of History in response to new views, technological advancements and global influences. The review presents a critical examination of existing educational research in the study of History as well as identifies gaps and silences on issues that relate to the critical questions of the research. ‘Alternate’ views of History teaching that originated in the United Kingdom and the United States of America eventually reached South Africa, contributing to a shift in methodology and the approach to the teaching of History. These views challenged the relevance and value of History, as subjects in the GET band disappeared into learning areas which were considered to be of more use to the learner in the world of work.

In this chapter, I will consider how History has become redefined and how its nature has evolved from the study of the past (content-based) to one which is seen as more practical and useful (skills-based). I will then consider how the changed elements of History have affected the role and features of the History curriculum and the textbooks that represent it. The profound role of teacher in the utilisation of the textbook in the ‘new’ period of History is also considered. Both the conceptual framework, being developed in this literature review, and the theoretical framework, in subsequent chapters, will present terminology for and selection of appropriate tools for mapping the methodological route and later data analysis.

2.2 Nature and purpose of History

The nature and purpose of History is indeed a complex one. According to Mathews, Moodley, Rheeder & Wilkinson (1992, p. 3) History is derived from a Greek word 'historia' meaning 'enquiry'-a search for the truth. Nineteenth century historians believed that it was possible to arrive at the 'historical truth' by examining the evidence of the past. History was the study of the past 'as it was'. This traditional view of History is the idealised 'objective' model which contrasts with the late 20th century 'relativist' outlook where 'fact' and 'objectivity' are challenged. Marxism, interdisciplinary connections, feminism and post-colonialism undermined this traditional view. A more contemporary, tentative form of 'knowledge' has replaced earlier certainties with the realisation that 'objectivity' in History is impossible.

Postmodernist theories question the validity of 'truth certainties' and are of the view that there is no single position from which the study of the past can be told (Southgate, 1996, p. 7) History, according to Southgate (1996), becomes no more than a tentative hypothesis underpinned by a specific purpose. An historian describing an event may foreground certain details he considers relevant while other details become part of the background. A scientist can repeat experiments and gain a higher objectivity, whereas historian cannot predict with any certainty. History, by its very nature is therefore different from science. The epistemology of a subject like History can be understood in two different ways. The one way would be to recognise it as 'fairly objective' and the other is to recognise the 'constructed' or 'subjective' nature of the discipline. It might seem contradictory that History can be viewed as 'objective' and 'constructed' but it is possible to formulate interpretations and conclude arguments by understanding the complex human element in History. Historians can therefore interpret the same evidence in different ways and conclude their arguments differently. Bias, prejudice and different beliefs may produce different interpretations of the same past. The craft of the historian is to excavate below the surface of events they are investigating and establish more about the 'why' of the event (Mathews et al., 1992).

In the post-modern context, History students are taught to question and criticise. Bertram (2008b, p. 256), drawing from Husbands et al. (2003), identifies this approach to the teaching of History as 'alternate' which she contrasts with the 'older' or 'great

tradition'. The 'great tradition' involved History being seen as a narrative where facts were chronologically presented and History was 'what happened'. While the traditional approach emphasized the 'knowing' of History, the 'alternate tradition' concerned the 'doing' of History. In Britain, the 1970's constructivist model of History presented the discipline as inclusive of a variety of groups of people in world History, focussing on historical skills. Learners were taught to embrace historical ways of thinking; sources had to be used in specialised ways so as to develop learner skills of inquiry and critical thinking (Bertram, 2008b). Within this approach relevant, topical and even controversial issues could be used as historical content by the teacher to initiate debate and foster critical thinking. In my opinion, the 'new' definition of History as a "reconstruction of past events, through a dialogue between surviving evidence about the past and existing analytical, theoretical and political concerns in the present" (Mallon in Leinhardt, Beck, & Stainton, 1994) best represents the reconceptualisation of History and the new route that History teaching has taken.

Many problems associated with the teaching of History have been attributed to the misconceptions of its true nature. Before 1960, when History was traditionally viewed as a subject that prioritised facts, both the United Kingdom and South Africa followed the chronological approach to the teaching of History. Facts were highlighted by prominent historians and were recorded in print. The shift occurred from the content-based approach to a methodology which reveres skills, concepts and attitude formation. Henceforth, the subject had to be taught in a stimulating and relevant manner. Such transformations in History have produced far-reaching changes in the way History is taught around the world. The History curriculum itself has undergone a radical make-over. The transformation can best be understood by viewing the History curriculum during the last ten years of apartheid and then comparing it with the infant years of democracy.

2.3 The History curriculum in the years of apartheid

During the late 1950s up to the early 1980s and 1990s, pedagogy in South Africa reflected principles of the Christian National Education. Dean, Hartmann & Katzen (1983) purport that earlier interpretation of History presented South African History from a white point of view. Dean et al. (1983, p. 17) argue that "until fairly recently, a

historical paradigm, which makes the assumption that History of South Africa began with White settlement, held undisputed sway”. In the nineteenth century and early twentieth century, History was presented from a British point of view and other White groups, like the Afrikaners were underplayed.

The end of the nineteenth century saw the rise of political Afrikaner consciousness. Afrikaner interpretation of History stressed the role of Afrikaner heroes and events such as the Great Trek and the Anglo-Boer. Ndlovu (1993, p. 18-19) argued that the content and form of assessment was dominated by apartheid ideology and that even producers of textbooks were dominated by Afrikaner Nationalist supporters, producing books that supported this ideology. According to Chisholm (2008), textbooks played a critical role in legitimating and promoting apartheid. Textbooks were prescribed for schools. Schools were not allowed to choose their books but had to indicate the number of books required. This prevented other textbooks from being utilised as prescribed books in schools, including those that represented alternate methodologies. Essentially, the curriculum during the apartheid years reflected History as a compulsory school subject from standard 2-7 (Grade 4-9). It was an optional subject from standard 8-10 (Grade 10-12). The content was divided between general and South African History. The general History was Eurocentric and contained very little History on Africa. Content comprised facts that had to be memorised and reproduced for testing purposes.

The shift towards a skills-based approach to the teaching of History in South Africa was influenced by a progressive movement in Britain in 1974. Identified as the Schools’ Council Project, this movement aimed to re-consider the nature and relevance of History, effectively replacing the chronological and factual approach to the teaching of History with a skills-based one. This movement, away from the sterile content-based approach to a skills-based methodology in the 1970s, officially reached South Africa in the 1980s and 1990s. The ‘new’ trends did not reach all South African schools immediately. Bertram (2008b, p. 157) contends that the ‘alternative’ approach to History was “adopted in South Africa in some independent schools and some House of Assembly and House of Delegates schools in the early 1980s, particularly in the Transvaal, Natal and Cape”. Morrel (1990) argues that a new series of textbooks called *History Alive* in 1987 included more source-based activities than other books at that time which were content-heavy. These were the revisionist, progressive authors and

publishers in South Africa who were already using content and skills to develop the learner. This is indication that some South African authors were already conforming to global trends in History teaching. The textbooks were not used by all schools and did not receive enough publicity or attention with regards to the pace that they were already setting in the field of History.

2.4 The new direction of the History curriculum in South Africa

In South Africa, the impact of educational and curriculum changes has resulted in the alteration of the shape and features of the discipline of History. In line with policy, curriculum content was revised, racial and incorrect content were removed and textbooks were also revised to embrace the transition to a skills-based framework (Beets & le Grange, 2008, p. 69). The ‘new’ History encouraged students to consider the nature of historical evidence and then construct narratives from various forms of evidence. History then becomes a continual process of argument where there are no answers but good coherent arguments (Wilson, 1999). In order to develop historical understanding learners need knowledge of ‘how’ historical accounts are constructed. The ‘new’ outcomes-based paradigm in South Africa took shape as a result of a range of educational policy changes. Further changes to educational policies resulted in the discipline of History changing its form, nature and character. The impact of these changes is described below:

2.4.1 Educational policy changes and the History curriculum post apartheid

The new form of the History curriculum was directly influenced by educational policy. The rise of democracy in 1994 and the quest to remove the ravages of apartheid have resulted in sweeping educational reforms. South Africa’s decision to embrace a new outcomes-based resulted in a paradigm shift effectively presenting alternate frameworks for curriculum designers and different teaching methodologies for teachers to use. Educational policy and subsequent change to school History can be said to have taken place in three phases (Beets & le Grange, 2008). I define these phases as:

Phase 1: The introduction of the Interim Core Syllabus in 1996,

Phase 2: The introduction of Curriculum 2005 (Grade R-9) in 1997 and,

Phase 3: The adoption of the Revised National Curriculum Statement (RNCS) (Grade R-9) in 2002.

The RNCS is the NCS being used in South African schools (Beets & le Grange, 2008). It is important to mention that each of these phases impacted differently on the form and character of History as a discipline.

Several Acts and Bills were passed to transform the apartheid ravaged educational system to one of democracy. There were many debates over the new curriculum and how it could reflect the principles of the South African Constitution and Bill of Rights (Siebörger, 2000). The first phase involved the removal or the ‘cleansing’ of the curriculum of its racist and sexist content (Chisholm, 2008; Jansen, 1999; Seleti, 1997). The second phase introducing C2005, excluded History as a distinct subject or discipline. Traditional boundaries and subject divisions collapsed and 42 school subjects were integrated into eight learning areas in the form of Arts and Culture, Human and Social Sciences, Life Orientation, Language, Literacy and Communication, Mathematical Literacy, Mathematics and Mathematical Sciences (Beets & le Grange, 2008). The educational policy proposals for an Outcomes-based approach created the platform for renewed pedagogy, curriculum content, resources, technology and assessment.

History became incorporated into the Human and Social Science (HSS) learning area, together with geography. History in C2005 entailed a more integrated approach in the earlier years and became a more specialised curriculum in the senior years. History took on this shape because many people recognised the role played by academic disciplines in society but were somewhat sceptical about History which they considered irrelevant in preparing students for the market place (Seleti, 1997, p. 56). Seleti (1997) argues that the apartheid government had to a large extent distorted History by its racial, content-heavy approach and rendered it unpopular among learners. In fact, “many pupils abandoned the History classroom as fast as their legs will carry them at the first available exit point – Standard Seven” (Chisholm, 2008, p. 12). It was this negative view of History which propelled the virtual transformation of the subject.

The historical ‘truths’ of apartheid were repudiated for their subjective alignment with a Eurocentric perspective (Dieltiens, 2005). The new government sought to eradicate these features. According to Seleti (1997), the new outcomes based framework of education after the birth of democracy, reconstructed knowledge in the History

curriculum in the Human and Social Sciences for political rather than pedagogical reasons. While many educational administrators had removed History as a core-subject, Zimbabwe, Angola and Mozambique had not done this. This decision may have been based on the value and the relevance that they had attached to the subject of History. The integrated Human and Social Science, however, received much criticism from various quarters. Seleti (1997) contended that the integrated Human and Social Science “will leave us with a superficial pedagogy, a mish-mash”. In Botswana, Parsons (1996) as cited by Seleti (1997, p. 58), reported a “lack of basic knowledge and skills among incoming History and Geography students who had done ISS (integrated social studies) to junior secondary level”. Parsons (1996) viewed integration as producing “docile subjects with sketchy knowledge of their community and nation rather than active citizens with real understanding.” Similarly, the *History and Archaeology Report* (2000, p. 12) stated that “Interdisciplinary texts such as the Human and Social Sciences texts risk losing the particularities of their specific disciplines and replacing these strengths with very little substance in the General Education and Training Band”.

It is no surprise that the decision to incorporate History into HSS was not one of careful consideration, debate or substantial justification. Many years before, the South African *History Education Group* (1993) had compared the South African curriculum with the National Curriculum in England and their study had revealed that History was placed as a foundation subject in the English curriculum, rendering it compulsory for learners aged 5-thirteen years. The decision had been well-researched one which was adequately debated by the working group in England. It had also received substantial representation and submissions from all sectors. However, this was not the case in South Africa. Siebörger (2000) argues that teachers had not fought for the recognition of History, although there were high levels of interest before 1996. He suggests that teacher exclusion from curriculum development and subsequent demoralisation as a result of the rationalisation process, increased workloads and class sizes with no salary incentive, created much discontent among teachers. In addition, Seleti (1997, p. 49) describes curriculum formation in the democratic transition as “rushed” and “not negotiated with all stake-holders” as the Department of Education prioritised political endeavours over a sound academic educational system.

The transition in the mode of knowledge production in the new outcomes-based curriculum (Phase 2) was represented as a shift from Mode 1 (disciplinary knowledge) to Mode 2 (allied, inter-disciplinary knowledge) (Seetal, 2005). As History became absorbed into the Human and Social Sciences (HSS), there was increasing concern about the changing role of the educator. The teacher was no longer a 'disciplined' History teacher but a facilitator of a combination of geography, home economics, ethics and values. Consequently, there were challenges to the teaching of the new learning area.

There was the question of whether the History or geography teacher would assume the role of facilitator of HSS learning area. Teachers were not qualified to teach all of the aspects of HSS. The new curriculum did not appear to require specialist teachers for the new learning area. The obvious expectation of this curriculum would be that all teachers were qualified enough to teach any learning area. However, Beets & le Grange (2008, p. 78) in their study of curriculum transformation in geography, argue that the curriculum designers assumed that South African teachers were "sophisticated and highly competent with respect to both geographical and pedagogical knowledge". The same can be assumed about teachers of History. Taylor (2008) however, identifies low levels of teacher subject knowledge as one of the key factors that undermine effective teaching and learning in South African classrooms. It is reasonable to suggest that these assumptions about teacher competences were in fact, inaccurate.

C2005 received extensive criticism around its over-emphasis on integration, conceptual coherence and progression. Critics considered C2005 as unnecessarily complex and jargonised (Chisholm, 2003). In fields of knowledge, like History, where factors like conceptual coherence and progression are structurally important, learning may be compromised. Muller (2000) as cited by Seetal (2005) argues that the confusion about concepts and content resulted in the need to restore elements of pedagogical and cognitive aspects of schooling. The acknowledged crisis in South African History as a result of the new curriculum was investigated by the *History and Archaeology Report* (2000), established on the advice of the former Minister of Education, Kader Asmal.

The *History and Archaeology Report* (2000) was in favour of a History that moved away from the mere recital of facts and dates from textbooks, towards a greater

understanding of contexts and events. The main concern of the Report was that the curriculum did not effectively explain the formation of the present, as History in South Africa ceased to be a core-subject in the GET band. The Review Committee, subsequently appointed by the Minister Asmal, revisited the content and approach of C2005. The *Report of the Review Committee* (2000) indicated that design flaws in the structure of C2005 had resulted in poor implementation, planning and execution. The committee revised the structure, design and implementation of the curriculum and presented the RNCS. This culminated in the National Curriculum Statement for Grades R-9 (NCS) approved in 2002 (Chisholm, 2008).

It was the 2002 RNCS that integrated History and Geography into the new Social Sciences, giving learners “the tools to learn how knowledge and History are socially constructed” (Chisholm, 2008, p. 11). In the form of Social Sciences, both History and Geography had their own set of outcomes. This differed from the HSS of C2005 which presented a single set of nine outcomes for one learning area. Essentially, this constituted another directional change in the History curriculum, once again demanding that teachers consider renewed aims, pedagogy and assessment.

The RNCS, Grades R-9 (RNCS, 2002), now the NCS, presents the Social Science Learning Area Statement as a design to “give space to the silent voices of History and to marginalised communities” (Department of Education, 2002, p. 6). The new learning area of Social Sciences, taught only in the GET, presents History and Geography as inter-linked. History and Geography are reflected separately in the NCS, each with its own outcomes and knowledge focus framework.

In South Africa, History only becomes a distinct subject in Grades 10-12 (FET band). In South Africa, archaeology has been absorbed into the ‘new’ History, incorporating a multi-disciplinary approach. The primary purpose behind this incorporation is for learners to gain a comprehensive background from the study of pre-colonial and early South African civilisation.

2.4.2 Revising teacher's roles

Policy initiatives in educational and History curriculum transformation contributed to the restructuring of teachers' roles. Curriculum trends are then reflected in the textbooks created to support them. The demands in pedagogy, assessment and aims of History were therefore in a constant state of flux. Teachers had to become more aware of how History was understood and what the 'new' discipline entailed in order to teach the learner in the envisaged manner. Each time, teachers had to structure their lessons differently in line with the new approach in order to achieve intended or outlined outcomes and objectives. Content, project work, assignments and homework had to be re-structured to reflect the new approach. The former History textbooks also had to be replaced; removing apartheid biases and had to be underpinned by the skills-based framework. The new textbooks were to include a History that represented the diversity of South Africa's people and to re-dress the past imbalances in their representation as well as remove inaccuracies (Beets & le Grange, 2008).

2.4.3 The new form, shape and character of the new History curriculum

The form of History in the new curriculum is said to allow for a multiplicity of voices and opinions to be included (Department of Education, 2002). Study of indigenous languages, as per curriculum document, should foster a more inclusive and balanced History. The new curriculum also aims to achieve the objectives of the Constitution which include democratic values, social justice and human rights. Revised History brings with it investigative procedures which allows the interpretation of the past from study of things or artefacts, material evidence, written evidence or oral records (Mathews et al., 1992). New methodological approaches focus on the analysis of sources and evidence and invoke new blends of skills like extrapolation, judgement, comparison, empathy and synthesis rather than old method of rote learning of facts (Seetal, 2005). Learners are expected to interact critically with information from a range of sources, including those presenting different views of the same event. The new approach involves 'what' learners learn and 'how' they learn and construct knowledge.

The Grade 6 Social Sciences curriculum indicates Assessment Standards which emphasize the historical skills and conceptual knowledge that are needed for teaching and assessment. The minimum core content is set out to provide a context for achieving

the Learning outcomes and Assessments Standards. The Knowledge Focus Framework for History (Chapter Five) lists topics that must be covered within the three Learning outcomes for Grade 6 histories. The Assessments Standards can be achieved using any of the listed topics in the “Knowledge Focus Framework” (2002, p. 87). The selection of content for each grade is designed to give a broad view rather than a detailed examination of any particular topic (2002, p. 4). Teachers of the Social Sciences have the freedom to choose the breadth and length of the content they want to include in the general topics listed in the Knowledge Focus chapter.

The NCS (2002, p. 42-47) list the learning outcomes and the assessment standards as indicated in Table 2.1.

Table 2.1

Learning Outcomes and Assessment Standards

Learning Outcome 1: Historical Enquiry

Learners are able to use enquiry skills to investigate the past and present. The enquiry process includes:

1. finding sources,
2. working with sources: asking questions, finding information, and organising, analysing and synthesizing information,
3. writing a piece of information (answering a question) and
4. communicating historical knowledge and understanding (communicating an answer).

Learning Outcome 2: Historical Knowledge and Understanding

The learner will be able to demonstrate historical knowledge and understanding:

Most importantly enquiry processes for this Learning Outcome deal with understanding of :

1. chronology and time,
2. cause-and-effect and
3. similarity and difference.

Learning Outcome 3: Historical Interpretation

The learner will be able to interpret aspects of History by:

1. comparing two versions of an historical event using visual or written sources (source interpretation),
2. distinguish facts from opinions (source interpretation),
3. builds displays with selection items from the past (representation of the past).

The NCS (2002, p. 87) reflects the Knowledge Focus Framework in Table 2.2.

Table 2.2

Knowledge Focus Framework

History

- Organisation of African societies:
 - * kingdoms of southern Africa:
 - Mapungubwe
 - Thulamela
 - Great Zimbabwe;
 - * cattle, gold, ivory and iron

- Exploration and exploitation from the fourteenth century onwards:
 - * early mapping: representations of Africa;
 - * science and technology: investigating contributions from different parts of the world;

- examples of exploration from Europe, Asia, the Americas, and Africa, and its impact on indigenous people.

- The History of medicine:
 - * important medical discoveries;
 - * indigenous medicine and traditional healing.

- Democracy in South Africa:
 - * What is democracy;
 - * how is South Africa governed;
 - * national symbols such as the Coat of Arms and the National Anthem;
 - * the Children's Charter;
 - * the Earth Charter.

2.5 Teaching the new curriculum

In the new South African curriculum, the learner is expected to acquire high order thinking skills that go beyond recall, recognition and reproduction of information to evaluation, analysis, synthesis, production and application of ideas (Taylor, 1999). Learners are expected to direct their own learning and simultaneously critically evaluate evidence and formulate interpretations. In the freedom accorded to teachers in the selection of material, implementation remains a challenge as the guidelines are not clearly defined. “The NCS document, while asking for constructive debate, through evaluation, recognition of multiple voices, and critical understanding, does not elaborate in detail on how educators should implement the curriculum or how they should proceed to build ‘historical imagination’ or any other skills in learners” (Pillay, 2007, p. 12).

The NCS also requires critical literacy which involves learners asking questions to develop understanding. Further challenges involve different learning styles and the diverse needs of learners. Different pedagogic strategies ought to take these factors into consideration. According to John (1991) as cited by Ndlovu (1993) teachers’ planning, teaching and assessment were affected by their belief systems and ideological background. Their different styles of teaching were enacted in different practices. The way their teaching is received by the learner is also affected by the learner’s background and their desire to accept or reject the content. Learners must understand that History is a ‘social reconstruction’. “Learners must conceptualise the role of time and chronology in a historical narrative, be aware of the role of cause-and-effect, differentiate between fact and opinion, and identify bias” (Ndlovu, 1993, p. 5). Ndlovu (1993) views the objectives of historical education at school as enhancing everyday life skills such as vocabulary, reference, comprehension, translation, communication, extrapolation, and judgement, together with the ability to analyse, evaluate, categorise and synthesize a large amount of historical evidence. The written word together with maps, pictures, cartoons, drama and poetry could be used to encourage students to empathise with past people (Ndlovu, 1993, p. 7).

Taylor (2008) identifies very low levels of teacher subject knowledge as one of the principal factors that undermine effective teaching. Currently, many teachers teaching

Social Sciences have no training in this particular field or in the individual disciplines that make up this field. It can be assumed that teachers who are not specialist History teachers may not have the subject-specific knowledge to impart to learners. These teachers would have to consult a wide range of books and sources to be able to 'scaffold' the learner and provide the necessary background knowledge to the area of study. They would first have to acquaint themselves with the material before planning to present it to the learners. The Social Science learning area or the individual disciplines of History and Geography, in the GET Band, have not been adequately researched to produce data that can make such claims.

Taylor (2008) identifies one JET (Joint Education Trust) study which indicated that Grade 3 (GET band) language and maths classes engaged in written exercises no more than once a week. Written exercises consisted of isolated words and sentences were seldom used. Extended writing such as paragraphs of length, stories, descriptions and expressive writing were hardly done. This study assumed that such extended writing contained "relatively complex thoughts, expressed through relatively complex grammar structures was the primary method for developing children's cognitive processes and extending their literacy skills" (Taylor, 2008, p. 4). Studies of a similar nature which were conducted around South Africa yielded similar results. The present study will examine the amount of writing a learner is required to do in History.

2.6 Textbook studies

Pioneering literature in the field of textbook research is Apple (2000) in his *Official Knowledge* where he examines legitimate knowledge (theory) and how textbooks embody this knowledge. He argues that texts signify through their "content and form, particular constructions of reality, particular ways of selecting and organizing that vast universe of possible knowledge" (p. 182). As such, textbooks deliver organised knowledge that society recognises as legitimate and truthful (Green & Naidoo, 2008; McKinney, 2005; Apple, 2000; Sleeter & Grant, 1991; Dean et al., 1983). There exists a type of consensus among scholars about the significant potential of textbooks in validating what a group thinks is worthwhile knowledge. Apple's paradoxical (2000, p. 183) statements that "The public regards textbooks as authoritative, accurate, and necessary" as well as the "glossily covered blocks of paper whose words emerge to

deaden the minds of our nation's youth" are reflective of the immense capacity of this resource.

Apple (2000) maintains that the mechanical application of a single interpretive procedure may not necessarily elicit a meaning from a text, asserting that meanings are multiple and sometimes contradictory. He contends that individuals 'read' and make their own understandings of textbooks resulting in different interpretations. Researchers, teachers and students come up with their own interpretations causing different views to be promulgated from the same reading. Apple (2000) questions whether what is in the text is actually taught in the classroom. He accentuates that teachers have the power to re-interpret and teach material as they 'read' it and the pupils also, because of their own religious or classed backgrounds, can reject what is presented as 'legitimate knowledge'. Therefore, what is in text is merely used as a framework for reflexive and critical teachers and learners. Learners are not 'empty vessels' into which knowledge is poured (Freire's banking of education) but are effective constructors of meaning. According to Freire (1970), the libertarian method of education in contrast to the 'banking' method, allows active acts of cognition with meaningful learning and understanding arising from the dialogue and interaction between and the learner and teacher (Pillay, 2007, p. 29).

In recent years LTSM (learning and teaching support materials) have received greater attention from academics and politicians. Existing research in the realm of knowledge representation in a South African context is limited. Studies in the field of History textbooks tend to be focussed in the upper end of the FET band. The local textbook audit by Kros (2002) is directed at the FET band. Kros' (2002) analysis of Grade 12 History textbooks published in the late 1980s, revealed a clear apartheid bias. The audit showed that there were good textbooks available that made their historiographical and values framework explicit, encouraged thinking skills and avoided one-dimensional thinking but that they were in the minority and difficult to access in the rural areas. Kros (2002) also found that good examples of 'old' texts were used with the old-style, authoritative teaching methodologies that stuck close to the text and encouraged rote-learning. A later analysis of 'alternate' History books revealed that these books differed significantly in methodologies and approach from the 'apartheid books' which clearly discouraged critical reading.

There are not many studies of GET History textbooks. Since the GET band is the foundational structure for the FET band, there should be attention on how GET band textbooks feature knowledge. The discipline of History in the FET becomes significant when it becomes a subject in Grade 10-12. However, foundational History (History in the formative years of the GET band) ought to be preparing the learner with sufficient disciplinary skills and knowledge to cope with the subject later. Studies in the GET should be initiated to establish how critical and analytic thought in learners at this basic level are being developed. A basic repertoire of historical skills in the GET must be developed so that deeper associations at a higher level in the FET may then be effected. Learning resources, inclusive of in-depth activities represent scaffolding for learner progress to the complex levels.

2.6.1 The role of textbooks

Stoffels (2007) argues that texts are the result of “a complex multi-dimensional process which is caused by the inter-play between the National Curriculum, Provincial Education Departments and textbook author, publishers and evaluation committees”. Stoffels (2007) uses Bowe, Ball & Gold’s (1992) notion that educational policy is constructed and reconstructed within three contexts, namely the context of influence, textbook production and classroom practice. Stoffels’ (2007) survey of international and national literature reveal a lack of research on the practice of designing and producing textbooks. A different kind of change has also been identified by Howell, in the *CUNY Panel* (1997), where History has been affected by the new scholarship emphasizing gender, race, ethnicity and class. Howell (1997) highlights these substantive shifts in American History because of the impact of the new variables on the discipline of History. These variables have altered the content, the actual practice and teaching of History. History has also become interdisciplinary as new techniques from Social Sciences, chiefly in the form of psychology; anthropology and sociology have been integrated.

Ideally, the content of the curriculum should materialise as the content of the textbook (Hummel, 1988). However, the textbook, as the messenger of the curriculum delivers different messages. “Texts are indispensable working instruments for cognitive development” (Hummel, 1988, p. 17). Hummel views the pedagogic approach of the

text, the way material is structured, organised and the references it makes to other disciplines, all as important factors that influence the educational process. It is therefore imperative to analyse these avenues to ensure that material in texts are appropriately geared for the learner in the prescribed curriculum. In addition, teachers' inability to acquire suitable source material further compromises the approach. Teachers' lack of ability to use the sources appropriately, compounds the problem. The curriculum envisaged is therefore enacted differently in practice (Stoffels, 2007; Morrel, 1990).

Many hold the view that a single textbook is insufficient as a learner or teacher resource (Chisholm, 2008; Mathews et al., 1992; Morrel, 1990). Mathews et al. (1992) assert that textbooks are not a means to transmit historical knowledge but should form the framework upon which the lesson is based. They argue that texts should not be used only as a resource but that they should be used as 'sources'. As sources, they offer different and wider interpretations to the same event. In a sense, learners will be 'doing' History. They will be critically formulating interpretations from various perspectives presented by diverse textbooks. This is in keeping with the changing focus of History, where learners are encouraged to be critical thinkers. Mathews et al. (1992) purport that a lesson consisting of a variety of sources and references allow learners to expand the basic information provided by one reference. Textbooks are designed for a number of different activities including homework exercises, answering questions on worksheets, projects, assignments and for independent study. The activities presented by various books allow learners to consult and analyse a wide variety of views and interpretations which in turn facilitates a greater understanding.

2.6.2 The Changing History text

Over the years, History textbooks presented large numbers of facts that had to be absorbed. Visually stimulating material was largely absent from these textbooks. Presently pictures, cartoons, maps, photographs, diagrams and documents are some of the stimulating material that are used to involve the learner in a re-defined or 'reconceptualised' discipline. The skills of interpretation, deduction, evaluation and synthesis were among the skills that aimed to develop the learners so that they acquire concepts of time, space and reality (Pillay, 2007). The aim is to provide students with critical development skills that would benefit the learner in any profession he/she

chooses to join. The young minds would be “doing” the craft of the historian. A study by Fielding (2005) indicated that learners remembered 10% of what they read, 20% of what they heard, 30% of what they saw and heard, and 90% of what they did and saw (cited by Pillay, 2007). Consequently, for meaningful learning to occur in History, pupils ought to ‘do’ History, using as many sources as there are available. They must acquire an understanding of how historians construct History. History is more than just ‘doing’. It is about how historians construct narratives, how they engage with source material and about being inducted into particular disciplinary procedures. Learners will be encouraged to think in particular ways.

It is important to note that there were academics who were already addressing the change in History. Many years earlier, Chisholm (1981) argued that pupils should be taught how to recognise bias and propaganda by inculcating a critical attitude to all material given to them. Pupils were given guidance on how to ‘reconstruct’ History by analysing evidence or historical documents in specialised ways which involved a mode of questioning that related to “who wrote the document, what their expressed or unexpressed motives were and which factors affected their opinions”. Chisholm (1981) argued that textbooks could distort whole sections of History but that History teachers should allow learners to discover this by themselves.

In the shift away from apartheid and the removal of the apartheid biases, learners must not be led to believe that by its exclusion certain events did not occur. What knowledge has been formalised in the new text should open up debates by virtue of the new approaches in the teaching of History. The facts, as presented in textbooks, should stimulate arguments in the classroom and by fostering debate, the new principles of the curriculum are upheld.

2.6.3 Methods of analysing textbooks

Different kinds or methods of textbook analyses are being conducted around the world. People are motivated into research for a variety of reasons. Different contextual factors influence the foci of their analyses. Historians are concerned about the content of History. Different perspectives of similar content can result. In this study, there is an

alternative perspective. Historical content of textbooks is not being interrogated. The question of knowledge structures forms the focus of this analysis.

Many studies of textbooks tend to highlight social aspects like race and gender, and not necessarily knowledge. Studies by McKinney (2005) and Sleeter & Grant (1991) focus on limitations in race and ideology in textbooks. Engelbrecht (2008) and Dean et al. (1983) in their analysis of textbooks in South Africa consider how these books endorse ethnic stereo-typing, social and political attitudes reflective of a society in South Africa at that time. Engelbrecht's (2008) study highlights a white and black role reversal where Afrikaner Nationalist views are replaced by African Nationalist views. Engelbrecht (2008, p. 1) argued that History, as represented in the textbooks analysed in her study, was a 'simplistic perspective' of the past because it did not offer a balanced view. The subject of History did not present a balanced view during the apartheid years and although curriculum transformation has occurred, the type of view with regard to social representation has in fact, not altered. It seems that social representation in textbooks is privileged over focus on knowledge. In earlier years, Trumpelmann (The History Group, 1993) indicated that the habit of categorising people and judging their contributions according to their race and gender must be eradicated. This opinion is valid even in the present age. Yilmaz (2009), Naidoo & Green (2008), Ensor & Galant (2005) and Gregg et al. (1998) are amongst those that resonate Trumpelmann's (1993) view. Studies of the constructions of knowledge in the discipline of History in textbooks are very rare.

Saele (2009) argues that textbook analysis in Norway, though a scarce field, produced analysis which mostly portrays conflicts and antagonisms, the primary purpose being to detect political bias. Saele (2009) discusses how a scientific article published in 1982 is still used as a theoretical framework for studies today in spite of extensive historical didactic development in Norway. Considering this inadequate, Saele (2009) suggests an alternative approach which erases the factor of bias and personal judgement, while promoting an interpretation of History books by analysis independent of their historical, political and cultural contexts within which they work. Similarly, Haydn (2009, p. 4) recommends further research on ideological and political facets of History textbooks as well as exploration of what might be termed pragmatic, functional and pedagogical aspects of textbook use.

In support of alternative methodologies of text analysis, Vinterek (2009) suggests that both visual and textual content of textbooks be analysed to determine whether they meet the requirement of teachers and whether they support what ‘school and politics intend to mediate’. Löffström (2009) asserts that the issue of factual correctness and balanced veracity of textbook content is relevant in its own right but they have too often been the focus of textbook studies when there are other questions and perspectives. Professional historians and History teachers seek different answers from different questions. There are innumerable angles and perspectives to the concept of textbook research. Historians seek to investigate knowledge content for balance and accuracy by delving into the representation of accurate historiography. Sociologists delve into the structures of knowledge to make sense of its construction. This study forms a component of the field of sociology of knowledge as it identifies and analyses knowledge structures.

Pingel (1999) and Stradling (2001) indicate that too little work has been done on textbook research as a methodology (cited by Nicholls, 2003). It is indeed an area that must be developed, considering the significant role of textbooks in classrooms. Developments on generic method for textbook research have been qualified as a ‘gaping hole in the field’. Detailed guidelines need to be set out on how to construct methodological instruments for analysing texts. Generally, analysers list appropriate questions which are used as criteria for analysis. There is no common set of criteria to analyse textbooks. Gregg et al. (1988) indicate that content analysis methodology is double-hermeneutic as it attempts to re-interpret a textbook that is already interpreted by its authors. The textbook is also an interpretation of the curriculum it is said to signify.

2.6.4 Selecting the appropriate text

There are various criteria used by teachers to select their textbooks. The following criteria by Mathews et al. (1992, p. 113) indicate how books can be rated:

- The textbook must meet the demands of the current syllabus.
- The language and exposition of the factual information, the type of illustration and the quantity of the subject matter should be appropriate to the level of maturity of the pupil for which it is intended.

- Textbooks should contain maps which aid the development of a concept of space. Many textbooks only contain sectional maps which are relatively meaningless to the average child. A good textbook should include a world map as well as European and South African maps showing where the areas appearing on the sectional maps are located.
- Textbooks should contain a wide variety of illustrations to make History more real and meaningful for the pupils. This is particularly important in standards where pupils still think in concrete rather than in abstract terms.
- Illustrations, maps and diagrams should be clear and relevant to the subject matter. The books for higher classes should also contain stimulus material in the form of primary sources like cartoons, graphs etc.
- When selecting a textbook, it should be scrutinised for bias. Bias occurs when particular views or interpretations of History are omitted or when sections of population are ignored e.g. Blacks in South African History. Bias may only be detected in the manner in which data is presented or in the use of words that have emotional connotations.
- The format used in the presentation of the book is important. Bold headings are desirable for the junior classes so as to focus the pupil's attention on the main facts.

Mathews et al. (1992, p. 11) accord the most important criterion to the selection of the text according to the needs of the pupils and the teacher. Teachers though, will select books with which they are comfortable with and which suits their lesson needs in their planning and preparation.

Presently, teachers selecting appropriate or optimal books for their learners, consult an official guide for a list of textbooks. The Department textbook catalogue for 2009 is entitled *Learning and Teaching Support Materials (LTSM). Texts. Catalogue for 2009 Academic Year*. The guideline contains list of LTSM for the General Education and Training (GET) band, Grades 4-7. At this point, it is important to indicate that there are no Grade 6 History textbooks prepared for the NCS. There are however many Social Sciences textbooks published for Grade 6 which cater for the blend of History and Geography, but not for History alone. It should be remembered that when this study

mentions the History textbooks for Grade 6, prepared for the NCS, that these are actually Social Sciences textbooks.

Pre-1994 History in Grade 6 textbooks was done for the sake of the subject History while post-1994 History disappeared into Social Sciences in the GET. The traditional History curriculum might have looked like a collection of note-worthy figures and events but present-day History in the Social Sciences reflects different features. This is clearly demonstrated in the *RNCS Grades R – 9 (Schools) Policy* (2002, p. 4) document which states the purpose of the Social Sciences learning area as aiming to “develop an awareness of how we can influence our future by confronting and challenging economic and social inequality (including racism and sexism) to build a non-racial, democratic present and future”. The location of post-1994 History in the Social Sciences in its specific position is clearly not for the purpose of learning History but for the factors mentioned in the policy document.

According to the *Learning and Teaching Support Materials Catalogue for 2009 Academic Year*, learners in Grade 1-9 should have textbooks. In the intermediate phase there must be books for all eight learning areas. There are 16 listed publishers in the catalogue for Grade 6 Social Sciences textbooks. Textbook writers and publishers produce books that interpret the NCS in ways that will be acceptable to the provincial education department evaluation teams (Bertram, 2008a). Books cannot be marketed if the department does not accept them. Textbooks therefore have to be designed according to departmental guidelines so that they are listed on the departmental approved list. Sometimes activities in the books appear as though they are source based and appear to possess a procedural dimension, but they in fact, do not. They also have little focus on the substantive knowledge dimension of History. The activities appear as though they are ‘doing’ History according to curriculum requirements but in fact closer analysis reveals that the learners do not need to know much about History to do these activities. Learners are merely answering general comprehension questions based on a picture that is labelled as a source. They are interacting with sources at a surface level, without the necessary interrogation skills and procedures that historians use to “do” the craft of History.

There is the added danger of skills and outcomes taking precedence over knowledge in a curriculum (Bertram, 2008a). A study of Grade 9 classrooms in three schools indicated that the collapsed boundaries between History and Geography may result in a “superficial mix of very complex, abstract concepts” (Naidoo, 2009, p. 21). It also indicated that fragments of knowledge from History and Geography may be taught and conceptual progression would not be achieved while random isolated concepts were being taught.

Publishers strategically provide free samples of textbooks at workshops and teacher meetings to advertise and promote their books. Teachers are not pressurised by the Department of Education to use any one of the listed textbooks. Curriculum advisors do not recommend any specific text to teachers. It is acknowledged that textbooks present different interpretations and the curriculum is designed to consider all interpretations of History. For this reason, no single book can be recommended as a prescribed book. Teachers evaluate and select books according to their needs. Usually, they select according to how adequately the text covers the curriculum and whether exercises are learner-centred and activity-based. Even though textbooks are bought for learners and teachers to use, it should not be the only resource but can provide a framework for the lesson. In fact, teachers should be accessing a variety of sources or textbooks so that different interpretations can be studied and evaluated.

2.7 Learning History through the text

Current research in History teaching and learning focuses on the rigor of cognitive approaches. During the 1970s and 1980s, cognitive researchers focussed on students’ thinking in certain school subjects. Researchers in the 1990s probed children’s historical misconceptions of their reading of History textbooks. Ambruster & Anderson as cited by Wineburg (2001) explained that textbooks presumed a certain background knowledge which some children brought to class and which not all children possessed equally. Wineburg (2001) argued that students were hardly “blank slates” and that their background (or prior) knowledge affected how they learned and ascribed meaning to what they read. History teachers have the task of simultaneously selecting a method as well as transforming knowledge. In the process they take their knowledge and create

representations of content. The child makes new understandings of learning material presented by the teacher.

‘Scaffolding’ is a major theme in the theoretical framework of Bruner (1966) allowing for cognitive structuring whereby the learner constructs knowledge upon their past knowledge. Hallden in Leinhardt, Beck and Staintoon (1994) also support this contention. Hallden purports that a cognitive structure must already be in place into which bits fall when learning commences in the instruction time. The student already has an idea of the discipline of History before commencement of instruction. In the absence of historical knowledge a piece of given evidence has no meaning. The recognition of prior learning is significant in the scaffolding of the learner’s development in the GET band. If the cognitive structure at lower or foundation levels is not adequately established, the learner may struggle later when History becomes a subject. Instruction in the GET band has to ensure that an historical knowledge structure is adequately developed.

According to Wineburg (2001) History acquired different meanings in classrooms of different teachers. The teachers’ practices were influenced by their varying disciplinary perspectives. Wineburg in Leinhardt et al. (1994) also examines the constructions of knowledge at ‘global’ or (sentences, paragraphs and whole texts) and ‘local’ (meanings of words) level where he argues that multiple meanings can arise. He contends that readers must go to the heart of the construction of a text, not just take the literal meaning. Wineburg’s (2001) investigation of historical thinking involving the interaction of students and historians with historical evidence indicated that both groups engaged in historical thought differently. In Wineburg’s study, students rated the textbook excerpt as trustworthy without realising that texts have the inclination to represent information in particular ways. Historians, by contrast, rated textbooks last in terms of their trustworthiness, undertaking to find the intention, motive, purpose and plan of the text. Rather than interact superficially with presented information in the text, historians followed procedures, like linking the primary text to its author, examining the context in which it was written, understanding the motives of the author, identifying the purpose of the writing while reading and analysing the sub-text (Bertram, 2008c, p. 5). An in-depth analysis of primary sources allows the historian to construct knowledge in History by ‘doing’ History.

The structure of the textbook also assists in the development of the knowledge base of the learner. Anderson & Ambruster (1984) as cited by Leinhardt et al. (1994) conceptualise a 'considerate' or 'coherent' text to be one that is structured in a way that promotes inter-connection of ideas, presents clear and careful correlation of ideas. The text design can facilitate its reading, encouraging understanding and engaging learners in meaningful dialogue. This relates to the readability of the text that either promotes or impedes the understanding of the knowledge presented by the text, simply by its structure. The mere recitation of facts is avoided. The learner's understanding of History is further enhanced by their general reading and learning skills (Britt, Rouet, Georgi & Perfetti in Leinhardt et al., 1994).

In examining the knowledge and practices of historians, History teachers and young people, Wineburg (2001) launches a new educational literature in historical cognition in which he details the explanation for students not knowing History. To this end, Wineburg (2001) argues that teachers teach more skills than content and that students did not interact critically enough with the text. He refers to the 'polemic' of the text which is really the challenge the text itself poses to the learner. It is important to view how History teachers are experiencing the new curriculum, what principles are guiding their selections of textbooks and how they are viewing the new discipline of History as compared to how it was viewed before. Further research can elicit trends regarding these criteria.

Edwards (2008), however, suggests that both old and new textbooks can be used in the classrooms as a resource for developing students' disciplinary understanding of History in the United Kingdom. In South Africa a similar approach could be used so learners can view different presentations and interpretations of History. Students can be encouraged to use textbooks as sources and also question the reliability of the textbooks. Edwards (2008) argues that textbooks are sometimes treated as sources of 'safe' knowledge and that a critical stance is not taken. For this reason he maintains that texts are partial, 'immaculately conceived' and 'constructed'. He also advocates text interrogation at three levels, namely the surface level analysis, its organisation, style, content and questions; the second level which centres around the reliability of the source and thirdly the analysis of greater depth which is precisely what Wineburg (2001) describes.

Judicious reading on the part of the learners would allow them to use the content of the document to justify their interpretations and identify the trustworthiness of the source in the construction of interpretations (Britt, Rouet, Georgi & Perfetti in Leinhardt et al., 1994). Multiple source bases comprising any form of material like essays, autobiographies, letters, newspaper reports historians' accounts can be integrated for knowledge construction. Mckeown & Beck in Leinhardt et al. (1994), contend that certain social studies textbooks assume that learners have this background knowledge to the facts presented. In addition, the facts are sometimes not presented coherently. The inadequacy of the texts also impedes pupil progress. Mckeown & Beck in Leinhardt et al. (1994) argue that the curriculum often covers fewer topics at greater depth rather than including a variety of topics at surface level thus leaving learners with limited knowledge and often with misconceptions. Therefore, the entire corpus of evidence must be used to present a construction of History.

2.8 Conclusion

There exists a wealth of related literature that is indispensable for a total understanding to emerge around this study. However, such totalities are not possible as research is ongoing and open to interpretation. In order to make an informed assessment of the existing literature on the topic, I have chosen to highlight certain pivotal studies in History. In this chapter, I examined the nature and purpose of History, the educational policy changes in South Africa post-apartheid and its impact on the History curriculum. I highlighted the significant role of History textbooks and discussed how learning can be affected by the structure of the text. While I traced the developments in textbook research in international studies, I also considered their methods of textbook analysis. The chapter also fore-grounded the assessments standards and knowledge focus frameworks of the NCS. For this study, I consider the structures of knowledge as they are presented in Grade 6 History textbooks. By analysing the History textbooks before and after 1994, I aim to obtain the nuances of curriculum transformation and its representations of knowledge in textbooks. It is interesting to view how textbook writers have instilled the discipline of History with its new dimension where historical source analysis has been included alongside content or factual orientations.

CHAPTER THREE

Theoretical and Conceptual Framework

3.1 Introduction to the chapter

This chapter exemplifies the theory and concepts that informed the study. The purpose of theoretical and conceptual studies or frameworks is to assist in the review and discussion of the most “relevant and appropriate theories, models or definitions of particular phenomena” (Mouton, 2001, p. 92). I have selected Bernstein’s theory for its “power and elegance” in explaining the educational phenomena under study (Vithal & Jansen, 1997, p. 19). The idea of an eclectic approach has been borrowed from Green & Naidoo (2008) which captures concepts from Bernstein (1996) while drawing on Bloom’s Revised Taxonomy (Krathwohl, 2002) to analyse finer distinctions in knowledge and cognitive processes. This study is augmented by utilising Schwab’s (1978) distinction between procedural and substantive knowledge to gauge the type of influence these knowledge types have over the content in the textbooks being analysed. Finally, Bertram’s (2008c) idea of a ‘historical gaze’ is utilised to understand what distinguishes History as a specialised and particularised discipline. The fundamental theoretical concerns around knowledge underpinning the study are historical knowledge as everyday or academic knowledge and historical knowledge as procedural or substantive. The establishment of these two continua around knowledge inform the study.

3.2 The theories of Bernstein

3.2.1 Bernstein’s theory of knowledge and curriculum

The research will draw on the theoretical framework of the prominent British sociologist Bernstein to make sense of the new curriculum and its implications for the quality of learning from textbooks. An expansive framework built by Bernstein over a period of 40 years, in the field of sociology of education, has had a tremendous influence over curriculum in South Africa. Bernstein’s (1999) notions of a ‘collection’ and ‘integrated’ curricula and ‘vertical and horizontal discourses’ have been used to investigate the knowledge representations in Grade 6 History textbooks in South African classrooms. As a sociologist, “Bernstein examines the real world and, from this

extracts ideas and builds models in order to understand what implications are of changes and in the way curricula are organised over time” (Hoadley & Jansen, 2002, p. 123).

Bernstein’s (1971) models and concepts of classification provide the basis for a conceptual framework for this study. Classification describes the strength of boundaries between ‘content shells’ or ‘parcels’. There are boundaries that may be weak or strong between knowledge of different disciplines (inter-disciplinary boundaries), between different topics within the same discipline (intra-disciplinary) or between the school discipline (academic) and everyday knowledge (inter-discursive boundaries) as well as the boundary between vertical school discourse and horizontal everyday discourse (Bernstein, 1971, 1996 as cited by Bertram, 2008c).

There are various characterisations of knowledge. For this particular study, I consider Bernstein’s (1971) distinctions between everyday knowledge and school knowledge useful to understand the debate between the two types of knowledge. According to Bernstein (1971), different pedagogies and curricular may place an emphasis on either school knowledge or everyday knowledge. This distinction is important for classroom practice and how textbooks approach the curriculum with these representations.

3.2.2 Everyday knowledge and School knowledge

Bernstein (1999) makes clear distinctions between ‘everyday knowledge’ and ‘school knowledge’. School knowledge is classified as ‘formal and specialised’ while everyday knowledge is a more personal and localised form where the context of the home plays a significant role in developing what the learner knows before they come to school. Bernstein (1999) views everyday knowledge as “oral, local, context dependent and specific, tacit, multi-layered and across contexts” while being segmentally organised. By this, Bernstein (1999) indicates that everyday knowledge acquired in one segment may bear no relation to ‘what’ and ‘how’ it is acquired in another segment or context. School knowledge, on the other hand, was classified by Bernstein (1999) as “coherent, explicit, and systematically principled structure, hierarchically organised”. According to Bernstein (1996), school knowledge (academic), categorised as a vertical discourse and everyday knowledge categorised as a horizontal discourse, were differently acquired and structured.

Studies have shown that the balance between the two types of knowledge may affect learners in different ways (Williams, 2001 as cited by Ensor & Galant; Hassan, 2001; Painter, 1999; Rose, 1999; Dowling, 1998). Research conducted in various fields of study (Ensor & Galant, 2005; Dowling, 1998; Rose, 1999; Taylor & Vinjevold, 1999) have indicated that learners may be disadvantaged by the fusion of academic and everyday practices. A study of ‘progression and integration’ of knowledge in a few South African schools (Naidoo, 2009, p. 5) revealed that historically disadvantaged schools of that study did not provide learners with the opportunities to learn high level knowledge and skills, that the dominance of integration of school knowledge with everyday knowledge and the accompanying lack of conceptual progression typical of school knowledge, resulted in impoverished learning opportunities for learners. Hoadley & Jansen (2002) argue that learners could also be disadvantaged and marginalised due to the lack of appropriate books. ‘Appropriateness’ could refer to the nature of knowledge representations in the textbooks.

3.2.3 Bernstein’s models of Curriculum

According to Bernstein (1971), a curriculum can be located on a continuum between any two of the following types:

In Bernstein’s (1971) ‘competence model’ of the curriculum, learners’ competences are developed rather than a deep knowledge of an issue. Teaching is drawn from learners’ own experiences and ‘everyday knowledge’ is ‘weakly framed’. The line between school learning and everyday knowledge is blurred allowing learning to take place anywhere, learning is theme organised and learners sequence, pace and select their own learning. This type of curriculum does not build on previous work vertically but builds horizontally, theme by theme (Hoadley & Jansen, 2002).

By comparison, the ‘performance model’, focuses on high levels of understanding in subject disciplines, emphasizes ‘school knowledge’ rather than ‘everyday knowledge’. Experience and knowledge is built sequentially with the selection, pace and sequence controlled by the teacher in the site of the classroom. Bernstein (1971) uses the term of ‘classification’ to refer to the boundaries between content (subject) shells. A strongly classified curriculum or ‘collection type’ curriculum is established when clear distinctions are drawn between school knowledge and everyday knowledge and between

disciplines or subjects. Each subject or discipline was characterised by its individual or unique procedure and content. Conversely, a ‘weakly classified’ curriculum or ‘integrated type’ curriculum is established when school knowledge and everyday knowledge relations are fluid and related and when boundaries between subjects or disciplines are fluid and permeable (Hoadley & Jansen, 2002). Textbooks then signify these types of divisions in knowledge types, although not explicitly.

According to Bernstein (1971), the closer a curriculum came to a ‘collection type’ the more important would be the ‘vertical demarcation’ within subjects and disciplines. Similarly, the closer it came to an ‘integrated type’, the more important lateral demarcation was defined with learning connections between disciplines and between school knowledge and everyday knowledge being emphasized. Bernstein’s theory is critical for South Africa’s educational transformation as the curriculum change in South Africa can be categorised as a ‘shift’ from the ‘performance model’ of curriculum to the ‘competence model’. In the GET band, the ‘competence model’ translates into what is called an ‘integrated’ curriculum.

Using Bernstein’s (1971) categorisation of curriculum types, the South African GET curriculum could be said to be ‘weakly classified’ or ‘integrated’. The curriculum has faced much criticism about this integration as researchers argue that academic knowledge and everyday knowledge are differently structured and are therefore differently acquired (Muller & Taylor, 2000 as cited by Bertram, 2008a; Dowling, 1998). Scholars view school knowledge and everyday knowledge as ‘incommensurable’ (Bernstein, 1994 as cited by Ensor & Galant, 2005; Dowling, 1998; Muller & Taylor, 1995). The National Qualification Framework (NQF), however, assumed that all forms of knowledge were commensurable. There was objection to the compatibility of these two different types of knowledge in the same curriculum, as can be seen from the response arising from the academic fraternity. According to Hoadley & Jansen (2002), specialized formal school knowledge is clarified through specific language and concepts. They argue that when everyday knowledge overwhelms school knowledge there is a danger of learners not developing a systematic understanding of the discipline.

Taylor (as cited by Hoadley & Jansen, 2002, p. 137) purports that “everyday knowledge (and discourse) is unsystematic and disordered”. He contends that it is appropriate to

draw from everyday examples to make study more accessible to learners but that broader concepts and development have to be taught. The induction of learners into formal school knowledge will be compromised if learners do not advance beyond everyday knowledge. Learners will not be able to utilise advanced concepts as is the requirements of the modern advancing world (progression). A curriculum and its representative texts do little to advance the learner to higher levels of learning in the increasingly technical nature of the workplace if it is dominated by everyday knowledge (Hoadley & Jansen, 2002).

3.3 History as a specialised discipline

There is argument that ‘everyday experiences’ of learners are traditionally different and the school can benefit or privilege certain groups of learners with the forms of experience they already possessed when they arrive at school (Ensor & Galant, 2005, Bernstein, 1999). Bernstein (1999, p. 159) argues that the vertical discourse has specialised languages with specialised modes of interrogation and specialised criteria for the production and circulation of texts. Likewise, Hoadley & Jansen (2002, p. 134) contend that ‘specialised’ refers to the particular knowledge, skills, and language that apply to a specific area of activity. Specialised, formal knowledge is usually denoted through specific language representing specific concepts. A historian will therefore use specialised language to describe an historical problem, basing his argument on his specialised knowledge and using specialised historical skills to develop and support his argument.

Bernstein (1999) also distinguishes between vertical and horizontal knowledge structures. Bernstein alludes to differentiation between vertical knowledge structures like physics and horizontal knowledge structures like the Social Sciences. He argues that very general theories are created by hierarchical knowledge structures and that horizontal knowledge structures create a series of specialised languages. He also suggests that horizontal knowledge structures may contain strong or weak grammars. Economics, mathematics and linguistics are cited as examples of strong grammars, each of these with a strong and clear syntax. By contrast, sociology and cultural studies have weak grammars. The fields with strong grammars would be easily recognisable while

those with weak grammars would not be certain whether they are operating in any particular field.

An influential approach in the Australian curriculum, advocated by Coffin (2006) considers the linguistic dimension of historical or any disciplinary knowledge. This approach accelerated “teacher and student awareness of the linguistic structure and shape of texts and the manner in which writers drew on grammar and lexis to create different communication effects” (Coffin, 2006, p. 414). In integrating subject learning and writing development, students were able to reflect critically on the role, purpose and textual patterns of texts in any curriculum programme. The approach was successful as students produced explicitly structured texts themselves.

In a South African context, Bertram (2008b) identifies History as a horizontal structure that finds its specialisation in its procedures. She views History as different in that it does not involve the vertical sequencing of content into “simple, analytic abstractions”. She purports that an ‘historical gaze’ demands both a substantive base and the specialised procedures of the discipline. Bertram (2008c, p. 1) argues that the concept of a ‘historical gaze’ be used as a lens to “keep the intertwined strands of procedural and substantive knowledge in History from unravelling and coming apart”. The concepts of procedural and substantive knowledge are drawn from Dean (2004) who suggests that History is composed of these two complementary, inter-linked strands, identified as process and content. Dean (2004) draws on Schwab’s (1978) description of the two strands:

- a) Procedural knowledge is knowledge about conducting History enquiry or ‘know-how’ knowledge and
- b) Substantive knowledge represents the statements of fact, propositions and concepts of History which are constructed as a result of the procedural investigations carried out by historians.

Bertram (2008c) acquires the concept of the ‘historical gaze’ from Dowling’s (1998) study. Dowling (1998) extends Bernstein’s concept of classification to show how classification of content and of the mode of expression (language) can reveal that excessive use of the public domain at the expense of the esoteric in mathematics denied students induction into the discipline of mathematics. Dowling’s (1998) concept of a

mathematical gaze is re-worked by Bertram (2008c) for the specificity of History. Bernstein (1996, p. 170) suggests that acquirers of any discipline develop a tacitly acquired ‘gaze’ which means that they learn how to “recognise, regard, realise and evaluate legitimately the phenomenon of concern”. Dowling (1998) believed that gaining mastery of the esoteric domain (where both content and mode of expression are clearly mathematical) equips one with a mathematical gaze, with which one can look upon the world and ‘see’ mathematics in it (Ensor & Galant, 2005).

Bertram (2008c) debates the relevance and application of the mathematics discourse (vertical structure) to the discourse of History which has a different knowledge structure (horizontal knowledge structure). In spite of these differences, she maps the domains of mathematical discourse over the domains of historical discourse. Procedural knowledge or ‘doing History’ is mapped onto Dowling’s (1998) ‘mode of expression’. Figure 3.1 and Figure 3.2 below are drawn from Bertram (2008c).

| | C+ | Mode of expression | C- |
|---------|--|--------------------|--|
| C+ | <p>Esoteric domain (universe of highly specialised abstract mathematical statements) e.g. Solve for x: $18x + 92 = 137$</p> | | <p>Expressive domain (universe of mathematical statements which are unambiguously mathematical in content, but are couched in relatively unspecialised language) e. g. Here is a machine chain. What is its output? $3 - x^2 - x^8 \rightarrow$</p> |
| Content | | | |
| C- | <p>Descriptive domain (universe of mathematical statements which appear from the language in which they are couched to be mathematical, but where the content is not so.) e. g. A café orders p white loaves and q brown loaves every day for r days. What does the expression $(p + q)r$ tell you?</p> | | <p>Public domain (universe of statements which are not unambiguously mathematical, either in terms of the content that they refer to, or in the language which is used to do this) e. g. What is the bill for buying 1 kg of bananas at R7 per kilo and a bag of oranges at R10 per bag?</p> |

Figure 3.1 Dowling’s domains of mathematical discourse (from Ensor and Galant, 2005; 292, adapted from Dowling, 1998).

Bertram (2008) shows a possible map from the discipline of History onto Dowling’s domains in Figure 3.2.

| | C+ | Mode of expression | C- |
|----------------|---|--------------------|--|
| C+ | Esoteric domain | | Expressive domain |
| Content | (content clearly historical and language specialised and procedures specialised.) | | (unambiguously historical in content, but are couched in relatively unspecialised language.) |
| C- | Descriptive domain | | Public domain |
| | (universe of historical statements which appear from the language in which they are couched, and the procedures to be historical, but where the content is not so.) | | (universe of statements which are not unambiguously historical, either in terms of the content that they refer to, or in the language which is used to do this.) |

Figure 3.2 Mapping a ‘historical gaze’ onto Dowling’s mathematical domains (Bertram, 2008).

Using Figure 3.1, Dowling (1998) argues that content can be either strongly classified (i.e. easily recognisable as mathematical) or weakly classified (where content is not easily recognisable as mathematical). Mode of expression too can either be strongly classified (the language is unambiguously mathematical) or weakly classified (language is relatively unspecialised or not strongly mathematical) (Bertram, 2008c). Using this map (Figure 3.1), Dowling (1998) argued that excessive use of the public domain in mathematical textbooks meant the learners were not inducted into the speciality of the discipline of mathematics. Similarly, he believed that gaining mastery of the esoteric domain (where both content and mode of expression are clearly mathematical) equipped one with a mathematical ‘gaze’. Bertram (2008c) argues that the Esoteric domain (where content is clearly historical, and language and procedures are also specialised) of her map (Figure 3.2) may create the possibility for the induction of learners into the speciality of History.

Learners must understand the specialist ways in which History uses the language of time and chronology and can provide explanations of cause-and-effect (Bertram,

2008b). According to Bertram (2008b), a deep knowledge of the context and time in which a source is written, combined with accumulated substantive knowledge make up the content domain of History. Historical knowledge therefore is made up of key events (content) that shaped the past and how these events did so (process or method). Only when mastery over both History content and mode of expression is achieved, then an ‘historical gaze’ is acquired. Historians have to engage in the procedural work of interrogating evidence as well as acquiring a substantive knowledge base in the field of History in order to ‘do’ History. These are the necessary pre-conditions for History to be studied as historians do.

Bertram (2008c) describes the procedures of ‘doing’ History as an in-depth analysis of sources, where the primary text is linked to its author, the context in which it was written is examined, and the sub-text is also used to determine the intention, motive, purpose and plans of the writer. Learners engage with sources as historians do in order to detect bias and trustworthiness. In order to evaluate the usefulness/authenticity of the source, learners must be given pertinent information about the dates, origin, purpose and writer of the source.

In another of Bertram’s (2008b) studies, she found that learner’s assessment tasks in the FET History curriculum had the appearance of being source-based but seldom required learners to think like historians. Students also did not possess a substantial and coherent knowledge base. Her findings indicated that the FET History curriculum was in danger of losing its substantive knowledge dimensions as the procedural dimension gained momentum. Bertram (2008c) argues that a curriculum focussing on everyday knowledge rather than on disciplinary knowledge, did not induct learners into a discipline.

3.4 Theories of knowledge and the South African discipline of History

The old History curriculum from the years of apartheid had its own rules, pedagogy and method of assessment which were different from other subjects. There was a vertical ‘hierarchical’ organisation of knowledge, where new knowledge built on previous knowledge. The new educational policy and the challenge of the 1990s in the form of the National Qualifications Framework (NQF) and Curriculum 2005 attempted to

integrate education and training in order to overcome social inequalities (Ensor & Galant, 2005). There was concerted effort by the Department of Education, curriculum designers, publishers, and textbook writers to incorporate everyday knowledge into schooling via curricula, pedagogy and textbooks. The integration blurred boundaries between education and training, and between the different component contents of the academic curriculum at tertiary and school level. Although empowerment and transferability of knowledge was its aim, the consequences were different for different learners.

History, in the new integrated curriculum, is no longer defined by its content, language, concepts or rules. Instead, learners acquire concepts using the everyday language of the theme (Hoadley et al, 2002). Bertram (2008a) argues that the aim to integrate school knowledge (academic knowledge) and everyday knowledge strongly in the South African curriculum, blurring boundaries between the both, intended to make knowledge more relevant, accessible and easier to learn. The NCS presents knowledge in more integrated ways. The knowledge is structured using key historical themes, strongly emphasizing the development of enquiry skills (procedural domain) (Bertram, 2008a, p. 318). Ensor & Galant (2005, p. 301) point to the considerable amount of research that indicate a crisis in Maths teaching and learning where teachers are deemed to be failing to teach adequately and learners are failing to perform. By comparison, there is not enough research in the field of History, its teaching and in the testing of learners as they exit the GET band to ascertain how much of historical knowledge they possess at this crucial stage. The relevance of this study is thus seen in the context of these circumstances.

The new curriculum in South Africa also emphasizes a form of knowledge entitled 'indigenous knowledge'. This type of knowledge includes insights and respect for different scientific perspectives and sensitivity to cultural beliefs, prejudices and practices in society, mobilizing African indigenous scientific knowledge and practices (Green & Naidoo, 2008). This study utilises the concept of 'Eurocentric History or knowledge' as that which is influenced by European countries. It further utilises the concept of 'Inclusive knowledge' as that which involves recognition of the influence of the indigenous people and other parts of the world. This is a vital category for understanding the History curriculum, considering that the pre-1994 History was seen

as 'Eurocentric'. It is a category that facilitates comparison of pre-1994 and post-1994 History. Post-1994 History is designed to be more inclusive and this category makes explicit the degree of inclusivity in so far as indigenous knowledge is concerned.

The concepts of Bernstein allow us to recognise different knowledge structures and to name them as he did. These concepts also allow us to ascertain changes in knowledge structures and to categorise these changes. Bloom's Revised Taxonomy (Krathwohl, 2002) helps us to build on this understanding of knowledge, particularly the cognitive demand in each of the textbooks in the study. First introduced in 1956, Bloom's Taxonomy classifies learning objectives. This study draws from Bloom's Revised Taxonomy of Educational Objectives (Krathwohl, 2002) which embodies the Cognitive Process Dimension and the Knowledge Dimension and its constituent categories. The categories facilitate the process of identifying differences in these dimensions as they are manifested in the textbooks selected for the analysis.

Bloom's Revised Taxonomy also recognises and builds on the procedural dimension of knowledge. Drawing on Schwab's (1978) distinctions between procedural and substantive knowledge, one is also able to establish how the new History curriculum has embraced the incorporation of the blend. Bernstein's perspective of looking at knowledge involves the acknowledgment that knowledge can exist within a formal discourse (school) and within the local or everyday discourse. Knowledge can also exist in vertical and horizontal knowledge structures. Everyday knowledge consequently features in what Bernstein defines as a horizontal structure. School or formal knowledge features in his definition of a vertical structure.

While Bernstein separates vertical and horizontal knowledge structures as two different discourses, Bloom's understanding of knowledge involves levels of knowledge (Cognitive Process Domain) and types of knowledge (Knowledge Dimension). There is also procedural knowledge in both vertical and horizontal discourses. For example, learning to ride a bicycle involves procedural knowledge that is located in the everyday discourse. It differs significantly from History which also utilises procedural knowledge that is located in the formal discourse or schooling system. The point is that all the detailed descriptions of knowledge create an enhanced understanding of its balance in History textbooks. The study is using the concepts from various scholars

who have already explored and categorised knowledge. This multi-layered approach allows the investigation to proceed using the various categorisations to understand the differences, if any between the knowledge representations in the History textbooks.

3.5 Conclusion

The key theoretical concepts that inform this study are the ideas of historical knowledge presented in the form of continua. The first involves the concept of historical knowledge presented as everyday knowledge and academic knowledge along one continuum. The second continuum involves the concept of historical knowledge presented as procedural and substantive knowledge. The study aims to use these concepts to interrogate four Grade 6 Social Science textbooks.

CHAPTER FOUR

Research Design and Methodology

4.1 Introduction to the chapter

The chapter provides a gives an explicit description of the methods I employed to conduct the study. I commence this chapter by clarifying my epistemological and ontological assumptions that affect both my choice of design and methodology, also providing justification for the methodology and approach used. The chapter also describes the sampling of the textbooks amongst the great variety of textbooks available and the construction of the analytic tool employed to analyse the data. Examples of quantitative analysis are included to exemplify the analysis. Finally, the methodological hurdles of the study are identified in the limitations chapter of the study.

This study is located within the interpretive paradigm using the methodology of content analysis. It utilises the mixed-mode approach which is essentially a combination of qualitative and quantitative research. Although this study has referred to and drawn from literature in other countries, its focus is in the South African context. There is more value to a study in our own context for the general advancement in research. Grade 6 History textbooks are analysed so that their trends and patterns in knowledge constructions can be studied.

4.2 Epistemological and ontological assumptions

“Epistemological assumptions concern the researcher’s belief about the nature and forms of knowledge, how these are acquired and communicated to others” (Burrell & Morgan, 1979 as cited by Cohen et al., 2007, p. 7). The alignment of the researcher is within the interpretive paradigm which profoundly affects how knowledge is uncovered. The methodology used in this study is dependent on this view of knowledge. Knowledge in this research is not regarded as ‘hard and objective’ but more personal and subjective. The researcher undertook a content analysis of textbooks by drawing on a series of questions designated as conceptual criteria for the analysis. Textbooks themselves are different interpretations of knowledge and the researcher acknowledges and understands these as multiple realities and reconstructions. The intention of research is to understand how knowledge is constructed in the textbooks. The researcher utilises

sociology of knowledge perspective, where she is interrogating knowledge structures and how these affect the induction of learners into the discipline of History. The researcher is not analysing the content or the substance of History in the textbooks as historians would do. There is a difference between analysing historical accuracy and analysing the representation of the structures of knowledge. The researcher's location in the study of the latter is made clear.

Ontological assumptions, according to Cohen et al. (2007, p. 7), concern "the researcher's belief about the nature of social reality being studied". In other words, authors acknowledge whether social reality exists externally to the individual or whether it is a product of individual consciousness. I align myself with Apple (2000, p. 180) when he states that "Reality, then doesn't stalk around with a label. What something is, what it does, one's evaluation of it – all this, is not naturally pre-ordained. It is socially constructed". The aim of this study is to explore these different perspectives. The theoretical perspective underpinning this research is the view that reality is a construction by people (Bogdan & Biklen, 1982, p. 215). Research is double-hermeneutic as it attempts to re-interpret the textbook that is already interpreted by the author/s. The alignment of the researcher profoundly affects how she will go about uncovering knowledge of social behaviour. The researcher's methodology is therefore dependent on her view of knowledge. My view is that knowledge is not hard and objective but it is personal and subjective. The aim is not to establish some kind of inherent 'truth' but to reveal multiple 'truths' as told from multiple angles. Methodologies are purposive so that study objectives can be achieved. The design and methodology are inter-twined, allowing the researcher to make sense of data. Content analysis as a methodology facilitates a type of 'knowledge making' that fosters understanding of the phenomena.

4.3 Sampling

The sampling of the textbooks is purposive. The data sources are four Grade 6 textbooks. The idea of a multiple data source is created in the larger sample size. Four Grade 6 History or Social Science textbooks, two before 1994 and two after 1994 have been sampled. The two selected to represent the period before 1994 or the apartheid era, originates from the 1980s. According to Siebörger (2000), more progressive publishers

of the 1980s were producing books with a skills-based, discipline-led pedagogy which contrasted with the earlier decade. The two selected for the period after 1994, will specifically be those books prepared for the National Curriculum Framework or the Revised National curriculum. The books were and are still supported and used by History educators. The two books selected for the period after 1994 represent the major publishing houses listed in the Department of Education's catalogue for the procurement of textbooks in *Learning and Teaching Support Material, Texts, Catalogue for the 2009 Academic Year*. This selection was purposive as they are the publishers that are regarded as 'prestigious' or holders of good reputations as producers of school textbooks. The fact that they are listed on the official Department textbook list was an important consideration for this study. Apart from this, these publishers frequently set up book displays at Department workshops where teachers are encouraged to view samples representing the ideas promulgated at the workshops. For example, representatives of the publishers were at the workshop for educators being introduced to an Outcomes-Based Education. Books on display utilised the new approach to learning.

The two books from the period before 1994 were selected because they were commonly prescribed and used by House of Delegates schools. They were considered for this study as they were the most popular books in use at the time. Similar content across all four textbooks were analysed to show how different methodologies are used to present the same material and if the material had altered, to what extent. The chapter of '*History of Medical Science*' is a common chapter across all four texts and is featured in the syllabus or the Knowledge Focus section or the 'content' section of the *Revised National Curriculum Statement Grades R-9 (Schools) Policy (2002)* for Grade 6 Social Sciences. One of the books, selected to portray knowledge after 1994, was chosen because it was given to the educators at a workshop for the new revised curriculum by the leading publisher. It is popular among networking teachers who have common work schedules for this learning area. The selection of this book was based on its accessibility and because it is presently being used by the networking teachers. Apart from featuring on the Department of Education's catalogue for the procurement of school textbooks, the publishers of the book have since formulated a package for teachers using the book. The package includes completed work schedules and lesson plans for teachers, simplifying lesson planning considerably and thereby making the purchase more attractive. The second textbook has also been selected because of its

accessibility. It is also featured on the Department List and publishers have, in the interim, sent free learner's books for Grade 6 Social Sciences to schools. All four textbooks analysed in this study were therefore selected due to their popularity, accessibility, publication and prestige.

The choice of books, in term of their years of publication was purposive. Each book provided an idea of how knowledge was structured and presented by the textbook at that time. Since the books were the popular choice at that time, they carried methodological approaches and content that was deemed favourable for use in schools. Analysis of each one, in terms of their publication dates, provided a sense of how knowledge changed to represent the different ideologies and choices over the years.

The following table indicates the choice of the books and their years of publication. It is also possible to easily identify the text names and the way the study uses them in later discussions. For this study, I use Text A, Text B, Text C and Text D instead of their names. The publishers concerned have provided written approval for the inclusion of their books in the study. These have been included in the Appendix section of this thesis. I take up the discussion of ethics later in the study.

| Text (as used in the study) | Full name of the textbook | Publisher | Year of Publication |
|------------------------------------|--|-----------------------|----------------------------|
| Text A | History 2000. Standard 4 | Nasou Limited | 1983 |
| Text B | History is About Change. Standard 4 | Shuter & Shooter | 1982 |
| Text C | New Day-by-Day Social Sciences. Grade 6 | Maskew Miller Longman | 2004 |
| Text D | Shuters Social Sciences. Grade 6. Learner's Book | Shuter & Shooter | 2009 |

It is not possible to generalise from the sampled textbooks as they cannot represent the larger variety available. The study undertakes to explore the phenomenon of knowledge representations and does not aim to make generalisations due to the restricted sample size. The findings of this study may be applicable to the sample chosen but cannot be

generalised to all textbooks used for Grade 6 Social Sciences. As a result of the analysis being in-depth, a larger sample could not be considered. The production of copious amounts of data would have made representation and analysis difficult.

4.4 Content Analysis

Content analysis, as the chosen methodology, is said to provide the most direct evidence in the form of emerging patterns of knowledge representations. Content analysis has been defined by Cohen et al. (2007) as a process of summarising and reporting written data. Krippendorp as cited by Cohen et al. (2007, p. 475) define it as “a research technique for making replicable and valid references which can be any written communicable materials intended to be read and interpreted by any person other than analysts”. Content analysis in this study is used to extract numerical data from word-based data. The numerical data is then studied and qualitative descriptions are gleaned from the presentation of data in tables.

According to Holsti (1968), the purpose of content analysis is to describe trends in communication content and to relate known characteristics of sources to the messages they produce (cited by Cohen et al., 2007). The process of extracting numerical data from word-based data is regarded as the highest quality of content analytic studies involving qualitative and quantitative analysis. This mixed-mode technique gives a greater ‘scientific’ rigour to textbook analysis. The advantage of this research technique is that it allows for the making of replicable and valid inferences from texts, where verification through reanalysis is possible (Krippendorp, 2004 in Cohen et al, 2007).

Documents, like textbooks, contain valuable information about people, their thoughts and attitudes, the nuances of which may be extracted through this technique. It must be understood that while the technique can be replicated, each researcher operates with a different lens and could therefore obtain reasonably different data. There is no guarantee that two different researchers will obtain the exact same results due to the nature of the study. That kind of objectivity in research is positivist in nature and is not possible in this study due to the “elusive and intangible quality of the social phenomena” being studied (Cohen et al., 2007, p. 11).

The study's interpretive nature locates the researcher in a type of paradigm that acknowledges reality as a 'multiple construction'. This allows for different constructions of reality and meaning. By being open, honest and forthright about the objectives, means and modes of study and analysis, the researcher acknowledges the limitations of this study. This however, does not detract from the value of the methodology of choice in obtaining information from texts. In aspiring towards valid research, the researcher follows a carefully constructed tool. The researcher also attempts to be consistent in coding and analysing data.

This research attempts to categorise the knowledge in the textbooks and to make sense of its construction by using what is termed 'inductive-deductive' reasoning. Here the researcher is involved in a "back-and-forth process of induction (from observation to hypothesis) and deduction (from hypothesis to implications)" (Mouly, 1978 as cited by Cohen, Manion & Morrison, 2007, p. 6). The researcher chose to work between these two poles to arrive at some kind of interpretation. The researcher commenced by writing a qualitative description of each book, providing a general or overall impression of the appearance of knowledge, before doing a detailed deductive analysis using the framework / analytic tool below. The researcher looked for trends and patterns in the data and then considered what the implications held for the phenomenon under study.

4.5 Quantitative Analysis

4.5.1 The construction of an analytic tool

A system for coding and categorising the data was developed. This system constituted an analytic tool that will be applied to all textbooks analysing the same topic. The chapter on the '*History of Medical Science*' is a common theme running across all four textbooks. This chapter will be analysed to determine trends and patterns in knowledge patterns. The qualitative view of the textbooks and the nature of the emerging trends prompted the researcher to draw from the study of Green & Naidoo (2008) in their analysis of Science textbooks. The data collection plan includes a "structuring content analysis" to filter out parts of the text in order to construct a "cross-section of the material using specific criteria" (Cohen et al., 2007, p. 480). The criteria will be the knowledge typologies from Green & Naidoo (2008) and Schwab (1978).

Following Green & Naidoo's (2008) study, the texts were divided into segments or chunks of information. The unit of analysis for this study is the segment which constituted the form of paragraph (sentences or groups of sentences), the image/picture and the task. All segments that reflected knowledge dimensions were coded. Segments that did not reflect knowledge contents, for example, headings, lead-in statements, statements describing the structure of the curriculum, and how it works, how it should be used by the teacher, direct information to the teacher, how teaching should be conducted, instructions to the learner, outcomes for the unit, rubrics for self-analysis etc., were not coded.

Green & Naidoo's (2008) study provided the most succinct and generic descriptions of knowledge in their style, format and type. Their categories of knowledge were adapted to my analysis of History books. The mixed-mode analysis, counting and coding the frequencies of knowledge types were also utilised. Schwab's (1978) distinction between substantive and procedural knowledge (Dean, 2004) were used to support Green & Naidoo's (2008) framework. Substantive knowledge is described as the 'content' of History or what History is 'about'. Procedural knowledge concerns historical evidence, explanation and change that provide understanding of History as a discipline and what shapes the way we go about 'doing' History.

4.5.2 Knowledge representations as coded in History Textbooks

4.5.2.1 Tabularised form of the Analytic Tool

The following table shows a reduced form of the steps used to code the knowledge, tasks, images and language tool-boxes in the textbooks.

| Unit of Analysis | Analysis Category |
|--|---|
| Headings, statements of curriculum, Learning Outcomes, information to the teacher, self-assessment rubrics, etc. | Not coded |
| 1. Paragraph of substantive knowledge of the instructional discourse. | a) Academic : general, historical content or Everyday: local, contextualised b) Eurocentric: European History or Inclusive Knowledge: History of different people nationally and internationally. |
| 2. Activity questions/ Tasks | Bloom's Revised Taxonomy a) Knowledge Dimension b) Cognitive Process Dimension c) Content of task: Historical (C++) or Generic (C--) d) Historical (C++) or Generic skills (C--) in tasks. e) Oral/ written/ unspecified |
| 3. Images | a) Historical (C++) or generic (C--) in content. b) Links to task, knowledge, both or none. c) Provenance of images: Sourced, corroborated, contextualised: Historical (C++, C+) or generic (C--, C-). |
| 4. Language Mediation Tool-Boxes | Number of Tool-Boxes per book. |

The table is explained in greater detail in the following steps of the analytic tool.

4.5.2.2 The tool applied to all texts constituted a series of four steps:

Step One: Analysis of knowledge statements:

The unit of analysis was the paragraph. Each paragraph was coded as Knowledge Statement and numbered as K1, K2 etc. The information supporting an image is also coded as a Knowledge Statement. According to Bernstein, (1996) the Specific Instructional Discourse (SID) refers to the knowledge and cognitive competencies, which indicate the knowledge contents to be taught in the teaching-learning context. The Specific Regulative Discourse (SRD) which refers to the values, attitudes and socio-affective competencies to establish order in the teaching-learning context is not relevant to the present study. This study codes the statements reflecting the instructional discourse only.

- a) In order to analyse finer distinctions in the instructional discourse, the study differentiates between the academic tradition and the everyday dimension of knowledge representations. The academic tradition is content-focused and stresses abstract theoretical knowledge or the narrative of each segment. The everyday dimension focuses on the knowledge that is local and contextualised. Each knowledge statement was categorised as either Academic or Everyday knowledge.

Example 1 shows a knowledge statement coded as Academic knowledge:

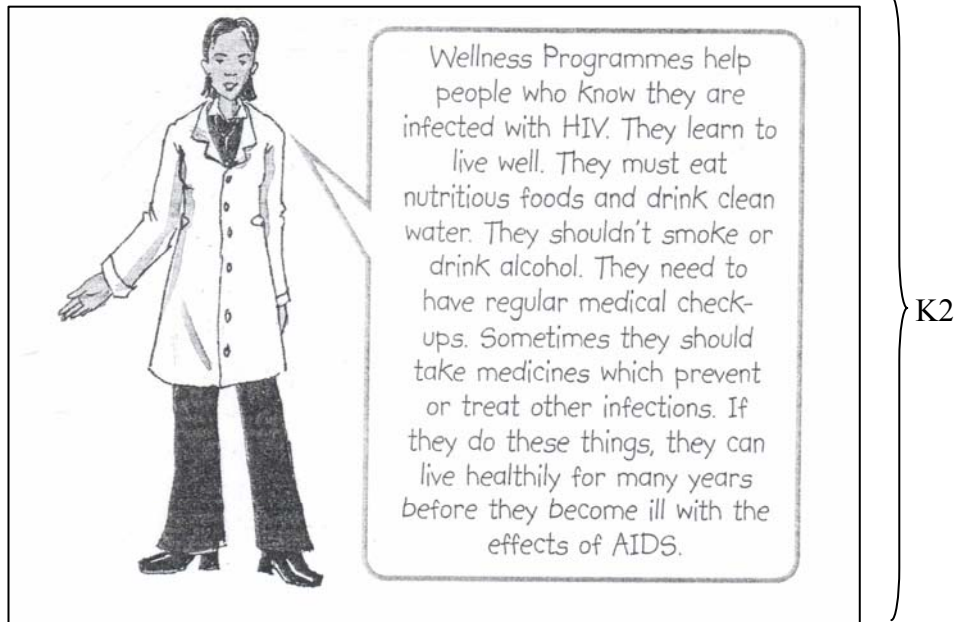
Retrieved from *History is about Change*. Standard 4. Pg. 169

| | | |
|---|---|----|
| The Black Death had a terrible effect on society in Europe. The Christian church was severely weakened for, not only had large numbers of churchmen died, but people also began to believe that the church could not help them. Many turned to violence and led wild and useless lives. Education declined and farming was seriously affected. One third of the labour force died. The labourers who survived refused to accept low wages and trouble broke out between landlords and peasants. | } | K1 |
|---|---|----|

The knowledge statement (K1) is coded as Academic knowledge because it is content-focused and stresses abstract theoretical knowledge.

Example 2 shows a knowledge statement coded as Everyday knowledge.

Retrieved from *New Day-by-Day Social Sciences*. Grade 6. Pg. 153.



The knowledge statement (K2) is coded as Everyday knowledge because its content is local and contextualised. It is knowledge that can appear in a Life Orientation or English textbook. It is not related to History content.

- b) The distinctions between academic and everyday knowledge do not capture the notion of indigenous knowledge, a form of knowledge emphasized in the new curriculum for South Africa. This type of knowledge include insights and respect for different scientific perspectives and a sensitivity to cultural beliefs, prejudices and practices in society, mobilizing African indigenous scientific knowledge and practises. Green & Naidoo (2008, pp. 238-239) drew from the suggestion of other writers that indigenous communities were able to understand and explain the world using unique and locally generated forms of knowledge. These ways of knowing contrasted with the western or canonical ways of knowing and writers have since acknowledged the need to present a more balanced or inclusive view (Ninnes, 2000 in Green & Naidoo, 2008. p. 239). For this reason, this study categorised each knowledge statement as either Eurocentric (influence by European or countries in

Europe) or Inclusive (involving recognition of the influence of the indigenous and other parts of the world).

Example 3 shows a knowledge statement coded as Eurocentric knowledge.

Retrieved from *History 2000*. Standard 4 Pg. 107.

Joseph Lister took an arts degree at University College, London. In 1848 he was a victim of smallpox and had to spend some time convalescing in Ireland. In 1852 he obtained his degree in medicine and was made a fellow of the Royal College of Surgeons (FRCS). When he had completed his studies he worked under the supervision of the brilliant surgeon, James Syme. Although he was advised to spend some time abroad gaining more experience, he settled in Scotland. He married Agnes, the daughter of James Syme. In 1857 he was placed in charge of the wards when the senior surgeons were away and was allowed to perform minor operations without supervision. In 1860 he became a fellow of the Royal Society.

K3

The knowledge statement (K3) was coded as Eurocentric as the contents reveal information restricted to the European continent.

Example 4 shows a knowledge statement coded as Inclusive knowledge.

Retrieved from *New Day-by-Day Social Sciences*. Grade 6. Pg. 136

San people believed that a person could shoot invisible arrows at someone to make that person become ill. A **shaman** needed to heal the sick person by doing a healing dance, during which the shaman went into a trance. They believed that when the shaman was in the trance, he received special powers to draw the illness out of the sick person by laying hands on him or her.

K4

The knowledge statement (K4) was coded as Inclusive knowledge because it included information about the San and indigenous practices in Southern Africa.

Step Two: Each segment entitled as “pupil activity” or “assessment exercise” in the text which involved some kind of learner response (either written or oral), was coded as Tasks and numbered as T1, T2 etc. Bloom’s Revised Taxonomy was used to analyse finer distinctions in knowledge and cognitive processes expected.

a) Each Task was categorised as one of the types of knowledge according to the main level in the knowledge dimension. According to the revised taxonomy the main level in the knowledge dimension are:

- A. Factual knowledge – The basic elements that learners must know to be acquainted with the discipline or solve problems in it.
- B. Conceptual knowledge – The inter-relationships among the basic elements within a larger structure that enable them to function together.
- C. Procedural knowledge – How to do something, methods of enquiry, and criteria for using skills, algorithms, techniques, and methods.
- D. Metacognitive knowledge – Knowledge of cognition in general as well as awareness and knowledge of one’s own cognition.

(Krathwohl, 2002, pp. 214, 215, as cited in Green & Naidoo, 2008)

Example 5 shows a task coded as Factual knowledge or “A”.

Retrieved from *New Day-by-Day Social Sciences*. Grade 6. Pg. 146

CHOLERA SHOCK!

Fourteen people have died in a cholera epidemic that has suddenly hit the Eastern Cape.

1000 villagers from the Tambo and Chris Hani districts have been admitted to local clinics with cholera in the last week. A house-to-house search showed that there were many more people sick with similar symptoms.

[The head] of health services in the Chris Hani District Municipality said:

“We are baffled (don’t know the answer) by the origin of the bacteria. This is the first time in the history of this area that we have had cholera.

“All we have been able to [find out] is that there was a funeral last weekend. There was also a community prayer meeting where people had water and ‘maheu’ and other [food]. A carrier of the bacteria could have spread it from there.”

Emergency steps taken

by the government include [giving] bleach for water purification and R350 000 for emergency sanitation.

[Minister of Water Affairs] Kasrils said: “We have put fresh-water tanks and toilets in all public [places], including schools, churches, clinics and affected areas. These are only temporary measures. We want to put in place a permanent water supply system here. We want to stamp out this problem.”

Activity 10

1. Look up the word cholera in your dictionary. Discuss the definition with the class.
2. Read the article and write your answers in your book.
 - How many people were ill with cholera in the Eastern Cape in February 2003?
 - How many people had died from cholera in this area?

} T2

The task (T2) was coded as Factual knowledge or “A” because it required learners to have knowledge of basic elements of the discipline.

b) Each Task was then categorised according to the main levels in the cognitive process dimension. According to the revised taxonomy, the main levels in the cognitive process dimension are:

- 1.0 Remember – Retrieving relevant knowledge from long term memory. (Level One)
- 2.0 Understand – Determining the meaning of instructional messages, including oral, written, and graphic communication. (Level Two)
- 3.0 Apply – Carrying out or using a procedure in a given situation. (Level Three)
- 4.0 Analyse – Breaking material into its constituent parts and detecting how the parts relate to one another and to an overall structure or purpose. (Level Four)
- 5.0 Evaluate – making judgements based on criteria and standards. (Level Five)
- 6.0 Create – Putting elements together to form a novel, coherent whole or making an original product. (Level Six)


(Krathwohl, 2002, pp. 214, 215, as cited in Green & Naidoo, 2008)

Example 6 shows a task coded as 2.0 or “Understand” in the cognitive process domain


Retrieved from *Shuters Social Sciences*. Grade 6. Pg. 123

plants. He did operations on people’s bodies and he also worked on their teeth. He knew the position and function of the main organs in the human body. He wrote about his work on papyrus (paper made out of reeds).

Imhotep started a medical school in Egypt that was the centre of medical teaching for many centuries. His healing was so good that, even after his death, Egyptians, Greeks and Romans worshipped him as a god of healing.



A statue of Imhotep



The famous step pyramid that Imhotep helped to design

Historians believe that Imhotep also designed the pyramids and that he was the first person to suggest that stone could be used to make buildings. He was an adviser to the Egyptian pharaohs (kings).

Discuss the following questions:

1. What did Imhotep do that made people think of him as a doctor? }
2. Is your answer to Question 1 a fact or an opinion? Why do you say so?
3. How do we know that people thought that Imhotep’s healing was good?
4. Imhotep healed people and taught about healing. What else did he do?
5. What do we call people who work on other people’s teeth?

Share your ideas with another group of learners.

T1

The task (T1) is coded as 2.0 (Level 2) or “Understand” as it requires learners to determine the meaning of written communication.

c) The Content of each task was then categorised as strongly historical (C++), historical (C+), as everyday or generic (C-) and strongly everyday or strongly generic (C--).

Example 7 shows the content of a task as strongly historical.

Retrieved from *History is about Change*. Pg. 170.

Questions and things to do

1. Explain why medieval monasteries were places where sick people could go.

The content of the task is coded as strongly historical (C++) as it involves historical knowledge of medieval monasteries.

Example 8 shows the content of a task as strongly generic.

Retrieved from *Shuters Social Sciences*. Grade 6. Pg. 118.

5. Copy the table below into your exercise book and complete it for your group. This table only has space for four learners' names. Add more rows to your table so that there is a row for each learner's name in your group.

| Learner's name | Name of the disease | The symptoms | How he or she got better |
|----------------|---------------------|--------------|--------------------------|
| | | | |
| | | | |
| | | | |
| | | | |

The task was coded as strongly generic (C--) as it involved no content of History. It constituted general questions based on general knowledge of the learners.

d) The same tasks were then categorised as utilising either historical or generic skills. If the task requested learners to respond using the skills of a historian (use sources to construct some meaning), then the task would be coded as C++ (strongly historical) or

C+ (historical), depending on the nature of the skill involved. If the task requested the learner to engage in a generic activity, like answering a comprehension question, then the task was coded as C- - (strongly generic) or C- (generic) depending on the nature of the comprehension question (involving minimal historical skill).

Example 9 categorised the skill used in the following task as generic (C+).

Retrieved from *History is about Change*. Pg. 170.

Questions and things to do

1. Explain why medieval monasteries were places where sick people could go.

The task was coded as (C-) involving generic skills, although not strongly generic (C--). Learners could read the passage and find the answers there. It required some knowledge of History but involved a generic skill of comprehension to elicit an answer from the accompanying narrative.

Example 10 shows the skill utilised in the task as strongly generic.

Retrieved from *Shuters Social Sciences*. Grade 6. Pg. 118.

5. Copy the table below into your exercise book and complete it for your group. This table only has space for four learners' names. Add more rows to your table so that there is a row for each learner's name in your group.

| Learner's name | Name of the disease | The symptoms | How he or she got better |
|----------------|---------------------|--------------|--------------------------|
| | | | |
| | | | |
| | | | |
| | | | |

This is the same task which had its content coded as strongly generic. The skill involved in the task is also strongly generic as the learners do not have to use any historical or subject-specific skill to complete the task.

- f) Tasks were then categorised as Oral, Written or unspecified (where the intention of the question was not clearly discernable. The task did not request that a pupil respond in writing or orally). The objective in categorizing these tasks was to determine how much of written activity was requested by each of the texts.

Example 11 shows the task that was classified as “written”.

Retrieved from *Shuters Social Sciences*. Grade 6. Pg. 120

In your exercise book, draw a timeline to show the order in which these medical discoveries and achievements happened.

Then write your answers to the following questions:

1. Who is called the 'Father of medicine' because he started a school of medicine?
 2. How do X-rays help doctors?
- } T1

The task (T1) was coded as a written task as it explicitly requested learners to “write” answers.

Example 12 shows the task that was classified as “oral”.

Retrieved from *Shuters Social Sciences*. Grade 6. Pg. 123

Discuss the following questions:

1. What did Imhotep do that made people think of him as a doctor?
2. Is your answer to Question 1 a fact or an opinion? Why do you say so?
3. How do we know that people thought that Imhotep's healing was good?
4. Imhotep healed people and taught about healing. What else did he do?
5. What do we call people who work on other people's teeth?

Share your ideas with another group of learners.

The task was coded as an oral task as it explicitly requested learners to “discuss”.

Example 13 shows the task that was classified as “unspecified”.

Retrieved from *Shuters Social Sciences*. Grade 6. Pg. 119

How can you help to fight germs and stop them from spreading?

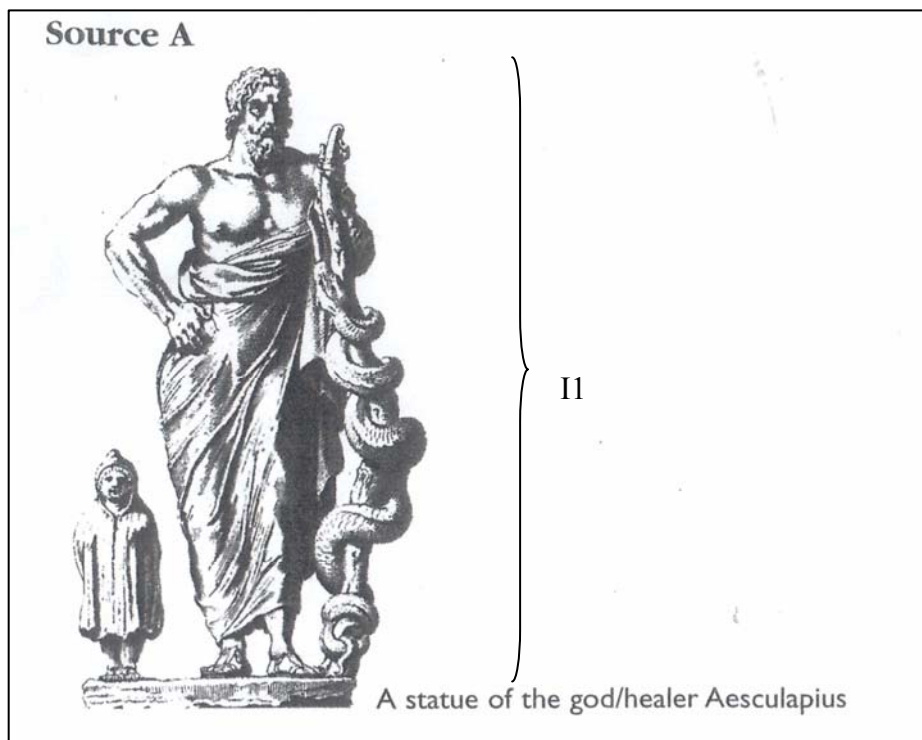
The task was coded as “unspecified” as it did not request learners to “write” or “discuss” anything. It was also not numbered but appeared before two instructions that were also not numbered or presented in any sequence. Example 19 in this chapter shows this clearly.

Step Three: Pictures or images in each text were then numbered and categorised as I 1, I 2 etc.

a) Each image was then classified as either instructional/ subject-specific (historical) or generic (everyday) images.

Example 14 shows the image that was classified as instructional/subject-specific (historical).

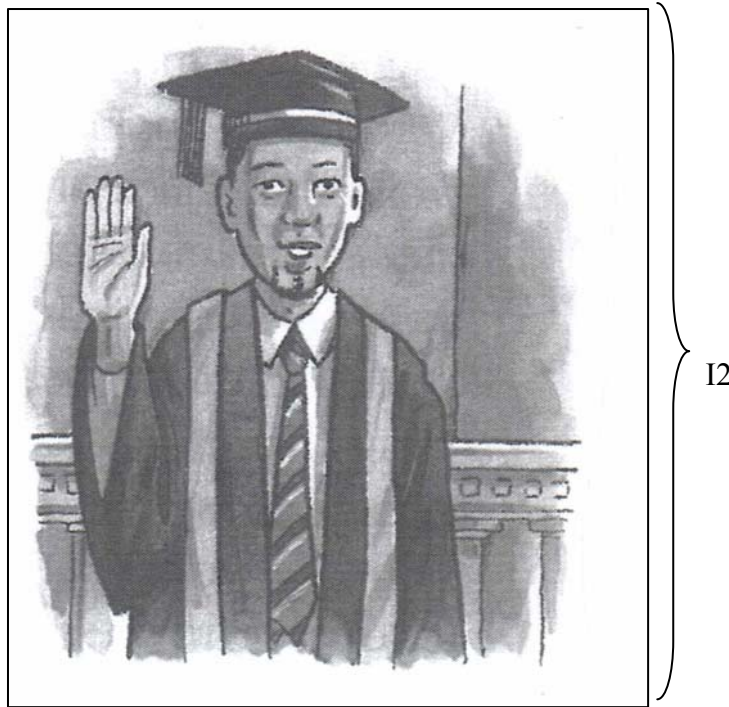
Retrieved from *New Day-by-Day Social Sciences*. Grade 6. Pg. 135



The image (I1) was coded as subject-specific as it explicitly depicts historical content. The caption identifies the statue as the god Aesculapius which locates the image in time. The snake is historically the creature associated with healing and this is captured by image in its portrayal of the snake coiled around the rod.

Example 15 shows the image that was classified as generic / everyday.

Retrieved from *New Day-by-Day Social Sciences*. Grade 6. Pg. 139



The image (I2) was coded as everyday as it did not have any historical or subject-specific content. It was an image that could appear in any textbook, not necessarily in a History textbook.

b) Pictures/images in all the texts were then categorised as:


1. Linked to the task only.
2. Linked to the knowledge statement.
3. Linked to the task and knowledge statement.
4. No link to either task or knowledge statement. Functioned as an icon.

Example 16 shows the image was linked to the knowledge statement.

Retrieved from *History 2000*. Pg. 110

Wilhelm Konrad Röntgen (1845–1922)

K1 { Röntgen was born in the town of Lennep in Prussia which forms part of Germany today. He received his early education in Holland. He specialised in mathematics and physics. He lectured at a number of universities. While conducting an experiment at the Würzburg University he discovered that certain rays could penetrate solid objects. This discovery was made while he was experimenting with the *Crookes tube*. Sir William Crookes discovered that an electric current passed through a vacuum in a glass tube would light up the tube. The fluorescent tube is used in most schools, hotels, shops, etc. where bright light is required.



I3 {

Wilhelm Röntgen.

The image block contains a text paragraph on the left and a portrait of Wilhelm Röntgen on the right. A bracket labeled 'K1' spans the text paragraph. Another bracket labeled 'I3' spans the entire image area, including both the text and the portrait.

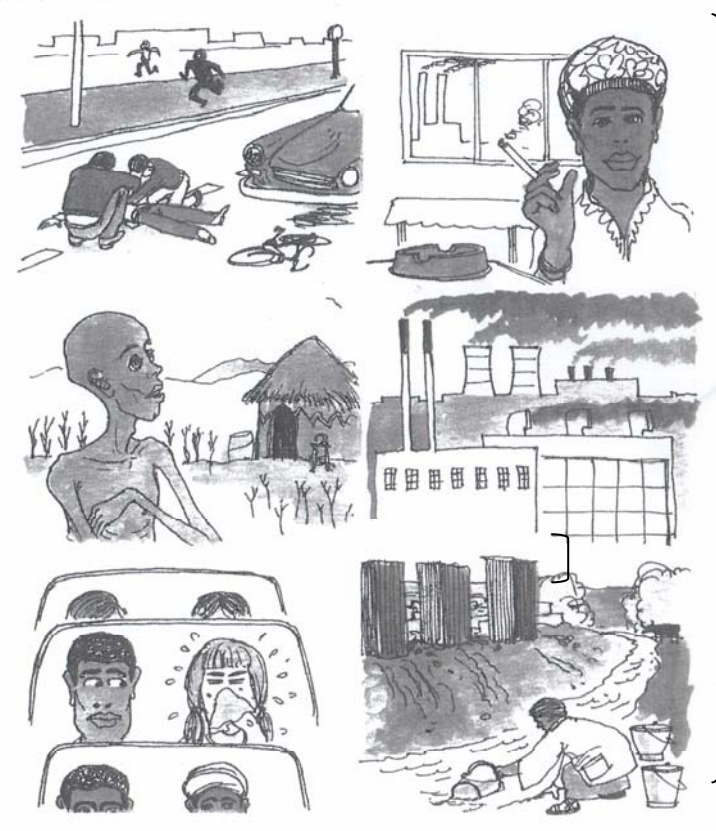
The image (I3) was coded as linked to the knowledge statement (K1) as the picture is directly related to the content on Wilhelm Röntgen.

Example 17 shows the image was linked to the knowledge statement and the task.

Retrieved from *New day-by-Day Social Sciences*. Grade 6. Pg. 134.

I What causes illness?

Through the ages, different groups of people have had different beliefs about the causes of illness. You will learn about some of them in this unit. } K1



} I4

Activity 1

Look carefully at the pictures and sentences.

T1 { 1. What are some of the things that make people ill? Look at the pictures and discuss them with your group. } T2

T3 { 2. Write a list of all the things you think cause illness. As you work through the unit, compare the things that people believed about illness with your list. } T4

T5 { 3. Discuss where you might find out about medicine in the past. }

134 History: The history of medicine

The image (I4) is linked to both the knowledge statement (K1) as well as the task (T2, T2). The task requests the learner to look at the pictures and sentences.

c) Pictures/images were then subjected to a further categorisation. The provenance of the images were investigated and then categorised. Images were categorised according to the extent to which their provenance was made explicit. In other words, this categorisation would exemplify the extent to which the images were used as historical sources for each of the texts being analysed. The types of questions that each image was subjected to were:

1. Does the image have a date?
2. Is it clear who took the picture or captured the image?
3. Can the intention, motive and purpose of the author/photographer be identified?
4. Can bias and trustworthiness be ascertained?
5. Can the context of image be described?
6. Does the picture allow the learner to use the supporting information to formulate interpretations and so 'construct' History?
7. Is the learner allowed to utilise the "heuristics of a historian (sourcing, corroboration and contextualisation)" (Havekes, 2009, p. 2).

When some of the criteria regarding provenance of sources were met, the images were coded as (C+). If all the requirements were met, then the images were coded as (C++). If none of the images met these requirements, they were coded as (C--).

Example 18 shows the image where some of the criteria for provenance were clear (coded as C+).

Retrieved from *History is about Change*. Standard 4. Pg. 191.



The provenance of the image (I5) was partly ascertained (C+) as newspapers are used as sources from which local events and History is constructed. The sources are dated and there is clear indication of the time in which the sources were constructed, showing in a sense how History is being constructed.

Example 19 below shows the image where provenance is not explicitly clarified (coded as C--)

Retrieved from *Shuters Social Sciences*. Grade 6. Pg. 119.

How can you help to fight germs and stop them from spreading?

Discuss this question with your group. Look at the pictures below, which may help to give you some ideas.

Share your ideas with another group of learners.

Unit 9 119

I6

The provenance of the images (I6) is unclear (C--) as there is no source interpretation or analysis. There are no captions attached to the pictures which themselves convey generic information. These are clearly not historical sources as there is no information supporting the images. The images are just drawings of people engaged in generic

activities. There is no indication of location or situation in time. Pupils are not requested to engage with the pictures as sources and there is no historical knowledge constructed from learner engagement with it. Pupils therefore do not engage with the images in any historical way. The skills required for this task were generic rather than historical.

Step Four: Finally, each text was analysed to determine the number of Language Toolboxes that mediated language for the learner.

Example 20 shows the Language-Mediation Tool-Box that mediates language for learners of Social Sciences,

Retrieved from *Shuters Social Sciences*. Grade 6. Pg. 118

ACTIVITY 4 Fighting germs

We know that there are diseases all around us. Over the years diseases have killed millions of people in the world.

Smallpox* killed over 60 million people in the eighteenth century!

In 1918 influenza (flu) killed over 25 million people in six months!

HIV* and AIDS* have already infected and killed millions of people!

USEFUL WORDS

AIDS – Acquired Immunodeficiency Syndrome, the name given to the disease that people with HIV have when they cannot get better from common sicknesses such as flu or a cold

HIV – Human Immunodeficiency Virus, a virus that harms the body’s immune system

smallpox – a disease which causes blisters on the skin that leave scars

118 Unit 9

} L1

Language-Mediation Tool-Box (L1) has been identified for coding. It exemplifies the acronym and a disease called ‘small pox’.

Knowledge statements, tasks and images were subjected to a ‘Frequency Analysis’. They were recorded on ‘tally sheets’. The analysis involved counting the number of references to a particular item. Each knowledge statement, task and image was counted, categorised, coded and logged on the ‘tally’ sheets. Statistical analysis of the data resulted in the representation of knowledge statements, tasks and images in averages on tables. These tables were then subjected to interpretation. The statistical analysis of the

data enabled quantitative measurements on tables. The quantities were then analysed qualitatively in terms of its relevance to the identified categories. Text analysis revealed the extent to which knowledge statements and activities privileged instructional discourse, whether knowledge is represented as academic, whether the material presented was Eurocentric or Inclusive, whether images were historical or generic and whether the learners were requested to use historical or generic procedures when interacting with them.

4.6 Exemplar of Analysis

The following pages (89-90) are drawn from the Oxford *Successful Social Science* textbook for Grade 6 (Dilley, Monteith, Proctor & Weldon, 2004). These pages are included to exemplify the tool. The analysis of the two pages follows the steps of the tool.

7

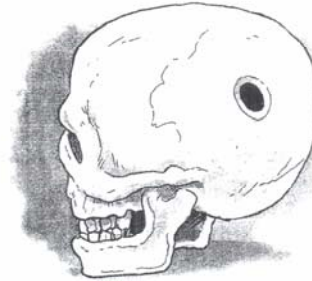
The history of medicine

I: Medicine in ancient times

K1

Throughout history, all over the world, people have tried to cure illness. From very early times people:

- prayed to spirits or gods to cure an ill person
- removed the infected part of a person's body
- used their local minerals, plants or animals to make their own indigenous (that is, local) medicines.



I2

K2

Archaeologists have found evidence that the **San** people used certain plants for healing many thousands of years ago. This is an early example of indigenous medicine in South Africa.

K3

Archaeologists have also found skulls with round holes in them. This is evidence that these people carried out an operation called trepanning. This operation was probably done to people who had bad headaches or mental disorders. The people believed that the hole in the person's skull allowed the evil spirits to escape.

The hole in this skull was made with a hand-made drill that had a sharp stone on the end. Today, surgeons (doctors) use electric drills to make a hole like this.

K6

K4

About 2800 BC the **Chinese** discovered an important technique that is still used today, called acupuncture. Very fine needles are pushed into the body at certain points. The needles allow energy to flow again between the different points of the body. This restores the health of the patient (the person who is ill) and he or she becomes well again.



I1

This Chinese acupuncture diagram shows a few of the places where the acupuncture needles could be pushed into a person's body.

K7

K5

The **Ancient Greeks** began to diagnose (identify) illnesses by watching the patients and working out what could be wrong with their bodies.

LI

Dictionary
diagnose means
to identify

Hippocrates (born 460 BC – died 377 BC) was a famous Greek doctor. He is often called the 'father of medicine'. Hippocrates started several medical schools and wrote many books to teach others what he learned about curing ill people. He believed that exercise, massage, salt water baths, a healthy diet and suitable medicines could cure most diseases.

K8



I3

Hippocrates is often called the 'father of medicine'

K9

Activity 1: Medicine in ancient times

T1

Work in pairs.

1. About how many years ago did the Chinese discover acupuncture?

T2

2. Draw a timeline from 3000 BC until the birth of Christ. (See p 76). Fill in on your timeline:

T3

a) When the Chinese discovered acupuncture

T4

b) When Hippocrates was born

T5

c) When Hippocrates died

T6

What do you notice about a 'BC' timeline?

T7

3. When people become doctors today, they make a promise to use their knowledge and skills to help sick people. This is called the Hippocratic Oath.

In groups, find out about the Hippocratic Oath. Write down what you discover. Each group should then tell the rest of the class what they have learnt.

90

Step One: The title and sub-title were not coded. The unit of analysis was the paragraph. Each paragraph was coded as K1, K2, K3 etc. There were nine knowledge statements on these two pages for coding.

a. Each knowledge statement was coded as everyday knowledge or academic knowledge. As an example K1 was coded as everyday (C-) but not strongly everyday (C--) because K1 does provide some historical data, even though much of the information is everyday in nature.

b. Each knowledge statement is then coded as either inclusive knowledge or Eurocentric knowledge. As an example, K1 is coded as inclusive knowledge as the content of the knowledge statement has no reference to European influence. There is reference to people around the world, which is inclusive in implication.

Step Two: Under the section entitled “Activity” the questions are labelled as tasks, T1, T2, and T3 etc. These represent statements that required learners to perform particular tasks.

a. As an example, T1 is a basic comprehension/recall question. It will be coded as :
A) Factual knowledge, using the cognitive dimension in Bloom’s revised taxonomy.

b. The same task, T1 is then categorised according to the levels in the cognitive process dimension of Bloom’s revised taxonomy. As an example, T1 is coded as Level One (Remember).

c. The content of the task is then coded. As an example, T1 is coded as strongly historical (C++) as it involved questions on Chinese History.

d. The historical or generic skill of the task is considered in this step. The same task T1 is coded as C- (generic) as this is an explicit comprehension question. It requires the learner to use the passage to elicit an answer. It does not require historical skill to answer this question. It was not coded as C- - because it demanded some knowledge of History.

e. In this category, tasks are coded according to what they requested learners to do in respect of written, oral or unspecified activities. As an example, T1 was coded as “unspecified” as it requested the learners to work in pairs but was not precise about

whether learners should write or “say” anything. T7, by comparison requested learners to write and “tell”.

Step Three: Images were categorised and numbered as I1, I2, I3 etc.

a. They had to be coded as instructional/subject-specific images or generic images. As an example, I1 shows the picture of a Chinese man with marks on his body denoting places for needle positions of acupuncture. In terms of the coding procedure, this image is generic (C--) as this picture could be found in any book (Life Orientation, English, Arts and Culture). There is nothing about the picture that suggests anything historical. Even the supporting information linked to the image conveys no information that could relate to the History of acupuncture. Only the knowledge statement or the ‘content’ provides this information. By comparison and to clarify the coding process, Image 3 on the following page is drawn as a further example. Image 3 clearly depicts the idea of age and time. The supporting details also provide it with an historical impression. The dress/attire of the people in the picture also suggests that image three is historical in its content.

b. The images are then categorised according to links with knowledge statements and tasks. As an example, I 1 is linked to the knowledge statement. It is not linked to the task. The tasks do not use the pictures as sources of information.

c. The image is then coded according to the questions listed above. As an example, I 1 was coded as requiring strongly generic (C--). The image has no supporting “historical” information that requires learners to interact with. The image is not adequately sourced, contextualised or corroborated. The image is used in a generic sense where learners are merely making observations without having any historical knowledge. Learners are not engaging with the image as a source of historical information.

Step Four: There is a language Toolbox on page 90 which mediates or exemplifies language for learners by providing a dictionary meaning for “diagnose”. This box is coded as L1.

All knowledge statements, tasks, images and tool-boxes are coded using the four steps of the tool.

4.7 Limitations and Reliability:

This chapter concerns the position of the researcher in terms of her consideration of issues of validity and reliability of this study. There are clear guidelines in academic research on what constitutes a valid and reliable research study. In a study such as this one, the researcher strives to be honest and to acknowledge the parameters and limitations of the study. In this chapter I explicitly state the limitations of this study as I see them and declare my intent not to harm the image of any particular person, publication or publisher. The nature of the study demanded that certain selections of books be made. In this chapter, the researcher makes explicit what her intentions were when she made those selections and declares that she is guided by the highest level of ethics in the conduction of the study.

“Acknowledging limitations empowers the reader to appreciate what constraints were imposed on the study and to understand the context in which the research claims are set” (Vithal & Jansen, 1997, p. 35). Chisholm (1981, p. 5) writes that:

no historian is free from prejudice, from the limitation of his time and that there, therefore, can be no absolute truth; but this does not prohibit an historian from constructing an account or interpretation which really ‘does justice to all evidence recognised’. Thus a criterion of intellectual integrity in the use of evidence, a criterion of scholarship, is established.

The same can be said of a researcher who is also a History educator in the field of education. The study is based on the assumption that textbooks are the primary source of information in the classroom. Teachers could use an array of sources but the textbook has been, over the years, an important source for both learners and teachers (Hindle in Jeppie, 2004). Since the teacher exerts the strongest influence in the classroom, he can change or compensate for the textbook if he has knowledge of the book’s presentations and its ideology etc.

Furthermore, the selection of four texts and the choice of a single chapter from all four texts for the purposes of analysis is seen as an act of aggregation which Weber (1990) in Cohen et al. (2007) identifies as a compromise in reliability. Whole text analyses are

recommended even though it is a time-consuming method. This type of whole-text analysis provides a large amount of data which the researcher has to code and categorise in terms of the analytic tool. The further process of statistical analysis would involve a lengthened study. The selection of the topic '*History of Medical Science*' may also concede a possibility of a limitation as it is an 'everyday' topic which would allow some of its contents to be classified as generic. However, the objective of the study is to determine how generic this topic has become and how much of the 'History' remains in the integration of History and Geography in the Social Sciences.

Although the text information was not intended to be research data and was written for a different context and audience, the researcher's inferences are an interpretation of an already interpreted text (double-hermeneutic). The inferences that the researcher makes is informed by her theoretical framework. The researcher views reality as being socially constructed and that there are multiple perspectives on reality. It is therefore not necessary to try to identify only a single truth. That is not the intention of the researcher. The researcher is mainly trying to understand the phenomenon of knowledge construction in the realm of textbooks.

In the analysis, the issue of subjectivity applies to both the researcher and the author. In order to analyse textbooks, evaluation criteria have to be selected. The researcher considers the literature on the method of content analysis of textbooks to ascertain a typical tool for the evaluation of knowledge representations. There is very little regarding a generic tool that one could use, especially in a South African context. This particular avenue of study is where there is minimal research completed from which to draw. In this particular study, the researcher does her utmost to preserve the integrity of the study by selecting an appropriate tool and using it in an honourable and best possible manner to find and make meaning.

The researcher has been honest about her epistemological and ontological positions and in the light of these positions, the data have been produced. The methodology and all findings are in careful storage for the use of any university. The data can be verified by re-analysis. It is acknowledged that another researcher could possibly come up with different data. There is always a small margin of error in any study. However, in using this analytic tool and in describing how it functions, the researcher is confident that

similar results can be obtained. An advantage of this research is that the data is in the text. Unlike questionnaires and interviews, where participants can refute their initial claims, the texts are available for research replication.

The researcher also acknowledges that the findings of this study might not be representative of the larger population of textbooks. The researcher has chosen a research design that included four Grade 6 History textbooks that were valuable to her in terms of their accessibility and their prestige. The selection was purposive in this particular study. Another researcher could make different choices depending on their own unique positions in a school. This study is important to all educators as it encourages them to view the textbooks they use with a different perspective and will also allow them to compare different texts with the tool designed by this study. The analytic tool can be used to evaluate other textbooks in alternate disciplines and allow teachers and others to get an idea of how knowledge can be presented.

According to Wellington (2000, p. 31) validity refers to the degree to which a method or research tool measures what it is supposed to measure. It is insufficient for a researcher to conduct and conclude a study without verification. For this reason, there are academics in position to review and criticise research, to develop and change. There are ways to check and re-check data. The data must be accessible to the academics for this purpose. The University of KwaZulu-Natal will be provided access to the data for this study.

Reliability of the instrument can be compromised if the classification of the text is inconsistent because of human error, coder variability (within coders and between coders) and ambiguity in coding rules. Words are inherently ambiguous and herein lay the danger of different coders 'reading' differently the meanings in them. Therefore the researcher is explicit about category placements before analysis. The trustworthiness of the research lies in the specificity of the researcher's 'language of description' which is based on her theoretical framework. The researcher has coded and categorised data and checked the coding many times to ensure that errors do not arise.

Ethics concern the rules of human conduct. In this particular research, a set of ethical principles relates to the researcher's membership of a profession. The researcher makes this commitment to search for the truth, what Mouton (2001, p. 239) refers to as "epistemic imperative". The researcher has the obligation to be honest and responsible, with the full understanding of how research is conducted and what implications could arise in the event of dishonesty. While conducting research, the researcher is obliged to use correct procedures to deliver an accurate report on the analysis. The researcher also should not present false information or misrepresent data or allow bias or subjectivity to make unfair selections. Under these circumstances, the researcher would jeopardise future research (Cohen et al., 2007).

In the process of this study, the researcher acknowledges the limits and sources of the study, discloses methods, theories and research designs, does not attack any institution or organisation (publishers, etc.) It was the selection of the books that involved the publishers. The fact that these publishers are the ones that are listed on the Department of Education catalogue for the procurement of *LTSM* was an important consideration for the study. There are 16 publishers in this catalogue but the reason for the selection of these books was because of the access to these books at workshops involving the new curriculum. The researcher holds no grudge against any particular publisher and does not intend any damage to the reputation of any of the publishers which are involved by the selection of their text for this analysis. As an ethical researcher, I made every effort to contact all the publishers of the books involved in the analysis. Some of the representatives of the publishers informed me that permission to use the textbooks was not required, from a legal perspective, as textbooks were public documents. However, I wrote to them and informed them of my intentions with regard to the objective of the study. I received written approval from all the publishers to use the material in their respective books for the analysis. Their correspondence has been included in the Appendix of the thesis.

The design, method, analysis presentation, findings, conclusions or recommendations of research must be guided by the principle of morality (Wellington, 2000). The researcher aims to understand textbooks and how they present information. The fact that the analysis and the findings of this study indicate that the textbooks selected for analysis do not adequately satisfy the curriculum should not compromise the status of

the publisher. It must be remembered that the findings are the result of application of a particular tool. A different tool and another researcher could produce different results. In terms of this tool and the questions this research required answered, the findings are an honest one. Perhaps the concerned publishers would view these results in a favourable light and move towards an improved presentation of knowledge. I re-iterate my ontological view: that it is not necessary to identify a single truth, as there is no single truth. There are, however, 'multiple truths' as told from many angles. This study delivers its information from one such angle!

4.8 Conclusion

In this chapter, I detailed the methodology and the research design employed in the study. A rationale for the selection of content analysis as the most appropriate methodology was provided. The construction of the analytic tool was made explicit using exemplars to clarify the coding process. The sampling of textbooks from the wide spectrum of textbooks was described. Finally, the limitations of the study were included to indicate the methodological hurdles faced by the study.

CHAPTER FIVE

Findings

5.1 Introduction

This chapter provides a view of the qualitative and quantitative findings obtained from the study of data. I first provide a qualitative account of each book based on my initial observations of the texts selected for analysis. Exemplar pages are included to depict the qualitative analysis. This is followed by the quantitative analysis where quantitative data are represented on tables. Each of the tables is supported by discussion of the salient features of the data depicted.

5.2 A Qualitative analysis:

In this part of my thesis, I provide a qualitative account of each book based on my initial observation of the texts, before the quantitative analysis is completed. However, as I make these observations, I note the differences that are blatant and write the descriptions while comparing the texts as I progress through Text A, Text B, Text C and Text D, in terms of the years of their publication. While I detail below my impressions of each text, I also highlight important changes in the styles, methodologies and content representations. Although this study does not include gender or race representation as avenues for consideration and analysis, I also note in the general discussion, certain observations about the alteration of gender and race representation, historically. The transformation in gender and race representation is quite explicit in the curriculum reform process in South Africa.

5.2.1 Text A: *History 2000, Standard 4 (1983)*

Text A was published in November 1983. It was one of the prescribed books for schools operating under the House of Delegates which was part of the Tricameral Parliament. It adheres to the old syllabus of History. The foreword makes explicit how each chapter is introduced. There are 115 pages presenting the content of History. The content of the book is divided into two main sections, namely South African History and Theme study. The chapter '*Progress in Medical Science*' comprises 12 pages of the Theme Study section. The chapter analysed comprised 10, 43% of the total pages.

The cover is made of an inexpensive variety of textured, thin cardboard. The lay-out is open with small, dense print. The information on a page is divided into two columns, making it possible to include much more information on a single page. The three images featured on the cover are black-and-white, showing an older form of transport, a scene of battle and a statue of a bearded man with an unclothed upper torso which is probably a figure from Grecian times. A quick view of the text shows the same black-and-white, portrait-like images, with activities presented in a colour-tinted box. The maps also appear in black-and-white. All of the maps featured are of South Africa and of the provinces in it. Although there are numerous references to Britain and its involvement in South African History, there are no maps indicating the position of Britain in relation to South Africa. It seems as though learners are not given a sense of South Africa's location in the world.

There are an overwhelming number of images of European men in the text, creating an impression that History was about these important men. Featured through-out the book, are 66 representations of White men in formal suits and cravats, nine depictions of Black men, two Indian men and two White women. Of the eight black-and-white pictures featured in the chapter, only one shows a medical instrument. The other seven people include six White men and one White woman who contributed to the development of medical science. The chapter presents images or pictures that are not visually stimulating. They appear in the text as a break from the tedium of the large number of facts presented in the text.

The chapter commences with a discussion about the origin of medicine, mentioning the first real doctor, the Grecian Hippocrates and the Roman physician, Galen. This is followed by selected contributions to medical science by Jenner, Pasteur, Lister, Kock, Röntgen, Ross and Curie. The style and presentation of the information is important as there are a great many facts presented in a narrative, or story-like style, providing a detailed background on the early life of the personality as well as information about the development of the medical contribution. Essentially, a Eurocentric perspective of medical contributions from Germany, France and England are presented.

The structure and the physical format of the chapter resemble that of all the others. The book is appropriately written at the level of a Grade 6 learner, promoting readability of the learning material. 'Readability' refers to the quality of written language that makes it easy to read, including the legibility of the typography, the typeface, and the complexity of sentences and the difficulty of the vocabulary (Wikipedia definition). According to the Fleisch-Kincaid readability test, the length of words and sentences are the two core measures for this test. The comprehensive formula for this test involves far greater analysis and will be time-consuming for the nature of this study. I will use the most basic application of word and sentence measures to describe readability levels for each of the books being analysed. The readability measure for this study will also include the overall stylistic quality of the text, the complexity of sentences and the difficulty of the vocabulary as readability descriptors. In terms of readability, Text A features small dense print, concentrated in two columns on a single page. Although the language is at the level of the learner in Grade 6, the typography or typeface does not make for easy reading. The sentences are however simple and the words are not difficult. Pupils are encouraged to use a dictionary to elicit meanings of words. There are no language-mediation tool-boxes to mediate language for learners. Pictures supporting the detail in the print are not colourful and engaging. There are no captions or supporting details attached to the pictures. Learners are not asked to engage with any of the pictures in any historical way. Pictures are not used as sources of information.

The assessment activities are designed to promote the understanding of concepts. Different concepts are listed and pupils have to read and research to write definitions and explanations for each. The process encourages learners to obtain explicit understandings of each concept. The pattern of concept development is repeated in the entire chapter of the books, in a sense developing a conceptual framework of all the time periods under study. These concepts form an essential and crucial foundation for the development of the theme. The end-of-chapter questions are basic recall questions.

Although Text A is a South African textbook, the information or the content of this chapter is entirely made up of foreign contributions. There is no sense of a History of South Africa without Europeans. The removal of European content from this chapter would result in hardly any content of a South African nature at all.

5.2.2 Text B: *History is about change*, Standard 4 (1982)

Textbook B was also prescribed for certain schools during the apartheid era. It was published in 1982. It is much thicker than Text A. The chapter on the ‘*Developments in Medicine*’ constitutes 40 of the 235 pages of the book. It is actually 40 % of the book, which is a considerably larger content than the percentage featured in Text A.

The cover is made of the same type of inexpensive textured card as is Text A. The images on the cover offer a promise of what is inside the book. The pictures are historical images rooted at a particular time. It carries with it impressions of space and time. The pictures on the cover offer a scene depicting a rural-type of environment with a building that appears to be a store where grains and pots are sold. There are pigs, skins, pans and pots around the building. Particular figures, in recognisable types of clothing, are engaged in activities at a specific time. There are two White men (either English men or Afrikaner-Boers) and six Black people featured on the cover. The Black or indigenous people are depicted in their traditional attire, women with pots on their heads and there is a baby tied on the back of a woman. The White men featured are clothed in suits and one of them is on a horse. The pictures on the cover convey a sense of History by the way the environment is depicted, the way people are attired and the way commodities are packaged to be sold.

As in Text A, the pictures are black-and-white, probably to create the sense of the past. The cost of colour printing may have been one of the draw-backs of using them in these textbooks. There are not many pictures or images in the book. The 17 images in the book are all black-and-white. The pictures are drawings and are not as realistic as photographs. Drawings are used to create some type of reality. Photographs provide the most reliable visual evidence of a historical event. Drawings are an artist’s impression of the event. In the absence of cameras in the past, visual evidence constitutes an artist’s impression of events and so drawings are seen from this perspective and understanding. Visual evidence in the form of photographs and video footage bring a sense of reality to the History classroom. Photographs in a textbook also provide greater reliability than a drawing. Apart from the drawings being the only visual evidence in support of the event, there are also no written details presented with the images picturised. There is no date about when the picture was taken or who took it.

A picture of Chris Barnard could have been used, as local History involving this doctor, features to a very limited degree. The pictures in Text B are different from Text A in that learners using Text B are encouraged to engage with them in certain historical ways. In Text B, there is indication of some analysis of the pictures which are sometimes used as sources.

Both Text A and Text B were published a year apart, yet there seem to be many differences in structure, appearance, content, representation of knowledge and methodology. While Text A presents portrait-like images of the important people that contributed to the progress in medical science, Text B shows images include a greater variety. The images also appear historical or subject-specific. They place the contents of the picture in a particular time and space. Text A presents images that ‘look’ like History but learners do not interact with them using any subject-specific skills or procedures. The images are not used as sources as historians use them.

Text B is underpinned by the old Christian National Education curriculum which is teacher-directed. The teacher controls the rate at which learning occurs and the activities can be oral or written depending on lesson plan of the teacher. There are no glossaries or definition of concepts. If the learners were to use this book by themselves, they may not understand the concepts of BC and AD, as this is not sufficiently explicated. The chapter presents ‘1400 BC’ and ‘500 BC’ on page 158 without providing learners with a time-line of understanding. Teachers would have to explain how this works.

The style, however, appears more relaxed because the writing is larger and readability is certainly better than the format used by Text A. The print is larger and well-spaced, contributing to increased legibility as compared to Text A. The print is presented in a single column in the centre of the page. The sentences are simple and the vocabulary is not difficult. A Grade 6 learner would be able to read easily the information presented in Text B. There are also no language-mediation tool-boxes to mediate language for second-language learners. The style utilised in Text B is more interactive than Text A. There are more pictures, while tasks and images are accompanied by greater content. The images appear as though they are sources. There are questions in the chapter that

are linked to the pictures, creating a sense of some kind of historical procedures and source analysis.

The chapter commences with notes ‘To the teacher’, providing general background knowledge about the ‘*Development of Medical Science*’. It addresses the period of Greek and Roman civilisation, and the Renaissance while emphasizing the role of teaching in advancing the learner conception of continuity and change. These themes are not directly taught to the learners but as learners work through the chapter, a sense of time and chronology will become apparent. The notes direct the teacher on how to increase pupil awareness of progress and stagnation in the field being studied. The teacher is provided with information that structures a basic and necessary background to the topic.

There is a great amount of content or narrative presented in Text B as the stories of famous people from different eras are told. The stories are told in a narrative style, that is explicitly chronological as the chapter advances from descriptions of Greek civilisation to Roman civilisation, the advent of the Middle Ages, ideas from ancient Egypt, to the Renaissance where theories of Versalius and da Vinci provided a revolutionary breakthrough in Medical Science. The chapter finally examines the contribution of people in Modern Times: Jenner (1749-1823), Pasteur (1822-1895), Lister (1827-1912), Röntgen (1845-1923) and Dr. Christiaan Barnard (1922-). A space was placed in the text because the doctor was alive at that point. The incorporation of recent medical discoveries (local History) in this textbook is notable in that it attempted to present updated information to the learners of History.

Strong elements of change, continuity and chronology is apparent and is demonstrated through the structure and presentation of information in the chapter, rather than being taught as separate concepts that learners have to learn and understand. The chapter also utilises sources such as letters and newspapers to advance facts in a historical manner. This could be one of the books that were following worldwide trends to incorporate sources-based teaching in their methodologies. Understanding of historical concepts is thus exemplified for the learner.

History is presented as a narrative, a collection of stories from the past and substantial background information is provided for the learner to develop a good understanding of the development of medical science. A far more comprehensive view of the development of medical science is advanced for learners in Text B than Text A, including application to everyday life, in terms of the content of the tasks and what is required of learners to do. History is largely Eurocentric but information on local contributions, in the form of Chris Barnard, constitutes 6, 25% of the chapter.

5.2.3 Text C: *New Day-by-Day Social Sciences, Grade 6 (2004)*

Text C was published in 2004, representing the Revised National Curriculum. In keeping with the new paradigm, History and Geography are blended together in the new 'Social Sciences' learning area for Grade 6. This textbook features on the Department List of textbooks for schools. The chapter '*The History of Medicine*' constitutes 22 pages of the 169 pages of Social Sciences. This is 13% of the content of the text. It also constitutes 26% of the content of the History content. Much of the original content observed in Text A and Text B seems to be lacking in this textbook. Evidently, it follows an alternative approach, but the amount of historical information or substantive knowledge appears to be lost.

The full-colour cover is made up of a more durable glossy cardboard. The images on the cover convey everyday images combining technology (image of a factory), urbanisation (image of built-up modern building), and an image of a hut-style home which is still prevalent in societies today. Essentially, there is no historical content depicted in the images on the cover of this Social Sciences textbook for Grade 6.

The table of contents and the book is structured into two halves, each representing the distributed content of History and Geography. While the geography section has 31 pages of the 86 pages of the book, 36% of the pages of the geography section has coloured pictures as compared to the 0% of coloured pictures in the History section. Colour was used in the geography section to emphasize everyday pictures of people, animals and different objects in the environment, maps, graphs, and keys to maps, certain titles, task-boxes, self-assessment sheets and knowledge boxes. By comparison, there are no coloured pictures in the History section. Perhaps the lack of colour

contributes to the idea of the past. The lack of colour could also denote a certain 'dullness' that is associated with the study of the past. Learners interacting with black-and-white or 'grey' images may not necessarily enjoy the depiction. Colour could motivate their interest in a subject considered as 'boring' by some in the past. Colour could have been used to emphasize aspects of History as it did the geography section, even if it was used to highlight the questions.

There are pictures throughout the chapter that are labelled as sources which relate to the content or knowledge in the text. However, there appears to be little interaction with sources as historians would interact with them. There is also very little information provided on the source. In fact, it is doubtful that images labelled as sources are actually historical sources at all. Historical sources need to be presented in certain ways to qualify as a source. Historians also require pertinent information about the source for their analysis. In addition, there is no engagement with the sources in a historical sense. Deeper analysis of the content and procedures used in this chapter may provide greater insight into the nature of the text and the History presented.

The structure of the chapter makes reading easier as the print is not condensed into two columns as Text A. The print is larger and the grammar, sentence complexity and vocabulary are situated at the level of a Grade 6 learner. The first page to the chapter lists the objectives of the learning unit. The pictures and drawings on this page convey everyday images. Only one of the images on this page is subject-specific. There appears to be a lack of information or factual content that precede learner activity. The background information that was presented by Text A and Text B is lacking as an introduction to the chapter in Text C. Pupils are presented with an activity almost immediately. The chapter initially presents beliefs of the Ancient Greeks with pictures that are labelled as 'Sources'. The pattern throughout the chapter consists of a few sentences comprising the only factual material, followed by activity. It must be noted that the factual material conveyed in Text C is an immense reduction of earlier material viewed in Text A and Text B.

There is discussion of traditional medicine, influence of Ancient Greece on Western medicine, medicine in Persia during the Middle Ages, epidemics in Europe in the Middle Ages and the beginning of Modern medicine. The more recent diseases such as

cholera and HIV/AIDS are incorporated in Text C. The chapter ends with Assessment tasks which are content-related and a Self-Assessment rubric which allows the learner to gauge their understanding of the topic. The rubric takes up quite a bit of the space of the chapter which could be used for content or substantive knowledge representations.

It is remarkable how the chapter in Text C condenses academic content, while using similar headings as Text A and Text B. Text C provides a table where medical discoveries and their significances are listed. Text A and B make no reference to traditional medicine and there are no glossaries or language boxes to mediate language for learners. Text C does recognise indigenous influences by incorporating indigenous medicine in South Africa into the chapter. There are also two language boxes that mediate language for second-language learners by providing Xhosa and English names for plants being studied, enhancing readability for learners to a certain extent.

5.2.4 Text D: *Shuters Social Sciences Grade 6 Learner's Book (2009)*

Text D was published in 2009, the year of this study. The text is labelled as representative of the NCS, based on the Outcomes-based Education. The chapter '*Finding about the History of medicine*' constitutes 13 pages of 141 pages of the text. This constitutes 9, 2% of the total text. This textbook that has been chosen for analysis has been stamped as a 'Free' copy. Schools have received a package of such books from the publishers to promote the sale of the texts. The teacher's book, which provides guide-lines for the use of Text D, could be ordered once teachers have decided to purchase copies for all the learners of Social Sciences. This textbook as well as the teacher's book features in the Department catalogue for the procurement of textbooks.

The table of contents of Text D, unlike Text C, presents the content titles with no clear differentiation between History and Geography topics. The teacher's guide for Text D highlights the fact that the book has been carefully planned and written for the NCS. It is a new series for the Intermediate phase that has both a Learner's Book and a Teacher's Book. The teacher's guide also stipulates that History in Social Sciences uses enquiry skills to investigate the past and present and develops historical interpretation skills.

Text D, like Text C, presents a full-colour cover, made of a more durable glossy type of cardboard. Unlike all the other textbooks analysed, Text D is the only text that shows images or photographs of real children and animals. This realistic depiction is very appropriate to the title of Social Sciences. The influence of technology has probably promoted an alternate cover style to demonstrate an updated, new curriculum. Different packaging and style would probably influence teachers and buyers into consuming a new and different book, representing an ‘alternate’ form of study to the original History. The print in the textbook is larger and easier to read than all the other texts. The level of difficulty and readability seems appropriate for a learner in Grade 6 as the grammar, sentence and vocabulary complexity are simplified. Language tool-boxes are used to mediate language for second-language learners and learners with reading difficulty.

Many pictures are used to support the written material. The use of cartoon-like images is also engaging for a learner but the historical content appears to be lacking. The images could possibly be viewed in a learning area like Life Orientation. The picture on the cover includes an Indian girl and two boys, one Black and one White. On the same cover, a picture of the remains of an African society called Great Zimbabwe, a drawing of an old form of transport and a photograph of a Black sangoma accompanying animals featured in their natural habitats. This depiction aptly portrays the fusion of History and Geography into the new Social Sciences.

The Critical Outcomes, Development Outcomes and Learning Outcomes for the unit are listed at the beginning of each chapter. The chapter consists of various activities, ending with the suggested Continuous Assessment Grid that is used to record learner’s progress. The chapter also utilises glossaries or “Useful Word” boxes to define words or mediate language for learners. A “How am I doing?” section allows the learner to gauge their progress. There is also a “Try this!” additional activity at the end of the chapter that is used for consolidation and extension of learners. There are also peer (group and paired) and self-assessments for the learner which consume a lot of space in the chapter. These activities are used in the place of content or substantive knowledge. Much of these activities appear to be generic rather than subject-specific. Pupils do not have to know much History to attempt the activities. The over-all appearance is an over-prioritising of everyday knowledge at the expense of substantive knowledge. Substantive knowledge then is not a priority in this new text.

The pictures, images and drawings are all black-and-white and appear to be more everyday images rather than subject-specific. The first three activities are generic activities, requiring learners to look at everyday pictures of people that are sick. These pictures could be in any textbook and could hardly be described as having any historical content. In fact, the material could very comfortably be transferred to the learning area of Life Orientation. The pictures featured show different race groups, a clear move away from the White men in suits, pictured in Text A and Text B. Text D also features many pictures of women and men in various roles, a further distinction from earlier textbooks. The fourth activity has some historical content but learners are not requested to engage with it. The activity is also generic rather than historical. Only the fifth activity commences with the actual History of medical discoveries.

Readers of the text will encounter information about a ‘doctor’ from the ancient world (Egypt) named Imtohep, and then acquire information about indigenous medicine and traditional healing in South Africa, creating a sense of local and inclusive History, thus moving away from the Eurocentric stance of Text A and Text B. The chapter however presents stream-lined information about the discoveries of medical science on p. 121 and p. 122. The range is presented in random order. Learners are required to re-organise them chronologically on a time-line using the BC and AD calendar denotations. The chapter does not explain how this calendar operates and the teacher will have to provide additional information or ‘scaffolding’ for the learners to complete this activity. Each of the 14 medical references is indicated as CE (AD). An earlier chapter provides some information on what these mean but does not exemplify the Julian calendar and the Gregorian calendar. Teachers would have to first teach the differences before learners can attempt the time-line. Text D also represents the discoveries written as 1854 CE (AD) which might create confusion for the learner as the date should be written as either 1854 CE or 1854 AD. Dates should not be the integration of both Julian and Gregorian calendars as represented by Text D but a writer needs to select one way of writing them.

There is no explanation of how medical science progressed from Greek to Roman civilisation, to the Middle Ages and Renaissance and to Modern times as Text A, Text B and Text C portrays. The basic structure and background to time and development is compromised. The sense of chronology, continuity and change is not developed. The

teacher using this textbook may not have to explain Greek, Roman civilisation and the Middle Ages as the information presented and structured in Text D demands that a learner ‘know’ rather than ‘understand’. To create a total understanding of the past, the teacher would have to provide ‘scaffolding’ which means resorting to other resources for information. Text A and Text B could be used as a source of material for the lesson on History of medical science.

I argue that there is hardly any academic (content) or substantive knowledge attached to this chapter as this knowledge is presented in Text A and Text B. Both Text C and Text D present reduced quantities of substantive knowledge or academic theory on the topic. However, Text D presents the least in terms of theory or substantive knowledge. The overall trend is that pupils are requested to view everyday images, are asked to respond in very generic ways, using no special historical procedures as historians are required to do. Learners appear to be presented with more everyday material and knowledge in the discipline of History.

While the chapter in Text C identifies a number of sources, the chapter in Text D does not. In fact, an earlier chapter in Text D presents five pictures as sources. The pictures are everyday pictures which do not have any written supporting information that sources are supposed to have. It can be argued that they are not historical sources as defined by historians. Sources provide historical information that assist pupils acquire knowledge that facilitates an understanding of History as a ‘construction’ of the past. Whilst pupils are requested to look at the pictures presented, they are not asked to interact with them as historians do. Some of the pictures in Text D are drawings and two of them are photographs, bringing some sense of reality to the study of History.

5.2.5 A qualitative comparison of knowledge in all four textbooks

There is a remarkable change in knowledge representations across the four texts selected for analysis. Although History, as the study of the past and the topic of ‘*The History of Medical Science*’ has not altered significantly in the last few years, the presentation has taken on a new and altered form. I present the following examples to illustrate the visual change in the structure of History as it is presented in History textbooks. The first few examples are double-pages from each textbook to show the

structure, the images, typeface and presentation of information. Almost at a glance, the presentation of material appears different. These examples allow one to view the physical presentation of material in the texts. In order to further demonstrate the change in material in Text C and Text D, I extracted similar sections from the four textbooks, all about the contribution of Edward Jenner to the advancement of medical science. These extracts provide visual evidence of the physical reduction in the content of History in the newer textbooks selected for this study.

5.2.5.1 Double-pages selected from the four textbooks for knowledge comparison.

The first example is pages 106-107 extracted from *History 2000*, Standard 4, published in 1983. This study refers to this text as Text A. Information or content is densely depicted in two columns. It has a distinct style, structure and presentation. The typography is smaller and concentrated in a story-like format. Images are black-and-white portrait-like depictions of white people who contributed to medical science. The images are clearly historical.

In 1857 he published his findings but very few people supported him. Nevertheless he was made director of studies at the Ecole Normale Supérieure in Paris. The college did not provide him with a laboratory nor did it finance his projects and experiments. He built a small laboratory at the college where he carried out his experiments. He was finally able to convince scientists that his findings were correct.

During his research he established that germs can be killed by moderate heat. He showed that if milk is heated to a certain temperature and then cooled, the germs (bacteria) are killed and the milk lasts longer. This process is called *pasteurisation* and is used in all dairies. It also became possible to can meat, fruit, vegetables and fish using this method. It was largely through Pasteur's work that many canning factories were established.

In 1865 Pasteur spent some time in the south of France investigating the cause of a disease attacking the silkworms. After three years of study he found that the silkworms were being killed by two different bacteria. He solved the problem and saved the French silk industry from complete ruin.

He was later called upon to find out why so many cattle and sheep were dying from the dreaded disease anthrax. He produced a vaccine to counteract this disease.

He also applied the same method to save the poultry industry which was threatened by chicken cholera.

One of his greatest achievements was the development of an antidote to the dreaded disease called hydrophobia or *rabies*. If a human was bitten by a dog or a small animal such as a meerkat which had rabies, there was no chance of survival. He succeeded in producing a vaccine which cured not only dogs but also humans who had been bitten. He first tried out the experiment when a young boy had been bitten by a rabid dog. After receiving the antidote the boy lived.

Pasteur became a legend in his time because of his discoveries in the fight against

germs. The result was that a large sum was collected to establish the Pasteur Institute. The building was officially opened in 1888, and used for medical research.

When he died at the age of 72 he was given a state funeral. His body was placed in a marble and granite vault at the Pasteur Institute.

Activities

1. Class discussion

Explain the following.

- Surgeon
- Gangrene
- Microbes
- Decompose
- Bacteria
- Microscope
- Laboratory
- Anthrax
- Chicken cholera
- Rabies

2. On your own

- Explain what is meant by *pasteurisation* and why is it of importance to man.
- Why is rabies referred to as hydrophobia?

3. A project for you

In recent years rabies and cholera have featured greatly in news reports. Collect as many newspaper/magazine articles on the subject and arrange them neatly in a scrap book.

Joseph Lister (1827-1912)

By now it has been clearly established that surgery in the early days was a risky undertaking. The chances of anyone surviving any operation were very small. If an arm or leg had to be amputated the patient had virtually no chance of survival. If the skin

was broken by a compound fracture or by the surgeon's scalpel it was unlikely that the wound would heal. The wound usually became septic and blood poisoning resulted. This was called *sepsis*. It was Joseph Lister who made surgery safe by introducing antiseptics into hospitals and into operation procedure.

Joseph Lister took an arts degree at University College, London. In 1848 he was a victim of smallpox and had to spend some time convalescing in Ireland. In 1852 he obtained his degree in medicine and was made a fellow of the Royal College of Surgeons (FRCS). When he had completed his studies he worked under the supervision of the brilliant surgeon, James Syme. Although he was advised to spend some time abroad gaining more experience, he settled in Scotland. He married Agnes, the daughter of James Syme. In 1857 he was placed in charge of the wards when the senior surgeons were away and was allowed to perform minor operations without supervision. In 1860 he became a fellow of the Royal Society.

Lister was alarmed at the manner in which operations were performed in hospitals. He thought that the hospitals were too dirty and saw that staff were untrained. He observed that doctors paid no attention to cleanliness. They inspected one patient after another without washing their hands. Dressings were used more than once and wounds became septic.

Then Lister read an article written by Louis Pasteur on the presence of live bacteria in the air. Pasteur had established that these bacteria cause milk and beer to turn sour. Lister immediately saw that the French scientist was right. He carried out a few experiments and came to the same conclusion.

Lister then concluded that if yeast and other bacteria cause fermentation then bacteria probably also cause wounds to become septic. Pasteur had found that these bacteria can be killed with the application of heat. Lister then decided to find a method of using something other than heat



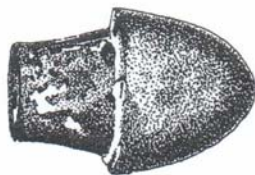
Joseph Lister.

to kill the germs present in the wounds of his patients.

In 1834 Runge had discovered a chemical called carbolic acid which prevented the rotting of wood. Lister had also heard that this acid was used to prevent the decomposition of sewage. He toyed with the idea of using it to prevent putrefaction of wounds. His opportunity to try out his ideas came in 1865 when a man was injured very severely. Lister used the acid to dress the wound but the man died. Although he was disappointed he still persisted with his experiments. He used a similar dressing on a compound fracture when an eleven-year-old boy broke both legs in an accident. On the fourth day the boy complained of pain. When the dressing was removed it was found that the wound was healing well but that the strong solution of acid had burnt the skin around the wound. This was causing the pain. The wound was dressed again with a weaker solution of acid. The boy recovered completely.

My limbs have become heavy,
I cannot feel my own body,
If the master-physicians come to me
I gain no comfort from their remedies
And the priest-magicians have no cures,
My sickness is not diagnosed.
My love is better by far for
me than any remedies.
She is more important than all
the books of medicine.

19. Draw a picture of soldiers being treated in a Roman military hospital.
20. Imagine you are a friend of Claudius Galen. Write a letter to one of his enemies defending Galen as a doctor.
21. Find out about Roman aqueducts and draw a picture of one.
22. Find out whether doctors today believe in bleeding and purging their patients.



Bronze bleeding cup

Medicine during the Middle Ages

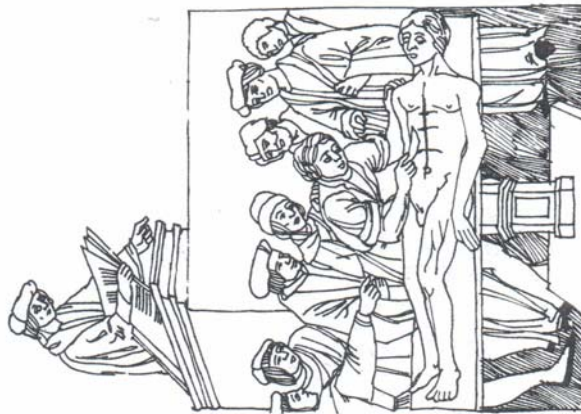
IN THE WEST

Although the Romans did not make great advances in the field of medicine, they encouraged their doctors to practise in a healthy atmosphere. When the Roman empire collapsed and Germanic tribes poured into the empire, further advances in medicine were stopped for a time in Europe. The Christian monasteries became the centre of learning. Here the ideas of the Greeks and Romans were preserved. A study was made of healing the sick. Each monastery had at least one monk who specialised in medicine and though these monks knew little about surgery, their knowledge of herbs was usually great. There were few monasteries without herb-gardens and many sick travellers were cured by herbalists.

Outside the monasteries there were many people who misunderstood the teachings of Christ. They believed that sickness was God's punishment for sin and so treated all sick people as sinners.

The art of surgery also declined. The Church at that stage felt that it was not good to cut up a human body. So surgeons knew very little about the structure of the body. Galen's views were considered sacred and no one dared question his ideas on anatomy.

In the universities, the professor, standing in a pulpit, would read aloud from Galen's work while a demonstrator would dissect the corpse. The demonstrator was supposed to point out various parts of the body while the students watched. Imagine how many students must have looked in vain for the channels which Galen believed connected the right and left sides of the heart!

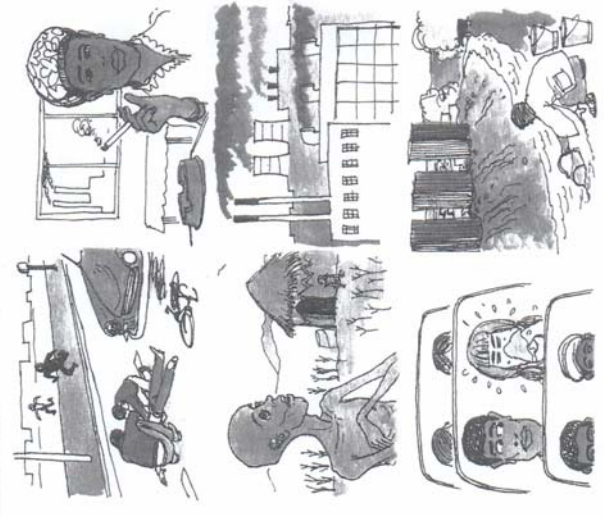


The second example is pages 164-165 extracted from *History is about change*, Standard 4, published in 1982. This study refers to this textbook as Text B. It also has a distinctive style and format. Information is also densely depicted but it appears in the centre of the page leaving wide margins on either side. The typography is larger than in Text B with pictures or images clearly far more interesting and detailed compared to the portrait-like images that appeared in Text A. Images in Text B appear historical.

The third example constitutes pages 134-135 extracted from *New Day-by-Day Social Sciences*, Grade 6, published in 2004. This study refers to the textbook as Text C. It is clearly different from both Text A and Text B in its style, format and presentation. Content appears to be reduced and there are both historical and everyday images. The typography is larger and well-structured with information spread across the entire page. There are pictures labelled as ‘sources’ which is a new feature in the texts.

1 What causes illness?

Through the ages, different groups of people have had different beliefs about the causes of illness. You will learn about some of them in this unit.




Activity 1

Look carefully at the pictures and sentences.

1. What are some of the things that make people ill? Look at the pictures and discuss them with your group.
2. Write a list of all the things you think cause illness. As you work through the unit, compare the things that people believed about illness with your list.
3. Discuss where you might find out about medicine in the past.

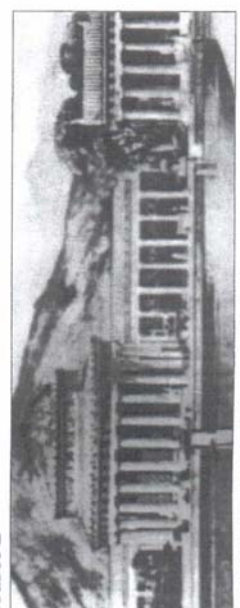
The Ancient Greeks (about 700-300BC) believed that spiritual forces, also known as supernatural forces, caused sickness. Even today, some people believe that illness is the result of spiritual forces. The ancient Greeks believed that magical snakes healed them! They went to the temples of Aesculapius, and believed that while they were asleep, these snakes would lick them and make them well. They believed that the gods had made them ill in the first place. (Aesculapius may have been a real person but the ancient Greeks regarded him as such a great healer that he was also seen as a god.)

Source A



A statue of the god/healer Aesculapius

Source B



Patients went to a temple of Aesculapius for healing

History: The history of medicine **135**

The fourth example is pages 116-117 extracted from *Shuters Social Sciences, Grade 6, Learner's Book*, published in 2009. This study refers to the book as Text D. The typography is bolder and larger, well-structured and spread across the entire page. There is also an explicit reduction in historical content with much of the pages in the chapter on the 'History of Medicine' being used for learner self-assessment. There are more activities in the book requiring learners to answer or respond but very little content which learners can use to develop and understand historical concepts such as chronology, account, evidence and time.

Try to find the meaning for each word from the list below. In your exercise book, write each word and its meaning.

- illness, sickness
- something that is taken to make people better
- when older people pass on beliefs or ideas to younger people
- belong to an area, born in an area
- a cure
- a doctor who does operations
- a person trained to make sick people better
- a tiny, living thing, some of which cause disease
- a tiny living thing that causes disease
- a special medicine that kills bacteria
- take a living organ from one person's body and put it into another person's body
- a kind of plant such as a mushroom, or mould that grows on bread
- a living thing, which is too small to be seen even with a microscope*, that can cause disease
- a person who makes people well again
- something that you notice is wrong with you when you are sick.

Discuss your answers with another pair of learners.
Then choose any five words and test your partner to see if he or she knows the meanings of these words.

When you find these words in the other activities in this unit, look at your list of the meanings again to remind you what these words mean.

How are you doing?

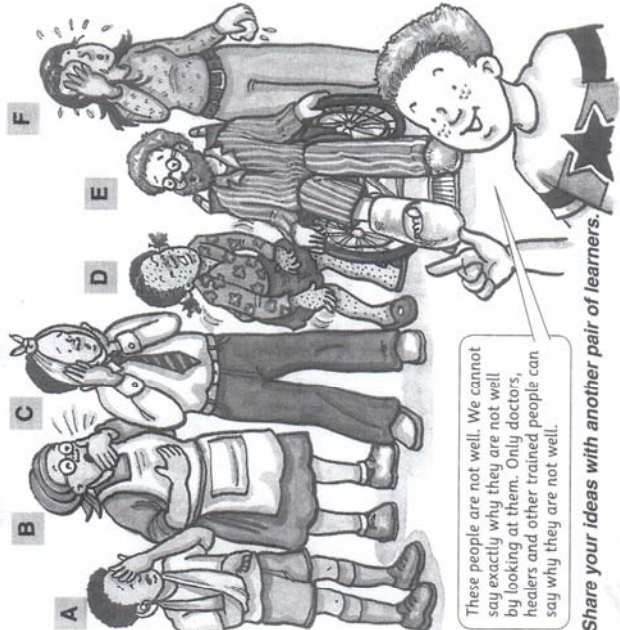
Assess your partner. Give your partner a grade out of 4, where 4 is *very good*, knows the meanings of five words; 3 is *Good*, knows the meanings of three or four of the words; 2 is *Not so good*, knows the meanings of two of the words; and 1 *Not at all*, knows the meaning of one or none of the words. Your partner can then write this grade underneath this activity in his or her exercise book.

The meanings of *bacterium*, *germ* and *virus* are similar because they all can cause disease. The following information will help you to find the correct meaning for each of these three words:

- *Germs* can be bacteria (plural of bacterium) or viruses that cause disease.
- *Viruses* are the smallest of these living things and all viruses cause disease.
- Only some *bacteria* cause disease. There are lots of useful bacteria such as those that are used to make cheese and yoghurt.

USEFUL WORD
microscope – an instrument that makes tiny things look bigger

ACTIVITY 2 Why are these people not feeling well?
The people in the picture are not feeling well because they are sore or sick. **Work with a partner and look at the picture. Try to explain why you think each person is not feeling well.**



These people are not well. We cannot say exactly why they are not well by looking at them. Only doctors, healers and other trained people can say why they are not well.

Share your ideas with another pair of learners.

ACTIVITY 3 Have you ever been sick?
There are diseases all around us. Most people have been sick at some time in their lives. When we are sick, we can usually get better.

Work with your group and do the following:

- Take turns to talk about a time when each of you was sick.
- Name the disease you had.
- Describe the things that were wrong with you (the symptoms) when you were sick.
- Say what you did to help you to get better.

Unit 9

116

5.2.5.2 Similar portions of all texts selected for comparison

The first extract is from Text A (p. 103-105).

Edward Jenner (1749–1823)

Many people in the past died from diseases because there were no cures for them. In the Middle Ages leprosy and bubonic plague were widespread. In the 17th century smallpox claimed hundreds of lives. An epidemic of smallpox broke out in London in 1628 and many people who were infected either died or were pockmarked for life. Louis XV, the king of France, and Mary II, the queen of England were both victims of smallpox. Even people living in the 17th and 18th centuries did not know how infectious diseases were spread.

Smallpox was spread when a carrier coughed or sneezed. Droplets would then be inhaled by those near him and the disease would be passed on. Even the Khoi-Khoi who were employed to wash the clothing of infected persons at the Cape contracted the disease.

Medical science owes much to Edward Jenner who prevented the spread of smallpox by the introduction of *vaccination*.

Jenner spent most of his life at his birthplace, Berkley. He was the victim of smallpox himself when he was seven years old. He survived a variolation inoculation. This



Edward Jenner.

means that one of his veins was opened and injected with smallpox pus. This was a dangerous practice because there was no way of determining how much was to be administered. Some people survived, others died and many were badly scarred.

He was apprenticed to a surgeon from the age of 13. Then at the age of 21 he went to London to study medicine at St George's Hospital. He obtained his doctor's degree for medicine by paying a sum of money to the St Andrew's University. While in London he worked for Joseph Banks who had accompanied Captain Cook on his sea voyages to Australia and New Zealand. In 1773 he returned to his hometown because he preferred the quiet country life.

In his hometown where he practised as a doctor he noticed that the cows became infected with cowpox or sores on their u-

ders. These sores sometimes spread to the hands of milkmaids. He also heard a milkmaid remark that she would not contract smallpox because she had already had cowpox. After observation Jenner found that there was a certain amount of truth in the remark. Milkmaids did not seem to become infected with smallpox as other people did. He carried out a number of experiments and made a close study of people infected with smallpox. He came to the conclusion that smallpox, cowpox, swinepox and equinepox were variations of the same disease. He realised that cowpox might be an antidote to smallpox and thought that a weak form of cowpox injected into humans would prevent them from being infected with smallpox.

In 1789 he took the chance of inoculating his own child with swinepox. He did this on three occasions and did not cause smallpox. In 1796 he inoculated eight-year-old James Phipps with cowpox taken from an infected milkmaid, Sarah Nelmes. James was kept in isolation because Jenner wanted to keep a close watch on him and check his progress. There was also the danger that he might contract smallpox and infect others. Jenner intended to keep him under observation for a period of nine days. People in the district did not believe that Jenner could find a way of preventing smallpox. They persuaded the boy's parents to obtain a warrant of arrest and charge Jenner with murder. They were under the impression that the boy had died after the inoculation and that Jenner was hiding the fact.

Everyone was surprised to find that the boy was quite well, although he had been feverish at first. A few months later he was injected with smallpox germs, and the disease failed to take hold.

In 1798 Jenner published his discovery. At first the medical profession rejected his findings but the people accepted them. Soon Jenner's fame spread. Many people accepted vaccination as a preventive measure for smallpox. The British parliament made him grants of R20 000 and R10 000. Universities conferred honours upon him. He was presented to the kings and queens of Europe after the defeat of Napoleon.

The Contribution of People in Modern Times to Medicine

The progress of medicine during modern times can be traced back to brave men of the Renaissance who had the courage to challenge the old ideas. In this section we shall be looking at the work of people who have added to our knowledge of medicine.

Edward Jenner (1749–1823)

At different times of the year people in Europe suffered from plagues or epidemics. Although bubonic plague was probably the worst of them, outbreaks of the disease were few and far between. Cholera and typhus were more frequent but the epidemic people feared most was smallpox, commonly known as the 'spotted devil'. Each year, thousands fell victim to the disease and those who did not die from it were scarred for life.

One method of treatment for smallpox was brought to England from Turkey by Lady Mary Montague, wife of a British ambassador. This was a type of inoculation which became known as 'variolation'. This is how she described it:

The Turks make parties for this purpose. An old woman comes with a nut-shell full of smallpox matter. She asks what vein you are pleased to have open. She immediately rips open the vein with a large needle and puts in as much venom as can lie upon the head of a needle, afterwards she binds up the little wound with a hollow bit of shell.

Unfortunately there was no way of giving very small doses. Many victims of variolation died and those who survived often carried bad scars.

The way of preventing smallpox was discovered by the hard work of one man, Edward Jenner, a country doctor who practised in Gloucestershire, England. As a boy of seven, Edward had suffered the miseries of a variolation inoculation. He had been fortunate to survive

Throughout his schooldays Edward showed a great interest in nature. Once his schooldays were over, he studied surgery and qualified as a doctor. He could have made a fortune as a doctor in London but he decided instead to return to his home town in Gloucestershire where he could be close to nature.

As a medical student he had heard a countrywoman say, 'I cannot take the smallpox for I have had cowpox'. He wondered too why milkmaids were famous for their clear skins in times when many other people bore smallpox scars on their faces. Was it possible that persons infected with cowpox were immune to smallpox? (Cowpox is a mild disease of cattle caused by a strain of the same virus which causes smallpox.)



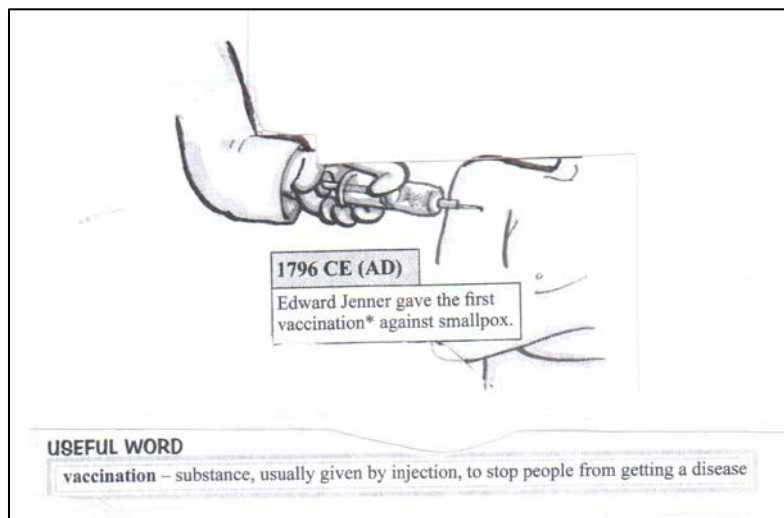
Jenner was determined to find out the truth. He rode from farm to farm on horseback and became a familiar figure in a broad-brimmed hat, blue coat with brass buttons and shining top boots.

He examined people suffering from cowpox and took careful notes and made diagrams. On 14 May 1796 he was ready to try a dangerous experiment. A milkmaid, Sarah Nelmes, had contracted cowpox while milking. Jenner took pus from one of the cowpox pimples and made two small cuts on the arm of a healthy small boy of eight, James Phipps,

The third extract is from Text C (p. 148).

| | | |
|---|---|--|
| Edward Jenner England (1749-1823) | 1796 – developed a smallpox vaccination by inserting small amounts of cowpox germs into a cut. This small dose is called a vaccine. | Vaccines were developed for smallpox and later for many other diseases to prevent people from catching the disease. This prevented certain death. The vaccine caused the body to make antibodies which fought the disease. |
|---|---|--|

The fourth extract is from Text D (p. 122)



The physical reduction of material can be seen almost immediately from these four extracts. Jenner's contribution is told in a sentence of eight words in Text D and in five sentences in Text C compared to the number of pages Text A and Text B utilised for the same purpose. Text A and Text B have significantly more knowledge statements than Text C and Text D. While each knowledge statement is equal in terms of their coding placement, it has been demonstrated how the amount of information in each is reduced in Text C and Text D. Text B contained almost twice the amount of knowledge statements than Text A even though they were prepared for the same curriculum. Activities in Text D consumed a large amount of space from the chapter that could have been used to develop substantive knowledge. Some of the knowledge statements in this text took the form of 'definitions of everyday words', icons or boxes with one historical fact, spoken words in a speech bubble. Information in each knowledge statement in Text D represented remarkably reduced forms of content or theory in comparison to Text A and Text B. Properly structured paragraphs only appear at the end of the chapter in Text

D. Much of the information in Text D is everyday knowledge. The chapter in Text D appears to be activity-based and the learners are able to control their own learning and progress by completing the rubrics provided at various points in the chapter. It also appears to be developing generic knowledge and generic skills instead of historical knowledge and method. The rubrics for self-evaluations have consumed large spaces in the chapter.

5.3 Quantitative analysis

In this part of the thesis, I seek to integrate quantitative information from all the data sources. The data was first scanned and then preliminary trends were identified in the qualitative analysis. Using the analytic tool, I then consolidated and organised data into tables. The data collection and analysis was an iterative process where the researcher moved repeatedly back-and-forth towards some kind of interpretation rather than in a simple, linear direction (Vithal & Jansen, p. 29). The represented data extracted from all four textbooks provide the reader with meaningful information. The data provides insight into structures of knowledge that exist in the four textbooks. The patterns that are gleaned from the data suggest substantial changes in the knowledge structures over time. The data analysis provides a lens through which these changes (in the form of the data) are viewed and described. The process of counting and categorising features in each book and tabulating them in the tally charts permitted the researcher to organise data on tables which are in fact summaries of large amounts of data. The researcher made sense of it by comparing and describing the differences presented the findings of the analysis in the form of this report.

5.3.1 Knowledge representations

Table 5.1 shows the number of knowledge statements in each textbook.

Table 5.1

Number of Knowledge Segments Coded in Each Textbook

| | Text A | Text B | Text C | Text D |
|--|-----------|-----------|----------|----------|
| Year of publication | 1983 | 1982 | 2004 | 2009 |
| Total number of knowledge statements coded | 64 (100%) | 120(100%) | 44(100%) | 31(100%) |

Text B had the highest number of knowledge statements, followed by Text A and then Text C. Text D had the smallest number of knowledge statements. There seems to be a drastic reduction in the number of knowledge or content indicators in both Text C and Text D which are the new texts reflecting the present NCS. The policy of reducing content seems to be aptly captured in both Text C and D as they represent fewer knowledge statements. The quantitative data reflected on this table form evidence that content or substantive knowledge has reduced.

Table 5.2 shows the number of knowledge statements that reflected Academic or Everyday knowledge.

Table 5.2

Number of Knowledge Statements Academic /Everyday in each textbook

| | Text A | Text B | Text C | Text D |
|--|----------|--------------|-------------|-----------|
| Year of Publication | 1983 | 1982 | 2004 | 2009 |
| Academic Knowledge | 60 (94%) | 115 (95, 8%) | 28 (63, 5%) | 21 (68%) |
| Everyday Knowledge | 4 (6%) | 5 (4, 2%) | 16 (36, 5%) | 10 (32%) |
| Total number of Knowledge statements coded | 64(100%) | 120 (100%) | 44 (100%) | 31 (100%) |

Counting and categorising knowledge statements provided quantitative data which constitutes evidence that newer textbooks reflect greater proportions of everyday knowledge. Text A and Text B represented a significantly higher proportion of Academic knowledge while Text C and Text D represented lower proportions. Text C and Text D offered higher proportions of everyday knowledge than Text A and Text B.

Table 5.3 shows the number of knowledge statements that represented inclusive or Eurocentric knowledge.

Table 5.3

Number of Knowledge Statements Inclusive or Eurocentric in each textbook

| | Text A | Text B | Text C | Text D |
|-----------------------|-----------|------------|-------------|-----------|
| Year of Publication | 1983 | 1982 | 2004 | 2009 |
| Inclusive knowledge | 12 (19%) | 32 (27%) | 32 (72, 7%) | 21 (68%) |
| Eurocentric knowledge | 52 (81%) | 88 (73%) | 12(27, 3%) | 10 (32%) |
| Total | 64 (100%) | 120 (100%) | 44 (100%) | 31 (100%) |

Text A represented the greatest amount of Eurocentric knowledge and the least amount of Inclusive knowledge, followed by Text B which exhibited more Eurocentric content than Text C and Text D. Text C contained the largest amount of Inclusive knowledge, followed by Text D and then Text B. The data suggest that Eurocentric knowledge was certainly prioritised in Texts A and B. Texts A and B did contain inclusive knowledge but Eurocentric knowledge was prioritised. Text C showed a 53, 7% increase in inclusive content when compared with Text A. Text D showed a 41% decrease in Eurocentric content when compared with Text B. Evidence in the form of quantitative data suggests that both Text C and D conform to the policy of inclusivity in the new curriculum.

In Table 5.4, the kind of knowledge required by the tasks in each textbook is shown.

Table 5.4

Kinds of Knowledge in the tasks of the Four Textbooks

| Kinds of Knowledge | Text A | Text B | Text C | Text D |
|---------------------|-----------|-------------|--------------|-------------|
| Year of Publication | 1983 | 1982 | 2004 | 2009 |
| Factual | 11 (50%) | 10 (13, 7%) | 14 (29, 16%) | 15 (37, 5%) |
| Conceptual | 11 (50%) | 59 (80, 8%) | 34 (70, 84%) | 25 (62, 5%) |
| Procedural | 0 (0%) | 4 (5, 5%) | 0 (0%) | 0 (0%) |
| Metacognitive | 0 (0%) | 0 (0%) | 0 (0%) | 0 (0%) |
| Total tasks coded | 22 (100%) | 73 (100%) | 48 (100%) | 40 (100%) |

All textbooks emphasized factual and conceptual knowledge. None of the tasks coded in any of the texts presented metacognitive knowledge. Even though Text D contained self-evaluation exercises they were not designated as the tasks to be coded in the analytic tool. Text A presented a balance in factual and conceptual knowledge while Text B and Text C prioritised conceptual knowledge. Text C and Text D show smaller proportions of factual knowledge. There was almost twice as much as conceptual knowledge than factual knowledge in Text D. Using Bloom's Revised Taxonomy, Procedural Knowledge is defined as "How to do something, methods of inquiry, and criteria for using skills, algorithms, techniques, and methods".

It is further divided into:

Ca. Knowledge of subject-specific skills and algorithms.

Cb. Knowledge of subject-specific techniques and methods.

Cc. Knowledge of criteria for determining when to use appropriate procedures.

This would mean that learners would need to know and use subject-specific skills in the tasks in the textbooks in order for the tasks to be classified as 'Procedural Knowledge'.

However, Text A, C and D presented tasks which represented factual and conceptual knowledge, according to this analytic tool. Even though some of the tasks are based on what is labelled as a 'source', the skills that were involved were not subject-specific. They were skills of a generic nature. Text C, for instance, had pictures that were labelled as sources but were requesting learners to 'look' at it and answer questions based on the general appearance of it. Text B, on the other hand, had letters and copies of dated newspaper clippings (primary sources) which were written at a particular time in History and which offered information about the time, events, people involved while providing a sense of chronology in the way the story in the sources unfolded.

The following examples are provided to clarify the coding of Procedural knowledge in tasks according to Bloom's Revised Taxonomy.

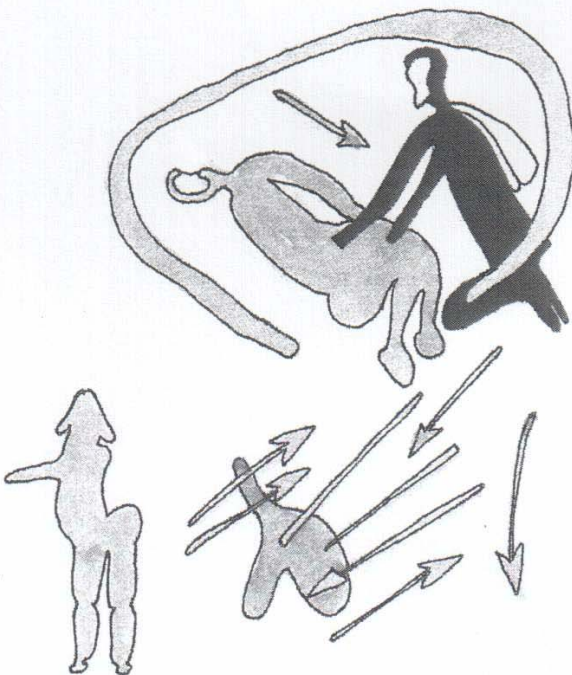
Example 1: The following example is drawn from *New Day-by-Day Social Sciences* Grade 6. Page 136 show a task based on what is labelled as ‘Source D’.

Activity 3

1. Find the following in the picture of the rock painting:

- the ill person
- the arrows of sickness
- the shaman laying hands on the sick person
- the dancers circling the sick person

Source D



A San rock painting from South Africa

136 History: The history of medicine

Learners are asked to ‘find’ in the picture different depictions. This is a generic skill and the activity could appear comfortably in an English textbook. It might appear to be a historical source as it features a rock painting. However, learners do not use subject-specific skills to complete this task.

Example Two: The following task has been extracted from pages 173-177 of *History is about Change*, Standard 4.

7. Can we describe Vesalius’ life as a failure? Give reasons for your answer.

ANDREAS VESALIUS

Although Leonardo da Vinci made important discoveries, his impact on medical science was not so great as that of **Andreas Vesalius** (1514–1564) of Brussels who is regarded as the founder of modern anatomy.

Read the following letter written by a student doctor to his friend describing the life of Vesalius.



174 Themes in History

University of Padua
Italy
2 July 1572

Dear Bruno

Since I wrote to you last we have been learning some very exciting things at the medical school. There are so many thoughts I could share with you, but I would in particular like to tell you about the life of Andreas Vesalius.

The Vesalius family came from a long line of physicians and surgeons so it is not surprising that at a very young age Andreas was dissecting dead animals. By the time he entered the University of Louvain to study to be a doctor himself, he was already far ahead of his companions in anatomy. Andreas did so well that he was granted a scholarship to study at a University in Paris.

Because the dissection of human bodies was still not liked in France, Andreas had to take great risks to learn more about anatomy. No only did he steal bodies from the public execution grounds near Paris, but he also took them from the cemetery at St Innocents! He must have been lucky because many men who tried to do the same were excommunicated by the Church, thrown into prison or burned at the stake.

Andreas had heard that in the city of Padua, here in Italy, dissections could be carried out freely so he moved to this University. Here, at the age of twenty-three he was made a Professor. At last he could carry out his work free from danger.

Instead of allowing assistants to perform dissections, as in medieval times, Andreas, surrounded by his students, did the job himself. After five years of hard work he produced an anatomy book called *The Fabric of the Human Body* which was beautifully illustrated by the artist Jan van Calcar.

Little did Andreas know what a storm his book would cause! In his research he had discovered that Galen, because he had dissected animals and not humans, had made a number of mistakes. These Andreas corrected in his book. This was too much for both the Church and many university physicians, who could not accept that Galen might have made mistakes.

To prove his findings were correct, Andreas toured around Italy making public dissections. Although this seemed to convince students and members of the public that he was correct, the important physicians of the day and the Church were not impressed. Vesalius was criticised and abused for daring to challenge the mighty Galen. Andreas was forced to flee to Spain where he became court physician to Charles V. At the age of twenty-nine his real career was over!

After twenty years in Spain, Vesalius, decided to return to Italy to study medicine again. Just before he left, he agreed to perform a post-mortem examination on the body

of a man. When he opened the chest of the man he found to his horror that the heart was still beating! This news spread quickly, and he was accused of murder. He was arrested and sentenced to death but it was then decided to reduce the sentence. But to make amends he had to make a pilgrimage to the Holy Land where Christ had been born.

On his way back from the Holy Land a storm wrecked the ship and he died on the island of Zante in the Aegean Sea.

Although Andreas Vesalius did not achieve a great deal during his lifetime, his ideas were later recognised and his bravery acknowledged.

I am proud to be a student at the university where he taught.

Your friend

Franco

The learners are asked to “read” the letter to Bruno from Franco about the life of Vesalius. The letter is dated and gives a chronological description of the life of Vesalius. The learners are then asked if they would describe Vesalius’ life as a failure. They would need to consult the source for this information. They would have to read and analyse the information presented about Vesalius in order to arrive at their interpretation of the source before they can provide an answer. Learners are also expected to give reasons for their answers. There would need to be sufficient interrogation of the source for this understanding to occur. For this activity learners would be analysing a source the way historians do. They would be using the skills of the historian. This task would be coded as procedural knowledge in terms of Bloom’s analytic tool.

5.3.2 Cognitive Processes Expected

Table 5.5 exhibits the expected cognitive processes identified in the four textbooks.

Table 5.5

Cognitive Processes Required in the Tasks in the Four Texts

| Kinds of Cognitive Process | Text A | Text B | Text C | Text D |
|--|-----------|-------------|-------------|------------|
| Year of Publication | 1983 | 1982 | 2004 | 2009 |
| Remember | 11 (50%) | 10 (13, 7%) | 7 (14,58%) | 15(37, 5%) |
| Understand | 6 (27%) | 34 (46, 6%) | 38(79, 17%) | 21(52, 5%) |
| Apply | 0 (0%) | 1 (1, 4%) | 0 (0%) | 0 (0%) |
| Analyse | 5 (23%) | 17 (23, 3%) | 0 (0%) | 1 (2, 5%) |
| Evaluate | 0 (0%) | 7 (9, 5%) | 3 (6, 25%) | 2 (5%) |
| Create | 0 (0%) | 4 (5, 5%) | 0 (0%) | 1 (2, 5%) |
| Total number of tasks in each activity | 22 (100%) | 73 (100%) | 48 (100%) | 40 (100%) |

There are varying level of cognitive demand in the tasks coded in all four textbooks. The analysis indicated that Text C and Text D had fewer tasks than Text B. Text A had the least number of tasks but some of the tasks involved greater complexity and research. Text A had 77% of its tasks in the lower levels (Remember and Understand) of cognitive demand. Text B, Text C and Text D had 60,3%, 93,75% and 90%

respectively of their tasks located in lower levels (Remember and Understand) of cognitive demand.

Tasks in Text B appear to be the most balanced in terms of cognitive demand. It has 39, 7% of its tasks situated in higher levels (Apply, Analyse, Evaluate and Create) of cognitive demand, with 60, 3% situated in lower levels (Remember and Understand). Opportunities in Text B have been created for learners to develop critical and analytical thinking. By comparison, Text D had 10% and Text C had 6, 25% of their tasks in higher levels (Analyse, Evaluate and Create) of cognitive demand. This suggests that learners are not offered sufficient opportunities to develop critical and analytic thinking. The focus of the curriculum in general is to develop critical thinking in learners. There is implication in the data is that the texts designed to this are not sufficiently reinforcing the development of critical and analytical thought.

Table 5.6 exhibits the historical or the generic content of the total number of tasks in each of the four texts.

Table 5.6

Historical or Generic Content of the Tasks in the Four Texts

| Content of the Task | Text A | Text B | Text C | Text D |
|-----------------------------|-----------|-------------|-------------|-----------|
| Year of Publication | 1983 | 1982 | 2004 | 2009 |
| Number of Tasks Historical | 11 (50%) | 50 (68, 5%) | 20 (41, 6%) | 14 (35%) |
| Number of Generic Tasks | 11 (50%) | 23 (31, 5%) | 28 (58, 4%) | 26 (65%) |
| Total number of Tasks Coded | 22 (100%) | 73(100%) | 48 (100%) | 40 (100%) |

The analysis indicates that Text A has a balance of historical and generic content in the tasks presented. Tasks in Text B had greater historical content while Text C and Text D revealed a tendency to incorporate more generic content in the tasks presented. Text D exhibits the highest amount of tasks with more generic content. The quantitative data suggest that newer textbooks contain tasks which have greater generic than historical content.

Both the following examples have been extracted from *History is about Change*, Standard Four, pages 176-177, (published in 1982). These have been included to show how tasks were coded in this category.

Question 1 and 15 has been selected from the lists of tasks.

Questions and things to do

1. Briefly explain in your own words how you think the Renaissance helped the progress of medicine.

Task 1 (Question 1) is coded as historical in content as it explicitly concerns History and requests learners to answer using historical knowledge. Learners would need an understanding of Renaissance, its time and associated events to attempt the task.

15. Find out more about the workings of the human heart and the circulation of the blood.

Task 2 (Question 15) is coded as generic in content as it does not involve History, the study of the past. It involves understanding of how a human heart functions which could appear in a biology or life-orientation textbook. Such information would not be expected to appear in a History textbook.

Table 5.7 reveals the percentage of historical or generic procedures required in the tasks presented in all four texts.

Table 5.7

Historical or Generic Procedures of the Tasks in all Four Texts

| Procedures of Tasks | Text A | Text B | Text C | Text D |
|---------------------------------|-------------|-------------|------------|------------|
| Year of Publication | 1983 | 1982 | 2004 | 2009 |
| Percentage Historical (C++, C+) | 2 (9, 10%) | 13 (17, 8%) | 2 (4, 2%) | 1 (2, 5%) |
| Percentage Generic (C--, C-) | 20 (90,90%) | 60 (82, 2%) | 46(95, 8%) | 39(97, 5%) |
| Total number of Tasks coded | 22 (100%) | 73 (100%) | 48 (100%) | 40 (100%) |

This categorisation utilises a C++ coding to denote strong historical procedures required in the tasks and C+ to denote historical procedures required in the tasks. It also utilises C-- to denote strongly generic procedures and C- to denote generic procedures involved in the tasks. The coding of “Percentage Historical” would therefore include those tasks that were strongly historical (C++) and those that were historical (C+). The coding of “Percentage Generic” would include those tasks that were coded strongly generic (C--) and those that were coded generic (C-). The data on this table are therefore different from that which was presented in the Table 5.4 reflecting “Procedural Knowledge”.

All of the texts show great proportions of their tasks requiring generic skills. In terms of this study, historical procedures require the use of skills which are subject-specific or historical. Learners would be ‘doing’ History and using source material as evidence to generate interpretations of the past. Source material should be provided for learners so that they can interrogate and engage with it and so formulate interpretations of History. According to Havekes et al. (2009, p. 2) learners would be using “tricks of sourcing” or the “heuristics of a historian (sourcing, corroboration and contextualisation)”.

The data suggest that all the textbooks do little of this. Only Text B shows some engagement with source material. The tasks in other textbooks present large proportions of generic rather than historical procedures.

Table 5.8 reflects the number of Tasks that required learners to respond orally, in writing or were unspecified (did not explicitly ask learners to write or tell).

Table 5.8

Number of Tasks Written, Oral or Unspecified in all Four Texts

| Type of Task | Text A | Text B | Text C | Text D |
|-----------------------------|-----------|-------------|-----------|-----------|
| Year of Publication | 1983 | 1982 | 2004 | 2009 |
| Number of Oral Tasks | 13 (59%) | 1 (1, 4%) | 16 (33%) | 24 (60%) |
| Number of Written Tasks | 6 (27%) | 21 (28, 6%) | 8 (17%) | 14 (35%) |
| Number of Unspecified Tasks | 3 (14%) | 51 (70%) | 24 (50%) | 2(5%) |
| Total number of Tasks coded | 22 (100%) | 73 (100%) | 48 (100%) | 40 (100%) |

The analysis indicates that Text C required learners to write the least. Text B required learners to respond orally for a fraction of the number of tasks. All the tasks in the four

texts can be attempted in any way the learner or teacher chooses to use them. However, if the text is being used precisely as it is printed, then there are few written tasks for learners across the spectrum. In fact, Text D presents the highest amount of tasks that requested learners to write and also the highest amount of tasks that requested learners to answer orally. In other words, Text D was more specific about what it required learners to do, while other textbooks allowed freedom either to the teacher or the learner in the way each chose to respond. Studies have shown that written tasks are not sufficiently reinforced in schools (Taylor, 2008). If schools are using textbooks in their instruction, they should be aware of the nature of tasks. Written tasks are important as they allow alternative forms of expression and communication which can be assessed and evaluated in the absence of learners. It also forms the only means of expression for learners who are challenged by speech deficits. Readers of the written language are able to gauge the clarity, effectiveness and coherence of the writer's thought processes. Accuracy and appropriate language structures are also developed.

5.3.3 Analysis of Images

Table 5.9 shows the number of images that were Instructional/ subject-specific compared to the number of images that were generic/everyday in all four textbooks.

Table 5.9

Instructional and Generic Images in all Four Texts

| Types of Images | Text A | Text B | Text C | Text D |
|--------------------------------|----------|-------------|-----------|-------------|
| Year of Publication | 1983 | 1982 | 2004 | 2009 |
| Instructional/Subject Specific | 7 (100%) | 14 (82, 3%) | 12 (43%) | 2 (7, 4%) |
| Generic/Everyday | 0 (0%) | 3 (17, 7%) | 16 (57%) | 25 (92, 6%) |
| Total number of images coded | 7 (100%) | 17 (100%) | 28 (100%) | 27 (100%) |

The analysis of images indicates that Text A and Text B have a greater number of images that are Instructional/Subject-specific while Text C and Text D have a greater number of images that are Generic or everyday images. The data suggest that there are an overwhelming number of generic images in Text D. These images could be transported to a Life-Orientation textbook with no effort. These images also create a sense of generic information being transmitted to the learner under the banner of History. An image locates or contextualises its contents in a particular time in History.

The images in Text A and B show its content to be historical. The type of clothing worn by people in the images suggests time and location. While 43% of the images in Text C are shown to be historical or subject-specific, the other 57% are images which are not classified as historical. They are classified as generic.

Table 5.10 shows how the images in each of the four texts are linked to the knowledge statements or to the tasks.

Table 5.10

Relation of the Images to the Knowledge Statement or Task in Four Texts

| Images in the Texts | Text A | Text B | Text C | Text D |
|---|----------|-----------|-----------|------------|
| Year of Publication | 1983 | 1982 | 2004 | 2009 |
| Number of images linked to Task only | 0 (0%) | 0 (0%) | 10 (36%) | 7 (26%) |
| Number of images linked to Knowledge Statement only | 7 (100%) | 13 (76%) | 4 (14%) | 12(44, 4%) |
| Number of images linked to Task and Knowledge Statement | 0 (0%) | 4 (24%) | 13 (46%) | 5 (18, 5%) |
| No link to Task or Knowledge Statement (Icon) | 0 (0%) | 0 (0%) | 1 (4%) | 3 (11, 1%) |
| Total number of Images coded | 7 (100%) | 17 (100%) | 28 (100%) | 27 (100%) |

All the images in Text A were linked to the knowledge statements while the other texts differed in their links with either the knowledge statements or the tasks. Text D however indicated the greatest number of images which had no links either with the knowledge statements or the tasks. Text D also reflected some images that had no connection with either the knowledge statements or the tasks. The categorisation of an image with no link to a task or knowledge statement is important as the image is then regarded as a ‘supporting feature’. In addition, some of the images have no captions or headings, leaving learners to correlate its significance in the text. Learners might view the image but they are not required to engage with it. This picture is not a source and does not

require in-depth analysis which sources require. Text C and D indicate increased numbers of images that function as ‘supporting features’.

Table 5.11 indicates the Provenance of Images in all four textbooks.

Table 5.11

Provenance of Images in all Four Texts

| Provenance of Images | Text A | Text B | Text C | Text D |
|--|----------|-------------|-----------|-------------|
| Year of Publication | 1983 | 1982 | 2004 | 2009 |
| Number of images that were sourced, corroborated and contextualised. (C++, C+) | 0 (0%) | 3 (17, 6%) | 2 (7%) | 1 (3, 7%) |
| Number of images that were not sourced, corroborated and contextualised. (C--, C-) | 7 (100%) | 14 (82, 4%) | 26 (93%) | 26 (96, 3%) |
| Total number of images | 7 (100%) | 17 (100%) | 28 (100%) | 27 (100%) |

All four textbooks show very low proportions of images that had been adequately sourced, corroborated or contextualised. The percentage of 17,6 % for Text B includes some of the images that met only part of the requirements of the coding procedure. Text C and Text D show smaller proportions to the images that were adequately sourced and contextualised. It is clear that all four textbooks do not present the provenance of sources adequately and learners are therefore not afforded sufficient opportunities to engage with source material. Even though images are labelled as ‘sources’, the provenance of the sources are not clear. Learners are not using the “heuristics of a historian”. As such they are not ‘doing’ History as the curriculum requires them to do. Although the History curriculum emphasizes the use of sources, data suggest that the textbooks are not reinforcing this.

5.3.4 Language Mediation Tool-boxes

Table 5.12 indicates the number of Language Mediation Tool-boxes used by the four textbooks.

Table 5.12

Number of Language Mediation Tool-boxes for all Four Texts

| Language Mediation Tool-boxes | Text A | Text B | Text C | Text D |
|-------------------------------|--------|--------|--------|--------|
| Year of Publication | 1983 | 1982 | 2004 | 2009 |
| Total Number | 0 | 0 | 2 | 7 |

Language Mediation Tool-Boxes are excellent tools for learners whose main language is not English. They are also advantageous for learners who do not perform well in English as difficult words are explained or a glossary is provided. The use of the tool-boxes also facilitates the readability of a text. Text D reflects the largest number of Language Mediation Tool-boxes which mediate language by providing dictionary meanings for the learners. Text C provides two Language Mediation Tool-boxes which provide Xhosa and Khoisan translations for English plant names. Text A and Text B do not explicate language by the use of any Language Mediation Tool-boxes. Learners were expected to know or find out for themselves the words they did not understand. Inclusivity is also promoted in the use of other language translations.

5.4 Conclusion

In this chapter the qualitative and quantitative findings from the content analysis was described. In essence, both word-data and numerical data were retrieved from the analysis. These data provide the means to characterise information that can be read and interpreted so that an understanding can be elicited. In other words, the researcher is able to discuss trends and patterns that emerge from both word and numerical data. Conclusions can be drawn from the representation of data.

Qualitative and Quantitative analysis provide evidence that reflect an explicit reduction in substantive knowledge. There is also evidence of a prioritising of everyday knowledge in its integration with substantive knowledge in the textbooks representing the new curriculum. Procedural knowledge or engagement with source material is not sufficiently reinforced in all of the textbooks. Tasks in the textbooks are not providing sufficient opportunities for the development of critical and analytic thought which is the focus of the new curriculum. The study concludes that the textbooks designed for the new curriculum do not adequately satisfy its requirements.

CHAPTER SIX

Discussion

6.1 Introduction to the chapter

In this chapter, I use the data from the analysis and findings to discuss the trends of each textbook. Qualitative and quantitative data have been produced from the qualitative and quantitative analyses. These data form the evidence which informs the discussion. Changes in the History content are almost visible when everyday knowledge is integrated in the new textbooks. Data suggest a strong focus on everyday knowledge and raises questions about the disciplinary content of History. The numbers presented on the tables form the quantitative evidence which suggest that there is certainly a decline in substantive knowledge as well as procedural knowledge in the newer texts. Word-based data form the qualitative evidence which reflect the decline in both procedural knowledge and substantive knowledge. The exemplars of text pages form the visual evidence which provide substance to the claims that are being made. As the study progressed, I found themes that were emerging. I used the patterns of these emergent themes to guide the discussion on the findings below. The discussion attempts to answer the critical questions of the research study.

6.2 Reduction of substantive knowledge

There is certainly a shift in the types of knowledge presented in the textbooks. The data suggest a reduction of substantive knowledge in the texts prepared for the new History curriculum. It is discernable from the coding of the knowledge statements that there were reduced proportions of knowledge statements in the newer textbooks. The coding of knowledge statements in Text A and Text B was easier as it was possible to clearly identify 'chunks' or segments of paragraphs. The segments contained substantial fact and detail to be coded. However, coding Text C and Text D, proved difficult as the paragraphs were greatly reduced. There were examples of 'paragraphs' in Text C and Text D which included two or three sentences before the commencement of a pupil-activity. Text D included a fact in a text box and a sentence in a speech bubble that counted as knowledge statements whereas Text A and Text B had more sentences (eight and more) and greater detail in each knowledge statement that was coded.

Text A and Text B presented greater proportions of substantive knowledge for this chapter than Text C and Text D. The data suggest that both Text C and Text D have embraced the outcomes-based framework and are no longer ‘content-laden’ as Text A and Text B. While Text A and Text B provide enough factual and background information for the learner on the topic, Text C and Text D are not adequately presenting all the facts. Text C and Text D present abridged versions of Text A and Text B. It is therefore clear that the policy to remove the “content-driven prescriptive nature and biases of the old curriculum” (Seleti, 1997) is captured by both Text C and Text D. There is qualitative and quantitative evidence in support of the reduction in content. Reduction in quantitative data is reflected in the:

1. Reduced number of pages for each chapter in the new textbooks,
2. Reduced number of knowledge statements for coding in the new textbooks.
3. Reduced number of sentences in each knowledge statement identified for the coding procedure in the new textbooks.

The data also reflect that Text C and Text D have integrated everyday knowledge with substantive knowledge, in line with curriculum expectations.

6.3 Prioritising of everyday knowledge

There is indication of the prioritising of everyday knowledge, which academics have written much about. The learning area of Social Sciences is thus imbued with a multi-disciplinary, inter-disciplinary nature. Identified as “cross-pollination” by Hummel (1988) in an American context, there arises a concern about the shape of History as a discipline when it functions as a “hybrid” in the Social Sciences learning area. In the United States as well, Hummel (1988, p. 33) found that the social studies curriculum, in its transformation, emphasized learning about issues and ideas and how to deal with them, rather than acquiring factual information. Issues such as power leaderships, freedom of speech, legal rights and justice were foregrounded in content of the study. There is implication that everyday knowledge ‘dilutes’ History in a disciplinary sense. History also loses its distinctive features as other blends over-power the content of History. As learners acquire the new ‘content’ of History with a prioritising of everyday knowledge in the GET, concerns arise over whether learners receive

substantial theoretical or academic knowledge that would be useful and imperative in the FET.

There is also raised concern over whether the content of History in its new form creates a coherent understanding of historical events and their chronological nature. Understanding around historical meta-concepts such as time, change, cause, evidence and account are not fully developed. This would also mean that the educator in the FET band would need to provide a great deal of support and background information to ‘bridge’ or ‘scaffold’ the learner appropriately when he/she arrived in the new phase. The chapter in newer texts, Text C and Text D, merely skims the surface of the History of medical science, presenting a rather superficial account of History. The idea of change, continuity, progress is weakly presented due to the emphasis of everyday knowledge at the expense of substantive knowledge. Teachers and learners are expected to ‘fill in the gaps’ arising from the lack of substantive information. Information about the Middle Ages, Renaissance etc. which is not sufficiently explained, has to be presented by the teacher at some point in the delivery of the curriculum. Learners too, are expected to gain some idea of these events and chronology by their own efforts or reading. It then seems as though the texts take it for granted that the necessary prior knowledge to a topic has already been assimilated by the learners and assume that the way knowledge is structured in the textbook is sufficient for the learner. It can be argued that many textbooks should be used in the classrooms so that learners have access to a variety of presentations and interpretations.

Chisholm (2008) suggests that teachers consult a wide range of books and sources to prepare for a lesson. From her interview with a teacher in Rossettenville, she established that the teachers in that study believed that the units in the *Shuters Social Sciences*, Grade 6 textbook conveyed information as well as allowed for development of skills and values. However, Chisholm’s study (2008) and analysis of this text indicates that only small chunks of information were taught, losing a sense of the bigger picture. In addition, Chisholm’s study showed that new inclusions brought new exclusions, that content and discourse was presented in “fragmented” ways and that “the challenge of coherence, content and progression” as outlined in the Curriculum Review Committee of 2000 had not been addressed. The texts were also limited in History content with fewer pages allocated to History than geography. Chisholm (2008, p. 18) concluded

that the new model text was “light years from its predecessors” and that it was “generally chronologically weak, often superficial, and extremely information poor”.

6.4 Procedural knowledge

The results of this study indicate that insufficient historical procedures were utilised in all the textbooks. There is numerical or quantitative data that suggest that textbooks present information that require greater generic skills than subject-specific skills. This study has already reinforced the need for a ‘historical gaze’ to be established. It has been suggested that a requisite balance of both procedural and substantive knowledge be established in order to ‘do’ History. However, it has emerged that both procedural and substantive knowledge are endangered in the newer textbooks. Conditions for the induction of learners into the discipline are thereby compromised. The results of the analysis point to the fact the learners in the GET band are not provided with sufficient procedural skills and substantive knowledge in the discipline of History. The implications would be that they will not be able to cope in the FET band when History becomes a subject.

6.5 Provenance of sources

The data also show that certain requirements concerning an enquiry-based approach involving the appropriate utilisation of sources is not sufficiently dealt with by these textbooks. All the texts analysed in this study do not make adequate use of historical procedures as historians do. These procedures involve a specialist way of reading and interacting with source material. Text C and Text D, even though representative of the new curriculum, do not encourage learners sufficiently to interact with sources as historians do and are therefore not ‘doing’ History as expected by the curriculum. There are insufficient opportunities for learners to engage with historical ‘evidence’. Learners are not required to interrogate different source material which would allow them to form different interpretations and understanding. Source material is minimal and information supporting material labelled as ‘source’ is insufficient to generate any in-depth discussion about the origin, development and contextualisation of the source. Questions and learner activities in the texts, based on the sources, often just involve the extraction of generic information from the source. The learner’s ability to use source

material to foster debate and argument is not developed. This does little to enhance critical thinking in learners of History.

Text B included some historical procedures which for its time was progressive. Some of the activities in Text B involved learners locating sources, obtaining information from them and using the information obtained to form some kind of judgement. Although historical procedures were not a consideration in the past, Text B encouraged the development of historical procedures to a limited degree. Text B also provided primary source material like written letters and copies of newspaper clippings which provided information about the time in which they were constructed. Textbooks currently being used do not present source-based activities for learners which involve the appropriate utilisation of historical procedures. Pupils are not reading and engaging with historical sources in these particular kinds of ways. Wineburg (2001) describes the ways historians engage with sources as the way learners of History should be interacting with sources. The use of sources has been emphasized as ‘how’ (procedural knowledge) learners learn and ‘what’ (substantive knowledge) they learn in order to construct knowledge. This study shows that both the ‘how’ and the ‘what’ is compromised as both procedural and substantive knowledge is endangered when everyday knowledge is integrated with substantive knowledge. They are therefore not able to use the heuristics of a historian: sourcing, corroboration and contextualisation (Havekes, H., Coppen, P. A., Boxtel, C. & Imants, J., 2009, p. 2). Textbooks presently are simply not requesting learners to use sources in this manner.

Although Textbook B provided source material for learner interrogation, not all of its sources have the necessary information that historical sources should have. The supporting information that places the image in time and context is not adequately presented. Text C and Text D also do not present sources with the necessary supporting information. Learners are not encouraged to detect bias or trustworthiness of sources and their abilities to formulate arguments and debates successfully are impeded. Text C was more successful than Text D in presenting images that had some historical content. Images in Text D presented a greater generic content. Pupils are using the source as a means to get generic information rather than obtaining historical information and understanding. A historical source is much more than a general source of information. It gives greater detail about time, context and people. Questions are raised about who

constructed the source and the intention of that person. In the absence of such questions learners are not developing an understanding of how History is ‘constructed’. Beets & le Grange (2008) argue that pupils develop a critical understanding of the nature and use of sources by working with them in particular ways. They contend that by distinguishing between sources and evidence, gathering information from sources and making deductions based on the information gleaned promoted disciplinary knowledge.

Similarly, Bertram (2008b, p. 162) identifies three inter-linked areas that are vital in order to induct learners into the speciality of school History, or to begin the development of a ‘historical gaze’. The first is a deep knowledge of the key events that shaped our world and knowledge of how these are inter-connected. The second area is knowledge about the ways in which History relies on chronology, time and explanations of cause-and-effect to create its narrative. The third area is an understanding of how historians read primary sources and an understanding that sources can be read in different ways by different people at different times. The different readings give rise to the construction of different interpretations and different stories. I use Bertram’s ideas to argue that insufficient attention is given to knowledge, chronology and explanation in the new texts. I also argue that while ‘older’ texts prioritised knowledge and chronology, that insufficient attention was given to explanation and the “heuristics of the historian (sourcing, corroboration and contextualisation)”.

Present curriculum documents for both GET and FET emphasize that learners should ‘do’ History and know how historians work (Bertram, 2008b). The previous curriculum did not emphasize the need for and the use of historical sources so if those textbooks, Text A and B do not conform to these requirements, it is not a concern. What is a concern is the fact that textbooks specifically designed to emphasize source analysis and interpretation as the new curriculum expects, do not really do this. Wineburg (2001) describes specific ways in which sources must be interrogated. These ways are largely absent from all of the textbooks in this study. The implication is that learners using the newer textbooks involved in the study are not sufficiently inducted into the discipline of History.

According to Havekes et al. (2009) the Dutch method of teaching History seemed to accord with Wineburg’s (1991) method of source analysis. In Dutch classes, learners

learnt “tricks” of sourcing but hardly concentrated on understanding historical meta-concepts like time, change, cause, evidence and account. Dutch students were taught to acquire the “heuristics of a historian (sourcing, corroboration and contextualisation)” (Havekes et al., 2009, p. 2). Wineburg (1991) argued that learners in an American context learnt a lot of facts but were not able to use the ways of a historian when analysing sources. In the nineties, the criticism was levelled at Dutch History teaching focussing on skill. This was due to the fact that Dutch students did not learn historical facts and chronology. The Dutch curriculum was then changed in 2007 erasing the thematic narratives focussing on skills and focused instead on a chronological frame of reference consisting of 49 characteristic developments of ten eras going back to preHistory. Although this curriculum is still in its infancy, Havekes et al. (2009) argues that there is strong indication that the new curriculum leads to a better chronological understanding and more knowledge of historical facts by students. A similar curriculum could be offered to replace the present History curriculum in South Africa. Perhaps then learners will get a clearer view of the changes and historical events in South Africa.

6.6 Increase in inclusivity

There are additions to the content of History in the new textbooks and local History has become recognised as an integral feature of the discipline. History content in the newer texts is more inclusive in that it incorporates recognition of previously neglected groups of people. This is captured in the images which show various colours of people in different roles. It is also captured in the study of indigenous cultures and beliefs.

The Eurocentric nature of History, depicted in Text A and Text B has transformed in Text C and Text D. History, in Text C and Text D is far more inclusive. Text C and Text D embrace a greater recognition and documentation of indigenous practices, with Text C reflecting the highest amount of inclusivity. Text C and Text D have by no means excluded the influence of European figures in History. The European influence cannot be excluded from study in South Africa as the History of medical science cannot be re-written to exclude the influence of White males from Europe. They contributed immensely to the development of medical science and learners must obtain this understanding. It seems as though this influence is under-played in Text C and Text D, while more generic information is fore-grounded. The idea of inclusivity is also

promoted in the use of Language Mediation Tool-boxes in Text C and Text D. In Text C, there are examples of language translation. The use of these tools has increased in Text D to include exemplification of difficult words, especially for the use of second language users.

6.7 Decreased cognitive demand

All four textbooks presented the majority of their tasks in Level 1 (Remember) and Level 2 (Understand) which are positioned at the lower levels of the Cognitive Process Domain. Only Text B presented 40% of its tasks in the higher levels of cognitive demand (Apply, Analyse, Evaluate and Create). Text C presented 6, 25% and Text D 10% of their tasks in the higher levels. This has implications for a curriculum said to be designed to develop critical thinking in learners. This study suggests that Text C and Text D do not provide sufficient opportunities for learners to develop critical or analytical thinking. Learners simply acquire some facts and concepts with fewer opportunities for in-depth analytic thought.

6.8 Greater emphasis on oral tasks than written

In this category of analysis, the unspecified section allows the teacher or the learner in the class to determine whether the activity should be oral or written. However, assuming that the text is followed closely in terms of how activities unfold, then the sections requiring learner to write and discuss are valuable in determining how much of written work is completed using a particular text.

The four texts display varying levels of written and oral activity. All texts reflect lower percentages of requests for written work. The analysis of 60% oral (Text D) and 59% (Text A) of the tasks show oral work being prioritised compared to the other two texts. However, Text D explicitly requests learners to “discuss” for most of the activities rather than “write”. The fact that learners are not required to write any extended text could mean that learners would have no record of what they learnt and could therefore forget some of the discussion. Both Taylor’s (2008) and Fielding’s (2005) studies are relevant here. Taylor’s (2008) study suggested that learners not writing enough extended text impeded their cognitive process and literacy skill development. Fielding (2005, as cited by Pillay, 2007) also indicated that learners remember 20 % of what they

heard. Recent research has also produced interesting information about literacy levels in South Africa. The DoE's (2005, cited by Dieltiens & Meny-Gibert, 2005, p. 9) systemic evaluation of Grade 6 learners showed dismal results in literacy. Learners scored 38% in Language of Learning and Teaching (LOLT). The results also showed that open-ended questions were particularly poorly answered. Perhaps we should look to textbooks and examine the type of information they are presenting to learners to understand the prevailing circumstances. Text A and Text B presented many activities that involved a greater degree of complexity. Activities involved research and greater amounts of extended writing. Text A and Text B did not present any activities for self-evaluation but provided more activities for learners to display their understanding.

Although the present study has shown that current History textbooks selected for the analysis do not conform to expectations/requirements of the History curriculum, the NCS itself has been the subject of much criticism. Inconsistencies in its implementation and the increasing poor performance of learners have once again brought the curriculum under the spotlight. The Department of Education has adopted the recommendations made by a task team which has reviewed the NCS. In July 2009, the Minister of Basic Education, Angela Motshekga, set up a team of experts to investigate the challenges in the implementation of the NCS. The report recommended changes that would relieve schools and teachers of some of the challenges experienced as a result of the current curriculum. Motshekga announced that some of these changes could be put into place immediately. Press reports by the Minister have included recommendations for changes that will become effected over 2010 and 2011. According to a newspaper article that appeared in the *Echo* these changes involve the Department of Education plans to distribute textbooks in every learning area to all Grade four to 12 pupils. The additional R524 million allocated to education during the Medium Term Budget Policy Statement will be used to supply textbooks. The department will use the guidelines for textbooks acquisition and distribution and retrieval to all schools. Extensive learning and teaching packs for grade R to Grade 6 have already been developed and will be distributed to all primary schools in January 2010. According to the Minister, the department is not doing away with Outcomes-Based Education but is stream-lining and simplifying it (Khumalo, 2009, p. 17).

A striking feature of these recommendations is its focus on textbooks. The integral role of textbooks in teaching and education has been recognised. The task team for the Review of the Implementation of the NCS (2009) included in its report that C2005 had discouraged the proper and comprehensive use of textbooks. The report also mentions that “both local and international research has shown that the textbook is the most effective tool to ensure consistency, coverage, appropriate pacing and better quality instruction in implementing a curriculum” (p. 9). It further indicated that among LTSM related complaints were that some provinces had not provided sufficient textbooks for learners for many years and that some provincially developed catalogues contained LTSM of dubious quality. The task team recommended that quality assurance and catalogue development for textbooks and other LTSM be centralised at National level. It also acknowledged that good quality, content- and methodology- rich textbooks (and teaching guides) and teacher training were both fundamental to successful curriculum implementation.

Textbook studies may feature in future research so as to investigate knowledge representations in different learning areas. The same concerns over History content and knowledge structures may be raised. Textbooks are therefore topical issues and should be evaluated on whether they actually satisfy the expectations of the improvised curriculum.

6.9 Recommendations

This study can be augmented by visiting the teachers in their classrooms to get their views and perspectives on how textbooks designed for the new curriculum are working for them. Teachers who are in the site of learning can provide rich detailed descriptions about whether the textbooks are indeed satisfying the curriculum expectations. Teacher’s understandings of what the History curriculum is about would surface. Teacher’s viewpoints being excluded from this study is certainly not a limitation of the research design but a recommendation that emanates from this study.

An evaluation of publisher and author understandings of a History curriculum in the light of new Department’s guidelines is also very fundamental research. Such a study will reveal how they understand the use of sources in the study of History. Perhaps the

lack of access to suitable source material leads to its exclusion from textbooks. Research is required to determine how source material is accessed by the publishers and writers of textbooks. It is difficult to access suitable primary source material for its inclusion in textbooks. It is equally difficult for teachers to access relevant source material for its inclusion in History lessons. It is therefore critical that studies be executed in this realm to facilitate understanding on access to relevant source material so learners can also get information from their own research and arrive at interpretations while developing a sense of how History and knowledge is constructed. This will create opportunities for independent study and learners acquire research techniques for any area of study.

There are views that the habit of categorising people on the basis of their race and gender should be eradicated. The idea of using a single text for a learning area must also be eradicated. Different textbooks can function as sources of information in the History classroom. Using a selection of textbooks is advantageous as it allows learners to get various interpretations of History as it is told in each textbook. In addition, 'older' textbooks should not be written off as they can be used as appropriate source material. This study has evidence of an older text representing an improved balance of knowledge. The text also offered learners some opportunity to engage with sources as historians do. The material in the text might be Eurocentric but it offers one interpretation that could be used alongside others in the History classroom to open up debates. The text also offers some generic information which can be useful to the learner in other avenues of study.

There should be more textbook studies in the field of History to understand knowledge representations. It is an area where little research has been done since History was immersed in the Social Sciences learning area. Panels involved in recommending textbooks for their use in schools ought to know how knowledge is featured in textbooks. They must understand how information can 'appear' and how analysis can reveal actual tendencies and patterns not easily discernable.

Education Departments also need to be aware of how textbook writers and publishers interpret and represent the curriculum. They must establish committees to review textbooks regularly to ascertain whether the texts actually satisfy curriculum

requirements. Textbooks must be analysed to ensure that its presentation of material is accurate and suitable for the learner. Textbook committees should include teachers of History who have experience in the site of learning coupled with a thorough understanding of the curriculum. Historians should also be an integral part of this committee to ensure that History as a discipline is not eroded.

6.10 Conclusion

The results of the analysis suggest that both content of History and historical procedures are endangered in the texts prepared for the new curriculum. The study shows that substantive knowledge or historical content appears to be overpowered in its integration with everyday knowledge. The prioritising of everyday knowledge has endangered substantive knowledge in textbooks for Grade 6 History learners resulting in learners not obtaining ‘all the facts’ in the Department’s effort to transform the content-laden curriculum to a skills-based curriculum. Learners also do not get a sense of chronology, space and time. Text D, particularly, does not give a clear idea of these concepts. The theme of continuity and change is under-developed in both Text C and Text D. Content in these texts are selected in very arbitrary ways. Bertram (2008, p. 160) argues that chronology is still a key ordering principle in History. While this idea of chronology is well presented in Text A and Text B, the different chapters in Text C and Text D and the order in which they are presented do not create a sense of chronology. In addition, historical content or substantive knowledge is adequately featured in Text A and Text B which contrasts with the content in Text C and D. While outcomes are prioritised in the new curriculum, ideas of chronology are not sufficiently developed in the new textbooks. Historical meta-concepts like “time, change, evidence and account are not fully developed”. According to Havekes et al. (2009) these concepts are critical for the understanding of History. The learner is expected to arrive at some conclusion at the end of the course and the teacher is expected to bridge that gap, between what the learner knows and how to teach him what he does not know, so that the learning outcomes are achieved.

The expectation of the NCS is one of high skill and high knowledge. The question is whether texts actually address these requirements. There seems to be a lack of fit or congruence between curriculum requirements and what textbooks are actually

representing. When textbooks appear on the Department catalogue for the procurement of textbooks, the second question is whether these books have been adequately researched to ascertain whether they conform to the requirements. The appearance of knowledge can sometimes be deceptive. Only careful scrutiny and analysis can reveal tendencies and trends. Panels recommending textbook placements must have an expert knowledge of the curriculum as well as a thorough understanding of the different types of knowledge representations. Panels should have expert knowledge of the discipline as well as a sound understanding of curriculum requirements for that particular discipline. Some texts appear as though they are source-based, which is the requirement for the discipline of History in the NCS but they are in fact not really satisfying the curriculum expectations. Only research of depth can reveal this.

Textbooks, if used as the chief resource in the classroom, can result in learners not being inducted into the speciality of History. The learners would battle in the FET when the learning area becomes a subject. A study of this nature should be replicated in the FET to ascertain how textbooks present the balance of substantive and everyday knowledge using historical sources as historians do. A further study would be to access the classrooms to examine how teachers are using the textbooks and how they are teaching source-based History. It also becomes necessary to view how learners are learning a new source-based History, using textbooks in the new curriculum. How learners are viewing and interacting with sources are important avenues for study as it would indicate the extent to which they are following curriculum guide-lines.

The fact that a book is new and is labelled as representative of the new curriculum by prominent publishers does not imply that the contents of the textbook adequately represent the requirements of the curriculum. This is especially true for History, as the Department expectations regarding an enquiry approach are explicit. The approach involves a delicate balance of both substantive knowledge and procedural knowledge and a thorough understanding of the both. The study shows both substantive and procedural knowledge endangered as the subject of History is immersed into the learning area of Social Sciences. Results of the analysis also indicate that there is imbalance in the two complementary inter-linked strands that make up History and that textbook writers and publishers are not sufficiently presenting the requisite balance.

The study concludes that the presentation of knowledge in the two textbooks servicing the new curriculum do not sufficiently induct learners into the discipline of History.

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22 SEPTEMBER 2009

Mrs. Pranitha Bharath (208525444)
Curriculum Studies
Education
Pietermaritzburg

Dear Mrs. Bharath

ETHICAL CLEARANCE APPROVAL NUMBER: HSS/0617/09M

I wish to inform you that your application for ethical clearance has received full approval for the following project:

"A study of knowledge presentations in grade six history textbooks before 1994 and after 1994".

PLEASE NOTE: Research data should be securely stored in the school/department for a period of 5 years

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully

A handwritten signature in black ink, appearing to read "S. Collings", written over a dotted line.

**PROFESSOR STEVEN COLLINGS (CHAIR)
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cc. Supervisor (Dr Carol Bertram)
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