

**THE USE OF RUBRICS IN THE ASSESSMENT
OF SOCIAL SCIENCES (HISTORY) IN THE GET BAND
IN TRANSFORMATIONAL OUTCOMES-BASED EDUCATION.**


Sandra Carolina Kruger

Dissertation submitted in partial fulfilment of the requirements
for the degree in Master of Education.

Faculty of Education
Cape Peninsula University of Technology
Supervisor: Professor R Chetty
November 2007

DECLARATION

I, the undersigned, hereby declare that the work contained in this dissertation is my own original work and has not in its entirety, or part, been submitted at any university for a degree.


.....
S.C. KRUGER

15 November 2007

DATE

ABSTRACT

With the advent of implementing transformational outcomes-based education in South African schools, educators have had to adopt a standards-based assessment approach.

Rubrics as an assessment scoring tool have been acclaimed as one of the most effective assessment tools with which standards-based assessment can be implemented and managed. This study explores the ways in which educators manage assessment in their classrooms whilst promoting the basic tenets of transformational outcomes-based education. The demand is on competencies that illustrate the ability to think and perform critically. Bloom's Taxonomy of the Cognitive Domain is put forward as an instrument to use in designing and using rubrics in order to achieve the desired learning outcomes.

Effecting change is not an easy process and this study investigates the challenges educators are facing in implementing this aspect of educational reform.

DEDICATION

I dedicate this dissertation to my wonderful mother, Marty. She instilled in me the notion that a job worth doing, is worth doing well. Her unfailing support and faith in me has been a constant guiding light. I owe all that I am and hope to be to her.

ACKNOWLEDGEMENTS

I am obliged to a number of people who have made it possible to complete this study and whose wisdom, insight and inspiration has shaped this dissertation.

I would like to extend my sincere gratitude and appreciation to:

- My supervisor, Professor Rajendra Chetty. His support and direction was the most worthwhile experience to me. He had faith in me and was always available to discuss and encourage me in my work. I was inspired and enthused by his intellectual debate and educational background and knowledge in the field of educational leadership.
- The principals and educators who took part in the study. They willingly shared their experiences of assessment in their schools with me. I am thankful for their input and time, providing me with documents and the time from their busy school schedules.
- My employer, for her support and encouragement and for providing me with the opportunity to complete my studies.
- The learners who made me think about their assessments and *provided me with many thought-provoking challenges.*

“We think of the teachers we have had over the years with a sense of recognition, but those who have touched our humanity we remember with a deep sense of gratitude.” (Anon)

TABLE OF CONTENTS

DECLARATION	i
ABSTRACT	ii
DEDICATION	iii
ACKNOWLEDGEMENTS	iv
TABLE OF CONTENTS	v
LIST OF APPENDICES	x
LIST OF TABLES	xi
LIST OF DIAGRAMS	xi
KEYWORDS	xii
CHAPTER 1: INTRODUCTION	1
1.1 Introduction	1
1.2 Purpose of the study	1
1.3 Transformational outcomes-based education	2
1.4 Methodology	5
1.5 Ethical considerations	5
1.6 Limitations of this study	6
1.7 Organisation of the study	7

CHAPTER 2: LITERATURE REVIEW	8
2.1 Introduction	8
2.2 Theoretical framework	9
2.2.1 The basic tenets of transformational outcomes-based education	9
• Clarify of focus	9
• High expectations	9
• Expanded opportunity	10
• Design down	10
2.2.2 Bloom's Taxonomy	11
2.2.3 The learning area: Social Sciences: History	12
2.3 Assessment of learning	12
2.3.1 Standards-based assessment	13
2.3.2 Formative assessment	15
2.3.3 Performance assessment	15
2.4 Rubrics	15
2.5 Different types of learning	18
2.5.1 Deep learning	18
2.5.1 Personalised learning	20
2.6 Integration of learning material	20
2.7 Learner feedback and reflection	21
2.8 Professional development of educators	22
2.9 Conclusion	23

CHAPTER 3: THE RESEARCH METHODOLOGY	24
3.1 Introduction	24
3.2 Grounded theory method as a research methodology	24
3.3 The research design	27
3.3.1 Research participation	27
3.3.2 Data collection	28
• Semi- structured interview	28
• Rubrics	29
• Survey of literature	29
3.3.3 Data analysis	30
3.3.3.1 Note taking	31
3.3.3.2 Coding	32
3.3.3.3 Memoing	33
3.3.3.4 Sorting	33
3.4 Validity and reliability	34
3.5 Conclusion	35

CHAPTER 4: RESEARCH FINDINGS	36
4.1 Introduction	36
4.2. Results of data findings on the rubrics	37
4.2.1 Educators' source of the rubrics used in assessment	37
4.2.2 Rubric criteria expressed in terms of observable behaviours or products	38
4.2.3 <i>Rubric criteria and its alignment with the required national learning outcome</i>	40
4.2.4 Rubric criteria written in specific and clear language	41
4.2.5 The continuum used for the marks allocation in the rubrics	44
4.2.6 The assessment task should present a full array of challenges found in instructional activities for performance assessment	47
4.2.7 The use of analytical vs. holistic rubrics	50
4.2.8 The use of individual, paired and group assessment tasks	51
4.2.9 The provisioning of educator, self and peer assessment	51
4.2.10 Integration within learning area or cross-field learning outcomes	52
4.3 Results of the data findings on the interviews	54
4.3.1 Need for training	54
4.3.2 Weighting of content criteria and use of codes	57
4.3.3 The learners' understanding of the expectations and their ability to use the scoring tool to extend on their learning	57
4.4 Challenges	58
4.5 Conclusion	59

CHAPTER 5: RECOMMENDATIONS	60
5.1. Introduction	60
5.2 Recommendations	62
5.2.1 Recommendation for the micro-educational level	62
5.2.1.1 Curriculum alignment and integration	62
5.2.1.2 Curriculum mapping	64
5.2.1.3 Educator research and professional development	64
5.2.1.4 Effective teaching and learning	65
5.2.1.5 The use of rubrics as a scoring tool	67
5.2.1.6 Assessment for learning and feedback to learners	68
5.2.1.7 Assessment as learning and learner reflection	69
5.2.1.8 Managerial tasks related to assessments	71
5.2.1.9 Assessment of individual performance tasks	72
5.2.1.10 Self assessment and peer assessment	72
5.2.2 Recommendation for the meso-educational level	72
5.2.2.1 Training of educators in developing and implementing assessment.	72
5.2.3 Recommendation for the macro-educational level	75
5.2.3.1 Learning material and resources development	75
• Curriculum textbooks	75
• Academic textbooks	76

• Electronic media	76
5.2.3.2 Organizational learning and leadership	76
5.2.3.3 Quality assurance	78
5.3 Conclusion	79
CHAPTER 6: CONCLUSION	80
6.1 Introduction	80
6.2 Scope for further study	80
6.3 Educators' perceptions	81
6.4 Conclusion	81
BIBLIOGRAPHY	83
APPENDICES	91
Appendix A: Information regarding the semi-structured interview	91
Appendix B: Semi-structured interview questions	92
Appendix C: Rubrics Checklist	95
Appendix D: Samples used in the study	96
Appendix E: The History assessment criteria	97
Appendix F: Rubric samples	99
Appendix G: Bloom's adapted Taxonomy of the cognitive domain	124

TABLES

Table 1	39
Table 2	40
Table 3	44
Table 4	46
Table 5	48
Table 6	49
Table 7	51
Table 8	52
Table 9	53
Table 10	54

DIAGRAMS

Diagram 1	27
Diagram 2	61
Diagram 3	62
Diagram 4	64

KEYWORDS

Assessment

Assessment standard

Authentic assessment

Accountability

Bloom's Taxonomy

Formative assessment

Rubric – analytical, holistic

Performance assessment

Scoring tool

Standards-based assessment

Transformational outcomes-based education

KEYWORDS

Assessment

Assessment standard

Authentic assessment

Accountability

Bloom's Taxonomy

Formative assessment

Rubric – analytical, holistic

Performance assessment

Scoring tool

Standards-based assessment

Transformational outcomes-based education

CHAPTER 1

INTRODUCTION

1.1 Introduction

The current changes in classroom assessments emanate from the implementation of a transformational outcomes-based educational approach. The paradigm shift that educators had to make to fully implement this system was to move from Christian National Education system based with normative assessment to an educational approach where the focus is on a standards-based approach. In assessment this meant a shift away from an approach where rote learning was the norm to an approach focused on the principles of outcomes-based education.

1.2 Purpose of the study

The standards-based assessment framework of Curriculum 2005 prescribes set learning outcomes to be assessed in each learning area. Outcomes-based education subsumes a learner-centred approach to teaching and learning (Maree & Fraser: 2004), yet by prescribing the outcomes, an argument for a mechanistic constructivist approach can be made.

The purpose of the study is to examine the research question, namely: how do assessment standards and their attributing criteria within rubrics support transformational outcomes-based education principles? The research objectives are to determine whether rubrics, and therefore the assessment standards, are used as a transformational outcomes-based educational assessment tool, thus promoting the paradigm shift towards authentic performance assessment.

This study will benefit educators in the construction of rubrics that are aligned with assessment standards that are supportive of an outcomes-based approach and incorporate underpinning aspects such as critical thinking and promotion of excellence in learning.

1.3 Transformational outcomes-based education

With the introduction of transformational outcomes-based education in South Africa, educators are called upon to make major paradigm shifts regarding the delivery and assessment of teaching and learning from a traditional outcomes-based education approach to a transformational outcomes-based educational approach promoting learner-centeredness and process-orientation (Van der Horst & McDonald, 2001 and Maree & Fraser, 2004).

Various proponents of educational reform (Torrance, 1995; Van der Horst & McDonald, 2001; Jacobs et al, 2004 and Maree & Fraser, 2004) assert that traditional outcomes-based education has a restrictive effect on teaching, learning and assessment by promoting the teaching of a narrow range of skills, knowledge and values and promotes learning without meaning. It is suggested that transformational outcomes-based education will encourage learner-centred learning, learning with meaning and thus promote higher-order thinking skills as promoted by Anderson in Bloom's revised taxonomy of the cognitive domain (Maree & Fraser, 2004 and Anderson & Krathwohl, 2001).

The roots of transformational outcomes-based education can be found in the work of educational theorists such as Ralph Tyler, Benjamin Bloom and John Carroll and more recently in the body of work by William Spady (Maree & Fraser, 2004). These works embody the concept that transformational outcomes-based teaching, learning and assessment will result in the promotion of learners who are able to apply higher-order thinking skills in a meaningful context.

A transformational outcomes-based approach to education calls for authentic assessment and a paradigm shift away from product orientation towards elaborated understanding (Wilson & Cole, 1992; Maree & Fraser, 2004 and Van der Horst & Mc Donald, 2001) and process and application based orientation to teaching, learning and assessment. It further posits real-life application and a culminating demonstration of competencies acquired. The importance of this is that it implies the application of performance-based assessment and performance indicators that reflect this teaching and learning. Teaching, learning and assessment are undisputedly intertwined and impact on each other in its planning and execution. The way in which an educator assesses should also reflect the manner in which teaching and learning occurs, and as such rubrics as an assessment tool should reflect the use of learning outcomes and assessment standards reflective of higher order thinking skills.

Assessment has been defined as the ability to gauge the measure to which learners have gained knowledge, understanding and values, but also to what extent educators can hope to understand how learners learn and how they can be supported (Maree & Fraser, 2004 and DoE, 2003).

Standards-based assessment can be defined as the prescribed set of specific criteria that learners are expected to achieve in a particular learning area in a particular grade. These prescribed criteria are related to the learners' expected competence, as well as the manner in which these competencies are expressed and applied (Maree & Fraser, 2004 and DoE, 2003). Policy documents infer a shift away from 'traditional assessment' towards a more authentic approach, incorporating assessment strategies that extend beyond mere 'pen and paper' testing. This also implies a shift away from assessing lower-order thinking skills i.e. retention and recall of information, to higher order thinking skills as reflected in Bloom's Taxonomy of the Cognitive Domain and later revised by Anderson (Bloom, 1956 and Anderson & Krathwohl, 2001).

Rubrics, using the different levels of the cognitive domain, are suggested as an effective assessment strategy (Maree & Fraser, 2004 and Moskal, 2001). Two types of rubrics are generally defined, namely holistic and analytical rubrics. A holistic rubric assesses a portion of performance or work as a whole, supporting broader judgements; while an analytical rubric assesses discrete and very specific features of the performance or work (Maree & Fraser: 2004 and Moskal: 2001). The expectations of the contents within a rubric are to be communicated to learners and are to serve as a guide and structure to the learner in achieving the competencies.

Killen (Maree & Fraser, 2004:78) states that assessment standards “describe the scope and complexity of the things that learners must do to show that they have achieved a particular learning outcome”. Maree & Fraser (2004) reflect that a range of performance indicators should be defined for a specific outcome which will then become the scoring rubric. The construction of rubrics should be guided by decisions about which higher order thinking skill tasks should be incorporated.

Standards-based assessment has recently been widely adopted (Dunn et al, 2002) as it promotes a fairer and more accountable assessment approach than norm-referencing which places learners into predetermined bands of achievement. In criterion-referenced assessment the learner is being assessed against identified standards of achievement.

The quest for a common language in designing assessment standards has led to the creation of numerous hierarchical ways in which to classify learning. The hierarchies/taxonomies of Bloom, Anderson & Krathwohl and Spady, (Anderson & Krathwohl, 2001; Van der Horst & McDonald, 2001 and Maree & Fraser, 2004) will be analysed regarding its relevance and significance as a departure point to construct assessment standards and their attributing criteria which do justice to transformational outcomes-based education.

1.4 Methodology

This mini-dissertation will examine whether the use of rubrics as an assessment tool in the intermediate phase of schooling supports the shift away from product-driven learning towards a process-orientated transformational outcomes- based paradigm of teaching and assessment. Bloom's Taxonomy revised by Anderson will be used as a basis with which to assess the assessment standards.

The study will be limited to the intermediate phase of schooling within two independent schools in the Western Cape. Secondary data will be collected in the form of twenty rubrics used in the Social Sciences: History learning area by five grade 5 educators.

The study will be based on grounded theory methodology, using a phenomenological approach to analyse the data collected.

1.5 Ethical considerations

This study followed stringent codes of ethics to protect the researcher as well as the participants from any harm. The confidentiality of the participants as well as their schools and work is ensured in the study by identifying these only by the use of pseudonyms. Verbal permission was obtained from the school principals in each instance.

Alreck and Settle (1995) alluded to the notion of identifying sources of possible sampling bias in a research study. Of concern in this study was the so-called 'accessibility bias' which the authors Alreck and Settle refer to as the fact that some respondents are more readily selected or included in the sample that they become over-selected. To eliminate this, I confirmed that the schools selected have not previously been involved in any research of this nature.

As qualitative research is interpretative in nature, I was very aware that I had to guard against any personal biases, beliefs or values I might have, influencing the study. This was a specific issue during the interviews as I had to guard against colouring the interview with my own understandings and views. For this reason I included probes as discussion prompts I could draw on if the interviewees' responses did not flow, and thus avoid interjecting my opinions.

Participation was voluntary and secured on a voluntary basis after receiving approval from the principal of each school.

1.5 Limitations of this study

This study has several limitations. The mere nature of a mini-dissertation presents with its own unique set of limitations. The focus of the study had to be very precise and at times I did find it difficult to remain focused on the research question specifically. The main reason for this is that education is a complex and vast field and many factors can impinge on a single factor.

Only two independent schools were approached to take part and I am aware that different schools would have different approaches. This point is emphasized by the fact that this study involved only independent schools and no public schools were included in the study. Furthermore, only twenty sample rubrics were analysed, which is very limited to be viewed as representative of a comprehensive study. Three interviews were conducted, two individual and one group interview. As the rubrics and interviews were the research tools used, and could affect the validity of the study, I triangulated the collected data as discussed in Chapter Three.

The issue of generalisation is another element of concern. As this was a small qualitative study, there is no need to generalize the findings to any similar studies. I am of the opinion that different studies into different schools, covering the range of public and independent schools, will produce different results.

In researching literature on rubrics as an assessment tool, I found that there was very little available, especially in the South African context. The South African educational department documents used cannot be deemed as academic literature, since these would necessarily promote a specific assessment practice in schools as it is a mandatory requirement from the South African Department of Education.

1.7 Organisation of the study

This study is organised in the following manner:

- Chapter One presents the purpose, ethical considerations and the limitations of the study
- Chapter Two presents a review of the literature relevant to the study
- Chapter Three contains the methodology used in the study
- Chapter Four presents the findings of the study
- Chapter Five outlines the recommendations based on the findings
- Chapter Six provides the conclusion of the study, highlighting the scope for further study and the educator's perceptions regarding the implementation of the Revised National Curriculum Statement.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

Chapter One provide an overview of the study, highlighting the purpose of the study namely to determine how assessment standards and their attributing criteria used within rubrics support the transformational outcomes-based education principles. The research objectives are to determine whether rubrics, and therefore the assessment standards, are used as a transformational outcomes-based educational assessment tool, thus promoting the paradigm shift towards authentic performance assessment.

Glaser (1978) highlights an initial literature review as a process to make sense of the data. He does, however warn against accessing literature that is too closely related to the research topic as it may constrain the coding and memoing process. According to Glaser (1978) in an emergent grounded theory based study, literature is accessed as it becomes relevant to giving meaning to the data collected. In this study I will remain responsive to the data and pay attention to triangulation. Similarly, I feel that constant comparison is the key activity in this study and the information gained from the literature review process should be compared to the emerging theory or concepts. This process was followed in this study.

The important element is how apparent inconsistencies between the literature and the emerging theory are managed. The concern is how the new emerging theory fits with the literature review data and the ability to make sense of actual research experience. The aim is to extend the theory so that it makes sense of both the data from the study and the data from the literature reviewed.

2.2 Theoretical framework

2.2.1 The basic tenets of transformational outcomes-based education

William Spady (1994) holds four basic principles as the tenets of transformational outcomes-based education. According to Maree and Fraser (2004) these operational principles are fully embodied in the implementation of transformational outcomes-based education. These four principles are:

- **Clarify of focus**

According to this principle the educator should have a clear focus of the learning the learners are expected to perform and show competence of. It also assumes that the learning will be meaningful and cumulative. It is then important that the learning outcome is explicit in terms of the actual competency to be achieved as well as the level at which it is to be achieved. To this end an effective and efficiently designed rubric will be able to address this challenge.

- **High expectations**

Maree and Fraser (2004:5) state that: “learners must be exposed to challenges on a higher level that will raise the standard of expected level of performance for successful learning”. Gultig et al (1997) suggests that this higher level of learning is achievable through the application of Bloom’s Taxonomy of the Cognitive Domain. I understand then the underlying assumption to be that the assessment standards and its attributing criteria should be developed in such a manner that it addresses all the levels of thinking processes from lower to higher order thinking in a scaffolded manner. The basic tenet would be that the learner is engaged with the material in such a manner as to develop critical thinking that will be a life long learning skill and that it will transcend a mere recall and simplistic dissemination of a range of information.

It also assumes that the learner will be challenged to extend himself or herself to achieve more than the stated learning outcome and should strive to achieve his or her own potential. This is further supported by the fact that in transformational outcomes-based education the assessment is standards-based (Maree & Fraser, 2004 and Jacobs et al, 2004).

- **Expanded opportunity**

Through expanded opportunities learners will be afforded the opportunity to improve upon their performance. This also includes the opportunity to enrich the learning experience. According to Maree and Fraser (2004) this also implies that the educator will use different teaching methods to ensure meaningful and successful learning for all. It also implies that assessment is continuous and holds the tenet that the educator will also use different assessment tools and effective strategies to assess competence. Authentic assessment and alternative assessment strategies are also lauded as a means of achieving this principle (Wiggins & McTighe, 2005).

- **Design down**

According to Maree and Fraser (2004:6) this refers to the practice of starting with “culminating outcomes and then design back towards the enabling outcomes and the discrete outcomes”. This principle supports the tenet that by applying the Bloom Taxonomy in a scaffolded manner this can be achieved. Van der Horst and McDonald (2001) posit that mastery learning is a root of outcomes-based education and that this provides the premise that the educator should ensure that all learners are granted the opportunity to be successful at most tasks. This re-inforces the use of Bloom’s Taxonomy as the enabler to achieve success meaningfully and in such a manner that learning is culminative.

In implementing the design down approach, Wiggins and McTighe (2005) site three stages of the process that will be useful for educators to implement. These involve:

- identifying the desired results;
- determining the acceptable evidence of achievement; and
- planning learning experiences and teaching based on the desired results and acceptable evidence.

2.2.2 Bloom's Taxonomy

Bloom's Taxonomy of the Cognitive Domain provides a framework (Appendix G) distinguishing the simplest forms of recall of information from the most sophisticated uses of knowledge in assessing learners (Wiggins & McTighe, 2005). Bloom identified six cognitive levels of understanding and cognitive engagement. These include:

- Knowledge - referring to learning outcomes that deal with the ability to recognise, recall and remember information;
- Comprehension or Understanding - involving the ability to manipulate previously acquired information or skills;
- Application - dealing with the ability to apply rules, principles and concepts to new or different situations;
- Analysis - involving the separation, causes or revealing structures of information. Also, the ability to support or refute positions;
- Synthesis - referring to outcomes which relate to creative thinking, production of original works, classifying, or planning; and
- Evaluation - involving outcomes which ask learners to make and support reasoned judgements.

Anderson and Krathwohl (2001) and Marzano et al (1993) revised the Bloom Taxonomy by adding to the existing cognitive levels. Marzano et al (1993) added the cognitive level of 'generating', referring to the ability to generate a framework of ideas that bind old and new information. Anderson and Krathwohl

(2001) added the level of 'creating', referring to the ability to pull elements together as a coherent whole.

2.2.3 The learning area: Social Sciences: History

Bill Williams (1997) is of the opinion that the history classroom is one of the best places to teach learners the skills that they will need in the real world. I feel that the subject history lends itself to the application of an array of authentic performance assessment learning tasks like conducting research, doing a survey, writing argumentative papers, doing field work, working with different sources of information and performing role play.

The learning outcomes in the history learning programme emphasises enquiry knowledge, the construction of knowledge and the development of skills, leading to the conceptual basis for the learning area and transfer through the interpretation and the application of learning to problems past, present and future. (DoE, 2003: 20)

These learning expectations form a rich ground to which the cognitive levels of the adapted Bloom Taxonomy can be applied. There is a big scope in the conceptual knowledge focus of history through which all the cognitive levels - skills, concepts, attitudes, and values - be addressed. The focus of teaching and learning in the history classroom is to involve the learners in collaborative enquiry processes, through an interactive approach which should encourage critical thinking (DoE, 2003).

2.3 Assessment of learning

Assessment is generally defined as the gathering of information about a learner's learning process against specific criteria (Dietel et al, 1991 and Wiggins & McTighe, 2005). This implies placing a value judgement to a

learner's response to a set task. My understanding of a standard-orientated learning environment is that it is important to distinguish between assessing the knowledge content and the learner's actual performance product. Authentic assessment approaches are encouraged where the learner is engaged in learning activities that are meaningful and represent applications in everyday life (Maree & Fraser, 2004). A performance assessment activity would require a learner to construct a response, demonstrate a skill they have acquired or create a product (Black & Williams, 1998b).

2.3.1 Standards-based assessment

Dunn et al (2002) views standards-based assessment as the process of judging and grading the learner's achievement by comparing the quality of the work produced against a set of specified criteria - assessment standards – as they relate to the learning outcomes of a particular learning area. Dunn et al (2002) furthermore emphasises that standards-based assessment in principle assesses each learner independently from the other. Each value awarded is a measure of the extent to which the learner has achieved the learning outcome of the learning area (Dunn et al: 2002).

Popham (2005: 106) defines content standards as “the knowledge or skills that educators want students to learn” and performance standard is identified as “the desired level of proficiency at which educators want a content standard mastered”. In the South African context the learning outcome is seen as the content standard and the performance standard is reflected in the assessment standard. Learning outcomes defines the main aim of the particular learning area.

Many educators view standards as a rigid set of rules contradicting a learner-centred teaching approach and have thus been reluctant to implement standards-based assessment. Stepanek (1997) and the DoE (2003) argue that standards ensure quality in education and indicate the educational goals to be

achieved by the learner, and are not there to standardise the teaching and learning, nor to make it uniform. Stepanek (1997:8) in quoting Tiffany Santos states that:

.....being a standards-based teacher means being aware of the targets and having a plan for how to reach them. The targets are tailored to the students in the class: the standards guide instruction, based on where the students are and how best to get them where they need to go.

According to Harris and Carr (1996) standards can be of benefit to both the educator and learner alike in that it formalises the achievement expectation for all learners. It furthermore sets criteria that will promote quality and enrich the curriculum content and in doing so, provide clearer goals and promotes purposeful learning. Implementing standards offer a framework for authentic pedagogy – a curriculum that is focused on active and realistic learning.

Popham (2005:117) posits that “ambiguously defined assessment domains are certain to yield fuzzy criterion referenced interpretations that are of little utility”. Schmoker and Marzano (1999) echo this view that far too many assessment criteria are being included into assessment standards resulting in unclear expectations and poor results. Dunn et al (2002) also reiterate the fact that the design of assessment criteria is far from clear among many educators.

Drawing on the notion that assessment criteria are being used to guide learning, Cumming and Maxwell (1999) argue that the trend towards criterion referenced assessment has led to two considerations. They are firstly, the use of learning outcomes as indicators of learning and secondly, the idea that learning and assessment need to be meaningful for the learner because learning depends on context and motivation.

2.3.2 Formative assessment

According to Van der Horst & McDonald (2001) formative assessment is seen as one of the elements of transformational outcomes-based education and should take place during the learning process. This supports the notion that “assessment aims to inform the learning experience for each learner” (Ibid: 269).

Stepanek (1996) posits the view that traditionally educators have used various assessment methods – formative, diagnostic, summative – to provide information on how to facilitate the learning process. The paradigm shift that has occurred with the implementation of standards-based education is that educators should now also use assessments to inform the teaching and learning process. Educators can now adjust the teaching strategies to meet the needs of the individual learner.

2.3.3 Performance assessment

Performance assessment is defined as assessment that is based on authentic tasks such as activities, field outings, interviews that require learners to show that they can do (Wiggins & McTighe, 2005 and O’Shea, 2005).

O’Shea (2005) suggests that educators incorporate performance assessment into their lesson plans and that performance descriptors are transformed into assessment tools by adding qualifying statements.

2.4 Rubrics

The specific criteria selected for assessment will influence the way a learner’s performance is scored. The assessment standards used for scoring responses on performance assessment will direct the total assessment process. Scoring procedures used to make these scoring responses are referred to as scoring rubrics (Moskal, 2001).

Scoring rubrics are provided to learners to ensure that they know what the expectations of their learning task are and what they need to do to achieve these learning outcomes. The selection of the assessment standards to be used in the scoring rubric is one of the most crucial aspects for the design of the rubric. Popham (2005: 186) highlights three important features in the structure of the scoring rubric, namely:

the evaluative criteria - assessment standards -, to be used,
the descriptions of qualitative differences for the assessment
standards and an indication of whether a holistic or analytic
scoring approach is to be used.

Andrade (2000:13) states that “instructional rubrics help teachers to teach as well as evaluate student work”. She continues that creating rubrics with learners can be powerfully instructive. Andrade emphasizes that the purpose of such a rubric is to provide informative feedback to the learner about their work in progress and it should also provide detailed assessment of the completed product.

All rubrics have two main features (Andrade, 2000; Moskal, 2003; Mertler, 2001) in common. These are:

- a list of criteria with supporting attributes, to be assessed in the task;
and
- a continuum of grading quality with descriptions ranging from not achieved to fully competent.

It is argued that these main features, if structured utilising the adapted Bloom Taxonomy, will elicit the use of higher order cognitive skills and thus also comply with the basic tenets of transformational outcomes-based education.

The authors Andrade (2000), Moskal (2003) and Herman et al (1992) promote the use of rubrics as a scoring tool. The reasons they offer are that:

- rubrics are easy to use;
- rubrics make the educator's expectations clear to the learner;
- rubrics provide learners with standards and their assessment criteria;
- rubrics support learning and help learners to take responsibility for their learning;
- rubrics can support the development of skills, facilitating continuous assessment;
- rubrics support good thinking and promotes deep learning;
- rubrics can assist in various modes of assessment be it formative -, self -, peer – or group assessment;
- rubrics help educators to define excellence and can plan how learners can achieve this; and
- rubrics also become a tool to communicate expectations to the parents in a user-friendly manner.

I suggest that the learning areas with the same assessment standards can be clustered, thus cutting down on the administrative task of assessing, and by using the same rubric ensure consistency without repetition of the same standards. I feel that this would also be advantageous in promoting the process of learning area integration. Golson and Gerretson (2005) feel that the beauty of such learning area embedded assessment is twofold, namely the:

- resulting improvement in teaching and learning; and
- and data gathering and interpretation of the learner's competencies are sufficiently flexible to cater for the diversity of learning areas.

Rubrics can be a powerful nexus in blurring the division between teaching and assessment, contributing significantly to both teaching and learning in classrooms.

2.5 Different types of learning

Coleman (2003:134) quotes Mortimore in stating that effective learning is:

the acquisition of knowledge, understanding or skill in a way which.....can easily be assimilated and accommodated with other learning (and) will endure for as long as it is deemed to be relevant by the learner.

2.5.1 Deep learning

Sims (2006) broadly defines deep learning as the intention to understand ideas for yourself.

Elements as interacting gateways for the development for deep learning have been identified by Sims (2006). These are:

- **The learner's voice**

The learner's voice refers to the learner being more involved in the organisational structure of the school and engaging him or her in the school community. This gateway promotes learner involvement in such activities such as leadership groups, learner interviews, learner research, learner websites and peer mentoring or mediation.

- **Learning to learn**

This gateway focuses on preparing learners for the 21st century by teaching learners how to learn. This is done through integrated cross-curricular or discrete learning programmes. These programmes would focus on such aspects as multiple intelligences, thinking skills, emotional intelligence and learning styles.

- **Assessment for learning**

This would involve the learners receiving feedback on how they can improve their work in the future. This gateway can also be promoted by self-assessment, which can be the foundation work for peer assessment.

According to Sims (2006), these gateways create conditions and opportunities for educators and learners to engage in co-construction of knowledge. This will also lead learners to become more involved and engaged in their learning. If these gateways are built into a model of teaching, learning and assessment practice in their schools, effective learning would be promoted.

Deep learning then requires higher order cognitive skills such as analysis, synthesis, generating and creating. Surface learning on the other hand requires a reproduction and comprehension of knowledge, soon to be forgotten by the learners. The surface learner is less likely to be motivated intrinsically and is always seeking to find out what the educator requires. Campbell (1998) states that deep learners are intrinsically motivated and incorporate new ideas they are learning with existing knowledge and personal experience. A good educator will guide learners in the process of learning so that they have an understanding of how to approach a learning area and actually learn instead of merely memorising the information.

In assessment for learning, Campbell (1998) advises that the following factors will enable the selection of appropriate assessment methods when teaching for deep learning. These are the following:

- Defining goals and tasks clearly;
- Allowing for choice of assessment tasks;
- Promote engagement in tasks that cater for information gathering, depth and reflection;
- Encourage collaborative projects;

- Choose tasks that call for integration of information from a range of sources; and
- Provide comprehensive and proactive feedback on learning completed.

2.5.2 Personalised learning

When learning is intrinsically motivated it becomes personalised learning. The New Zealand Ministry of Education (2007) identifies the following learner qualities as indicative of personalised learning. The learner will have:

- High expectations and take control of own learning;
- Learn how to learn and work with others;
- Have a better understanding of the learning process; and
- Identify the knowledge they have gained as well as the next steps.

Important to note is that they also deem the educators, the parents and the educational system as significant builders of this mode of learning.

2.6 Integration of learning material

In deciding on the curricula content and the assessment standards, it is prudent to consider elements of curriculum integration as these will impact on what is taught and assessed. Bernstein (1975) identifies these elements as curriculum classification and framing. Classification refers to the scope to which the content knowledge is either discreet or integrated. “Where classification is strong, content is well insulated from each other by strong boundaries” (Bernstein, 1975: 88).

According to Bernstein (1975:89) frame refers to the “degree of control the teacher and pupil possess over the selection, organisation, pacing and timing of the knowledge transmitted and received”.

2.7 Learner feedback and reflection

Wiggins and McTighe (2005) observed that clearly defined reporting or feedback of performance on standards to the learner is necessary to increase its communicative value. They state that feedback should distinguish between the following factors in order to be effective:

- **achievement** — performance should be relative to identified learning outcomes based on collected evidence and judged against established criteria;
- **progress** — the degree of growth toward mastery of the learning outcomes should be based on a performance continuum; and
- **work habits** — includes effort, completion of assignments, behaviour and attendance of the learner.

I feel that just as important as the reporting and feedback of the learner's performance is as suggested by Wiggins and McTighe (2005), effective learning would be promoted if the learners are encouraged to also reflect on their learning. In their textbook *'Rethinking classroom assessment with purpose in mind'* Manitoba Education (2006) links *assessment as learning* with learner reflection on the basis that assessment is a process of meta-cognition for the learner. They posit the notion that learning emerges from an active process of cognitive restructuring that occurs when the learner interacts with new knowledge. For reflection to take place, the learner then would have to be actively involved in creating their own understanding and also make meaning from the information and be able to use this new information effectively and meaningfully. The educator plays an important role in this process as reflection cannot take place in a vacuum, but needs to be supported by effective planning and active educator involvement in the process.

“Learning is enhanced when learners see the effects of what they have tried, and can envision alternative strategies to understand the material” (Manitoba

Education, 2006:47). I believe that if there is a culture of effective feedback, learners take responsibility for their learning.

Black and William (1998b) deem this type of learning involvement as formative assessment and highlight rich conversations between educators and learners as advancing the learners' learning. They also highlight that in providing feedback and promoting learner reflection, educators can respond to the learning needs and strengths of the learners by modifying their teaching approaches.

2.8 Professional development of educators

Glenda Daniels (2007:7) states that "there is an uneven development of outcomes-based education because of the lack of resources and inadequate training of teachers". Douglas (2005) and Keevy (2006) both allude to the fact that knowledge of the subject alone insufficient for effective teaching and that educators require a balanced professional development programme that addresses both content and teaching methods.

O'Shea (2005) alludes to the fact that to develop professional competencies for standards achievement:

- there should be a regional leadership programme;
- that there should be a review process to monitor the efficacy of the practice;
- that leadership should be prepared for curriculum transformation and that a shared vision of transformation would support the process;
- there should be curriculum management strategies and support in place to facilitate the translation from theory to practice; and
- advocacy for transformational practices should be practical, supporting classroom efforts.

Professional development in this regard also needs to be supported by the access to appropriate resources (Daniels, 2007; O'Shea, 2005).

2.9 Conclusion

This chapter presented a theoretical framework for the study and reviewed current literature surrounding the issues of teaching, learning and assessment.

As the global trend to reform education and adopt standard-based education gained momentum in the nineties, these reforms produced educational policies that spearheaded a distinctly different theoretical orientation regarding how curricula were to be classified and framed. Dunn et al (2002) are of the opinion that a standards-based referenced assessment approach paves the way for a fairer and more accountable assessment protocol than norm-referencing. They state further that at the heart of standard-based assessment lies the fact that the quality of the learner's achievement is not dependent on how well others in the cohort have performed, but how well the individual student has performed as measured against specific criteria and standards and whether it meets his or her potential.

Chapter Three presents the methodology used to investigate educators' application of the rubric as a scoring strategy in achieving the basic tenets of transformational outcomes-based education.

CHAPTER 3

THE RESEARCH METHODOLOGY

3.1 Introduction

In Chapter 2 the current literature on the topic of assessment has been reviewed. In this chapter, the use of the grounded theory method in this study will be outlined. This approach uses a qualitative approach to analyse the research material.

This methodology chapter presents the research design and process. Sampling is outlined and the data collection and interview process is explained. Also, the process of data analysis is detailed and discussed. These aspects highlight the research processes used in this study. The qualitative paradigm was selected for this study as the study aims to investigate how educators use the rubrics as scoring tool to further the principles of transformational outcomes-based education.

3.2 Grounded theory method as a research methodology

Grounded theory method as a research methodology in qualitative research allows for the development of a theory that is grounded in data that is systematically collected and analysed according to specific criteria (Glaser & Strauss, 1967).

With their seminal work '*The discovery of grounded theory: strategies for qualitative research*' Glaser & Strauss (1967) have provided researchers with a methodology that enables them to move away from the hypothesis-testing uses

of raw data to the potential of hypothesis building based on the raw data. The procedures used in data collection and analysis in grounded theory shapes inductive thought processes of the researcher and is rooted in social interaction.

Grounded theory methodology focuses on investigation and theory building as opposed to the traditional scientific research methodologies that seeks to verify a theory (Glaser & Strauss, 1967). Through this process a theoretical explanation of the topic is systematically abstracted and developed through the investigation of and the grounding in empirical data.

Although the application of grounded theory methodology has its roots in social anthropology, it has been steadily expanding into educational research (Glaser, 1992). Grounded theory allows the researcher to interpret data and build the theory in contrast with other research methods where data is tested against a hypothesis.

The study explored the following research question: - how do performance indicators within rubrics support transformational outcomes-based education principles? The research objective was to determine whether assessment standards used in rubrics are used as a transformational outcomes-based educational assessment tool, thus promoting the paradigm shift towards authentic performance assessment.

My reason for applying grounded theory methodology in this study was that the social interactive nature of the educational process seems best suited to naturalistic qualitative research. I view the design and implementation of assessment measures at a school as a socially interactive process where educators would be involved in interacting about decision-making, planning, categorising, reviewing and communicating. I used grounded theory methodology as I deemed it most appropriate to discover new knowledge regarding the management of rubrics as an assessment scoring tool in

education. In addition it will deepen the understanding around the analysis and application of rubrics.

Grounded theory methodology allows for the study of phenomena such as decision-making, planning and implementation by the educators, which are not easily observed in traditional research methodology. As Rennie et al (1988) observed: it is the exception from the constraint of the verification approach that frees grounded theory researchers to address highly complex meaning structures that might otherwise be difficult to do so.

The study of educational management, in this instance management of assessment, is multi-disciplinary; both didactical and theoretical in its perspectives involving team interactions and emerging educational decision-making processes which will be difficult to restrict to the paradigm of rational research methodology (Jacobs, Vakalisa & Gawe, 2004).

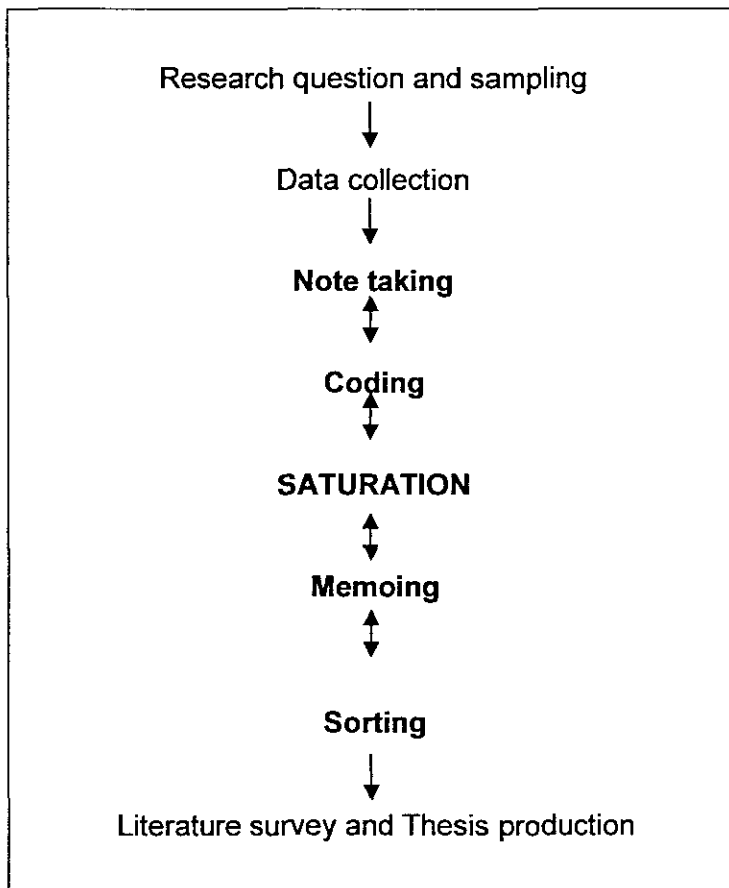
According to Glaser (1978), this method of qualitative research is well suited to explore the educators' management of rubrics and has enabled me to gather detailed information from a range of data collection strategies. This allowed me to develop a comprehensive view of the management assessment measures, as well as information regarding the educators' perspectives, beliefs and attitude to assessment measures. It also allowed for the investigation between intentions and the actual practices in the analysis of the questionnaires and the sample rubrics.

The findings of grounded theory methodology are entrenched in data collected from the field of practice as emphasised by Glaser (1978). I believe this is specifically of value in the discipline of education where social interactions are paramount. This study in particular uses grounded theory methodology to discover the factors which steer decision-making in the application of rubrics as a scoring tool in assessment.

Using a qualitative approach provided flexibility in the research design. This allowed me to accommodate a group interview which evolved spontaneously as opposed to the planned individual interviews while conducting the study.

The flowchart in Diagram 1 provides a graphic illustration of the processes involved in grounded theory methodology, highlighting the data analysing aspect.

Diagram 1



3.3 The research design

3.3.1 Research participation

The research sample consisted of five grade 5 educators from two independent schools in the Western Cape. Independent schools are identified as schools

governed privately from government schools. Independent schools were chosen as I work at an independent school and as such have easy access to independent schools. Furthermore, independent schools are also required to align their curriculum design to the basic principles of transformational outcomes-based education. The participating schools were chosen based on the willingness of the principals to participate in the study.

The study focused on grade 5 learners based on their developmental age. This age cohort is deemed as the age where learners are making the transition to a more formal operational and symbolic learning mode, thus ideally suited to engage in the different levels of higher order thinking skills (Gagne & Berliner, 1991).

The grade 5 educators, employed by the two schools, were chosen as the educators to participate in the study. All the participating educators implement outcomes-based assessment in their classroom assessment. The educators have participated in outcomes-based assessment workshops and are applying the practice in their teaching.

3.3.2 Data collection

The data collection strategy employed in this study was a semi-structured interview protocol and the detailed analysis of 20 rubrics for the Learning Area Social Studies (History) in Grade 5.

- **Semi- structured interview**

Qualitative interviews were one of the strategies used as a method to gather data in this study. The interview protocol sought to investigate the subjective thought and decision-making processes of educators in constructing a scoring tool, in particular a rubric, to assess learners' performance. The educators were interviewed using a semi-structured interview protocol (Appendix B).

The use of interviews is seen as a natural form of direct contact with people and fits well with the interpretative approach of qualitative research due to its adaptability and flexibility (McMillan & Schumacher, 2001). McMillan and Schumacher (2001) explain that in semi-structured interviews, questions are formulated in such a way that a response is encouraged. Although these questions are open-ended, they are fairly specific in its intent. For the purpose of this study the use of probing keywords were included to promote the flow of the interview if responders were hesitant to respond and to avoid unintentional bias from the interviewer.

- **Rubrics**

Twenty designed rubrics were sourced from the participating educators. Rubrics were deemed to exemplify the research question. Four educators provided five rubrics constructed to assess the Learning Area Social Sciences (History) for grade 5 learners.

- **Survey of literature**

In grounded theory methodology literature is not given more importance over other data collected. An initial literature review was conducted and additional literature was added as it became relevant during the development of the themes emerging from the data analysis and note taking. The additional inclusions worthwhile mentioning was the emerging themes of 'learning', 'the organisation's learning and leadership' and 'educator's research and professional development'.

Comprehensive reading was undertaken prior to the data collection regarding the focus of the research, as well as in the construction of the semi-structured interviews.

3.3.3 Data analysis

The results from the analysis of the rubrics and interviews will be presented separately and where applicable will be integrated. Analysis was conducted on both the interview responses and the rubrics.

In the process of analysing the data, I designed two instruments to assist in the task of analysis. These proved to be valuable in guiding the analysis process in keeping within the focus framework of this study, especially in a study of such limited scope. It also proved to be useful in using time effectively and streamlining the analysis process. The instruments were specifically used with the analysis of the sample rubrics.

These instruments assisted in focussing the research process and staying true to the principles of grounded theory. The instruments aided the coding process where collected data was compared to the theory. This also supported the process of identifying the categories and the sub-categories and their properties. It also supported the process of memoing in making links between the categories and their properties. This contributed to the identification of the central categories which also led to supporting the formulation of the recommendations.

The instruments designed were:

- **Appendix G**

An adapted matrix of Benjamin Bloom's Taxonomy of the Cognitive Domain. This adaptation incorporated the recent work of Robert Marzano (1988) and Lorin Anderson (2001). The matrix included competencies in the taxonomy, skills to be demonstrated, appropriate verbs and assessment tools.

- **Appendix C**

A checklist based predominately on Moskal's (2003) and Herman et al's (1992) recommendations for the development and construction of classroom performance assessment and the scoring of rubrics.

The basic tenets of grounded theory methodology were used in the process of analysing the collected data.

The triangulation of data is an important aspect of any research project. Blanche and Durrheim (1999: 430) define triangulation as the "use of multiple perspectives to check one's own position against", and "can help researchers to 'hone in' on a correct understanding of a phenomenon by approaching it of from several different angles" (Blanche & Durrheim, 1999: 215). The process of triangulation aids in supporting the validity of the research findings.

Important components of the grounded theory methodology follow in the discussion of the next steps in the analysis process:

3.3.3.1 Note taking

As I collected the data I made additional notes to gain more understanding from the collected data. I digitally recorded the interviews and also made brief notes during the interviews. In the note taking for the interviews I specifically looked for aspects such as body language or gestures that could provide material for interpretation. Three of the interviewees brought examples of the textbooks and other material they use in assessing the learners to the interview. These were mainly lesson plans or additional rubrics across the different learning areas. When they used these to illuminate a point or show an example, I recorded these interactions. As the note taking had to be brief, I made use of key words which would provide the essence of the data being collected. I used a printed copy of the interview protocol to guide my note taking. There were certain information that was

repeated and others that the interviewees felt very strongly about. Whilst listening to the interviews after a number of times, these themes started to emerge.

With the analysis of the rubrics it was more complex. I used the instruments I designed to guide the analysis and made notes on both copies of the sample rubrics, and on demarcated sheets of paper indicating the emerging themes. Many of the emerging themes from the rubrics were ultimately translated into tables with data highlighting the findings.

Initially I attempted to use colour-coding to categorise or group the emerging themes, but I found this time consuming and distracting. I resorted to using folio paper that I divided into sections each with its own heading indicating the emerging theme.

3.3.3.2 Coding

As the themes emerged they were listed. These listed themes were analysed for categories that were connected with each other through similar themes. I found these connecting categories to be conceptual in nature as the identified categories were connected by their situational nature. This became the main (core) classification grouping, namely the macro-, meso- and micro-educational levels. I then analysed the lists in each category, identifying the property of each. The listed items became the sub-categories under each of the three main categories and headings for the properties. Diagram 2 in the beginning of Chapter 5 best illustrates this process. Information that did not emerge as a theme or that was not relevant to the emerging themes of the aim of the study were discarded. At this point saturation of information was reached.

The emerging themes and categories were continually compared with the corresponding literature. As already mentioned emerging themes not

initially covered in the literature review, were researched and added as valid information in the literature review chapter.

3.3.3.3 Memoing

While still in the coding process, memoing also started to take place. The theoretical ideas and concepts that occurred during the grounded theory methodology process were systematically recorded as memos. Coding and memoing occurs virtually simultaneously. In memoing more specific attention was paid to making the links between the categories and to identify the core categories. Once coding and memoing were concluded, information saturation as pertaining to the aim of the study is reached, and recording for the research findings and recommendations could commence.

3.3.3.4 Sorting

As the memoing process becomes saturated, I started sorting the memos into a logical sequence to clarify the findings and recommendations. It is important to mention that although these four steps are explained separately, they in fact did overlap and even occurred simultaneously.

In addition to the constant comparison between initial coding and memoing a closer investigation and comparison was made of the codes from both the semi-structured interviews and the rubrics. The comparison also involved the theoretical categories and the initial raw data that generated the codes.

After the data analysis, the additional literature survey was completed and added to the chapter on literature review. The process was completed with the report writing of the findings and the recommendations.

3.4 Validity and reliability

For a study to be accurate, the findings based on the data collection must be both reliable and valid. According to McMillan and Schumacher (2001:244) “reliability refers to the consistency of measurement – the extent to which the results are similar over different forms of the same instrument or occasions of data collection”. Consequently, to minimise the threat to reliability, I ensured internal validity by using the most appropriate qualitative research design. As this is a mini-dissertation I also eliminated “possible contamination creeping in from other variables” by focusing on the research question. In this manner the standardised use of the interview questions and the instruments I designed to evaluate the rubrics contributed to the reliability of my study. As this is a mini-dissertation and the time frame was limited, this study was cross-sectional. According to McMillan and Schumacher (2001:284) the advantage of cross-sectional research is that “compatibility of subjects is assured”, thus strengthening the reliability of the study.

According to Moskal and Leydens (2000), the reliability of rubrics can be ensured by clarifying the scoring rubrics. They further state that rubrics that with well defined score categories should assist in maintaining consistent scoring regardless of who the assessor is or when the assessment is done. They also suggest the use of memorandums to further clarify the scoring rubric as this will illuminate the differences between the score levels.

According to McMillan and Schumacher the “validity of qualitative designs is the degree to which the interpretations and concepts have mutual meanings between the participants and the researcher” (2001:407). As this study did not encapsulate causal relationships, I concentrated on ensuring internal validity. This was achieved by the nature of the rigor of a mini-dissertation.

In this study I examined the validity of a particular assessment instrument, namely the scoring rubric, based on content validity, criterion validity and

construct validity in assuring the validity of this study. The benchmark was based on the work of Moskal (2003) and Herman et al (1992).

To ensure content validity I looked for concurrence between literature on the research question and data collection and findings. To ensure construct validity I aligned the characteristics of a well-designed rubric with the basis tenets of transformational outcomes-based education. In the same manner I ensured criterion validity by using a benchmark that is known to be a good indicator of the characteristics of a well-designed scoring rubric. These three aspects are also important to consider when educators construct rubrics to ensure the validity of their own classroom assessments.

According to Andrade (2000) and Golson & Gerretson (2005) well-designed rubrics have the potential to produce reliable and valid results.

3.5 Conclusion

The aim of qualitative research is to elicit an understanding and meaning with the researcher collecting and analysing data. This theoretical framework permitted inductive analysis, providing findings which were rich in its description. As such, the recommendations are able to present as relevant and meeting the demands of this study. The next chapter presents these findings.

CHAPTER 4

RESEARCH FINDINGS

4.1 Introduction

This chapter presents the findings and analysis of the data. The aim of this study is to determine whether the performance indicators used within rubrics support the transformational outcomes-based education principles. The emphasis is whether rubrics used as the scoring tool in assessment promotes the paradigm shift towards authentic assessment as well as supporting the tenets of transformational outcomes-based education.

The study focused on the Social Science Learning Programme, in particular the History component for grade 5 learners. The sample consisted of five grade 5 educators in two independent schools in the Western Cape and 20 rubric samples were used to collect data to answer the research question.

For research purposes and to ensure confidentiality, the samples are identified as follow:

- The Social Sciences (History) rubrics are identified as: 'Rubric 1-17'
- The Economic Management and Science rubric as: 'Rubric 18'
- The English First Language rubrics as: 'Rubric 19 and 20'
- The interviews are identified as:
 - The individual interviews: 'Interview 1 and 2'
 - The joint interview: 'Interview 3', at which three educators were present.
- The educators are identified as: 'Educator 1-5'
- The schools are identified as: 'School A and B'

4.2. Results of data findings on the rubrics

The results from the analysis of the rubrics and interviews will be presented separately and where applicable will be integrated.

4.2.1 Educators' source of the rubrics used in assessment

It was evident from the interviews that all the educators initially source their rubrics from available handbooks and that they then construct an adapted rubric, making minor changes. An example of an adaptation would be in Rubric 6 where learners had to draw a map of a city to assess whether they can identify features of a city map; the map requested from the learners was a map of Cape Town as that was relevant to their locale.

The use of rubrics from textbooks could be an indication that educators are still avoiding designing their own rubrics from scratch, due to various reasons:

- **Educators are still unsure of the structural content of a rubric**
During the interviews educators indicated that they would welcome training in creating rubrics. They highlighted that an area of difficulty for them in constructing a rubric was identifying the different levels of competence regarding the learners' performance. It was noted in School B, that the rubric construction centred around fewer performance levels and they opted for performance indicators that would indicate whether the competence was achieved or not, and not at which level the competence was achieved.

This prompts a finding that the principles of transformational outcomes-based education regarding the fact that the learner should know what is expected of him/her during the assessment is at risk as the range of performance is not indicated. Similarly, in such a narrow demarcation of competence, the required attribute/s of the performance indicator is either omitted or stated in vague, implicit terms.

- **It is less time consuming to source from a textbook and where needed make minor changes**

There appears to be general consensus from the educators interviewed that there is not a single textbook that meets their needs and as such they construct the lessons and the rubrics from a variety of available textbooks. This creates the possibility that the 'combined/adapted' rubrics may be conceptually invalid and that the principles of transformational outcomes-based education are not adhered to.

4.2.2 Rubric criteria expressed in terms of observable behaviours or products

As stated in the previous point regarding the invalid conceptualisation of rubrics, this appears to be the case in most of the rubrics in terms of the transformational outcomes-based education principle that outcomes should be expressed in terms of observable behaviours or products that characterises these performances. The intention is that learners show their competence in a variety of assessment tools. The intention being, that there is a shift away from mere writing, but eliciting more authentic assessment tools in which learners can show competence. This is also to promote the application of critical and higher order thinking skills and provide all learners with the opportunity to succeed. In providing different assessment tools, different learner strengths will be employed thereby creating a wider scope for the learner to show competence. There still appears to be a reliance on the more 'safe' or familiar tools of assessment like writing an essay.

Of the twenty rubrics analysed, an overwhelming amount still required the more traditional assessment mode of writing as the product to be assessed. Table 1 provides an analysis of the various assessment tools used in the twenty rubrics and the frequency with which they are used. As most of the rubrics were

analytical in nature, there will be more than twenty areas of performance indicators, thus more than twenty assessment tools would be evident.

Table 1

Range of assessment tools				
Oral presentations	Writing	Projects (posters)	Role-play	Drawing
3	15	3	1	4

This table illustrates a marked elevated use of a 'safe' and familiar assessment tool namely a piece of 'writing' to be assessed as evidence of competence. Not much reliance was made on a variety of other assessment tools which would elicit more of the higher order thinking skills. Examples of such skills would be designing a game/puzzle, making forecasts, creating cartoons to illustrate a point, doing a survey - these would also support a basic tenet of transformational outcomes-based education, namely to make assessment as authentic as possible. This lack of incorporating the application of higher order thinking skills in assessment lessens the application of the transformational outcomes-based education principle of using a variety of assessment tools to assess learning.

The above finding prompted the analysis of how the assessment tools in Table 1 reflected the use of critical and higher order thinking. Each rubric was analysed in order to ascertain which of the elements of the Bloom/Anderson taxonomy were at play. Table 2 illustrates the frequency with which the particular identified thinking skill in the adapted Bloom Taxonomy was used.

Table 2

Frequency of thinking skills in the Bloom/Anderson Taxonomy						
	Oral presentations (3)	Writing (15)	Projects (posters) (3)	Role-play (1)	Drawing (4)	TOTAL
Knowledge	3	12	1	1	3	20
Understanding	1	9	1	1	2	14
Application	1	4	1	-	3	9
Analysis	-	2	-	-	-	2
Generating	-	-	-	-	-	-
Synthesis	1	1	-	-	-	2
Evaluation	-	2	-	1	-	3
Creating	-	1	1	1	-	3
Total	6	31	4	4	8	53

As evident from the above table, very little reliance was made on the higher order thinking skills (Analysis, Generating, Synthesis, Evaluation and Creating) and as such out of a total of fifty-three (53) uses of thinking skills, only 10 fall within the category of so-called higher order thinking skills and the rest (43), fall under the category of lower order thinking skills (Knowledge, Understanding and Application). The low figures are not in support of the fact that the performance indicators used in rubrics are supportive of the principles of transformational outcomes-based education.

4.2.3 Rubric criteria and its alignment with the required national learning outcome

Analysis of the data provided evidence that in all the rubrics (20), the criteria for the particular task were aligned with the Revised National Curriculum Statement

(DoE, 2002) learning outcomes and assessment standards as per learning area and learning outcome respectively.

There were, however, instances where performance indicator criteria required additional evidence of competence of the learner which were not in the scope of the national learning outcome or the assessment standard requirement.

Notably in the majority of these instances assessment was conducted regarding language competencies and there were no direct or explicit indication that this was done as an integration element within the assessment task and that the particular mark component will be allocated or recorded against the other language learning area. It is felt that this practice detracts from the actual assessment task at hand and is also not in line with the principles of good practice in assessing learners' performance in a single learning area. Although the use of good language is always to be promoted, the assessment thereof, unless explicitly integrated with Language as the subject, should not form part of the assessment task's overall profile.

4.2.4 Rubric criteria written in specific and clear language

In all the rubrics the language used to state the expectations were clear and specific, and from feedback from the educators all assessment tasks are discussed in the class to clarify any aspects that may be ambiguous or unclear to the learner. In most instances the assessment task or the major part of the assessment task is completed at school to ensure that it is the learner's work.

As per the information collected in the interview, the rubrics submitted did not hold any difficulties for the learners in terms of them not understanding the expectations.

I do, however, feel that all the rubrics would be clearer and offer the learners more learning challenges and opportunities to extend if the criteria to be assessed were expanded upon by setting out the expectations of the specific

criteria through the use of attributes which explicitly indicate expectation linked to each individual criterion. Tierney and Simon (2004) allude to the aspect that including attributes for each performance indicator would guide the learner more specifically and open the scope to expand and thus extend learning.

It would also create the opportunity to promote deep learning (Sims, 2006) as additional attitudes could be added as extensions for learners who would welcome the additional challenge. This would also address the principle that all learners can succeed and that high expectations should be placed on the learning process in transformational outcomes-based education.

Examples of ambiguous language evident in the sample rubrics are:

- In Rubric 1 the performance indicator states: '**knowledge gained** on partner'. In this rubric neither the type of knowledge nor the quantity required is clarified.
- In Rubric 8 the performance indicator states: '**impact on life**' without alluding to the aspects of life that could be impacted upon other than 'knowledge about facts and its consequences'.
- 'no **effort** to write creatively', 'not enough **effort**', 'a good **effort**', and 'group **effort**'. (Rubrics 2, 4, 10 and 18). The quality of effort is not explained or clarified in any of the rubrics.
- 'information **interesting** and important' and 'representation **interesting** and important' (Rubrics 1 and 8). In this instance the aspects of what would be deemed as interesting is not clarified or explained.
- 'good **creativity**' and '....use of **creativity**' (Rubric 1). In this instance the creative elements that would be evaluated are not clarified.
- 'can accurately portray **most (+75%)** of the related facts', '100% of activity completed', '**partly** achieved', '**completion** of brochure' and 'content is very **limited** and **insufficient**'. (Rubrics 1, 8, 9, 11, 16, 18 and 20). In the stated rubrics it is not evident what would attribute to meeting the required quantitative requirement, or what the total complement was

to be met. It is unclear as to when the information that was required would be deemed as sufficient or complete. It can be foreseen that the learner would find it difficult or judge when a task's expectations would be met.

Ideally, the expectations should be worded explicitly so that the learner would know exactly what is expected. Language used in the samples leaves it too open for erroneous interpretation from learners who are still in an emerging phase of formal cognitive and especially conceptual formation. It also negates the principle of transformational outcomes-based education where every learner should have the opportunity to succeed (Spady, 1994).

This aspect is further problematised by the fact that in all the sampled rubrics *neither the learning outcome nor assessment standards were explained through the use of highlighted or explained attributes of the criteria*. In some instances more than one criteria or attribute would be assessed within a single mark or grade allocation. For example:

- In Rubric 1, the performance indicator for the assessment standard is merely: '**information search**'. The so-called *information search* alludes to oral, visual and written information, but does not clearly highlight this aspect. The performance indicator also does not indicate the depth or range of information required other than indicating 'interesting' and 'relevancy' as aspects to be assessed.
- In Rubric 2, one of the performance indicators for the assessment standard is merely: '**contents**'. In analysing the mark codes it emerges that aspects of time sequencing, logic flow of information and an understanding of the concepts are alluded to. If the learner is to succeed and also apply higher order thinking the task's expectations need to be stated with clarity and specificity.

- In Rubric 18 the performance indicator of '**design layout**' refers to the manner in which the information on the brochure is organised. It, however, does not provide the attitudes of the organised information to be assessed.
- In Rubric 11 '**presentation**' of the advertisement is stated as the assessment standard. Other than the guiding questions referring to elements of neatness, readability and resemblance to a 'real' advertisement, there are no other clear assessment attitudes indicated to the learner.

4.2.5 The continuum used for the marks allocation in the rubrics

All of the rubrics appear to subscribe to the guidelines as set out in the National Protocol on Assessment (DoE, 2004) which recommended that the assessment results should be expressed as codes ranging from 1 – 4. Table 3 highlights the explanation which accompanies each code.

Table 3

The narration which explain the value which each code represents			
1	2	3	4
Not yet achieved	Partially achieved	Achieved	Excellent achievement

In some instances the educators substituted the code for numerical values. This was evident in Rubric 7 where the code was correlated with a numerical value. Also in Rubric 18 which reflected only a numerical value implicitly in the place of the code. In Rubric 19 and 20 no code or numerical value is evident which implies that the learner implicitly 'knows' what code value each of the narrations on the continuum represent.

It is important in good rubric construction, that these codes are correlated with appropriate narration explicitly highlighting the expectations of each performance indicator and its accompanying attribute.

School B expanded on a code by indicating a top or low range within the code. This was indicated by a minus (-) sign for an allocation within the lower range of the code and a plus (+) sign within the top range. Although the National Protocol on Assessment (2004) recommends four codes, this expansion of a particular code assists in giving the learner additional feedback in terms of their performance within that particular range category and encourages a learner on the borderline to exert more effort in completion of a task.

School A, notably, assessed using categories of 'achieved' and 'not achieved'. This was evident in Rubrics 12, 14, 15 and 17 where the codes were limited to categories of 'achieved' or 'not achieved' and the vocabulary used to indicate this demarcation was 'yes' or 'no' respectively. It could be argued that if a learner is required to only 'achieve' to make the grade, that the learner would not be motivated to strive towards excellence. This would also have implications on the actual quality of the learning and performance of the learner.

In Rubrics 3 and 5 the codes were not accompanied by any narrative guiding the expectations of the assessment task. In both examples the assessment standard is not clarified with attributes regarding performance. This makes it difficult to judge which aspects of the assessment standard is being assessed.

In Rubric 9 a percentage value is attributed to some of the categories of the codes, for example '50% of the activity completed'. The full complement required in the assessment task is not clarified; as such it would be difficult for the learner to ascertain the expectations. It would furthermore be difficult for the learner to judge the quality of his or her performance once the assessment is completed, thus making it difficult to judge what was lacking or really achieved.

Table 4

The different application of codes in a continuum			
Different applications of codes	Rubric represented	Total of rubrics (possible 20)	Percent age of rubrics
Code substituted for a numerical value	2, 18	2	10%
Code correlated with a numerical value	3, 5	3	15%
No code nor numerical value provided	19, 20	2	10%
Only 2 categories, 'achieved/not achieved' indicated	12, 13, 14, 15, 17	5	25%
No narrative for the code provides	3, 5	2	10%
Some percentage provided additionally to narrative for the continuum category	7, 9	2	10%
NPA recommended code structure followed	1, 2, 4, 6, 7, 8, 9, 10, 11, 16	10	50%
Codes further expanded with top/bottom (+ or -) range within a code indicated	1, 2, 3, 4, 5, 10	6	30%

From the data in Table 4 it is evident that only fifty percent (50%) of the rubrics followed the guidelines of the National Protocol on Assessment (DoE, 2004) regarding the use of codes. This protocol (DoE, 2004) furthermore advises against using numerical values in assigning value to an assessment task, as evident in 10% of the analysed rubrics.

Table 4 clearly highlights that there is a need for more training on the structure and design of rubrics. The manner in which the codes are interpreted or applied varies greatly from the recommendations as given in the National Protocol on Assessment (DoE, 2004).

4.2.6 The assessment task should present a full array of challenges found in instructional activities for performance assessment

In line with transformational outcomes-based education practice, assessment tasks should include activities like research, reading, collaborative work, oral etc in completing the given assessment task. In my analysis of the rubrics, a range of these activities were identified as needed to complete the assessment task.

As per the basic tenets of transformational outcomes-based education (Spady, 1994) learners should be engaged in a wide range of activities when completing the assessment tasks, typically and ideally these tasks should represent engagement in higher order thinking skills which will promote the critical outcome of transformational outcomes-based education.

Table 5 provides a summary of the different types of learning activities the learner would be involved in while completing the assessment task. These activities are not necessarily assessed in the assessment tasks. These learning activities are identified in the frequency in which it occurs and is also correlated with the levels of thinking in the adapted Bloom Taxonomy.

Table 5

Learning activities		
Cognitive Activity	Frequency	Bloom correlation
Writing – drafting and editing	7	Understanding
Writing – drafting and editing	7	Synthesis
Reading to source information - understanding (literature research)	3	Understanding
Interviews to source information	1	Understanding
Interviews to source information	1	Synthesis
Sourcing graphic material to illustrate information	2	Understanding
Sourcing numerical information (graph/table)	1	Understanding
Using imagination / creative task	3	Generating
Collaboration	6	Evaluate
Interpretation (e.g. a graph, written source)	2	Evaluate
Interpretation (e.g. a graph, written source)	2	Analysis
Collecting pictures	1	Understanding
Using tools: art/drawing, painting	6	Creating
Using tools: dictionary, graphs	3	Application
Interpreting own feelings/thoughts or that of others (meta-cognition)	7	Understanding
Interpreting own feelings/thoughts or that of others (meta-cognition)	7	Analysis
Interpreting own feelings/thoughts or that of others (meta-cognition)	7	Evaluate
Identifying information from sources of evidence	5	Knowledge
Synthesising information	1	Synthesise
Predicting based on known facts	2	Understanding
Sequencing given information	1	Understanding
Compare information	1	Analysis
Total	76	

As evident in Table 5, the learners are involved in a wide range of cognitive activities (total of 17 different types of cognitive activities) when completing the required assessment tasks as identified in the rubrics.

What is important is to determine how these learning activities correlate with the levels of thinking as represented in the adapted Bloom Taxonomy. The summary of this analysis is represented in Table 6. The table provides a summary of the frequency of the application of the different levels of the adapted Bloom taxonomy when linked with the learning activities a learner is engaged in while completing an assessment task.

Table 6

The frequency of the activities as it correlates with the adapted Bloom Taxonomy			
Cognitive Domain	Frequency	Cognitive domain	Frequency total
Knowledge	5	Lower order thinking skills	33 (43.4%)
Understanding	25		
Application	3		
Analysis	10	Higher order thinking skills	43 (56.6%)
Generating	3		
Synthesis	9		
Evaluating	15		
Creating	6		
Total	76		

From the data in Table 6 it is evident that the lower order thinking skills (Knowledge, Understanding and Application) totals 33 (43.4%) and the higher order thinking skills (Generating, Synthesis, Evaluation and Creating) – totals 43 (56.6%). This division is slightly in favour of the higher order thinking skills. This bodes well for the activities the learner is engaged in whilst completing the assessment tasks hence it meets the requirement of transformational outcomes-based education.

Evidence from the research data indicates that learners are assessed mostly on their ability to remember facts and to understand these facts in such a manner that they can manipulate the knowledge in basic, elementary learning activities. From the results i.e. the high incidence of lower order thinking being assessed, it holds true to deduct that learners are encouraged to engage in rote and superficial learning. From the interview responses it is evident that the educators, although stating that they are developing higher order thinking skills, seem to be unaware of the inconsistency of their responses.

It is of significance that when comparing the data in Table 2 with the data in Table 4 and 6, it is evident that learning activities while completing assessments tasks differ from the learning task and competency that is eventually assessed. It is also evident that there is a shift from higher order thinking skills while completing the assessment task to lower order thinking when the assessment task is assessed.

From the interviews it was gleaned that although marking is done conscientiously, the feedback to the learner does not offer guidance on how the learner could improve on the learning, even though they might be afforded an opportunity to improve on a weak mark. It appears that the reasoning for the weak mark is attributed more to lack of effort rather than exploring the learner's need for support in the learning process. Educators need to critically review what they actually assess.

4.2.7 The use of analytical vs. holistic rubrics

Out of a total of twenty rubrics, sixteen were analytical in nature and 4 were holistic. This bodes well regarding the tenet of transformational outcomes-based education which requires that a learner should know explicitly what is expected in the task. The analytical rubric, by nature, provides a breakdown of the required assessment standard/s and ideally characterises the attribute of each standard. This in turn provides the learner with more information about the

quality of performance in a particular task and specific information to assist in evaluating performance in terms of strengths and weaknesses. A holistic rubric would produce only a one-off grade, providing minimal scope for the learner to ascertain strengths or weaknesses linked to particular assessment standards.

4.2.8 The use of individual, paired and group assessment tasks.

Table 7 provides a summary of the use of individual, paired and group assessment tasks. This summary reflects the total of twenty rubrics.

Table 7

Mode of assessment tasks		
Individual	Paired	Group
16	2	2
80%	10%	10%

The high instance of individual assessment activities (80%) attest to the notation educators are still bound to the legacy of 'traditional' assessment where normative assessment is valued and practiced. As a critical learning outcome in transformational outcomes-based education the ability to "work effectively with others as a member of a team, group, organisation and community" (DoE, 2002: 1) is valued.

4.2.9 The provisioning of educator, self and peer assessment

The implementation of assessment by the educator, self assessment and peer assessment is reflected in Table 8.

Table 8

Implementation of assessment by the educator, self assessment and peer assessment		
Educator	Self	Peer
15	0	5
75%	0%	25%

As evident from Table 8, notably a small percentage (25%) of the total rubrics makes provision for peer assessment. Most of the rubrics (75%) are reliant on the educator's assessment.

Although it may be argued that the rubric in itself provides scope for self-assessment if used as a checklist, it is important to note that the learner is not specifically required to grade themselves – even if it is used as an exercise to support collaborative feedback to the learner.

Of note is the fact that only School A accessed peer assessment as an assessment strategy.

4.2.10 Integration within learning area or cross-field learning outcomes

In analysing the sampled rubrics (Social Sciences: History) it was evident that there are no elements of integration with other learning areas of Curriculum 2005. Nor did any of the rubrics indicate which of the critical learning outcomes were assessed.

Within the seventeen sampled Social Sciences (History) rubrics, the range of assessment standards as indicated in the Revised National Curriculum Statement (2002: 42-47) were covered. Table 9 provides a summary of assessment standards covered by the rubrics. Incorporated into the table is the

level of thinking skills which each assessment standard represents. Each assessment standard was analysed in terms of which type/level of thinking, based on the adapted Bloom Taxonomy, it would possibly elicit.

Table 9

A summary of assessment standards in the sampled rubrics		
Assessment standard	Corresponding Cognitive domain thinking skill (Adapted Bloom)	Rubric
5.1.1	Knowledge	9
5.1.2	Knowledge	9, 12, 17
5.1.3	Possible full range of adapted Bloom Taxonomy, pending on educator's use of language in rubric construction	1, 3, 4, 6, 15
5.1.4	Possible full range of adapted Bloom Taxonomy, pending on educator's use of language in rubric construction	10, 11, 16
5.2.1	Knowledge	5
5.2.2	Understanding	2, 8, 17
5.2.3	Understanding	7, 13
5.3.1	Understanding	14

As is evident from Table 9, the language used in the statement of the assessment standards in the Revised National Curriculum Statement (2004, 42-47) perpetuates the legacy of 'traditional' assessment. Out of eight assessment standards, six are stated in language which reflects lower order thinking skills and only two assessment standards provide the scope so that higher order thinking skills could be used.

Table 10 provides a comparison between the thinking skills and assessment activities:

- while learners are completing the task;
- what learners are assessed on as analysed in the sample rubrics; and

- what is assessed based on the language used in the Revised National Curriculum Statement (DoE, 2004: 42-47) assessment standards.

Table 10

A comparison between the thinking skills		
	Lower order thinking skills: (Knowledge, Understanding and Application)	Higher order thinking skills: (Generating, Synthesis, Evaluation, Creating)
While learners are completing the task	43.4%	56.6%
What learners are assessed on as analysed in the rubrics	81.4%	18.6%
What is assessed based on the language used in the RNCS assessment standards	75%	Possible 25%

4.3 Results of the data findings on the interviews

The interviews contributed to the understanding of how educators apply the concept of rubrics as a scoring tool, as this information was not always evident from analysing the secondary data (rubrics).

4.3.1 Need for training

All the interviewees indicated a need for training in the technicalities of developing assessment tools and the accompanying scoring strategies.

Educator 1 identified the implementation process of rubrics and the “wording of codes” as elements where training would be welcomed.

Educator 2 commented that the initial governmental training on assessment was “absolutely inadequate exposure to everything..... we totally just sank or swam on our own, it was very basic and I had to dopersonal research.” She further added, “You have to just learn to work with it “. This in itself places a

tremendous pressure on educators and this should be part of the Department of Education's staff development agenda.

There were instances where evasive or incomplete answers gave the impression that the educators did not fully understand the questions and in particular the concepts dealing with assessment and rubrics. This was specifically evident when dealing with concepts such as:

- formative assessment;
- holistic and analytical rubrics;
- performance indicator;
- assessment tools;
- strategies; and
- the notion that teaching should inform assessment practices.

It is clear that the majority of the educators interviewed, were still struggling to come to grips with the implementation of assessment in a standards-based educational system. This was despite training in Outcomes-Based Education, several years of teaching experience and appropriate qualifications. Aspects that still appeared to be problematic for these experienced educators were:

- difficulties in implementing truly authentic assessments;
- the tendency to use assessment tools and strategies that they were most familiar with;
- implementing integration of learning areas;
- clustering assessment standards; and
- wording the codes of the assessment continuum.

Interviewees also indicated that these were the aspects that they would welcome training on.

One of the educators, Educator 2, gave the impression she is more familiar with the requirements and technicalities of performance assessment. She is the

most experienced educator interviewed and is also a Head of Department for the Intermediate Phase. She was able to justify responses and was not evasive and did not provide incomplete responses. She indicated that “assessment could be used for diagnostic purposes”. This was, according to her, difficult to implement due to “time constraints and an ambitious curriculum workload and technical departmental assessment requirements”.

She stated that the problem is the pressure to comply with the departmental assessment requirements and the lack of freedom to pay more attention to diagnostic assessment processes such as feedback to learners incorporating comprehensive self–assessment and understanding of their own learning. On this point Educator 1 indicated that the fact that the majority of the homework was done at school, provided him with the opportunity to support learners more directly in the learning process. An example given was that a learner could be supported by pointing out “here is where you went wrong” and immediately rectifying the situation.

The majority of the educators were also evasive on the question dealing with how learners could improve their performance when they use the rubric effectively. Although all the interviewees indicated that the expectations of the rubrics are explained to the learners, it was evident that the deficient design of the rubrics negated the use of the rubric as an explicit and self efficient self-assessment tool or as a guide in feeding back to a learner.

As indicated by the educators, they require guidelines on minimising the impact of assessment on the teaching task and practical, feasible examples regarding such implementation. Educators expressed a need for training that would explicitly translate theory into practice.

4.3.2 Weighting of content criteria and use of codes

As evident from analysing the sample rubrics, none of the educators weighted the assessment standards.

Although the use of the band of codes in the analytical sample rubrics was consistent with the recommendation by the National Protocol on Assessment (DoE, 2004), there appears to be a lack of clarity on of how to word the *differentiation between the codes*.

4.3.3 The learners' understanding of the expectations and their ability to use the scoring tool to extend on their learning

All the interviewees indicated that the rubric is explained to the learners and learners have an opportunity to ask questions to clarify if there are *uncertainties*. It appears that a *lack of time due to a full curriculum eliminates time to either design a rubric in collaboration with the learners or to brainstorm the attributes with the learners*. As Educator 1 highlighted, “we need more time to do *brainstorming with the learners*”. *Discussions with the learners about the expectations of the task and highlighting what the learners could pay additional attention to would support the learners' identification of their own strengths and weaknesses*. Educator 3 stated that she emphasized to her learners that they need to consider their own strengths and weaknesses in completing the task. She explained that they are encouraged to pay more attention to the areas that they are strong in, thus minimising the impact of the weaker areas. She found this especially successful among the learners with special educational needs.

On the point of learners providing additional material or enriched material to what is expected in the rubric, all the interviewees were of the consensus that the learners, although they might be competitive, rarely produce work extending beyond the rubric expectations. Educator 1 indicated that learners might “read for themselves or ask their parents”, but that additionally gained information is not reflected in their work. It would appear that if a learner is interested in a

topic, they would seek more information, but rarely add it in their tasks. Educator 2 indicated that the structure of the rubric does encourage 'brighter' learners to do a bit more, but generally the learners comply with the stated requirements. She added that in her experience most rubrics were too lengthy and that most learners were distracted by this and then tends to just comply with the stated requirements in the rubric.

Educators 4 and 5 both were of the opinion that learners are competitive and would "go the extra mile". Upon further probing in the interview it was evident that this "extra mile" related to financial expenditure to "pretty up" the task. It is evident that the focus here was on presentation and not the content and ways of learning.

This might be an indication that the differentiation between the codes need to be more challenging or there needs to be a bigger range in the band of codes to invite the learners to offer more in their tasks. School B has attempted to address this issue by expanding a particular code by assigning a top (+) and lower (-) level within a particular code, thus opening up a notion of an expectation of work of a higher calibre. Similarly, the recommended codes as highlighted in the National Protocol on Assessment (DoE, 2004) support this expansion.

4.4 Challenges

All the educators interviewed indicated time constraints linked to an ambitious curriculum with a tremendous teaching and assessment load as their biggest challenge in terms of ensuring that learners have understood their assessment tasks and that they have achieved the competencies. Educator 2 indicated that implementing group work had been her biggest challenge and that she has now been able to affect strategies to address this in future. Educator 3 indicated that incorporating learners with special education needs in the same assessment

structure has been challenging, and that using the same code differentiation for learners with special education needs can be demoralising for them and appear unfair.

The aspect of additional administrative workload surfaced continually throughout the interviews.

Although only mentioned by one educator, the notion of assessing learners with special educational needs is an aspect of concern. With the provisioning of inclusive education in mainstream schools, the issue of performance assessment and the need for authentic and alternative assessment will become more imperative.

4.5 Conclusion

In this chapter the findings of the research data were presented. It was evident to me that the findings regarding the interviews were reflected in the findings that come to the fore in the analysis of the rubrics. The findings from the two sets of data provided corroborative support under the various headings as presented in the chapter.

In the following chapter recommendations based on the findings and also recommendations in a broader context related to the development and implementation of rubrics will be presented.

CHAPTER 5

THE RESEARCH RECOMMENDATIONS

5.1. Introduction

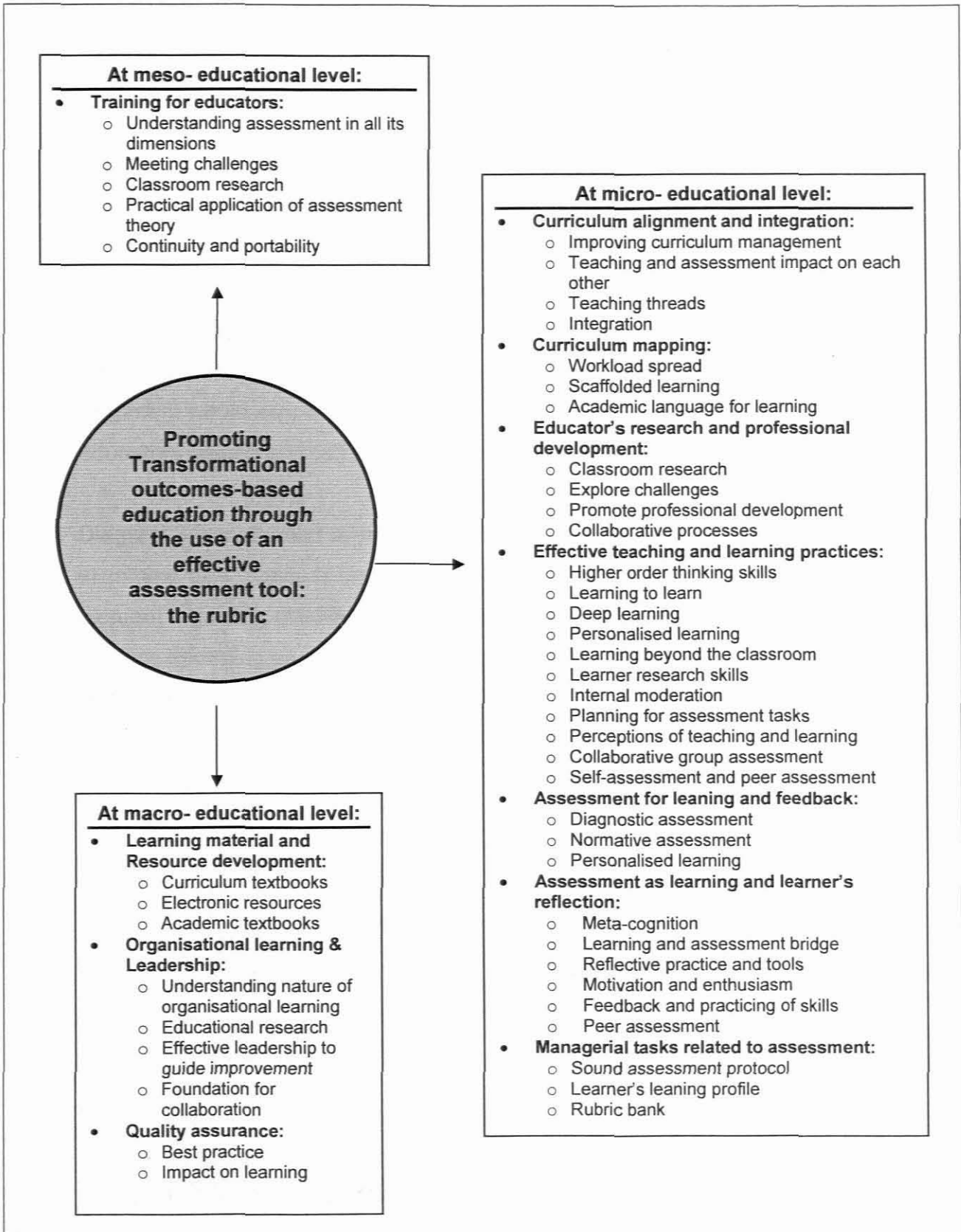
This chapter presents the research recommendations. Although this study is of limited scope, the recommendations that results from the findings may be placed in a broader context than just the two schools in the study. I feel that the analysis of the collected data and its findings have a collective impact and can benefit the broader educational landscape. Caution, however, should be taken not to over generalise the findings as they pertain particularly to the two schools used in the research.

The recommendations are divided into macro-, meso- and micro-educational levels as it pertains to the educational context in South Africa. The macro-educational level would refer to the National Department of Education and the relevant legislative bodies. The meso-educational level refers to the provincial governmental levels which would include the agencies such as regional Department of Education offices. The micro-educational level refers to the school and the educators.

Assessment is a tool for educators to use in measuring the effectiveness of teaching and learning. Assessments also provide feedback to improve planning. These aspects build accountability into the educational system. For this reason we need to look towards improving the current assessment strategies used in schools. One way of doing this is through the application of effective scoring tools.

The main themes of the recommendations are illustrated in Diagram 2.

Diagram 2



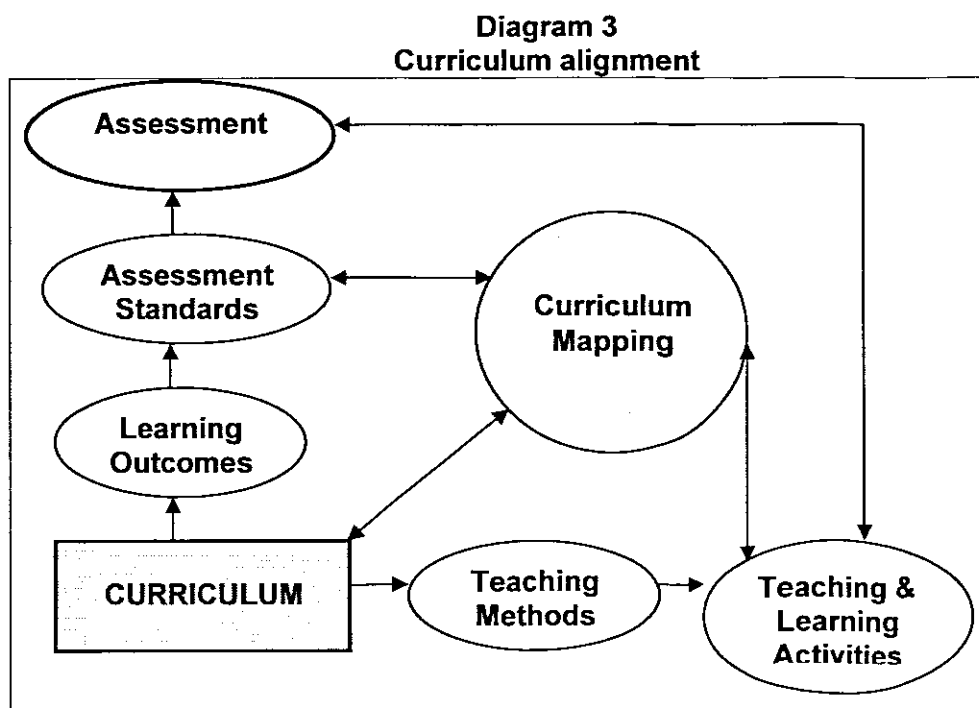
5.2 Recommendations

5.2.1 Recommendations for the micro-educational level

5.2.1.1. Curriculum alignment and integration

Curriculum alignment refers to the consistency between learning outcomes, assessment standards, teaching methods, teaching and learning activities and assessment. I believe that the educator that has a personal teaching philosophy that is aligned with the principles of transformational outcomes-based education would be more equipped to address this aspect. Curriculum alignment would also bring about more efficient time management and result in educators spending less time on micro-managing the process of assessment.

Diagram 3, constructed by myself, provides a graphic illustration of curriculum alignment as it relates to assessment. Curriculum alignment also illuminates the element regarding the interrelated aspect of teaching practice and assessment practice informing each other – an aspect that the interviewees had difficulty in clarifying.



Effective curriculum alignment could open up the scope for creating the possibility of identifying what Friedman (2005) calls 'threads' i.e. providing a synthesis of knowledge and where the true value of learning would find application. A thread is defined as giving learners a 'broad collection of skills and learning experiences they need to thrive in a globally competitive conceptual age' (Friedman, 2005: 313). These threads could be built within a learning area or cross-curricular. These threads could also be unique to the learning community or society that the learner is situated in. The application of threads is another way in which provisioning for learners with special needs could be catered for and as Friedman stated, a thread can allow a learner to "craft his or her own distinctive future" (2005: 313). Examples of threads in the learning area of History could be:

- history and people;
- history and networking;
- history and global impacts; and
- history and media.

Another mode of alignment is to align the teaching and learning using the adapted Bloom Taxonomy as a foundation for alignment. Diagram 4 illustrates this alignment. It is recommended that educators revisit this aspect of alignment to enhance the teaching and learning process so that learners develop the skills to demonstrate their acquired knowledge and skills in terms of ever increasing use and competence in higher order thinking skills.

Diagram 4

Alignment and ways of experiencing teaching and learning		
Teaching		Learning
Bringing about conceptual change	↔	Changing as an individual
Exploring ways of understanding from different perspectives	↔	Seeing something in a different way
Developing capacity to be knowledgeable	↔	Understanding
Developing concepts and interrelationships	↔	Applying
Applying theory to practice	↔	Memorising and reproducing
Presenting and informing	↔	Increasing knowledge

Designing and implementing an effective curriculum alignment should also pay due attention to the process of planning and implementing appropriate integration of the content of the curriculum. Integration is one of the principles of transformational outcomes-based education. It is recommended that integration should focus on making connections for learners across all learning areas.

5.2.1.2 Curriculum mapping

Curriculum alignment could be further supported by curriculum mapping. Curriculum mapping, taking into consideration the learning content in a phase, would eliminate unnecessary repetition of content and spread the learning load to be both age appropriate and supportive of scaffolded learning. In this manner academic language can also be supported and it will promote learners' concept formation and understanding with insight.

5.2.1.3 Educator research and professional development

Educator research conducted in their classrooms, in collaboration with other educators and/or schools would contribute to educators exploring the assessment challenges they are faced with due to the current educational reform. Stenhouse (1975) stated that if educators are involved in conducting

research they are more likely to see the need for change. He furthermore states that participating in action research is a way in which clarification can be gained about the issues that need to be addressed.

Black and William (1989b) allude to a 'poverty of practice' when they stated that there is a wealth of research evidence, that everyday assessment practice is still thwart with problems. In most instances there appears to be duplicity towards the concept of effective assessment practices and the manner in which they are actually executed. My recommendation is that if educators provided input regarding expectations and feedback after the assessment process, this duplicity could be eliminated. Educators should also record teaching and learning challenges as these can provide the impetus for research and assessment practice improvement. Simultaneously participation in research would contribute towards the professional development of the educator. As such teacher research would have a significant effect on school improvement in terms of assessment practices.

I would recommend that this research and professional development takes place in a collaborative context. This would further the improvement of teaching and learning practices, and in particular assessment practice, in schools.

5.2.1.4 Effective teaching and learning

If we recognize that teaching and learning should be interactive and that assessment plays a pivotal role in this process, effective learning would become a central issue.

There appears to be a tendency to emphasize the number of assessments and presentation of the work rather than the quality of the work in relation to the learning to be gained. For this reason I would recommend that educators need to understand how learners learn and which type of learning is most effective. As the study focused on learners in grade 5, this is particularly important at this

age of development when they are finding their own learning styles and dimensions of learning are being formed.

One of the aspects of learning that I feel educators need to explore is the practice of deep learning. The work of David Perkins (1993) about deep understanding focuses not only on possessing knowledge, but also focuses on higher order thinking skills like the ability to explain, apply, analyse and create knowledge beyond the classroom. The recommendation would be that educators need to explore and research how learners' learning can be transformed to become meaningful beyond the classroom. At the 2007 International Confederation of Principals Conference in Auckland, New Zealand (The Leading Edge, Leading the Future: April 2007) I attended, personalised learning was highlighted as a means to promote both deep learning and life long learning.

Perkins (1993) stated that deep learning is evident when learners are able to demonstrate a command of the learning material and skills that go beyond superficial learning. To this end it is important that assessment of learning needs to integrate assessment *for* learning and assessment as learning.

Deep learning approaches draw upon the ability to theorise, seek meaning, integrate and seeing the 'gestalt'. In the light of this it is recommended that educators engage in this approach eliciting the higher order thinking skills and thus higher levels of the learning outcome.

I would also recommend that learners are taught appropriate and effective research skills and strategies to promote effective learning in the sphere of sourcing information, selecting appropriate information and using this information. In engaging in research learners will also be exposed to different points of view, conflicting information which they need to verify and different voices in texts. Learners will also have to ensure that the collected information is current and appropriate to the task at hand. All these skills call for the use of

higher order thinking skills, thus supplementing the total learning process whilst also meeting the principles of transformational outcomes-based education.

Although commonplace in tertiary education, internal moderation is still a relatively new concept in schooling. It is recommended that educators introduce a proactive practice of internal moderation of especially learning tasks to gate-keep effective assessment protocols.

Planning of major assessment tasks in advance and providing learners with a time-table would promote planning and creating opportunities for research on the learner's part and promote reflective practice. Working in advance would also afford learners the opportunity to engage in drafting and editing skills, thus honing their higher order thinking skills. In addition it would introduce and promote elements of time management for the learner, which is an important skill supplementary to learning.

5.2.1.5 The use of rubrics as a scoring tool

In using effective rubrics, these can serve as a sound bridge between classroom assessment and meeting the national requirements of assessments. Effective rubric construction would strengthen the process of building accountability in assessment and promoting both validity and reliability aspects of assessment. Rubrics as an assessment tool could be the nexus between teaching and learning, strengthening the practice of both aspects.

A measure recommended to educators is to collect information of how learners perceive the year's teaching and learning is to let the learners complete a questionnaire covering aspect of their learning. In this particular instance the focus should be to elicit feedback on how useful learners have found the assessments and areas for improvement.

It is also recommended that educators construct memoranda for the scoring rubrics to ensure consistency and validity in the marking process. Such anchoring memoranda will strengthen the validity of the content, construct and the criteria-related evidence of the rubric design and assessment as a whole.

5.2.1.6 Assessment for learning and feedback to learners

Manitoba Education (2006: 29) defines assessment for learning as assessment that makes the learner's "understanding visible, so that educators can decide what they can do to help learners progress". One of the interviewees identified this as diagnostic assessment. It is recommended that educators find innovative strategies to move assessment beyond the managerial task of recording a specific amount of assessment activities to the practice to truly assessing the acquired learning. It is recommended that the information gained be used as a basis for meaningful feedback to the learners about their progress and give suggestions for future improvement. The important factor here is to focus on the actual learning process and not the product of the learning.

When providing feedback it is recommended that educators and peers guard against an overload of feedback. Keeping a personal log of feedback would provide a learner with a quick checklist to indicate the frequency of a particular feedback topic. This will also provide the learner with a visual reminder of the feedback and it is recommended that educators pay due attention to repeated feedback topics as this may signal a warning light for potential learning intervention.

It is also recommended that feedback to learners should emphasise the high expectations required from learners in a positive and encouraging light. Learner feedback could also involve the participation of parents. Feedback to learners about their work should stress the assessment standards as embodied in the scoring rubrics as the learners could use this in completing or improving their work.

Constructive feedback approaches are recommended, also with the purpose of reducing normative comparison of learners and to promote individual and personalised performance. This will reduce feelings of low self-esteem of learners who feel that they are not able to compete with high achieving learners and rather promote their own reflection to improve their learning.

It is understood that norm-referenced assessments carry with it a lingering effect of labeling the learner, whereas with standard-based assessment this practice is eliminated and the learner is compared to his or her last performance level.

5.2.1.7 Assessment as learning and learner reflection

Assessment as learning according to Manitoba Education (2006: 41) “focuses on students and emphasizes assessment as a process of meta-cognition for students”. Manitoba Education alludes that “assessment as learning is an interactive process of cognitive restructuring that occurs when individuals interact with new ideas” (2006: 41). This perspective places learners as a critical connector between assessment and learning. With this in mind, it is recommended that learners should be guided toward reflection on their own learning and support the learner in making adjustments so that they can achieve deeper understanding. It is recommended that educators model and promote these reflection skills as part of the self-assessment process. This should also embed aspects such as expectations of performance and good practice negating the additional marking of such elements.

In my experience as an educator I have found that schools that adopt an additional effort system in the context of assessment, have found that their learners’ motivation and enthusiasm have greatly increased. It is recommended that educators explore this system in addition to assessment for learning.

Feedback related to assessment as learning is an important aspect in the assessment process. Feedback enhances true understanding and this in turn provides models for independent learning. Learners require constant and consistent feedback to develop autonomy and competence. Manitoba Education (2006: 47) states that skills such as self-monitoring and self-assessment become “routine only when there is constant feedback and practice using the skills”. Assessment as learning also involves the skills of reporting, this is deemed as the responsibility of students, who must learn to articulate and defend the nature and quality of their learning.

I would also recommend that reflection tools could take the format of diary entries or portfolio inclusions where the learner reflects on his or her own learning. This procedure could take place at the end of each week or when a component or module of learning has been completed.

Another recommendation to promote reflection and simultaneously encourage positive peer assessment is that learners could let fellow learners review a draft of a learning activity or task and provide constructive feedback to the learner. This would both serve the issue of the reviewer thinking about learning and its application and for the reviewed learner to reflect on how to improve upon his or her learning and performance in the task.

A reflective practice in assessment promotes learners’ understanding of their performance and learning. The educator should be creating situations where the learners feel safe questioning and reflecting on their own processes, either privately or in group discussions. The educator should also create activities that lead the student to reflect on his or her prior knowledge and experiences. Talking about what was learned and how it was learned is really important.

5.2.1.8 Managerial tasks related to assessments

Educators can be caught up in the vicious cycle of assessment time-tables and recording schedules, neglecting the fundamental purposes of assessment. This practice needs to be minimized by focusing on the designing and implementing of a sound educational assessment protocol that addresses the learning needs of learners. This protocol should be supported by the elements as reflected in the other recommendations in this chapter.

The collection and recording of marks is often given higher priority due to administrative demands over the analysis of the learner's work. Educators are often able to predict the learner's results on tests, yet know little about the learner's learning needs. I would recommend that a comprehensive profile of the learners learning skills accompany the progression report to the next grade or phase. This will ensure continuity of effective teaching and learning practices and supportive assessment practices. This will also assist the next educator in building an understanding of the learner's learning needs without undue loss of time.

To reduce the time constraints on educators, it is recommended that educators design a bank of rubric samples that would assess the learning outcomes and assessment standards as required to be assessed in the South African context. This rubric bank could also contain rubric samples that assess generic aspects as they pertain to each discrete learning area – that which make each learning area unique in its application and content stands. It is advisable that educators need to bear in mind that rubrics drawn from a bank should always be revised to ensure that it meets the specific needs of the assessment to be conducted as well as the adjustment according to the teaching and learning dynamic of that particular group being taught. The use of such a bank could possibly also provide future data for research into how rubrics could be improved to ensure effective teaching, learning and assessment practices.

Douglas (2005:18) states that an “over-emphasis on technique and classroom management at the expense of content (delivery) can impoverish teaching”. Educators need to explore strategies to ease the administrative workload.

5.2.1.9 Assessment of individual performance tasks

In finding that the majority of assessments are based on individual performance, it is recommended that educators review the spread of the different modes in which assessments are given. In keeping with the tenets of transformational outcomes-based education, learners should engage in a variety of assessment modes. In adhering to the critical learning outcomes, learners are also expected to engage in group work. As such it is recommended that performance is also assessed in a group context with specific attention paid to the collaborative element of group work.

5.2.1.10 Self assessment and peer assessment

The research findings also revealed that self-assessment and peer assessment are neglected dimensions of assessment. It is recommended that educators structure and implement a scaffolded process of introducing self-assessment and peer assessment to learners.

5.2.2 Recommendations for the meso-educational level

5.2.2.1 Training of educators in developing and implementing assessment.

Whilst it is the national government’s responsibility to effect acts and policies, the regional educational departments carry the responsibility to develop policy support for educators. Black and William (1989b) state that:

...teachers will not take up ideas that sound attractive, no matter how extensive the research base, if the ideas are presented as general principles that leave the task of translating them into everyday practice entirely up to the teachers.

As indicative from the interviews, educators are expressing a dire need for examples of implementation (Black & William, 1989b) so that they will have the confidence to implement these in their classrooms. Evident from the interviews is that educators identified specific aspects that they would welcome training on in regard to assessments. These included:

- what formative, performance and authentic assessment entails;
- assessment tools and strategies;
- implementing integration of learning areas;
- clustering assessment standards;
- wording the codes of the assessment continuum;
- what holistic and analytical rubrics entail;
- how teaching and assessment practices should inform each other;
- how to initiate and guide peer assessment and self assessment; and
- weighting of content to be assessed.

Training needs to be backed by a team from the regional educational departments that are well experienced and conversant in the challenges that educators are facing in terms of assessment. I feel that these training teams also need to be phase specific as each phase requires its unique supporting structures. It would be important that each school is committed to the concept of school-based development of formative assessment and to collaboration with other schools.

This process can be further strengthened by the educator's own classroom research which can contribute in highlighting the most pertinent challenges.

As indicated by all the educators interviewed, training has been extremely basic and concentrated on the theoretical aspects and regulation guidelines. The extent and impact of an ambitious curriculum has resulted in an extended workload regarding content and increased learning areas to be covered. In addition, educators are involved in co-curricular activities and other school related engagements in the afternoon and at times in the evening. These two factors have resulted in full programmes of lesson preparation and needs to be borne in mind when recommendations such as the National Protocol on Recording and Reporting (DoE, 2006) make regulations and requirements regarding assessment structures and procedures. Educators want training that is practical in nature and that will provide them with strategies that will address the workload burden.

A needs analysis would streamline this process and address the real concerns and challenges that educators face. Educators indicated that assessment guidelines as those contained in the Revised National Curriculum Statement (DoE, 2002) and policies such as the National Protocol on Assessment (DoE, 2004) and the National Protocol on Recording and Reporting (DoE, 2006) are issues and workshops that basically deal with the theory as contained in the manuals, but is never followed up with practical training regarding implantation.

These workshops should be planned on a national level to ensure continuity and portability and can be disseminated through the various provincial Educational Management District Centres.

It is recommended that educators develop a more insightful understanding of all the components and dimensions related to assessment. Good assessment practice is dependent on effective knowledge management and application.

5.2.3 Recommendations for the macro-educational level

5.2.3.1. Learning material and resources development.

- **Curriculum textbooks.**

There is a dire need for comprehensive curriculum textbooks that addresses appropriate learning content, as well as the amalgamated presentation of learning outcomes and assessment standards that are to be covered within that particular content. Content in this context refers to Knowledge, Skills and Values/Attitudes as emphasized by transformational outcomes-based education.

Curriculum textbooks should consider the developmental stage of the learner, the concept formation of the learner at that level as well as the access or availability of resources to make the learning as authentic as possible. Another consideration that came strongly to the fore in the findings is the provisioning of learners with special educational needs. There could be enrichment components in the curriculum textbooks as well as components that explain concepts or aspects in more detail to accommodate learners with different cognitive competencies and/or individual strengths.

The interviewees mentioned that they access numerous textbooks in planning their lessons and assessments as there is no one definitive textbook available. It is also evident that the textbooks are outdated regarding the requirements of the Revised National Curriculum Statement and specifically regarding assessment procedures linked to the required learning outcomes and the assessment standards.

It would be interesting to explore whether there is a forum for educators to meet with PASA (Publishers Association of South Africa) and share their educational needs on a more practical level.

- **Academic textbooks**

Although there are numerous academic textbooks dealing with the various aspects of assessment, there indeed appears to be a gap in the market for academic textbooks of a practical nature that comply with the South African situation and educational requirement.

- **Electronic media**

National and regional government can develop online assessment guidelines and resources. Most of the countries that have embarked on outcomes-based education as a teaching approach have designed and made available to educators an array of extensive online resources. These resources provide both theoretical frameworks and support for practical application.

5.2.3.2 Organisational learning and leadership

Daft and Weick (1984: 286) noted that “organisational interpretation is formally defined as the process of translating events and developing shared understanding and conceptual schemes among members of management. Interpretation gives meaning to data, but it occurs before organisational learning and action”. I feel that the Department of Education should promote the understanding of organisational learning in schools. If this is to become part of the professional development of educators, especially heads of department, deputies and principals, it would facilitate the development and implementation of effective change in schools. In terms of this study and its recommendations, this learning should be seen in the context of assessments. Training could be extended to the members of the governing body as part of capacity building within that school community.

As learning organisations, schools should be more aware of the relevance of the latest educational research and its impact on school practice. I believe that it

is important not only to take note of the research, but also to act upon it. Organisational learning cannot occur if there is no action to improve upon identified weaknesses and to strengthen accountability.

Riley and MacBeath (2003) viewed effective leadership as being able to make the right choices and decisions, and being willing to learn and to change. I feel that if educators were to conduct research studies in their classrooms, this would provide recommendations to improve learner achievement and improve teaching and learning practices. This is also supported by the findings in this study. When school leaders and educators are involved in the design and implementation of assessment practices, they become more determined to find ways to improve their practice and to influence learning and behaviour in a positive way. I also recommend that the impact of these innovations need to be monitored and researched.

This also supports the notion that appropriate communication between school leaders and educators promote collaborative work. Fullan (2001) maintains that school leaders need to encourage effective relationships with staff to create collaborative working environments which are important for effective learning. I feel that it holds equally true for the communication and relationship between educational leaders on a national level and their communication with leaders on the regional and school level.

Schools need to take charge of their own improvement and they best know the challenges they face. Hopkins (1985) posits that educator research can be used to improve teaching and the quality of classroom activities. The findings of this study showed that teachers who are involved in implementing transformation Outcomes-based Education, are also more involved in identifying the required changes to the curriculum. These educators will effect improvements in their teaching and assessment practice and as one educator in particular, Educator 1, stated "...if you are motivated, that is what you should be doing....".

Research could be school-wide action research projects or based on the individual educator's research on classroom practice. Myers (1985) further proposes that school leaders and educators can work together on ways of improving their programmes so that learner achievement is enhanced.

Organisational leadership and support could become the basis and lay the framework for developing a culture of collaboration.

5.2.3.3 Quality assurance

A process where educators are quality assured would contribute to 'best practice' emerging and becoming the norm. It goes without saying that this assurance process needs to be supported with a well-planned structure and information that would inform practice. Quality assurance can be a shared task with the various educational regional offices. A process where educators are quality assured would contribute to best practice emerging and becoming the norm.

School leadership and effective classroom teaching have an important impact on learners' learning. As such it is important that there would be accountability measures in place to ensure best practice. It is recommended that this can be achieved through:

- a monitoring of progress; and
- communication and dialogue with all school staff and learners about effective practice and how to effect improvements.

Quality assurance measures would also promote capacity building for assessment, both nationally and regionally.

5.3 Conclusion

The findings suggest that there are several aspects of the educator's practice which impact on the assessment process. These are classified into three categories namely, the macro-, meso- and micro educational levels. In many instances these recommendations are interrelated, showing its significance and emphasizing the complexity of assessment design and implementation.

Furthermore, there are several themes: such as lack of time, an ambitious curriculum and a tremendous administrative workload that are cited often by the interviewees, indicating the challenges educators face. Educators are increasingly tasked with implementing or even designing multiple initiatives of educational reform and innovation. All this is seen as essential for quality schooling and preparing learners for the 21st century. We also need to seriously consider and reflect on how we are preparing the educators for this task.

The next chapter presents aspects of limitations of the study and suggestions for further research. It also includes perspectives on the perceptions of educators as it relates to assessment.

CHAPTER 6

CONCLUSION

6.1 Introduction

The previous chapter presented the recommendations of the study. This chapter highlights the scope for further research.

6.2 Scope for further study

This is a study of limited scope, leaving the field open for further investigation. Areas of further study related to this study would be to enlarge the sample group and in addition use more research tools to conduct the study. The further study could also focus on either independent or public schools, or a comparative study between the two could be conducted. It would be interesting to collect data from a larger number of schools and see how the findings compare or differ from this study.

An interesting further study would be the impact that staff development and or educator research would have on educators' teaching and assessment practice.

The qualitative differences of the different learning outcomes and how each represent true understanding and leaning and what learners have learnt, would present with interesting research possibilities.

A further study which develops a model or framework for the assessment of higher order thinking skills would be valuable in addressing the application of these critical skills. It would also provide a measure for achievement or

competency against which national outcomes and assessment standards could be assessed.

6.3 Educators' perceptions

Although not the focus of this study, the concept of change or reform to a new system did have an indirect impact on this study. I found educators to still be locked into a view that the change was difficult to handle due to lack of effective training, additional administrative workload and having to come to grips with an ambitious curriculum. Educators are still referring to these factors as obstacles in fully implementing the Revised National Curriculum Statement and the assessment requirements linked to it. From the interviews it appears that the educators are basically managing the programme to stay above water with the required regulations and that they are desperate for their voice to be heard and for intervention to ease the workload and ways in which to implement the requirements effectively and efficiently.

6.4 Conclusion

I feel that it is important to share research findings with relevant stakeholders. The three main stakeholders that came to the fore in this study were school leaders (national and regional), the educators and the learners.

I do feel that in this instance parents are also an important stakeholder. Parents can play a significant role in the learners' attitude to school and learning. Most parents are only familiar with the traditional, pre- outcomes-based education, assessment practices and find it difficult to grasp the significance of the paradigm shift in assessment. If parents are well-informed about the changes

in education, specifically the purpose and its significance, parents would be better able to promote and support learners' reflection of their own learning.

Standards-based assessment provides a grading process that is consistent and fair across learning areas of the Revised National Curriculum Statement. It is able to facilitate a shared understanding between what is expected from the learner and what is performed by the learner. Through the use of well-constructed rubrics, assessment can be provided for each assessment standard and its attributing criteria. Thus, through standards-based assessment and the use of rubrics that elicit higher order thinking skills, learners are able to participate in their own learning since they know exactly what is required from them. It is the educator's task to plan a developmentally appropriate curriculum that will enhance the learner's conceptual growth.

BIBLIOGRAPHY

Alreck, P. L & Settle, R. B. (1995). *The survey research handbook: guidelines and strategies for conducting a survey*. Chicago: Irwin.

Anderson, L. W, & Krathwohl, D. R. (Eds). (2001). *A taxonomy for learning, teaching and assessing: A revision of Bloom's Taxonomy of educational objectives*. New York: Longman.

Anrade, H. & Du, Y. (2005). Student perspectives on rubric-referenced assessment. *Practical assessment research and evaluation*, 10(3). E-journal. Online: <http://www.doaj.org> [Retrieved: 9 March 2006].

Andrade, Heidi Goodrich. (2000). Using rubrics to promote thinking and learning. *Educational Leadership*, 57(5):13-18. Retrieved from http://ascd.org/publications/ed_lead/200002/andrade.html [Retrieved: 10 May 2007]

Atherton, J. S. (2005). *Learning and Teaching: Deep and Surface learning*. Available online: <http://www.learningandteaching.info/learning/deepsurf.htm> [Retrieved: 3 August 2007]

Avenstrup, Roger. (Ed). (1997). *Shaping Africa's future through innovative curricula. Proceedings of the first sub-regional conference on curriculum development in southern Africa*. Okahandja: NIED (National Institute for Educational Development).

Bak, Nelleke. (2004). *Completing your thesis: a practical guide*. Pretoria: Van Schaik.

Bellingham, Richard. (2001). *Corporate Culture Change*. Amhurst: HRD Press.

Bernstein, B. (1975). *Class, codes and control*. London: Routledge and Kegan Paul.

Black, Paul & William, Dylan. (1998a). Assessment and classroom learning. *Assessment in Education*. Vol 5(1):7-76.

Black, Paul & William, Dylan. (1989b). *Inside the black box: raising standards through classroom assessment*. Phi Delta Kappa. Online: http://www.pdkintl.org/kappan/k_v80/k9810bla.htm [Retrieved: 10 June 2007]

Blanche, Terre, Martin & Durrheim, Kevin. (2002). *Research in Practice*. Cape Town: University of Cape Town Press.

Bloom, B. S. (1956). *Taxonomy of educational objectives. Handbook 1: The cognitive domain*. New York: David McKay.

Campbell, Elizabeth. (1998). *Teaching strategies to foster "deep" versus "surface" learning*. Online: http://www.uottawa.ca/academic/cut/options/Nov_98//TeachingStrategies_en.htm [Retrieved: 10 May 2007]

Coffey, Elizabeth & Lashway, Larry. (2002). *Trends and issues: school reform*. Online: http://www.eric.uoregon.edu/trends_issues/reform/. [Retrieved: 20 April 2006]

Coleman, Marianne., Graham-Jolly, Mike & Middlewood, David.(Eds). (2003). *Managing the curriculum in South African School*. Huddersfield: Charlesworth Group.

Costa, Arthur, L. & Kallick, Bena. (2000). (Eds). *Assessing and reporting on habits of mind*. Alexandria, VA: Association for Supervision and Curriculum Development.

Cumming, J.J. and Maxwell, G.S. (1999). Contextualising authentic assessment. *Assessment in Higher Education*. Vol 6(2): 177-194.

Daft, R, L. & Weick, K, E. (1984). Towards a model of organisations as interpretation systems. *Academy of Management Review*. Vol 9(2): 284 – 295.

Daniels, Glenda. (2007). The changing space of education. *The Teacher*. Vol 12(8): 7.

Dick, Bob. (2005). *Grounded theory: a thumbnail sketch*. Online: <http://www.scu.edu.au/schools/gcm/ar/arp/grounded.html> [Retrieved: 17 January 2007]

Dietel, R. J., Hermann, J.L. & Knuth, R.A. (1991). *What does research say about assessment?* Oakbrook: NCREL. Also available online: http://www.ncrel.org/sdrs/areas/stw_esys/4assess.htm. [Retrieved: 13 August 2007]

DoE. (2002). *Revised National Curriculum Statement Grades 1-9 (schools) Policy: Social Sciences*. Pretoria: DoE.

DoE. (2003). *Teacher's guide to the development of learning programmes*. Pretoria: DoE.

DoE. (2004). *National Protocol on Assessment*. Pretoria: DoE.

DoE. (2004). *National Protocol on Assessment Recording and Reporting*. Pretoria: DoE.

Douglas, Julie. (2005). *Teacher professionalism and education transformation*. Braamfontein: Centre for Education policy Development (CEPD).

Dunn, Lee., Parry, Sharon and Morgan, Chris. (2002). *Seeking quality in criterion referenced assessment*. Online: <http://www.leeds.ac.uk/educol/documents/00002257.htm>. [Retrieved: 10 June 2007]

Friedman, Thomas, L. (2005). *The world is flat*. London: Penguin Books.

Fullan, M. (2003). *Leading a culture of change*. San Francisco: Jossey-Bass.

Gage, N.L., & Berliner, David, C. (1992). *Educational Psychology*. Boston: Houghton Mifflin.

Glaser, Barney, G. (1978). *Theoretical Sensitivity*. Hill Valley, CA: Sociology Press.

Glaser, Barney, G. (1992). *Emergence vs. Forcing: Basics of Grounded Theory Analysis*. Sociology Press.

Glaser, B., & Strauss, A. (1967). *The discovery of grounded theory: strategies for qualitative research*. New York: De Gruyter.

Golson, Emily, & Gerretson, Helen. (2005). *Comprehensive rubrics as measures of mastery*. Online:
<http://www.unco.edu/assessment/newsletter/jan05> [Retrieved: 8 March 2006]

Government Gazette. (2006). *National Educational Policy Act*. Pretoria: Government Printer.

Gultig, J., Hoadley, U & Jansen, J. (2002). *Curriculum: from plans to practices*. London: Oxford University Press.

Harris, Alma. (1999). *Teaching and learning in the effective school*. Hants: Ashgate.

Harris, D.E, & Carr, J.F. (1996). *How to use standards in the classroom*. Alexandria, VA.: Association for Supervision and Curriculum Development.

Herman, J., Aschbacher, P & Winters, L. (1992). *A practical guide to alternative assessment*. Alexandria, V.A.: Association for Supervision and Curriculum Development.

Hopkins, David. 1985. *A teacher's guide to classroom assessment*. (2nd Ed). Buckingham: Open University Press.

Jacobs, M., Vakalisa, N. & Gawe, N. (Eds). (2004). *Teaching-learning dynamics: a participative approach for OBE*. 3rd ed. Johannesburg: Heinemann.

Keevy, James. (2006). *The regulation of teacher education in South Africa through the development and implementation of the NQF (1995 – 2005)*. Pretoria: SAQA. Online: www.saga.org.za/docs/events/ioepaper-keevy.pdf [Retrieved: 8 September 2007].

Killen, R. (2000). *Teaching strategies for outcomes-based education*. Cape Town: Juta.

Manitoba Education. (2006). *Rethinking classroom assessment with purpose in mind: assessment for learning, assessment as learning, assessment of learning*. Winnipeg: Manitoba Education, Citizenship and Youth.

Maree, J.G. & Fraser, W.J. (Eds.). (2004). *Outcomes-based assessment*. Johannesburg: Heinemann.

Marzano, Robert, J. (1992). *A different kind of classroom: teaching with dimensions of learning*. Alexandria, VA: Association for Supervision and Curriculum Development.

Marzano, Robert, J., Pickering, Debra & McTighe, Jay. (1993). *Assessing student outcomes: performance assessment using the dimensions of learning model*. Alexandria, VA: Association for Supervision and Curriculum Development.

McMillan, James & Schumacher, Sally. (2001). *Research in Education: A conceptual Introduction*. New York: Addison Wesley Longman.

Mehrens, William, A. (1998). Consequences of assessment: what is the evidence? *Educational Policy Analysis Archives*. Vol 6(13). Online: <http://www.epaa.asu.edu/epaa/v6n13.html>. [Retrieved: 10 May 2007]

Merriam, S. (1998). *Qualitative research and case study application in education*. San Francisco: Jossey Bass.

Mertler, Craig, A. (2001). Designing scoring rubrics for your classroom. *Practical Assessment, Research and Evaluation*. Vol 7(25). Online: <http://www.PAREonline.net/getvn.asp?v=7&n=25> [Retrieved: 20 April 2006].

Moskal, Barbara M. (2000). Scoring rubrics: What, when and how? *Practical Assessment, Research, & Evaluation*, 7(3). Retrieved from <http://ericae.net/pare/getvn.asp?v=7&n=3> [Retrieved: 8 March 2006]

Moskal, Barbara M. (2001). *Scoring rubrics: part 1: What and when*. Online: <http://www.ericdigests.org/2001-2/scoring.html>. [Retrieved: 8 March 2005].

Moskal, Barbara M. 2003. Recommendations for developing classroom performance assessments and scoring rubrics. *Practical Assessment, Research, & Evaluation*. 87(14). Online: <http://PAREonline.net/getvn.asp?v=8&n=14> [Retrieved: 20 April 2006]

Moskal, Barbara & Leydens, Jon,A. (2000). Scoring rubric development: validity and reliability. *Practical Assessment, Research and Evaluation*. Vol 7(10). Online: <http://www.PAREonline.nwt/getvn.asp?v=7&n=10> [Retrieved: 14 March 2007].

Mouton, Johan. (2001). *How to succeed in your Master's and Doctoral studies*. Pretoria: Van Schaik.

Muller, John. 2000. *Reclaiming Knowledge: Social theory, curriculum and education policy*. London: RoutledgeFalmer.

Myers, M. (1985). *The teacher-research: How to write in the classroom*. Washington, D.C.: National Council of Teachers of English.

Neimeyer, R.A., & Mahoney, M. J. (Eds). *Constructivism in psychotherapy*. Washington: American Psychological Association.

New Zealand Ministry of Education. (2007). *Personalised learning*. Auckland: Ministry of Education.

NIST. (2004). *Baldrige National Quality Program: Education Criteria for Performance Excellence*. Gaithersburg: NIST (National Institute of Standards and Technology).

O'Shea, Mark, R. (2005). *From standards to success*. Alexandria VA: Association for Supervision and Curriculum Development.

Pandit, Naresh, R. (1996). The Creation of Theory: A recent application of the Grounded Theory Method. *The Qualitative Report*. Vol 2(4). Online: <http://www.nova.edu/ssss/QR/QR2-4/pandit.html> [Retrieved: 18 January 2007 and 26 July 2007]

Perkins, David. (1993). *Smart schools*. New York: Simon and Schuster.

Popham, W, James. (2005). *Classroom assessment: What teachers need to know*. (4th ed). Boston: Allyn and Bacon.

Rennie, D. L., Phillips, J. R., & Quartaro, G. K. (1988). Grounded theory: A promising approach to conceptualization in psychology? *Canadian Psychology*. Vol 29: 139-150.

Riley, K. & MacBeath, J. (2003). Effective leaders and effective schools. In Bennet, N., Crawford, M & Cartwright, M. (Eds). *Effective Educational Leadership*. p 173 – 184. Thousand Oaks, CA: SAGE Publications.

Ryan, Tom. (n.d.). *Grounded Theory: Reading 10, Module 6*. Cape Town: UCT Graduate School of Business.

Schmoker, M., and Marzano, (1999). R.J. Realising the promise of standards-based education. *Educational Leadership*. Vol 56 (6):17-21.

Schwahn, C.J. & Spady, W. (1998). *Total leaders: Applying the best future-focused change strategies to education*. Arlington: American Association of School Administrators.

Shepard, L.A. (1989). *What gets assessed is what gets taught*. Online: <http://www.ncrel.org>. [Retrieved: 20 April 2006].

Shepard, L.A. (1995). Using assessment to improve learning. *Educational Leadership*. Vol 52(2):38 – 43.

Shepard, L.A. (2000). The role of assessment in a learning culture. *Educational Researcher*. Vol 29(7):4-14.

Sims, Emma. (2006). *Deep learning – 1: a new shape for schooling*. London: Specialist Schools and Academies Trust.

Spady, W. G. (1994). *Outcomes-based education: critical issues and answers*. Arlington, VA: American Association of School Administration.

Stepanek, L.A. (1996). *Assessment strategies to inform Science and Mathematic instruction: It's just good teaching*. Portland: Northwest Regional Educational Laboratory.

Stepanek, L.A. (1997). *Science and Mathematic standards in the classroom: It's just good teaching*. Portland: Northwest Regional Educational Laboratory.

Stenhouse, L. (1975). *An Introduction to Curriculum Research and Development*. London: Heinemann.

Strauss, A. & Corbin, J. (1990). *Basics of Qualitative Research: Grounded theory procedures and techniques*. London: SAGE

Tierney, Robin & Simon, Marielle. (2004). What is still wrong with rubrics: focussing on the consistency of performance criteria across scale levels. *Practical Assessment, Research and Evaluation*. Vol 9(2). Online: <http://www.PAREonline.net/getvn.asp?v=9&n=2>. [Retrieved: 20 April 2006].

Torrance, H. (1995). The role of assessment in educational reform. In Torrance, H. (Ed). *Evaluating authentic assessment*. Buckingham: Open University Press.

Van der Horst, H. & McDonald, R. (2001). *Outcomes-based Education: Theory and practice*. 2nd ed. Pretoria: UNISA.

Van der Westhuizen, P.C. (Ed). (2002). *Schools as Organisations*. 2nd ed. Pretoria: Van Schaik.

Williams, Bill. (1997). Rubrics and authentic assessment in the history classroom. Online: <http://www.socialstudies.com>, [Retrieved: 8 May 2007]

Williams, Bruce, R. (2003). *Higher order thinking skills*. Moorabbin: Hawker Brownlow Education.

Wiggins, Grant & McTighe, Jay. (2005). *Understanding by design*. Alexandria, VA: Association for Supervision and Curriculum Development.

APPENDICES

Appendix A

Information regarding the semi-structured interview

Please respond to all the questions as far as possible. Your responses should relate to your practice as an educator in Grade 5.

Your responses will be confidential and used solely for the purpose of this study to determine emerging trends in the management of rubrics as a scoring tool in the Learning Programme of Social Sciences: History.

Please also provide at least five (5) rubrics used in Learning Programme Social Sciences: History. The rubrics may cover any topic within the History Learning Programme.

Please justify the responses to the questions with additional information/an explanation/clarification. This will help in the interpretation of the information for this study's purpose.

Should you have any questions, please feel free to contact the researcher:

Contact details are below:

.....
.....
.....

Thank you for your willingness to participate in and contribution to this study.

Sandra Kruger

Appendix B

Semi-structured interview questions

1. Is your assessment practice guided by a school policy? Justify.
Probe: guidelines, use of departmental guideline documents/policies
2. What types of assessment are used in assessing the learning of History?
Probe: Provide an example
3. What types of scoring tools are used?
Probe: Provide an example
4. To what degree are holistic and analytical rubrics used?
Probe: Provide an explanation of the two types.
5. To which extent is rubrics are used for formative -, summative – or diagnostic assessment?
Probe: Provide an explanation/example
6. Have you received training in the use of different assessment strategies?
Probe: Clarify.....give examples
7. Do learners use the indicators in the rubrics to complete their assessment tasks meaningfully? Explain.
Probe: do they enrich on the task, research more information...
8. Do learners answer beyond what is asked?
Probe: Explain.
9. Are rubrics explained to the learners?
Probe: How?
10. Are the codes/raters used in rubrics constant?
Probe: Explain how...
11. Are the different aspects being assessed within the task weighted differently?
Probe: Explain
12. Are learners given an opportunity to improve on a weak mark?
Probe: Explain
13. Do you find that learners will seek out additional information to what is covered in the rubric indicators?

Probe: Explain

14. Does your teaching inform your assessment practice?
Probe: Explain
15. Have you had to made adjustments to your teaching to support standards-based achievement?
Probe: Elaborate
16. To what extent do rubrics support the educator in indicating the learner's understanding of the work completed?
Probe: Explain.
17. Have you experienced instances where learners have improved their performance by addressing the indicators in the rubric meaningfully?
Probe: Please provide examples of such instances.
18. What does learners' achievement on the learning outcomes tell you about their learning?
Probe: strengths....weaknesses, interests....
19. In your opinion, has standards-based education improved learners' achievements?
Probe: Justify.
20. Does the assessment align with instruction in the classroom?
Probe: content....learning outcomes.....assessment standards...
21. Have rubrics you have used
 - 21.1 elicited critical thinking and learning from learners?
 - 21.2 elicited creative thinking and learning from learners?
 - 21.3 motivated learners to seek out additional resources to extend learning?
 - 21.4 promoted planning strategies in completing their assessment tasks?
 - 21.5 Prompted the learner to reflect on the performance/learning?**Probe:** Explain
22. What are the challenges you experience in
 - 22.1 designing an assessment task/rubric?
 - 22.2 marking an assessment task?**Probe:** Explain
23. Have you experiences instances where rubrics have supported/extended learners' meta-cognition?
Probe: Clarify.

24. Do text books correlate with standards-based education?
Probe: match in tasks/assessments
25. Would you welcome training/workshops on using of scoring tools to assess learning? **Probe:** Justify.

Are there any comments you would like to add to the scope of the questionnaire?

Probe: Training, Skills Development

Thank you

Appendix C

Rubrics Checklist

A checklist based predominately on Moskal's (2003) and Herman et al's (1992) recommendations for the development and construction of classroom performance assessment and the scoring of rubrics.

Elements of a good rubric
Clearly state the purpose for the assessment, and do not expect the assessment to meet purposes for which it was not designed.
Clearly define what it is you want to assess (the achievement target).
Match the assessment method to the achievement purpose and target
Specify illustrative tasks that require students to demonstrate certain skills and accomplishments. Avoid tasks that may be merely interesting activities for students, but may not yield evidence of a student's mastery of the desired outcomes.
Specify the criteria and standards for judging student performance on the tasks selected in step 4. Be as specific as possible, and provide samples of student work that exemplify each of the standards.
Develop a reliable rating process that allows different raters at different points in time to obtain the same - or nearly the same - results, or allows a single teacher in a classroom to assess each student using the same
The statement of learning outcomes, assessment standards and attributing criteria should provide clear focus for both teaching and learning.
The statement of learning outcomes, assessment standards and attributing criteria should reflect knowledge and information that is meaningful for the learners to learn.
The relationship between a given assessment standards and attributing criteria that describe that learning outcome should be apparent.
All the important aspects of the given goal should be reflected through the learning outcomes.
The assessment standards and attributing criteria should describe measurable outcomes.
The assessment standards and attributing criteria should be used to guide the selection of an appropriate assessment activity.
The assessment task should not assess extraneous or unintended variables
The criteria in a rubric should be clearly aligned with the requirements of the task and the stated outcomes.
The criteria in the rubric should be expressed in terms of observable behaviours and/or products.
The separation between the codes in the marking continuum should be clear.
Appropriate tools needs to be available to support the completion of the assessment task.
The scoring rubrics should be discussed with the learners before they complete the assessment activity.
Assessment should present full array of challenges found in instructional activity .e.g. research, writing, collaboration, oral etc
The attributing criteria should be indicated explicitly.

Appendix D

Samples used in the study

For research purposes and to ensure confidentiality, the samples are identified as follow:

- The Social Studies: History rubrics are identified as: 'Rubric 1-17'
- The Economic Management and Sciences: Rubric 18
- The English as First Language rubrics as: 'Rubric 19 and 20'
- The interviews are identified as:
 - The individual interviews: 'Interview 1 and Interview 2'
 - The joint interview: 'Interview 3'
- The educators are identified as: 'Educator 1-5'
- The schools are identified as: 'School A and School B'

Appendix E

The History assessment criteria

The Assessment Criteria for the learning area Social Sciences: History as extracted from the Revised National Curriculum Statement Grade R – 9 (Schools) Policy. 2002.

INTERMEDIATE PHASE SOCIAL SCIENCES: HISTORY LEARNING OUTCOMES & ASSESSMENT STANDARDS GRADES 5

The enquiry process in history and geography is closely linked in this outcome. Asking key questions is critical to this process. Ask questions about aspects of the past, present and future, using objects, pictures, written sources, buildings, museum displays and people (oral history)

Learning Outcome 1: HISTORICAL ENQUIRY	
The learner will be able to use enquiry skills to investigate the past and the present.	
Inquiry route in Social Sciences	Assessment Standards We know this when the learner:
Finds sources: teacher/ learner	5.1.1 With guidance, selects sources useful for finding information on the past (e.g. oral, written and visual sources, including maps, graphs and tables, objects, buildings, monuments, museums) [finds sources].
Works with the sources: asks questions of sources, finds information in sources, organises, analyses, synthesises information	5.1.2 Records and categorises information from a variety of sources (e.g. oral, written and visual sources, including maps, graphs and tables, objects, buildings, monuments, museums) [works with sources].
Writes a piece of history (Answers the question)	5.1.3 Continues to use information from sources to answer questions about people, events, objects, and places in the past [answers the question].
Communicates historical knowledge and understanding	5.1.4 Communicates knowledge and understanding in a variety of ways, including presenting historical information in short paragraphs, simple graphs, maps, diagrams, creating artwork, posters, music, drama and dance; uses information technology where available and appropriate [communicates the answer].

Learning Outcome 2: HISTORICAL KNOWLEDGE AND UNDERSTANDING	
The learner will be able to demonstrate historical knowledge and understanding.	
	5.2.1 Uses dates and terms relating to the passing of time (e.g. decade, century), and arranges them in order [chronology and time].
	5.2.2 Gives reasons for and explains the results of events that have changed the ways that people live in a given context [cause and effect].
	5.2.3 Identifies similarities and differences between ways of life in different places at different times [similarity and difference].
Learning Outcome 3: HISTORICAL INTERPRETATION	
The learner will be able to interpret aspects of history.	
Issues of interpretation: Interpretation based on historical sources	5.3.1 Recognises that there can be more than one version of an historical event (e.g. that there can be two accounts of the same story) [source interpretation].

Appendix F

Rubric samples

RUBRIC SAMPLE 1: (History)



TASK: Evidence of my history

You must find three different sources of evidence about yourself and give it to your partner, to help him/her find out more about you. He/she must imagine himself/herself as an archaeologist who has to present information on YOU....

Be sure to include:

- An **oral source** of evidence
- A **visual source** of evidence
- A **written source** of evidence.



1. Write down reasons why you chose each piece of evidence.
2. Talk to your partner about what they have found out about you from the evidence you gave them.
3. Did the evidence help your partner to understand what you are like?
4. Each person must present the information they gathered to the class.
Your presentation must include the following:
 - an A4 poster with the visual and written evidence
 - a short talk on the oral evidence.

Due date: _____

RUBRIC: Evidence of my history

AS 5.1.3 Uses information from sources to answer questions about people, events, objects and places in the past						
	1 Not achieved	2 Needs intervention	2+ Developing	3 Competent	3+ Commend- able	4 Outstanding
Knowledge gained on partner	Insufficient knowledge about the facts	Can accurately portray about 50% of the related facts	Fairly well presented and organised information	Well presented and generally good organisation	Can accurately portray most (+75%) of the related facts	Can accurately portray all related facts
Information search	Limited interesting/ important information	Lacks interesting / important information.	Has some interesting information	Interesting information included	Interesting and important information presented.	Information interesting and important. Relevancy of information evident.
Visual presentation	Formatting and organisation of material are confusing	No organisation	Satisfactory organisation of information. Some creativity.	Good organisation. Good creativity	Attractive visual presentation and well organized information	Exceptionally attractive formatting and well organized information

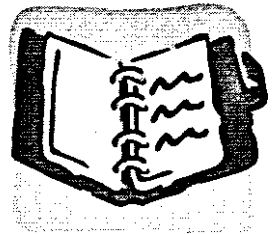
RUBRIC SAMPLE 2: (History)

TASK: INDIVIDUAL PROJECT:

TIME TRAVEL...

Imagine that you are a person who normally writes all about your day in your diary. Now, today, something really weird and strange happened to you. You were lying on your bed, reading your favourite book, when you suddenly fell asleep. When you woke up, you were in an old civilisation. You spent a whole day walking the streets, talking to people, exploring and discovering new things. At the end of the day you sat down under a tree for a rest. Again you drifted off and fell asleep....only to wake up in your own room, on your own bed.

- ❖ You now have to make a **diary entry** for today.
- ❖ Write down all that you **saw, felt, heard, smelt and experienced**.
- ❖ Write about the **buildings** and make a small **drawing** to describe your favourite one.
- ❖ Mention some **people** that you met while you were there.
- ❖ Did you have any **adventures**?
- ❖ Did you **enjoy** your time-travel **trip**? Give a **reason** for your answer.
- ❖ Give your **final thoughts** on the civilisation that you visited.



RUBRIC:

AS 5.2.2						
Gives reasons for and explains the results of events that have changed the ways that people live in a given context.						
	1	2-	2+	3-	3+	4
Contents	Lacks a logical flow. Confusing. Does not seem to grasp the topic.	Very little logical flow. Some, but not enough concepts grasped.	Good attempt. Lacks logical flow. More understanding of the topic is needed.	Logical flow of ideas. Satisfactory understanding of the topic	Easy to understand. Easy to follow.	Relevant. Logical. Easy to follow. Shows good understanding of the topic.
Creativity	No effort to write creatively.	Very little creativity	Descriptive ideas used.	Descriptive ideas used throughout	Good application of creative ideas.	Excellent use of imagination.

RUBRIC SAMPLE 3: (History)

TASK: What Is a Civilisation?

Use your dictionary to find the definitions of the following terms. (4)

1. Human:

.....

2. Social:

.....

3. Advanced:

.....

4. Developed:

.....

Now use the information above to write your own definition of the term 'civilisation'.

.....

.....

Using the illustrations of the six people from different early civilisations in your module, read through the information and then write down five things they developed as part of building civilisations.

.....

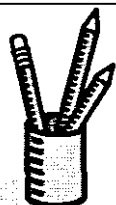
.....

.....

RUBRIC:

AS 5.1.3 Continues to use information from sources to answer questions about people, events, objects and places in the past.	1	2	2+	3	3+	4
	-3	4	5	6	7	8+

RUBRIC SAMPLE 4: (History)



TASK: Living in the Cape at the time of the Dutch sailors

Work in pairs. Imagine that you are either:

- ◆ one of the people that were living in the Cape when the Dutch arrived in their ships or
- ◆ that you were one of the Dutch sailors who arrived at the Cape.

1. Tell the class what you saw on the day that the Dutch set foot in the Cape.
2. How did you feel?
3. How do you think will your actions shape the future of the Cape?

(The idea behind this oral is to show that one situation can have many sides to it and that different people see a situation in different ways. This means that events in History can be interpreted in various ways.)

RUBRIC: Living in the Cape at the time of the Dutch sailors

AS 5.3.1.						
Recognises that there can be more than one version of a historical event						
	1	2	2+	3	3+	4
Content accuracy (realistic information)	No knowledge of the facts and its consequences	Insufficient knowledge of the facts and its consequences	Sufficient knowledge of the facts and its consequences	Knowledge on more than half the facts and consequences	Can accurately portray most of the related facts and its consequences	All the facts are correct. Can accurately portray all related facts and its consequences
Insight and knowledge to interpret the facts	No insight and interpretation	Insufficient insight and knowledge to interpret the facts	Has sufficient insight and knowledge to interpret at least half of the learned facts	Has sufficient insight to interpret more than half of the facts learned	Can accurately portray most of the average facts	Can accurately interpret the facts
Oral presentation	No effort shown in presentation	Not enough effort shown in presentation	Some effort shown in presentation	Good effort shown in presentation	Above average effort shown in presentation	Excellent effort shown in presentation
Predominant code:						

RUBRIC SAMPLE 5: (History)

TASK: A short South African Timeline

Below are some random facts about the early sailors and their activities. Place the facts in the correct timeline sequence by writing the numbers 1 to 10 in the appropriate box.

- | | |
|---|---|
| □ | In 1652 AD a refreshment post was established in by Jan van Riebeeck in the Cape. |
| □ | In 1488 AD Dias lands at Mossel Bay and met Khoi herders. |
| □ | The people in India had lovely silk fabrics which the Europeans wanted. |
| □ | Did you know that there is now a much easier way of getting from Europe to India? In the 1860's a waterway was built between the Mediterranean Sea and the Red Sea. This waterway was named the Suez Canal. |
| □ | In 1300 AD compasses were used at sea. |
| □ | In 1497 AD Da Gama leaves Portugal, looking for a sea-route to India. |
| □ | In 1416 AD Prince Henry established a school of navigation. |
| □ | In 1644 AD some Portuguese sailors were shipwrecked at the Cape. |
| □ | In 1487 AD Dias sailed around the southern tip of Africa. |
| □ | In 1795 AD the British took over rule at the Cape. |

.....out of 10

RUBRIC:

AS 5.2.1 Uses dates and terms relating to the passing of time and arranges them in order.	1	2	2+	3	3+	4
	- 4	4	5	6	7	8+

RUBRIC SAMPLE 6: (History)



TASK: Cities

1. Using the map of the city of Ur in your Module, identify what the different parts of the city were used for.

- 1.1.....
- 1.2.....
- 1.3.....
- 1.4.....
- 1.5.....
- 1.6.....
- 1.7.....
- 1.8.....

2. Draw a plan to show the different parts of a South African city you know. Show at least four (4) different parts of the city.

Name of the City:.....

KEY:

- 1..... 2.....
- 3..... 4.....

Your City Plan

(draw the plan in your workbook)

RUBRIC: Cities**LO 1: HISTORICAL ENQUIRY:**

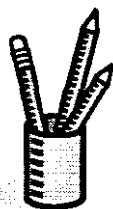
Uses enquiry skills to investigate the past and the present.

AS 5.1.3:

Uses information from sources to answer questions about people, events, objects and places in the past.

	1	2	3	4
Identification and function of the different parts of the City of Ur	Below the required standard.	Meets the required standard.	Developing steadily.	Outstanding achievement.
Drawing of the plan of a city and plan has a title	Below the required standard.	Meets the required standard.	Developing steadily.	Outstanding achievement.
Required parts of the city identified	Below the required standard.	Meets the required standard.	Developing steadily.	Outstanding achievement.

RUBRIC SAMPLE 7: (History)



TASK: The differences between the Khoikhoi and the San

How did the Khoikhoi and the San differ in the way they lived? Write down 10 different things you know about the way the Khoikhoi and the San lived their lives differently.

Give each piece of information a heading:

RUBRIC: The differences between the Khoikhoi and the San

AS 5.2.3				
Identifies similarities and differences between ways of life in different places at different times				
	1 Not achieved	2 Needs intervention to Developing	3 Competent to Commendable	4 Outstanding
Content accuracy	Less than 3 accurate facts	Less than 6 accurate facts	At least 6 -8 correct facts	All the facts are correct
Insight and knowledge gained to interpret the differences	Insufficient insight and knowledge to interpret the differences	Has sufficient insight and knowledge to interpret at least half of the stated differences	Can accurately portray most (+75%) of the differences	Can accurately interpret the differences

Teacher's comment:

Predominant code:

.....

RUBRIC SAMPLE 8: (History)



TASK: As a member of a San family:

Imagine that you are a *member of a San family*. Your family has experienced many interesting *journeys and adventures*. You have to make a *poster with your own rock paintings* on to demonstrate some of your experiences.

- It must be on an A4 board
- You have to include another page with the following written information:
 - What kind of adventure or activity is being demonstrated?
 - Where and when did it take place?
 - How old were you in the painting?
 - How did this event impact on or change your life?

RUBRIC: As a member of a San family

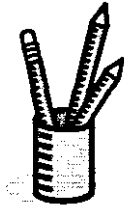
	1 Not achieved	2 Needs intervention to Developing	3 Competent to Commendable	4 Outstanding
Realistic information about adventure / activity	Didn't understand the concept. No realistic information given.	Didn't understand the concept, but tried and succeeded partially.	Understood and completed the activity +/-70%.	Fully understood and was able to complete the task giving realistic information.
Impact on life	Insufficient knowledge about the facts and its consequences	Can accurately portray about 50% of the related facts and its consequences	Can accurately portray most (+75%) of the related facts and its consequences	Can accurately portray all related facts and its consequences
Rock art presentation	Limited interesting/important representation	Lacks interesting / important representation. Irrelevant representation included	Interesting and important representation presented.	Representation interesting and important. Relevancy of representation evident.

Teacher's comment:

Predominant code:

.....

RUBRIC SAMPLE 9: (History)



TASK: Types of evidence in the Khumalo's living room

Look at the picture titled: 'The Khumalo's' in your handout. It is a picture of the Khumalo family in their living room. Look at the different types of evidence you can see in this picture and complete the table below:

LIST THE KINDS OF EVIDENCE UNDER EACH HEADING	WHAT DOES THE EVIDENCE TELL YOU ABOUT THE FAMILY
Written evidence:	
Visual evidence:	
Oral evidence:	

RUBRIC: Types of evidence in the Khumalo's living room

	1 Not achieved	2 Developing	3 Commendable	4 Excellent
Understanding that is what is meant by 'evidence' and can identify the different kinds of evidence.	Did not understand the concept of evidence and was not able to name the different kinds of evidence. Not able to complete the activity	Tried and succeeded partially. (50% of activity completed)	Partially completed the activity. (70% of activity completed)	Fully understood and completed the activity correctly. (100% of activity completed)
Interpreting the meaning of the evidence.	Was not able to interpret the meaning	Attempted to interpret the meaning, but requires support	Was able to interpret the meaning and could provide most of the meaning. (70%)	Was able to interpret the meaning of the evidence and provide all of the interpretations

Teacher's comment:

Predominant code:

.....

RUBRIC SAMPLE 10: (History)



TASK: Battles our History

Read the two extracts from newspapers that were put together by Grade 5 learners from Natal. The class wrote about the Battle of Isandlwana that took place in 1879 between British and Zulu armies.

Answer the following questions on an A4 paper and hand it in to your teacher for assessment

on _____ (due date)

1. Who do you think won the Battle of Isandlwana? Look for evidence in the newspaper reports.
2. Identify two examples of oral sources in *The Zulu Times*.
3. On whose side do you think the writers of the two articles were? Give a reason for your answer.
4. Draw a picture to show the bull's horn attack formation that the Zulu warriors used.
5. Look for examples of FACTS in the article "Zulu victory." Write them down. Now look for examples where the writer gives his OPINION. Write these down as well.

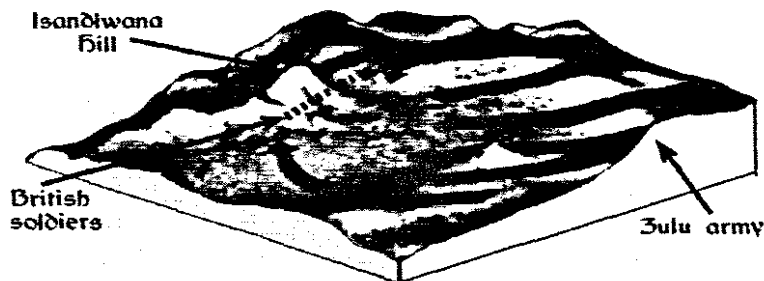
Extracts from learner newspapers about the Battle of Isandlwana

Extract 1

Zulu victory

War reporter Uguku Zulu
23 January 1879 - Isandlwana

On January 17, I reported these words of our Zulu King Cetshwayo to his warriors: "I am sending you to fight the white people who have invaded Zululand and stolen our cattle." King Cetshwayo's army arrived here yesterday and sat down for a well-earned rest. The rest was a short one. The Zulu army was discovered by a group of British soldiers who had left the main camp looking for cattle to steal.



In the battle of Isandlwana, the Zulu army made the shape of a set of bull's horns and attacked the British from two positions.

At once, the army charged the redcoats. The uMcijo (army) split into two groups - the traditional bull's horn attack. The soldiers ran at a steady pace, chanting their frightening war cries. They advanced on the

British wagons and lines of soldiers. Some fell as British bullets ripped through their brave bodies. Once our warriors were up close, the British guns were no match for the Zulu spears.

Extract 2

23 January 1879

The Zulu Times

British survivor describes Isandlwana

It was a terrible sight. There were thousands of Zulu warriors shouting and running at us in a cloud of dust. We were little more than 1200 British soldiers. Yes, we had guns and they only had spears - but we were no match for their numbers. Our bullets seemed to stop them for a while. We continued to fire. Some of us ran out of ammunition. Spears rained on us. Then the half-naked men were

upon us, stabbing us like pigs. I fell, knocked to the ground by a spear. The next thing I remember was the darkness. I was buried under two dead soldiers, soaked in their British blood.

From an interview with British soldier John Catchpole, one of a handful of British soldiers who survived the Battle of Isandlwana.

The words of a praise singer before the Battle of Isandlwana.

All praise to our King Cetshwayo Zulu, the son of King Mpande Zulu, half-brother to king Dingane Zulu, a half-brother to King Shaka Zulu - the King who made the Zulus into a mighty nation.

RUBRIC: Battles in our History

LO 1: Historical inquiry				
AS 5.1.3 Using information from sources to answer questions				
1	2	3	3+	4
Learner needs to re-evaluate his/her approach to the activity.	Learner needs assistance to master the skill of retrieving answers from the information supplied.	A good effort. Though a bit more insight into the questions and their answers are required.	Well done. Learner was able to answer most questions correctly from the information.	Very good insight into questions and able to answers all the questions from the information.

Code: _____

RUBRIC SAMPLE 11: (History)

TASK: Design a job advertisement for a palaeontologist

1. Design a job advertisement for a palaeontologist.
2. In the advert you should give details about:
 - a. Where the work will be
 - b. The kind of work they will do
 - c. The skills they need
 - d. The qualifications and experience they must have.
3. Make your advert creative and interesting. It should look like an advert in the jobs section of a Sunday newspaper.
4. Refer to the assessment table to help you plan your advert. You should use the table to assess the advert of another member of your group.

Information: Does the advert give:	Presentation	Overall impression
<ul style="list-style-type: none"> • A job description of the job? • The kind of skills required? • The qualifications needed? • Is the information in the advert correct? 	<ul style="list-style-type: none"> • Does the advert look like a real advert? • Is it neat and easy to read? 	<ul style="list-style-type: none"> • Does the advert give a good overall impression? • Will it attract a suitably qualified person to apply for the job?

RUBRIC:

1	2	3	4
No, not achieved	Partially achieved	Yes, achieved	Yes, achieved with merit

RUBRIC SAMPLE 12: (History)

TASK: Population growth

1. Look at the population graph in your chapter. It shows the population growth of South Africa between 1900 and 2001.
2. What was South Africa's population in 1911, 1931 and 1961?
3. Between which years did South Africa's population double from about 15million to 30 million?
4. If the population continued to grow at that rate, when will it double again?
5. Look for information on the graph that tells you that south Africa's population growth rate is slowing down.
6. What other reasons besides birth and death rates affect the population growth rate?

RUBRIC:

1	2	3	4
Not achieved	Partially achieved	Achieved	Achieved with merit

RUBRIC SAMPLE 13: (History)

TASK: Comparing the past:

Slavery is now illegal in South Africa. However, three hundred years ago it was common. Prepare a television chat show where you discuss why attitudes to slavery have changed over the centuries. The guests on the chat show could be:

- A farmer today and a farmer in 1653
- A farm worker today and a slave in 1653

Choose another group's role-play to assess. Use the following checklist to help you.

RUBRIC:

Criteria	Yes	No
1. Were the characters realistic?		
2. Did the characters explain their points of view/		
3. Did the role-play explain how attitudes have changed?		
4. Did the role-play explain why attitudes have changed?		
5. Did you enjoy and learn from the role-play?		

RUBRIC SAMPLE 14: (History)

TASK: Galant's Story

Galant's story comes from court records.

Galant was a slave who refused to accept his position in life. In 1825, he tried to organise a slave rebellion. He demanded that all slaves be freed at Christmas, and said that if they were not, the slaves would kill their owners. The slaves were not set free and the rebellion was crushed, with many slaves losing their lives.

Now create a role-play where you act out the life of Galant. In your role-play you need to give the slave a voice. In other words, the slave must get a chance to say:

- What his life is like as a slave
- What his feelings are
- Why he acted as he did
- How he felt about his actions and the results

RUBRIC:

1	2	3	4
Not achieved	Partially achieved	Achieved	Achieved with merit

RUBRIC SAMPLE 15: (History)

TASK: Faking a fossil

In 1912, a group of people in England faked a fossil. They took a human skull and replaced the jaw with an orang-utan's. The skull was named the Piltdown Man. This fake fooled many scientists, especially those who wanted to believe that the skull showed that humans originated in England.

1. Why do you think people would want to fake scientific evidence?
2. Why do you think people wanted to believe that humans originated in England instead of Africa?
3. Describe how scientists would have been able to tell that Piltdown Man was a fake.

RUBRIC:

1	2	3	4
No, not achieved	Partially achieved	Yes, achieved	Yes, achieved with merit

RUBRIC SAMPLE 16: (History)

TASK: Meaning of words

1. Make a copy of the table below in your workbook.
2. In the second column, write your own meaning for each word.
3. Now swap your table with your partner.
4. Look back through the chapter to find each of the words. Check the meaning of the words.
5. use the rating scale below to assess your partner's performance. Add your rating in the third column.

Word	Meaning	Rating
Palaeontologist		
Fossil		
Hominid		
Evolution		
Shaman		
Evidence		

RUBRIC:

1	No attempt was made to write a meaning.
2	The meaning was incorrect. It does not match the explanation in the chapter.
3	The meaning is partially correct. Part of the explanation is accurate.
4	The meaning is accurate. It is close to the meaning given in the chapter.

RUBRIC SAMPLE 17: (History)

TASK: Population pyramid

1. Draw a population pyramid to represent these figures.

Age group	Males (% of total population)	Females (% of total population)
0 – 14	15.1	14.9
15 - 65	32	33
Over 65	2.2	2.8

2. Label your population pyramid and give it a heading.

RUBRIC:

1	2	3	4
Not achieved	Partially achieved	Achieved	Achieved with merit

RUBRIC SAMPLE 18: (Economic and Management Sciences)

Group:

.....

TASK: Design a travel brochure

RUBRIC:

Assessment areas	0 - 3 marks	4 marks	5 - 7 marks	8 - 10 marks	total
Design layout	The brochure lacks well-organised information	The brochure contains some organised information	The brochure contains generally organised information	The brochure contains well-organised information	
Spelling & Grammar	Some words are spelled correctly and grammar errors are frequent	Most of the words are spelled correctly and some grammar is correct	Most of the words are spelled correctly and most grammar is correct	All the words are spelled correctly and proper grammar is used	
Completion of the brochure	The brochure lacks most of its requirements	The brochure is mostly complete	The majority of the brochure is complete	The brochure is totally complete	
Use of pictures/ graphics	Not many pictures / graphics and the chosen ones are inappropriate	A few pictures / graphics and some are appropriate	Evidence of many pictures / graphics and they are all appropriate	Well-selected pictures / graphics and they are very relevant to content	
Content	Demonstrates inconsistent recall of facts / poor understanding of concepts	Demonstrates basic fact recall and some of conceptual understanding	Demonstrates a working knowledge of the concepts studied	Demonstrates a deep understanding of concepts studied	
Group effort and participation	Demonstrates inconsistent effort, demonstrated inappropriate behaviour to the group	Learners showed some effort and remained on task most of the time with teacher prompting	Learners generally extended effort, remained on task	Learners consistently extended effort, remained on task and supported group fully	
Marks out of 60					

RUBRIC SAMPLE 19: (English First Language)

TASK: Information text about a creature

You are now going to write an information text about your creature, one that you might find in an encyclopaedia. This paragraph must contain statements of fact about your creature. Include facts about appearance, diet, where they live and their young. Use a formal register when you write – that is, do not use slang or informal language. Remember that this paragraph is supposed to be in an encyclopaedia!

Here is an example of an information text taken from a reference book about horses to help you understand what is required of you for this task.

"The horse is a herd animal and shows great affection towards other members of its group. Horses are called "odd-toed" animals because they only have one hoof on each foot. They feed by grazing on grasses and shrubs, live in open country, and are fast running animals that depend on speed to escape from predators. Horses have highly developed senses of sight, hearing and scent. An adult has 40 teeth, a long face and large ears."

Read carefully through this rubric to ensure that you understand how you will be assessed.

RUBRIC:

1	2	3	4
No attempt made to use a formal register	Some attempt made to use a formal register	Good attempt made to use a formal register	Excellent attempt made to use a formal register
Information was not written in the form of factual statements	Some Information was written in the form of factual statements	A pleasing attempt was made to write information down in the form of factual statements	All Information was written in the form of clear and informative factual statements
No evidence of punctuation	Some evidence of punctuation	Evidence of good understanding of punctuation rules.	Excellent punctuation applied throughout paragraph
Predominant code:			

RUBRIC SAMPLE 20: (English First Language)

TASK: Signed sealed and delivered!

LO 4:

Writes different kinds of texts for different purposes and audiences
 Applies knowledge of language at various levels: writes a topic sentence and includes relevant information to develop a coherent paragraph; uses appropriate grammar, spelling and punctuation.

Date:

Using a friendly letter format that you learned last year, write a letter to a friend or relative explaining what you have been doing in class in English over the past few weeks. Write one paragraph explaining how you were put into groups and how you built your toy theatre. Write a second paragraph about the script that you had to develop and the play that you put on. Make a special effort to recount your experiences using descriptive adverbs and adjectives. Remember that you do not have to use a formal register as you are writing a friendly letter to someone who is close to you.

Read the rubric below to ensure that you understand how you will be assessed.

RUBRIC:

1	2	3	4
Friendly letter format not produced with accuracy	Parts of the friendly letter format produced accurately	Most parts of the friendly letter format produced accurately	All parts of the friendly letter format produced accurately
Little attention paid to correct punctuation.	Some attention paid to punctuation	Good attention paid to correct punctuation	Excellent attention paid to correct punctuation
Many grammar errors evident	Grammatical errors evident that should have been mastered	Satisfactory mastery of grammar evident	Excellent mastery of grammar – no grammatical errors evident
Very many spelling errors evident – no evidence of spelling rules be mastered	Some evidence of spelling rules been mastered	Satisfactory mastery of spelling evident	Excellent evidence of spelling competence
No adverbs or adjectives used	Very few adverbs and adjectives used	A number of adverbs and adjectives used	Excellent use of adverbs and adjectives
Content is very limited and insufficient	Content is rather brief and lacking in detail	Adequate content and detail	Excellent content and detail
Predominant code:			

Appendix G

Bloom's adapted Taxonomy of the cognitive domain

COMPETENCE		SKILLS DEMONSTRATED	QUESTION CUES	EXAMPLES / TRIGGER QUESTIONS	ACTIVITIES
KNOWLEDGE (Bloom) REMEMBERING (Anderson)	<p>Information gathering 1. recalling (LTM) 2. recognising (LTM & WM)</p> <p>REMEMBER RECALL REPEATING</p> <p>Recall of facts, terminology, etc.</p> <p>Remembering: Retrieving, recognizing, and recalling relevant knowledge from long-term memory.</p> <p>1. Retrieve relevant information from LTM 2. Locating information in memory that is consistent with presented material (Working memory)</p>	<ul style="list-style-type: none"> • observation and recall of information • knowledge of dates, events, places • knowledge of major ideas • mastery of subject matter 	<p>WHAT? list, define, tell, describe, identify, show, label, collect, examine, tabulate, quote, name, who, when, where, repeat, identify, what, enumerate, retell, match, read, record, reproduce, copy, select, retrieve, state, write, memorise, give, recognise, recite</p>	<p>dates, events, places, vocabulary, key ideas, parts of diagram, 5Ws</p> <ul style="list-style-type: none"> • What happened after...? • How many...? • Who was it that...? • Can you name the...? • Describe what happened at...? • Who spoke to...? Can you tell why...? • Find the meaning of...? • What is...? • How many...? • Name all the ... • Which is true or false...? 	<ul style="list-style-type: none"> • Definition • Dictionary • List events • Films • Magazine article • Newspapers • People • Radio • Recordings • Television shows • Video • Read • Recite • Make a fact chart

<p>COMPREHENSION (Bloom) UNDERSTANDING (Anderson)</p>	<p>Confirming information:</p> <ol style="list-style-type: none"> 1. Interpreting 2. Exemplifying 3. Classifying 4. Summarising 5. Inferring 6. Comparing 7. Explaining <p>CONVERGENT Comprehension of meaning / Organising Thinking.</p> <p>Reproduced or communicated without a verbatim repetition.</p> <p>Understanding: Constructing meaning from oral, written, and graphic messages through interpreting, exemplifying, classifying, summarizing, inferring, comparing, and explaining.</p>	<ul style="list-style-type: none"> • understanding information • grasp meaning • translate knowledge into new context • interpret facts, compare, contrast • order, group, infer causes • predict consequences 	<p>RESTATE/COMPARE summarize, describe, interpret, contrast, predict, associate, distinguish, estimate, differentiate, discuss, extend, cite, compare, order, classify, relate, discuss, convert, explain, group, paraphrase, restate, trace, represent, interpret, change, confirm, express, illustrate, match, transform, translate, representing, subsume, categorise, abstracting, generalising, contrast, map, measure, construct meaning</p>	<p>find meaning, transfer, interpret facts, infer cause & consequence, examples</p> <p>Organising questions:</p> <ul style="list-style-type: none"> • Compare the properties of objects or events. • Classify the causes and effects of separate events into categories. • Represent visually, verbally and with symbols the social political and economic, characteristics of Western Europe. • Order the settings of six novels based the richness of the described scenes. • Write in own words • How would you explain? • Who do you think..? • Draw a story map • Clarify why 	<ul style="list-style-type: none"> • Outline • Summary • Analogy • Causal relationships • Conclusion • Implication • Cartoon • Collage • Speech • Diagram • Graph • Own statement • Photograph • Poster • Skit • Story • Show a sequence of events • Flow chart • Retell in own words • Illustrate the main idea
---	--	--	---	---	--

<p>APPLICATION (Bloom) APPLYING (Anderson) STRICTLY NOT PART OF R. Marzano</p>	<p>Making use of information: 1. Executing 2. Implementing</p> <p>DIVERGENT</p> <p>Application of previously learned information.</p> <p>Making use of knowledge in another familiar situation (transfer)</p> <p>Normally occurs in concrete situations</p> <p>Applying; Carrying out or using a procedure through executing, or implementing.</p>	<ul style="list-style-type: none"> • use information • use methods, concepts, theories in new situations • solve problems using required skills or knowledge • generalise • brings together appropriate information 	<p>HOW? apply, demonstrate, calculate, complete, illustrate, show, solve, examine, modify, relate, change, classify, experiment, discover, sketch, collect, prepare, compute, produce, act, administer, articulate, chart, establish, use, construct, report, determine, develop, teach, transfer, choose, collect, discover, dramatise, interpret, make, model, modify, paint, prepare, produce, report, show, implement, carry out.....,</p>	<ul style="list-style-type: none"> • Apply your knowledge of swimming and weight lifting to create a new sports game for 5th graders. • Apply your knowledge of spreadsheets, mathematics and the planets we have been studying, to create a spreadsheet that calculates how much each person will weigh on each of the planets in our solar system. • Demonstrate using these objects the orbit of a planet that orbits around two stars instead of one. • Create your own pledge of allegiance to a cause or organization. 	<ul style="list-style-type: none"> • Cartoon • Drama • List • Forecast • Meeting • Map • Mobile • Painting • Project • Puzzle game • Illustration • Sculpture • Solution • Question • 3D model • Diorama to illus. an event • Write a textbook
--	--	--	--	--	---

<p style="text-align: center;">ANALYSIS (Bloom) ANALYSING (Anderson)</p>	<p>Taking part: 1. Differentiating 2. Organising 3. Attributing DIVERGENT</p> <p>Analysing: Breaking material into constituent parts, determining how the parts relate to one another and to an overall structure or purpose through differentiating, organizing, and attributing.</p>	<ul style="list-style-type: none"> • seeing patterns • organization of parts • recognition of hidden meanings • identification of components 	<p>WHY? analyze, separate, order, explain, connect, classify, arrange, divide, compare, select, explain, infer, separate, illustrate, breakdown, contrast, focus, points out, discriminate, correlate, diagram, outline, prioritize, subdivide, deconstruct, distinguish, construct, categorise, differentiate, examine, point out, survey, take apart, research, sort, subdivide, identify, point out, attribute, decipher, deduce, characterise, make inferences, scrutinize, find coherence, focus, integrate</p>	<p>recognize and explain patterns and meaning, see parts and wholes</p> <ul style="list-style-type: none"> • What events could not have happened? • How is similar to? • Other possible outcomes • Why did the change occur? • What would happen if.....? • What were the motives behind...? • What was the problem with...? 	<ul style="list-style-type: none"> • Survey • Break down an argument • Draw a conclusion • Graph • Questionnaire • Model • Report • Survey • Academic discourse • Display • Systems • Graphed information • Report of a study of... • Write a commercial to sell... • Make a family tree to show relationships • Write a biography of... • Design a questionnaire to...
--	---	--	--	---	--

GENERATING (Marzano)	<p>generating</p>	<p>Generating / constructs a framework of ideas that holds new and old information together. The step of inference could also be seen as the first step of what Bloom called synthesis or Marzano called integrating.</p> <ul style="list-style-type: none"> • Inferring refers to going beyond the available information to identify what reasonably may be true. • Predicting refers to <i>assessing the likelihood</i> of an outcome based on prior knowledge of how things usually turn out. • Elaborating involves adding details, explanations, examples, or other relevant information from prior knowledge in order to improve understanding (explanations, analogies, and metaphors). 	<ul style="list-style-type: none"> • Draw conclusions; make predictions; pose hypotheses, tests, and explanations. • Predict, hypothesize, and conclude. • Infer characters' motivation; infer cause and effect. 	<ul style="list-style-type: none"> • Hypothesize what will happen if? • Predict what would be true if • Conclude what the result will be if • What if had happened instead of? 	
----------------------	--------------------------	---	---	--	--

SYNTHESIS (Bloom)	<p>Putting together</p> <p>put together to form a new 'whole'</p> <p>Integrating</p> <p>Conceptual reasoning</p> <p>DIVERGENT</p>	<ul style="list-style-type: none"> • use old ideas to create new ones • generalize from given facts • relate knowledge from several areas • predict, draw conclusions • rewrite • discuss "what if" situations • create new ideas • draw conclusions 	<p>CREATE</p> <p>combine, integrate, modify, rearrange, substitute, plan, create, design, invent, what if?, compose, formulate, prepare, generalize, invent, speculate, rewrite, adapt, anticipate, collaborate, compile, devise, express, facilitate, reinforce, structure, intervene, negotiate, reorganize, validate, add to, construct, role play, organise, originate, draw conclusion, predict, infer, develop, hypothesise, produce, anticipate, speculate, devise, generate, originate, extend, revise, conceive, create, integrate, project, compose, alternate, give, make up, how else, theorise, propose, edit, incorporate, précis</p>		<ul style="list-style-type: none"> • Play • Poem • Book • Cartoon • Article • Invention • Game • Formulate a question • Set of rules, principles etc • Speculate on ... • Plan an alternate course of action • Song • Report
-------------------	---	--	--	--	---

CREATING (Anderson)	<p>Creating/designing:</p> <ul style="list-style-type: none"> • Generating • Planning • Producing <p>CREATING</p> <p>Putting elements together to form a coherent or functional whole; reorganizing elements into a new pattern, point of view or structure through generating, planning, or producing</p>	<ul style="list-style-type: none"> • accomplish creating tasks 	<p>CREATE</p> <p>Generate, plan, produce, hypothesising, constructing, assemble, create, design, develop, formulate, write.</p>	<ul style="list-style-type: none"> • Design a X to ZZZ • See a solution to ... • How would you rule SA? • Create new/unusual uses • Develop a proposal 	<ul style="list-style-type: none"> • Invent a machine • Design a building to house an air balloon • Create a new product to... • Write a play about... • Sell an idea • Devise a way to... • Design a cover for... • Write about your feelings regarding...
----------------------------	--	---	--	---	---

An adapted matrix of Benjamin Bloom's Taxonomy of the Cognitive Domain. This adaptation incorporated the recent work of Robert Marzano (1988) and Lorin Anderson (2001). The matrix included competencies in the taxonomy, skills to be demonstrated, appropriate verbs and assessment tools.