

From NATED 550 to the new National Curriculum: Maintaining Standards in 2009

An Umalusi Report

2009 Maintaining Standards Report

- *Accounting*
- *Business Studies*
- *Economics*
- *History*

Overview

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Acknowledgements

This research forms part of Umalusi's ongoing *Maintaining Standards* research into the standard of the NCS curriculum in relation to that of the curriculum for the *Senior Certificate* (both Standard and Higher Grades) and the cognitive demand and level of difficulty of their respective exams. While this work has primarily been undertaken to strengthen the relationships between the old and new matric examinations for standardisation purposes, the research provides insightful additional information, which Umalusi offers in support of strengthening the educational system through curriculum review and examination analysis. The research is a result of internal co-operation between three units of Umalusi: Qualifications, Curriculum and Certification (QCC); Statistical Information and Research (SIR); and Quality Assurance of Assessment (QAA).

The present research, as an organic extension of work undertaken by Umalusi in the 2008 *Maintaining Standards* project, uses the evaluation instrument developed and refined in that project. The instrument has a long developmental history in Umalusi research, but the instrument in its current form was designed by Dr Heidi Bolton and Elizabeth Burroughs. Minor changes as a result of input from the previous research to hone the tool were ably effected by Celia Booyse and Dr Sharon Grussendorff. Each of the four Umalusi teams involved in the current research would also have made small but necessary adjustments to the instrument to ensure a fit between it and their particular subject.

Ms Booyse and Dr Grussendorff, furthermore, managed the project ably together, coordinating the work of the four Umalusi teams and ensuring the necessary continuity between the 2008 and 2009 research. Furthermore, Dr Grussendorff was responsible for writing the present overview report, which is based on the findings and recommendations in the four final reports compiled by the four subject evaluation teams.

Umalusi would also like to thank and formally acknowledge the Umalusi subject teams responsible for the data analysis – both with respect to the curricula and the exams – which made this final report possible. The positive attitude within the teams and the in-depth discussions and collaboration are commendable. Some individuals, one being Mr Trevor Hall, went beyond the call of duty to get hold of documents and to assist in the finalisation of graphs and reports. The teams' unstinting hard work and willingness to be stretched by challenges must be duly acknowledged. The teams are as follows:

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Ms Carina America (Team Leader: Business Studies)

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Ms Giesela Strydom

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List of acronyms

Acronym	Meaning
FAL	First Additional Language
HG	Higher Grade
NCS	<i>National Curriculum Statement</i>
NSC	<i>National Senior Certificate</i>
SC	<i>Senior Certificate</i>
SG	Standard Grade

Glossary

<i>Applied Competence</i>	Practical application of an ability or skill
<i>Examination Guidelines</i>	The formal written explanation of required content / skills expected to be assessed in the examination, a required part of any curriculum
<i>Learning Outcome</i>	An explanation of what to be achieved by the learner through the learning process
<i>Learning Programme Guidelines</i>	Guidelines to inform teachers how they might structure a programme for learning based on the curriculum
<i>National Curriculum Statement</i>	The curriculum underpinning the <i>National Senior Certificate</i>
<i>National Senior Certificate</i>	School-leaving NQF Level 4 qualification in the GET sub-framework, written after the completion of 12 years of learning
<i>Outcomes-Based Education (OBE)</i>	The approach underpinning the NCS which places the emphasis on the learners' successful achievement of identified abilities
<i>Subject Assessment Guidelines</i>	Written guidance informing the assessment in a particular subject

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Executive summary

1. Background

In 2008, a new South African qualification, the *National Senior Certificate (NSC)* replaced the *Senior Certificate*, commonly known as 'the matric'. The examinations, based on the *National Curriculum Statement (NCS)* for Grades 10 to 12, led to the issue of the *National Senior Certificate (NSC)* exit-level qualification. In short, the *National Senior Certificate* is the new matric that replaced the *Senior Certificate (SC)*, based on the NATED 550 curricula.

The 2008 evaluation provided detailed information, which proved extremely useful to Umalusi's Standardisation and Assessment Committee in its deliberations, as it evaluated the first NSC examinations in the absence of any historical norm for standardisation. It was hence decided to extend this research in 2009 to include an additional four subjects. The new subjects included were History, Accounting, Business Studies and Economics. In addition, the findings from the curriculum research have an additional purpose: to make constructive recommendations to strengthen what are clearly already sound curricula.

The 2008 evaluation provided detailed information, which proved extremely useful to Umalusi's Standardisation and Assessment Committee in its deliberations as it evaluated the first NSC examinations in the absence of any historical norm for standardisation. It was hence decided to extend this research in 2009 to include an additional four subjects. The new subjects included were History, Accounting, Business Studies and Economics.

A similar evaluation instrument was used for the 2009 study as that used in the 2008 study, with a few small refinements made based on the experience gained from the previous research project.

2. Methodology

Chapter 2 provides a very brief overview of Umalusi's standard-determining research in order to locate the present evaluation. It goes on to provide an overview of the methodology of the current research project. This includes a description of the Umalusi evaluation teams and the documentation used in the study, and it goes on to outline the specific research questions that are addressed in the study. The research questions were considered under the two parts of the research instrument, the first part being for the curriculum evaluation, and the second being for the exam paper analyses. The key objective under the curriculum evaluation was to compare the NATED 550 curricula with the *National Curriculum Statement* in terms of the levels of knowledge and skill required. The key objective for the analyses of the exam papers was to compare the standard of the new NSC examinations with the Higher Grade and Standard Grade counterparts of the previous SC. This comparison was to lead to a determination of whether the new NSC examinations allow for discrimination among high-achieving learners who would have got an A-grade on the old Higher Grade and those at the lower end who would have passed on the old Standard Grade. The Umalusi evaluation teams were also asked to look across the range of the examinations to assess the relative

standard of the examinations, and hence make an overall assessment of the level of difficulty of the NSC examinations.

Chapter 2 also provides a description of the evaluation instruments used in this project.

3. Trends across the curricula

Chapter 3 draws together trends that have been discerned across the subject reports presented by the four Umalusi evaluation teams. This chapter looks for patterns that seem to emerge as common perceptions from the work done separately by the teams. These patterns are briefly summarised below.

Curricula content and skills

All Umalusi subject teams found that the NCS covers a higher number of topics than both the NATED Higher and Standard Grade curricula. The Umalusi evaluation teams commended the integration of topics in the NCS, and their applied nature. However, concern was expressed over the breadth of content, which could lead to superficial rote learning.

Three of the evaluation teams noted that the explicit focus of the NCS on outcomes leads to a greater specification of skills, in contrast with the NATED curricula where skills were underspecified.

Organising principle and coherence

It was found that the NCS has the strongest explicit organising principles compared with the NATED curricula. These principles are clearly described in the NCS documents. Moreover, the NCS is organised according to learning outcomes and knowledge themes, rather than traditional topic clusters. Furthermore, the NCS organising principles are integrally linked to the assessment standards per learning outcome and per grade, and they refer to the critical and developmental outcomes, which form a standard part of South African qualifications descriptions.

No clear organising principle was evident from the documentation for the NATED 550 curricula. An implied organising principle for all subjects is the content-driven nature of the NATED curricula, and the degree to which they induct learners into the related discipline.

Sequence, progression and pacing

The progression in the NCS is generally across the three years of the FET phase, whereas in the NATED curriculum, progression of skills is generally within a year and within the context of a specific topic. In most of the subjects reviewed, the NCS shows the greatest attention to sequencing, progression and pacing. The Umalusi teams found, however, that the suggested pacing of material is strenuous and unrealistic due to the breadth of the curricula, and this aspect of the NCS needs further attention.

Aims, purpose, vision, general outcomes and articulation

It was noted that both the NCS and NATED curricula list their aims and purposes clearly. Although the nuance of the way in which the aims are described differs, the curricula list similar aims for the courses. However, it is evident that the NCS is more comprehensive than

the NATED curricula in terms of the realisation of its aims, purposes and outcomes, since these are followed through more coherently in the structure and guidance given in the curriculum documentation.

Teaching approach and subject methodology

In general, it was noted by the Umalusi evaluation teams that no description is given in the NATED 550 documentation of the desired teaching or learning approaches.

On the other hand, all of the evaluation teams commented about the explicit model of Outcomes-Based Education (OBE) adopted in the NCS, and the clear exposition in the documentation of what this means and how it should be implemented. Some of the teams noted that this is backed up at a subject-specific level with clearly defined learning outcomes, assessment standards and competence descriptors. However, some of the teams expressed caution about a learner-centred and activity-based approach in the South African context, since this approach is not easy to implement in under-resourced school contexts. In addition, the teams commented that Outcomes-Based Education relies on resourceful and well-trained teachers, which is not the case in most South African classrooms.

Assessment guidance

All of the Umalusi evaluation teams found that the NCS has the most detailed assessment guidance, which includes internal and external assessment, whereas the guidance given in the NATED documentation is sketchy at best. In the NCS, both the structure and weighting of the internal and external assessment tasks are provided, and this is clearly detailed in the *Subject Assessment Guidelines* and *Examinations Guidelines* documents.

Availability and user-friendliness of the curricula

It seems that the NCS documents provide the most comprehensive guidance in several different respects, but this does tend to compromise their simplicity, and most of the evaluation teams reported these documents to be complex and lengthy. They commented on the difficulties that teachers experience in having to refer to several different documents in parallel in order to plan their teaching.

4. Trends across the examinations

Chapter 4 draws together emerging trends from the examination paper analyses within the four subjects, and across the four subjects, a highly unusual approach. The differences suggest that the standard (level of demand) within subjects is, as yet, not consistent but this ought not to be a matter for surprise or concern in qualifications that are being bedded down. It is accepted that the standard for a new qualification takes a number of years to stabilise. The attempt to look at the level of demand across subjects is intended to raise consciousness regarding the fact that a consistent approach to setting the new style of examination paper may affect certain subjects either positively or negatively. As one of the aims of the *Maintaining Standard* research is to stabilise and strengthen standards, some of the key findings are summarised below.

General comments on the difficulty levels of the 2008 and 2009 final NSC papers

Two of the Umalusi teams found that the overall standard of the NSC final papers (both 2008 and 2009) is considerably higher than that of both the Higher and Standard Grade papers of previous years. The remaining teams, on the other hand, found the overall standard of the NSC final papers to be lower than in the old HG. All four of the teams found that there is unevenness between the levels of difficulty between the 2008 and 2009 NSC examination papers.

This variation of standard across the different subjects, and between successive years within each subject confirmed again that the level of demand between subjects and amongst subjects is at this early stage uneven. Clearly, examiners and moderators alike are grappling with exemplifying the intended standard of the NSC examinations.

Comparability of A-grades in NATED 550 Higher Grade and 2009 NSC papers

Two of the Umalusi evaluation teams found that it would be more difficult for learners to score an A-grade in the NSC, than in the old Higher Grade papers. The remaining two teams concluded that the NSC should allow high-achieving candidates to score higher marks than in the previous Higher Grade examinations. Consequently, none of the evaluation teams found a neatly comparable differentiation between the A-grades for the NATED 550 Higher Grade and 2009 NSC papers.

Did the 2009 NSC papers allow for learners just passing at Standard Grade-type level to pass?

Three of the Umalusi evaluation teams found that the 2008 and 2009 final NSC examinations did not provide a sufficient percentage of questions that would allow low-achieving learners to attain a pass, and that the chances of passing the new NSC exams was lower than for the previous SG exams. The remaining team concluded that the NSC examinations allowed for sufficient distinction between learner achievement at the different levels.

The 2009 NSC papers as models for future NSC exams

Two of the four Umalusi teams commented on the suitability of the 2008 and 2009 *National Senior Certificate* examination papers as models for future *National Senior Certificate* exams, in that they assess a variety of skills and pose different types of questions, catering for different levels of challenge. The other two teams were not as supportive of the 2008 and 2009 *National Senior Certificate* examination papers as models for future exams. Their reservations included the high percentage of difficult questions in the examinations, the poor quality or lack of clarity of some of the questions, and the unevenness in the levels of difficulty between the various questions where options were available.

Language levels in the 2009 NSC papers

The Umalusi evaluation teams were again divided on the issue of the appropriateness of the language used. While all of the teams felt that the language level in the 2009 NSC examinations may unduly disadvantage second language learners, two of the teams commented that this was not necessarily a fault of the examination as such, but was due rather to the technical nature of the language in the discipline itself, or the demanding reading and writing requirements of the particular discipline.

5. Concluding comments

The Umalusi evaluation teams concluded that, in terms of the breadth and level of difficulty of the content and skills, the NCS resembles the NATED Higher Grade curriculum rather than the Standard Grade one. The NCS in all the subjects has a stronger conceptual basis, which may be somewhat undercut by the ambitious breadth of the curricula. A judicious pruning of the subject curricula is likely to enhance the depth of the learning that can take place in the time available.

The Umalusi teams argued too that the NCS offers a broader range of challenges that enable many more learners to engage meaningfully in learning, supported by a curriculum aligned to sophisticated educational and human rights principles.

The analysis of examinations indicates that, unsurprisingly, the standard for the new qualification still needs to establish itself more firmly. When it does so, it will be on its own terms, though this will require teacher training to make a concurrent contribution if success is to be ensured.

1. Background to the research project

In 2008, a new South African qualification, the *National Senior Certificate (NSC)* replaced the *Senior Certificate*, commonly known as 'the matric'. The examinations, based on the *National Curriculum Statement (NCS)* for Grades 10 to 12, led to the issue of the *National Senior Certificate (NSC)* exit-level qualification. In short, the *National Senior Certificate* is the new matric that replaced the *Senior Certificate (SC)*, based on the NATED 550 curricula.

During 2008, Umalusi conducted research which compared the NSC curriculum – the new *National Curriculum Statement (NCS)* – and exams (exemplars and the first 2008 papers) to those of the *Senior Certificate*, both Higher and Standard Grades, in order to gain an understanding of the quality and levels of cognitive demand of the new curricula for six of the so-called gateway subjects. The primary purpose for this research was to ensure continuity of standard between the old and new qualifications for a variety of Umalusi's standardisation processes. For this process, an evaluation instrument, based on previous Umalusi research (2006-2008), was developed that addressed key areas in curriculum and examination analysis.

The 2008 evaluation provided detailed information that proved extremely useful to Umalusi's Standardisation and Assessment Committee in its deliberations as it evaluated the first NSC examinations in the absence of any historical norm for standardisation. It was hence decided to extend this research in 2009 to include an additional four subjects. The new subjects included were History, Accounting, Business Studies and Economics.

A similar evaluation instrument was used for the 2009 study as that used in the 2008 study, with a few small refinements made based on the experience gained from the previous research project.

The remainder of this report is structured to provide the following. In Chapter 2, a brief overview of Umalusi's standard-determining research is given in order to locate the present evaluation. Chapter 2 goes on to give an overview of the methodology of the research project. This includes a description of the Umalusi evaluation teams and the documentation used in the study, as well as outline of the specific research questions that are addressed in the study. A brief description is given of the evaluation instruments used in this project.

Chapter 3 draws together trends that have been discerned across the subject reports presented by the four evaluation teams. This chapter looks for patterns that seem to emerge as common perceptions from the work done separately.

Chapter 4 similarly draws together emerging trends from the examination paper analyses. This chapter also highlights differences between the results of the analyses from the various subject teams, which suggest that the standard (level of demand) of examinations across years within a single subject has yet to settle for this new qualification. Furthermore, the comparison across the subjects indicates that the level of cognitive demand is as yet differently understood, as examiners and moderators grapple with creating a single, integrated paper rather than two at different levels, as was the case with the Senior Certificate.

The more detailed and nuanced findings on which Chapters 3 and 4 are based will be available as individual subject reports, published separately and available on the Umalusi website. These reports will allow readers to see for themselves how the teams analysed their subjects, and came to their findings. Finally, it is worth noting that, though the teams worked with the same instrument, they grappled with the data in different ways, depending on the particularities of their subject. Each team has therefore worked slightly differently to the others, and reported on their findings in ways best suited to their subject.

The report ends with some concluding comments in Chapter 5.

To sum up, the overview report – and the individual reports – identifies much to be commended in the NCS. It also reports on areas where, through review and the training of examiners, moderators and teachers, the curriculum and the exams can be made better still.

2. Methodology of the research project

2.1 Background

Umalusi has an extended history of research that has had as its primary purpose the establishment and understanding of the standard of the South African matric – first the *Senior Certificate* (Umalusi, 2004, 2005, 2006, 2007, 2008), and more recently, its successor, the *National Senior Certificate* (Umalusi, 2009a,b,c). The initial research focused upon the level of cognitive demand of the *Senior Certificate* examinations, which were compared to determine whether the standard of the matric examinations had dropped, remained constant, or improved over time. Later research compared the *Senior Certificate* with other similar qualifications both locally and elsewhere in Anglophone Africa, and at this point the curricula concerned were drawn into the analysis. With each research project, the brief provided to the evaluators became more specific, until the process of the development of the instruments used in Umalusi's research itself became the focus for self-reflection in the 2007 report, *Making educational judgements*.

Then, in 2008, with the *Maintaining Standards* project, the criteria emerging from the curriculum analyses undertaken in the *Learning from Africa* project were transformed into a very much more structured instrument that allowed for both qualitative and quantitative reporting on the similarities and differences between the NATED 550 curricula for the *Senior Certificate*, and the NCS, which underpins the *National Senior Certificate*. Similarly, the instruments used previously for comparing examinations were revised and refined in order to provide an item-by-item analysis, which helped evaluators to determine both the cognitive demand and the level of difficulty of the papers. The detailed information that the 2008 evaluation provided was commissioned as a critical support for Umalusi's Standardisation and Assessment Committee in its deliberations as it evaluated the first NSC examinations in the absence of any historical norm for standardisation. A further use of the report will also be to make recommendations in order to strengthen the subject curricula, especially with regard to the careful reduction of content and a more pointed focus on the discipline-related skills required for achievement in the subject.

2.2 Umalusi evaluation teams and processes

The Umalusi evaluation teams were selected for each of the four subjects (History, Accounting, Business Studies and Economics) based on their knowledge and experience of the subject area and the education system. Each Umalusi team comprised the following members:

- an Umalusi moderator with at least five years' experience as a moderator,
- a subject methodology expert from a university school of education or equivalent, with at least three years of experience in that position,
- a subject advisor with at least five years of experience in that position, and
- a teacher who is considered by subject advisors to be an excellent teacher, with at least 10 years' teaching experience and a year or two of exam marking experience.

The Umalusi evaluation teams met for a two-day workshop to be briefed in detail about the project and the evaluation instrument. The groups then worked with the various curricula and examinations using the evaluation instrument. The teams met for an additional two working sessions, the last of which took place soon after the 2009 NSC examinations were written, to allow for examination analysis. In between the workshops, individual team members worked on different parts of the data for the team. The subject methodology expert played the role of the team leader and took responsibility for the compilation of the final report on behalf of the subject team.

A change in methodology arising from the experiences of the 2008 evaluation teams has meant that each team has produced a single report in which the team had, together, to find consensus. It was felt that streamlining the process lost none of the individual insights and reduced the onus on the team leader, who previously had to create a unified report from the team members' individual reports. The current project design consequently allowed the teams to meet for longer in order for the process to be a joint one.

2.3 Documentation used

Umalusi provided the following documentation for the curriculum analysis:

- NATED 550 syllabus documents for Higher and Standard Grade (HG and SG) versions of the curriculum
- Examination-setting guidelines for NATED 550 HG and SG, where these were available
- *National Curriculum Statement* for Grades 10 - 12
- *Subject Assessment Guidelines* for Grades 10 - 12
- *Learning Programme Guidelines* for Grades 10 - 12
- *Examination Guidelines* for Grades 10 - 12

The most recent version of each of these curriculum documents was consulted for each subject.

Various additional documents had been developed for many of the subjects during the time in which these main documents were in use (between 1996 and 2009). Where available, these additional documents were included in the research.

The following documentation was considered for the exam paper analyses:

- For the NATED 550 system, 2005 - 2007 examination papers, plus marking memoranda. All papers were included. For most subjects, this number of papers included Papers 1 and 2 for Higher and Standard Grade levels respectively. For all subjects barring Business Studies, all of the papers were nationally set, and locating the papers was relatively straightforward. In the case of Business Studies, the 2005 examination was set at a provincial level. It was therefore decided to look only at the 2006 and 2007 NATED examinations.
- For the final 2008 and 2009 exam paper analyses, the NSC exam papers and memoranda issued by the Department of Education were considered.

2.4 The research questions

It is important to note that in asking the research questions which compare the NSC to the SC, there was no assumption that the earlier curricula were in any way "right", or even that either the old Higher or Standard Grade represented the standard to be emulated. The NATED 550 curricula and examinations were used because they represent a standard that was generally understood within the South African education environment, it is assumed that, as the NSC established itself as the new school-leaving certificate, it will develop the necessary standards in its own right, based on the requirements of the new curricula.

The specific research questions for the present study were considered under the two parts of the research instrument, the first part being for the curriculum evaluation, and the second for the exam paper analysis.

The two specific research questions for the curriculum evaluation were:

1. Is the assumption that the NATED 550 curricula and the *National Curriculum Statement* require similar levels of knowledge and skill in order to pass a justifiable assumption? Regarding the levels of cognitive difficulty comprised by the three curricula, how do the *National Curriculum Statements* rank against the NATED 550 Higher Grade curricula and the NATED 550 Standard Grade curricula respectively? Are the NCS curricula comparable to the Higher Grade or Standard Grade curricula, or to mixtures of the two previous curricula? If the level of difficulty of the NCS curriculum for the subject in question is somewhere between that of the earlier Higher Grade and Standard Grade curricula, namely what percentage of the NCS questions were at the NATED 550 Higher Grade level, and what percentage were at the NATED 550 Standard Grade. For example, would it be, say, 60:40 HG to SG – based on actual counts of ratings recorded for all preceding sets of questions?
2. Based on your whole evaluation of all of the aspects of the curriculum featured in the Umalusi curriculum evaluation instrument, what would your comments and recommendations be to the Department of Education regarding the curriculum for your subject?

The specific questions for the analyses of the exam papers were:

3. Do the 2008 and 2009 final papers allow for learners who would have achieved A-grades in the old Higher Grade papers to achieve A-grades in the new NSC exams, where the new A-grades are comparable to the old Higher Grade A's? (Indication of the final NSC items that would reflect this new A-grade achievement needs to be provided. Responses relating to this research question and all those that follow must be based on specific findings from the body of the exam report.)
4. Do the 2008 and 2009 final papers allow for the average learner passing at the level of the old Standard Grade papers to pass the new NSC exams? (Indication of the exemplar and final NSC items which would allow the Standard-grade level learners to pass needs to be provided.)
5. From the analysis of the 2005 - 2007 *Senior Certificate* examination papers, were the examinations of a roughly comparable standard across the three years? Or is there any particular year, or even paper, that seems to be anomalous? (Motivation and evidence need to be provided for the position taken.)

6. What distinguishes most significantly the Higher from the Standard Grade exams? (Responses are again to be based on specific findings in the body of the report.)
7. From the analysis of the Higher and Standard Grade papers, how do the 2008 NSC final papers compare? And how do the 2009 NSC final papers compare with the 2008 papers on the one hand, and the Higher and Standard Grade papers on the other? Are there any points of comparison not already covered?
8. Are the 2008 and 2009 final papers good models for future examinations, or should their format be critically re-examined immediately? Suggestions need to be specific.
9. How appropriate are the language levels in the 2008 and 2009 final exam papers?

While Umalusi evaluators were required to adhere to the basic structure and detail of this evaluation instrument, they were also asked to customise parts that needed to be adapted for particular school subjects. Differences between subjects emerge in the detailed reports on each, which are available in the separate subject booklets.

2.5 The evaluation instrument

The comparative analysis of different curricula and examinations requires consideration of various factors. The core variables selected in this research study are summarised in the table below.

Table 1: Core variables selected for comparison of curricula and examinations

Assessment of:	Course structure and teaching	Assessment
Breadth	Scope of topics and skills covered	Examinable versus non-examinable topics
Depth	Teaching time allocated to cover topics	Weighting of exams on different topics
Difficulty	Nature of topics covered (cognitive demand)	Level of challenge of exam questions
Applicability	Extent of application and local contextualised focus	Theoretical versus applied / contextualised
Curriculum structure	Organising principle, aims, clarity of guidance given in documents	Coverage of curriculum content and skills (learning outcomes)

These factors underpin the curriculum and examination evaluation instrument used by Umalusi in the present study. A full outline of the Umalusi evaluation instrument that was used in the 2008 *Maintaining Standards* project is available in that report (Umalusi, 2009). Consequently, only a brief overview of this instrument will be provided here.

A. Curriculum evaluation instrument

The curriculum evaluation instrument requires the evaluators to compare and report on a number of significant curriculum elements. These elements, which are itemised below, became the headings for each Umalusi subject team's report. (The numbers in brackets below refer to the sections and sub-sections of the curriculum evaluation reports.)

(1) Content and skills specification and coverage

Here evaluators were asked to consider the content and skills of the curricula, in light of the specification, weighting, and focus of these.

(1.1) Content specification

The Umalusi evaluation teams were asked to draw up a full list of content topics for their subject, with separate columns for each of the three curricula. This enabled them to indicate which of the content topics were specified in each curriculum, and whether or not these were examinable. Evaluators were also asked to make and record judgments as to the levels of difficulty of each topic, as *difficult*, *moderate*, or *easy*. From this data, the teams could draw conclusions as to the breadth and difficulty of the content included and examinable in the respective curricula.

(1.2) Content weighting

Evaluators were to determine, where possible, the amount of time specified in the respective curriculum documents to be spent on different content areas. This was used to provide additional information on the comparability of the various curricula.

(1.3) Content focus

The evaluators were asked to comment on the overall content focus in the respective curricula. To do this, they categorised each content topic as *discipline-specific*, *generic*, or *everyday*. A content topic is considered *discipline-specific* when it is specifically applicable to the further study of the subject under evaluation. It is considered *generic* when it is relevant for school subjects outside of the subject in question. A topic would be classified as *everyday* when it is relevant for everyday life outside of the classroom context.

(1.4) Skills specification

The Umalusi evaluation teams compiled tables that listed the skills for their subjects, with separate columns for each qualification, indicating which of the particular skills was specified in that qualification and whether or not these were examinable. The teams also assessed the difficulty levels of these skills (as *difficult*, *moderate*, or *easy*).

(1.5) Skills weighting

Umalusi evaluators were then asked to determine the weighting of the skills in the various curricula, in terms of the amount of time specified in the curriculum documentation.

(1.6) Skills focus

The *skills* focus in the respective curricula was determined by categorising each individual *skill* as *discipline-specific*, *generic*, or *everyday*. As for the content topics, skills are considered *discipline-specific* when they are specifically applicable to the further study of the particular subject. Skills are described as *generic* when they are relevant for school subjects other than the subject being evaluated. They are considered *everyday* when they are directly relevant for life outside of the classroom.

(2) Organising principle and coherence

Umalusi evaluators were asked to determine whether there are organising principles underlying the various curricula. The Umalusi teams were asked to provide descriptions of these principles, and to comment on the clarity with which they are elaborated on in the documentation.

(3) Sequence, progression and pacing

Evaluators were asked to find evidence of progression in the content and skills covered within a curriculum in any given year, and from one school year to the next. The assumption is that

progression should be evident in the conceptual development of content and skill areas, as well as in increasing levels of cognitive complexity within and across years.

(4) Aims, purpose, vision, general outcomes and articulation

The Umalusi evaluation teams were required to assess the clarity of the aims of each curriculum being evaluated, and the link with the content, skills, sequencing, progression, and pacing of the curricula. The Umalusi teams were asked to describe the aims, as well as the guidance given for achieving these aims. They were also asked to comment on how the possible contexts within which the curricula were to be implemented were taken into account, and whether articulation with other parts of the system was outlined in the documents.

(5) Teaching approach and subject methodology

The Umalusi evaluators were asked to assess the general and subject-specific teaching methodologies that are outlined in the various curriculum documents. The Umalusi teams were asked to describe the approaches, and to comment on their suitability for the learning contexts, the content and skill included in the curricula, and the interests and capacities of learners for whom the curricula were intended.

(6) Assessment guidance

The Umalusi evaluation teams were asked to assess the quality of guidance given in the various curricula for internal and external assessment. They were asked to describe the numbers and types of tasks, the weightings for the various tasks, and the evaluation criteria to be used in assessment.

(7) Availability and user-friendliness of the curricula

The Umalusi evaluators were asked to comment on the overall accessibility and user-friendliness of the documentation for the respective curricula.

(8) Concluding tasks

The Umalusi evaluation teams were asked to provide clear concluding statements that addressed the research questions described in Section 2.4 of this report. The conclusions were to be justified using the various findings in the report.

B. Examination analysis instrument

(1) Exam paper analysis reporting format

Evaluators were asked to use Table 2 (over page) to report on their analyses of the 2005–2007 NATED 550 Higher and Standard Grade papers and their NSC counterparts. In this table, they were to report on the following per question (or per subsection of the question, whichever was the smaller of the units):

- The exam paper code, question or item number, the maximum mark for, and the type and level of cognitive difficulty of each item. This information was to be used to assess the relative levels of difficulty of the papers;
- The content and skill topic areas (as listed for the first task in the curriculum evaluation) and the suitability of the item for use in future exam papers. This information, together with that used to describe the difficulty levels of the items, is necessary for future use of the items for item banking and psychometric (IRT-type) analysis.

Table 2: Table for recording analysis of matric examination papers

e.g. ACCHP1							
Item	Max	Type of cognitive demand	Level of difficulty	Content/skill/ topic	Comment	NCS assessment standard	NCS PAPER
eg.1.1.1	2	Comp	Easy	Insurance: Insurable risks	Suited to the requirements for the old syllabus and the NCS in content and form	LO1 AS2	1
eg.1.1.2	2						
eg.1.1.3	2						
eg.1.1.4	2						

(2) Judgment tool for exam analyses

Evaluators were asked to judge the difficulty levels of examination questions or items using an Umalusi Tool (see Table 3 below).

Table 3: Umalusi exam paper analysis instrument showing type and levels of cognitive demand

Type of cognitive demand	Level of difficulty
Basic conceptual, knowledge - recall; - literal comprehension; - making simple evaluative judgments in terms of previously acquired facts; - etc.	Easy
	Moderate
	Difficult
Comprehension, application - understanding, application, analysis of previously acquired information in a familiar context; - making evaluative judgments that require the use of a range of previously acquired facts/information; - etc.	Easy
	Moderate
	Difficult
Problem-solving - analysis, interpretation and application of information in a new or unfamiliar context; - synthesis, creation of novel solution or product; - evaluation or making judgment in relation to a mixture of old and new material or information.	Easy
	Moderate
	Difficult

(3) Procedure for exam paper analysis

Once the Umalusi teams had completed Table 2 for each exam paper that they analysed, they went on to address the exam paper-related research questions (see subsection 2.4). In addressing these questions, the evaluators were expected to draw directly on information from the tables the teams had compiled.

3. Trends across the curricula

Although the Umalusi subject teams were working towards a common goal of assessing the comparability of the former South African NATED curricula and exams with those of the newly developed NCS, the individual reports each have a unique flavour, with particular details that are of interest to the subjects in question. However, there are overarching trends that can be gathered from the various subject reports. These trends are briefly described below.

3.1 Curriculum content and skills

In order to be able to assess the comparability of the NCS with the NATED Higher and Standard Grade curricula, all of the Umalusi teams focused predominantly on the content and skills described in the curricula. These will therefore be given the greatest emphasis here.

3.1.1 With regard to content specification

In general, it was found that the NCS covers more topics than both the NATED Higher and Standard Grade curricula. The Umalusi evaluation teams commended the integration of topics in the NCS, and their applied nature. However, concern was expressed about the breadth of content, and it was felt that the teaching time available to cover such a wide range of topics would compromise the depth at which learning could take place.

For **Accounting**, the stated purpose of the NCS is a focus on three main fields, namely, Financial, Managerial and Auditing Accounting. By contrast, the NATED curriculum focuses heavily on only one Accounting discipline, namely, Financial Accounting. The evaluation team felt that the new content that has been introduced into the NCS is important, since the inclusion of the two additional Accounting fields makes it a more broad and relevant subject for learners, with greater emphasis on applied competence. This does mean, however, that there is substantially more content than in the NATED curriculum, and the team felt that the content under the Financial Accounting field could be reduced. Overall, the NCS covers 50 topics, as opposed to the 34 topics in the NATED HG curriculum, and 25 in the NATED SG curriculum. More topics are examinable in the NCS (35) compared to the NATED HG curriculum (31) and especially the NATED SG curriculum (22).

The **Business Studies** evaluation team found that, in addition to covering all of the topics covered in the NATED curricula, the NCS includes a significant amount of new content. In addition, where many of the topics are treated in a superficial manner in NATED, in the NCS a greater extent of depth and understanding is required. The team therefore concluded that, with regard to the breadth and depth of content, the NCS is more challenging than both the NATED HG and SG curricula. Overall, the NCS covers the full 31 topics included in the NATED curricula, plus an additional 23 topics. They also noted that all the content that is specified in the NCS is examinable.

Similarly, the **Economics** evaluation team found that, while there are topics that are common to both the NATED curricula and the NCS, a striking feature of the NCS is the number of new topics that have been introduced across all three grades. Where the NATED curricula cover 26 topics, the NCS cover 49 topics, which is a significantly greater number of topics. Twenty-

seven of these topics are new and unfamiliar to teachers and learners. The concern here is the implication of such loading on the pacing, rigour and depth at which these topics are covered. A significant shift in the NCS is the inclusion of topics that are typically found in level-one university programmes – for example, cost curves and graphs related to perfect and imperfect markets, derivation of the multiplier, etc. Regarding examinable topics, the team reported that the NCS examinable curriculum (24 topics) prescribes a significantly larger number of examinable topics than the NATED curriculum (15 topics). The team concluded that the NCS is definitely more difficult than the old NATED HG in terms of breadth and difficulty of content.

The **History** evaluation team noted that the NCS takes a completely different approach to History content than the NATED curriculum does. In the NCS, content is arranged in a loosely chronological order, but is organised around key themes (such as the quest for liberty; societal transformations etc.) rather than around discrete historical 'events', such as the French Revolution. An integrated approach is adopted, where links across countries and continents are highlighted. The focus is on the big conceptual ideas of liberty, power alignments, human rights, globalisation, etc. The NCS begins the content in the year 1450 and ends in the 1990s, while the NATED historical curriculum begins in 1789 and ended in the 1990s. Thus, the NCS certainly covers more content, and does so in less depth than the NATED curriculum. The NCS adds in a number of new topics to the FET phase. Many of these are completely unfamiliar to many teachers, such as globalisation, pseudo-scientific racism and Social Darwinism, re-imagining Africa after the collapse of the USSR, and the nature of heritage icons. The team felt that, although it is not wholly possible to conclude that the content is more difficult, the inclusion of these new topics is likely to be experienced as difficult. Hence, in terms of the breadth and difficulty of content, the NCS is likely to be experienced as more challenging than both the NATED HG and SG curricula.

In conclusion, then, it is clear that across all four subjects, the NCS is a more modern and integrated curriculum than the previous NATED curricula, and allows more scope for a breadth of educational engagement by learners. The intention is that learners engage deeply with content within a skills development paradigm. However, the breadth of content in the NCS implies that learning could take place at a superficial level, undermining the skills-based intention of the curriculum. The new content and approaches that have been introduced are unfamiliar to teachers, and this has meant that the NCS as a whole would be perceived as a great deal more demanding than its NATED counterparts. The intention expressed within the curriculum is clearly to provide a more robust general education for a wider range of learners, while allowing those who are academically competent to achieve well. It is clear that with a thoughtful reduction of the breadth, learners will be able to engage more meaningfully and in depth across the three years of learning.

3.1.2 With regard to content weighting

The NATED curriculum does not provide any indication of the amount of class time that should be spent on each topic. The **Economics** and **Business Studies** evaluation teams found that for their subjects, broad weightings are given for the modules of work within each grade, which served as an approximate guide to teachers on the percentage of class time that should be devoted to each module. However, this does not provide sufficient guidance on teaching time to be allocated to each topic.

The NCS *Learning Programme Guidelines* provide examples of Work Schedules that reflect the integration of various assessment standards within each section of work. Time frames are provided in weeks for each section of work in each grade, and appear to work towards

a 39-week academic year, which the evaluation teams considered impractical. The 2008 academic year as published by the Department of Education comprised 41 weeks in total. Allowing for time to be devoted to midyear examinations (1½ weeks), year-end examinations (2 weeks), public holidays during term time, special events (e.g. leadership camps) and consolidation of work, the evaluation teams felt that it would be more appropriate to work towards a 36-week academic year. The **History** evaluation team noted that it is not possible to know to what extent teachers follow the Work Schedule, and they further commented that the schedule illustrates how the designers of the curriculum seem to have chosen breadth over depth.

Given the extended breadth of topics to be covered for each of the subjects considered in this study, all of the evaluation teams felt that it would be very difficult to fit the entire curriculum into the suggested time frames proposed in the NCS documents.

For the four subjects considered in this study, each topic was subjectively rated in terms of perceived level of challenge, and rated as *easy*, *moderate* or *difficult*. The **Accounting** evaluation team's analysis reflected a concentration of *moderate* topics for NATED HG and SG, whereas the NCS reflects a greater spread across the range of *easy*, *moderate* and *difficult* challenge. The **Business Studies** evaluation team found that there were more *difficult* and *moderate* topics in the NCS than the NATED curricula. The **Economics** evaluation team reported that the percentage of *difficult* topics has increased from 14% in the NATED curricula to 21% in the NCS. The **History** evaluation team were unable to allocate levels of difficulty to the various topics due to the nature of their subject. They did, however, comment that unfamiliar topics would be *experienced as difficult*, which would result in the NCS being perceived as more challenging than the NATED curricula. That lack of familiarity of certain topics would presumably fall away in time.

3.1.3 With regard to content focus

The evaluators were asked to comment on the overall content focus in the respective curricula. To do this, they categorised each content topic as *discipline-specific*, *generic*, or *everyday*. Most of the Umalusi evaluation teams found that the NCS has a greater percentage of generic content than the NATED curricula.

The **Accounting** evaluation team found that, for their subject, the percentage of *discipline-specific* knowledge is high across all three curricula due to the technical nature of many Accounting applications, which are not covered in any other subject. The noticeable increase in generic knowledge in the NCS was attributed to the specification in the NCS of basic theory concepts on topics such as business enterprise and ethical and professional concepts, which could be related to learners' everyday lives.

Similarly, the **Business Studies** and **History** evaluation teams concluded that NATED is more discipline-specific than the NCS. They attributed this to the integrated nature of the NCS, which focuses more on outcomes than purely on content. The **History** evaluation team cautioned that the NCS content also takes an explicit value focus on particular topics.

The **Economics** evaluation team found that the focus of the content was similar for the NATED and NCS curricula.

3.1.4 With regard to contextualised focus

This aspect deals with the extent to which a curriculum is contextualised, or related to specific countries, cultures and environments. All of the subjects found that the NCS has a high degree of local contextualisation of its curriculum and topics, and that this is made explicit in the curriculum documents. This is a significant strength of the NCS. The application of subjects to everyday contexts is emphasised in the introductory chapters of the NCS, and is reflected in a number of the assessment standards where the content and skills to be covered are outlined. A number of other assessment standards also reflect this desired focus.

Regarding guidance given for teaching the curriculum in different social contexts, there is little evidence that varying contexts have been considered in the NATED 550 documentation, other than some of the objectives stated, such as, “develop the pupils’ understanding and adaptation to their social environment” and “promoting an understanding for and an appreciation of the preparation for their place in an economic environment”.

In the NCS, the context of social transformation in South Africa is clearly addressed, and so are the differing contexts of learners. This is demonstrated in the valuing of indigenous knowledge systems, and in an acknowledgement of human rights, inclusivity and socioeconomic justice. The evaluation teams found that the NCS content is situated in a familiar context from learners’ everyday life experiences, and the application to everyday life can be easily recognised and appreciated. Some Umalusi evaluation teams felt that, to some extent, this approach mediates the challenge of the high number of theoretical topics covered in this curriculum.

The Umalusi evaluation teams found that, in general, the NCS appears explicitly sensitive to the resources available at schools, and offers alternative teaching and assessment methods when resources such as specialised equipment, PowerPoint presentations, etc. are not available. On the other hand, the evaluation teams commented that there is insufficient acknowledgement of the extent of the under-resourced nature of South African schools, and that the evidence-based, mode-of-enquiry approach is easier to implement in schools with many resources. There is also insufficient acknowledgement of the under-preparedness of many of the teachers in South African schools, making it extremely unlikely that these teachers will be able to design their own learning programmes and meaningful activities.

The **History** evaluation team commented that the NCS takes a much stronger view that History should develop democracy and human rights, while the NATED curriculum cautions that ‘attitudes and values cannot be tested’. NATED seems to support the development of the individual, while the NCS supports the view that individuals should use their agency to change the world for the better.

3.1.5 With regard to skills specification and weighting

Three of the Umalusi evaluation teams noted that the explicit focus of the NCS on outcomes leads to a greater specification of skills, in contrast with the NATED curricula, where it was left up to the individual provinces to further clarify these skills.

The exception was the **Economics** evaluation team, which did not find skills explicitly stipulated in either the NCS or NATED documents. They found that the skills could be inferred from the assessment standards of the NCS, and that in the NATED these are implied under certain content topics.

The **Business Studies** evaluation team identified 38 skills in the NCS *Learning Programme Guidelines*, and recorded none for the NATED curriculum since these are not explicated at all. The Umalusi evaluation team recommended that a more *subject-defined* list of skills should accompany the curriculum documentation, since not all teachers have the knowledge and understanding of how to implement these in the classroom. They concluded that the NCS may be considered a more application-based curriculum because of a greater focus on skills and competencies compared with the more content-based NATED.

The **History** evaluation team observed that although skills are briefly described in the NATED 550 documentation, they are essentially the same skills that are described in greater detail by the NCS. Furthermore, they felt that it may be argued that the way in which the learning outcomes are written may lead to a false distinction between substantive history knowledge (the what) and procedural knowledge (the how). However, this was never the intention of the curriculum. They further argue that the skills evaluated in the NCS are more comparable to those of the NATED HG, which appears to leave little room for those with skills levels equivalent to those of the SG candidate.

The **Accounting** evaluation team compiled a list of 30 distinct skills, and found that where all 30 of these skills are indicated in the NCS, only 14 are listed in the NATED HG and 9 in the SG. Hence, in terms of breadth of skills, the NCS is more demanding than either the NATED HG or SG. In terms of cognitive demand, the NCS shows a more even spread across different levels of difficulty than the skills required in the NATED curricula. A heavy focus on preparing and recording skills was observed under the NATED HG and SG curricula. Under the NCS, there is increased focus on conceptual topics (to support applied competence in the subject) and on analysis, interpretation and evaluation skills (to support the progression of content towards higher order thinking skills). The **Accounting** evaluation team concluded that the NCS provides a more valuable educational experience for learners who may wish to enter one of the career fields of Accounting. The NCS also offers a more valuable experience to those learners wishing to embark on entrepreneurial or general managerial ventures (particularly due to the increased focus on costing, budgeting, and internal control), or to those wishing to use the subject discipline as a life skill (particularly due to the increased focus on budgeting, internal control and business ethics).

On the whole, the Umalusi evaluation teams found that the skills are very generically described in the NCS, since they are expressed in terms of assessment standards, and could apply to any formal school subject. It is only when they are linked to the disciplinary knowledge that they take on a discipline-specific nature. Since teachers do not necessarily know the skills inherent in the various disciplines, a more subject-specific list of skills would contribute considerably toward ensuring that learners acquire the necessary discipline-related conceptual and procedural skills.

3.2 Organising principle and coherence

A clear organising principle is important in the structure of a curriculum, since this enables learners to construct their knowledge meaningfully. Absence of an organising principle could therefore contribute to the level of difficulty of a curriculum, since learners would not have a framework in which to meaningfully construct their knowledge.

For most of the subjects included in this study, it was found that the NCS has a much stronger and more explicit organising principle than the NATED curriculum. These principles are clearly described in the NCS documents, and are very coherent.

In the NATED 550 documentation, no explicit organising principle is evident or stated. An implied organising principle for all of the NATED subjects appears to be the intention to induct learners into the related discipline, with the particular intention being for learners to continue with further study in these disciplines, which resulted in the content-driven nature of these curricula. By contrast, the focus of the NCS is broader, aiming more at developing broad literacy and life-related competencies in learners. However, it is cautioned that the broad and integrated nature of the NCS may make it more difficult for learners to construct their knowledge meaningfully *within* the disciplines. While this integration of knowledge is a worthy goal, many learners would probably find it easier to learn key topics separately before integrating these, so that they can readily identify the concepts and constructs of the discipline.

3.3 Sequence, progression and pacing

Progression is evident when the content and skills in a course increase in cognitive demand within a given grade or level, and from one grade to the next. The sequencing and pacing of material in the course therefore needs to be appropriately structured to allow for this development. This curriculum strategy allows learners to build on foundations laid in earlier years, and to recognise the progression and the increasing conceptual demands being placed on them in later years.

The NCS and NATED curricula were considered in this light. The progression in the NCS is generally across the three years of the FET phase, whereas in the NATED curriculum, progression in skills is generally within a year and within the context of a specific topic. In most of the subjects reviewed, the NCS shows the greatest attention to sequencing, progression and pacing. An exception is the **History** curriculum content, where sequencing and progression are usually informed by the principle of chronology. Both the NCS and NATED History curricula follow a chronological unfolding, though this is more tightly adhered to in the NATED curriculum.

The NCS specifies content by year of study, and builds progressively on concepts across grades, facilitating vertical progression and increasing cognitive complexity. A fair degree of guidance is given to teachers in this regard. At the same time, the evaluation teams commented that the pacing is regarded as too strenuous by many teachers, or that insufficient time is provided for different aspects of the curriculum. The attention to conceptual foundations, sequencing and progression is a strength of the NCS, which could be strengthened by greater attention to the issue of pacing to make this more realistic and achievable.

3.4 Aims, purpose, vision, general outcomes and articulation

The Umalusi evaluation teams were required to assess the clarity of the aims of each curriculum, and the link with the content, skills, sequencing, progression, and pacing of the curricula. The evaluation teams were also asked to describe the aims, as well as the guidance given for achieving these aims.

It was noted that both the NCS and NATED curricula list their aims and purposes clearly. Although the nuances in the way in which the aims are described differ, the curricula

list similar aims for their respective courses. However, it is evident that the NCS is more comprehensive than the NATED curricula in terms of the realisation of its aims, purposes and outcomes, since these are followed through more coherently in the structure and guidance given in the curriculum documentation. None of the NATED curriculum documents explicitly deals with how the aims should be achieved.

A concern raised by the Umalusi evaluation teams was that, because these aims are expressed fairly broadly, they may not be very useful at a practical classroom level. For example, in the case of **History**, the NCS does not give much detail on exactly how to teach this subject in order to support “democracy and human rights”. However, the NCS document does give indicators for the manner in which the assessment standards are described. Extending this support may belong in the domain of teacher education and professional development.

The **Business Studies** evaluation team expressed concerns that some of the aims may be easier to realise in urban contexts, compared to rural contexts, for example, marketing and human resource projects.

3.5 Teaching approach and subject methodology

The Umalusi evaluators were asked to assess the general and subject-specific teaching methodologies that are outlined in the various curriculum documents. The Umalusi evaluation teams were required to describe the approaches, and to comment on their suitability for the learning contexts, the content and skills included in the curricula, and the interests and capacities of learners for whom the curricula were intended.

With regard to *general* teaching/learning approaches, no description is given in the NATED 550 documentation of the desired approach.

On the other hand, all of the evaluation teams commented on the explicit model of Outcomes-Based Education (OBE) adopted in the NCS, and they felt that there is clear exposition in the documentation of what this means and how it should be implemented. This is backed up at a subject-specific level with clearly defined learning outcomes, assessment standards and competence descriptors. There are also clear descriptions of the type of teacher and learner that is envisaged. These inform the subject-specific guidance that is given in the *Learning Programme Guidelines* for each subject, which provide expressly stated links between the learning outcomes and assessment standards. These documents also provide teachers with guidance on content and resources, advice on how to achieve the learning outcomes and how to design learning programmes and lesson plans.

In addition, the NCS documents advise the teacher to explore a variety of innovative approaches such as involving applied competence (theory, application and reflection) and real-life scenarios to enhance the learning process in addressing the desired outcomes.

The suggested teaching approaches given throughout the NCS documents, such as incorporating scenarios from the outside world, research, case studies, interviewing, doing presentations and involving modern technology, wherever possible, are all appropriate for the natural learning preferences of high school learners. In addition, the more explorative discovery-based approach of the curriculum is appropriate for the naturally questioning minds of learners at this stage of development. The learner-centred approach of the NCS was commended by the Umalusi evaluation teams.

The **History** and **Economics** evaluation teams cautioned, however, that Outcomes-Based Education relies on resourceful and well-trained teachers, which is not the case in most South African classroom contexts. The History evaluation team further cautioned that one of the dangers of an outcomes approach is that the learning outcomes split off or separate the 'knowing' from the 'doing'. While, of course, the curriculum states that the learning outcomes must be used together, in practice they are often assessed separately. Particularly when teachers are not steeped in historical knowledge or in the enquiry-based process, they may focus on the outcomes in an atomistic way. This may lead to a situation where history enquiry skills are assessed apart from a deep understanding of historical knowledge.

The **Accounting** and **Business Studies** evaluation teams also observed that teaching methodologies that are advocated in the NCS involve the integration of learning outcomes and assessment standards in teaching and assessment activities. Although this would enhance the learning experience if done correctly, it was argued that many teachers may lack the conceptual knowledge to integrate these effectively.

The difficulties identified by all four teams regarding methodology associated with the integration of learning outcomes and assessment standards in assessment should be regarded more as a challenge in terms of teacher education than a shortcoming in the quality of the curriculum. Compiling a list of the discipline-related skills and key concepts may, however, help teachers to teach and examine the most critical aspects of the subject.

3.6 Assessment guidance

A comment made by the **History** evaluation team, which captures the general reservations by all of the Umalusi subject teams about the Outcomes-Based approach, reads, "The enquiry process is only meaningful when teachers are highly skilled, when they have a deep understanding of history as constructed and interpreted, and have a deep knowledge of the historical concepts. It assumes that learners have sufficient knowledge to be able to ask appropriate questions, and this is not the case in the majority of South African classrooms."

The Umalusi evaluation teams were asked to assess the quality of guidance given for internal and external assessment in the various curricula. They were also asked to describe the numbers and types of tasks, the weightings for the various tasks, and the evaluation criteria to be used in assessment.

In general, it was noted that there is little or no reference to internal assessment in the NATED 550 curriculum, and where it is mentioned, no guidelines are provided about the nature or weighting of the tasks. In some cases, *Continuous Assessment Guidelines* for NATED were issued by the various provincial education departments, but it is not clear how freely available such documents were to teachers across the country, and whether there was consistency across the different provinces.

By contrast, all of the subject evaluation teams found that the NCS has very detailed internal assessment guidance. Both the structure and weighting of the various internal assessment tasks are provided, and are detailed in the *Learning Programme Guidelines* and the *Subject Assessment Guidelines*. The recommended NCS practice of learners maintaining portfolios should help to ensure that the learners take responsibility for their own learning and provide evidence of their achievement. The NCS documents also refer explicitly to the moderation of internal assessment at school, cluster, district, regional or provincial level. Continuous assessment was generally done under the NATED curricula, but there was no formal structure

in place for maintaining evidence of this assessment. The recording and reporting of the continuous assessment was consequently haphazard and inconsistent, and as a result was difficult to moderate.

In the NATED 550 curricula, brief guidelines are provided for external assessment. These guidelines are very sketchy, mainly outlining the number of examination papers and the total number of marks allocated to each paper. Under the NCS, there are two documents that communicate guidelines on the NSC year-end examination, namely, the *Subject Assessment Guidelines* and the *Examination Guidelines*. All of the evaluation teams noted that the guidance given for external assessment is extensive and detailed in the NCS. The structure of the external examinations is well described, as well as the weighting of the various learning outcomes and content topics.

3.7 Availability and user-friendliness of the curricula

The Umalusi evaluators were asked to comment on the overall accessibility and user-friendliness of the documentation for the respective curricula.

It was agreed by all Umalusi teams that the NATED curriculum documents were freely available to all people of interest, but were not available on the Internet. The NATED national curriculum documents comprise only a syllabus and external examination guidelines. These documents were accessible due to their brevity, but tended to be too brief and sketchy in a number of areas. They were consistent in terms of subject content, but were inconsistent in terms of their correlation with the stated aims. The documents were not comprehensive in that they did not provide any form of teaching guidance or methodology, and did not discuss different forms of assessment. Although teachers generally had access to these documents, the evaluation teams commented that from their experience the majority of teachers relied on textbooks for their information.

The evaluation teams also agreed that the NCS documents were also freely available to the various people of interest, and are available on the Internet. However, there have been numerous versions of these documents released at different times, with conflicting information. Unfortunately, the versions on the Internet are not always the most recent versions, which may lead to confusion and misinterpretation of what is actually required.

The NCS documents consist of four documents, namely, a *Curriculum Statement*, *Learning Programme Guidelines*, *Subject Assessment Guidelines* and *Examination Guidelines*. The teams expressed concern about the length of the documentation when taken as a whole, and reported that teachers seem to have a great difficulty in reading and understanding the documents and working with them as tools. They also expressed concern that teachers need to reference several documents in order to plan any one lesson.

Subject advisors, teachers, and text book publishers appear to differ in their interpretation of the documents, but it should also be understood that consensus regarding a new curriculum is a gradual and cumulative process.

So, while the NCS documents provide the most detailed guidance in several respects, the extent of that support tends to compromise their simplicity and accessibility. A means of highlighting the most critical information for teachers through a simplified presentation and alternative modes of mediating the sound supporting guidance must urgently be sought.

4. Trends across the examinations

The individual exam paper analysis reports for the four subjects in this study vary somewhat from one another in their emphases. The Umalusi evaluation teams also used the Umalusi analysis tool differently. The **Business Studies** and **Economics** evaluation teams used the Umalusi instrument for evaluating the exam papers as it was given to the teams (see subsection 2.5), but the **Business Studies** team included example questions in their tool to allow for greater inter-evaluator consistency. The **History** evaluation team customised this instrument according to the needs of their subject. The **Accounting** evaluation team used the taxonomy given in the *Subject Assessment Guidelines* for their subject, which is based on the Revised Bloom's Taxonomy. The tools used by the individual subject teams can be seen in the individual subject reports. The overall trends in the teams' responses to the exam paper questions are discussed below.

4.1 Difficulty levels of the 2008 and 2009 NSC papers

Two of the Umalusi teams, namely, the **Economics** and **Business Studies** evaluation teams, found that the overall standard of the NSC final papers (both 2008 and 2009) is considerably higher than that of both the Higher and Standard Grade papers of previous years. In addition, both of these teams found that the 2009 Final NSC exam was more demanding than the 2008 paper for their subjects. This implies that the 2009 NSC examinations were set at an unrealistically high level of demand for these subjects.

The **History** evaluation team found that the cognitive demand of the 2008 NSC papers is comparable to the average SG and HG NATED papers for the source-based questions. However, there were far more basic comprehension questions and fewer interpretive questions in the 2009 papers, making this a less demanding examination over all. In terms of the extended writing/essay questions, they found that the NSC papers were very different to both the old SG and the old HG. The 2008 NSC papers allocated fewer marks to the simpler descriptive essays than the old SG did, and where the previous SG exams had not included essays requiring one's own argument, the NSC exams include a substantial percentage of marks allocated to this type of essay. On the other hand, there are fewer of these more difficult essays in the NSC exams than in the old HG.

The **Accounting** evaluation team found that, in their estimation, the NSC examinations should have been significantly easier to pass than the previous Higher Grade papers, and that the overall standard of the new NSC examinations lay somewhere between that of the previous Higher Grade and Standard Grade papers.

A matter of concern is that all four of the evaluation teams found that there is an unevenness between the levels of difficulty in the 2008 and 2009 NSC examination papers. This makes it difficult for teachers and learners to know what standard to expect, and it also results in wide variations in the results from one year to the next. However, given that these are the first two years of a new qualification, it may be expected for it to take some time for the standard and style of the examinations to stabilise. The difficulty in achieving a stable standard for the examinations may be exacerbated by the challenge posed by the fact that in the NSC, single papers are expected to discriminate between extremely high-achieving learners and those performing at low levels, whereas the two levels of the NATED examinations allowed for

a more clearly understood distinction between these two extremes of learners. The challenge of setting this type of examination is new to both examiners and moderators, and training in this respect is required.

4.2 Comparability of A-grades in NATED 550 Higher Grade and 2009 NSC papers

In terms of differentiating higher level learners, both the **Economics** and **Business Studies** evaluation teams found that it was harder to get an A-grade in the NSC, due to the higher percentage of difficult and comprehension questions, and the lower percentage of factual recall questions compared with the old Higher Grade papers.

The **Accounting** evaluation team found that there was a noticeably higher percentage of difficult questions in the NATED 550 HG papers than in the NSC papers, especially because of a greater percentage of deep problem-solving questions. This implies that the differentiation of A-grade achievement was not comparable between the NATED and NSC papers. It was estimated that learners who achieved in the region of 80% in the old HG exam could now achieve around 86% to 88% in the NSC exam, since there were fewer difficult questions in the NSC exam, allowing learners to achieve high marks more easily. In practice, however this might not have been the case for 2008 and 2009, since there was a significant change in emphasis on the three major Accounting disciplines in the NCS, and it will presumably take time for teachers to become confident in the teaching and assessing of the new content.

On the other hand, the **History** evaluation team found that, in terms of the cognitive demand of the source-based questions, the 2009 paper required a lower cognitive demand than even the previous SG papers. It would thus have been easy for previously HG candidates to score highly on the NSC source-based questions, particularly in the 2009 paper. In their estimation, it was the extended writing tasks that would have distinguished the high-achieving learners, and since there were fewer of these tasks in the 2009 NSC exams than in the previous HG exams, they concluded that the NSC would have allowed previously HG candidates to score fairly highly.

It is notable that none of the evaluation teams found a comparable differentiation among A-grades between the NATED 550 Higher Grade and 2009 NSC papers. This highlights the need for examiners and moderators to have greater understanding of how to use a single examination to discriminate top-end learners from those at other levels of achievement.

4.3 Did the 2009 NSC papers allow for learners just passing at Standard Grade-type level to pass?

Both the **Economics** and **Business Studies** evaluation teams found that the 2008 and 2009 final NSC examinations did not provide a sufficient percentage of questions that would allow low-achieving learners to attain a pass, and both teams concluded that passing the new NSC exams was more difficult compared to passing the previous SG papers.

By contrast, the **Accounting** evaluation team concluded that the NSC examinations did allow for sufficient distinction between learner achievement at the different levels. Although the

NSC reflected greater similarity to the NATED HG papers than the SG papers of previous years, there were sufficient Level 1 (easy) challenge questions in the NSC papers to have allowed the below-average learner to pass.

The **History** evaluation team reported that, although the average learner who passed on the previous Standard Grade should not have been overly disadvantaged by the source-based questions in the 2009 paper, which appeared to allocate more marks to basic comprehension questions than the average SG paper did, these learners would have found the extended writing tasks of the NSC papers more demanding than the NATED SG papers. This was because the NSC papers included a substantial percentage of essays requiring one's own argument, which were not included in the previous Standard Grade examinations at all. Overall, this team found the number of 'easy' questions was much higher in the previous SG examinations than in the NSC, and so, on the whole, it would have been more difficult to pass the new NSC exams than the previous SG exams.

4.4 The standards of Senior Certificate papers in the period 2005 – 2007

Both the **History** and **Accounting** evaluation teams found that the NATED Standard and Higher Grade examination papers appeared to require similar cognitive demand across the three-year period from 2005 to 2007, in that they assessed similar percentages of questions of the various cognitive types as well as levels of difficulty.

In the case of **Economics** and **Business Studies**, the 2005 papers were regional papers and therefore differed considerably in standard from the 2006 and 2007 papers. The Umalusi **Business Studies** evaluation team hence chose to exclude the 2005 papers from their analysis.

Regarding the distinction between Higher Grade and Standard Grade, all of the Umalusi teams found that there was a clearly understood distinction between these grade levels. The Higher Grade examinations generally contained a higher proportion of difficult questions than the Standard Grade examinations, and a greater percentage of problem-solving and application questions. The Standard Grade examinations on the whole included a greater percentage of easy questions, and more questions involving recall of factual information. The **History** evaluation team found that the Standard Grade papers allocated the majority of the marks to the simpler narrative or descriptive essays, while the Higher Grade papers allocated the majority of the marks to the more demanding argumentative essays. The **Accounting** evaluation team found that the Higher Grade papers included a greater percentage of deep problem-solving questions, while the Standard Grade papers only tested problem solving at a superficial level.

4.5 The 2009 NSC papers as models for future NSC exams

The subject evaluation teams were asked to consider the 2008 and 2009 NSC examinations as models for future examinations, and their findings suggest that there are both good qualities to strengthen and weaknesses to attend to in the setting of future examinations. The points made below are intended as constructive pointers to enhancing future examinations.

Two of the four Umalusi teams, namely, the **Accounting** and **Business Studies** evaluation teams, commented on the suitability of the 2008 and 2009 *National Senior Certificate*

examination papers as models for future NSC exams. The **Accounting** evaluation team observed that the NSC examination questioned a variety of skills that are specific to Accounting and posed different types of questions. The manner in which the questions were 'scaffolded' to cater for different levels of challenge meant that learners of differing degrees of ability could engage with each question. They commented on the value of *Applied Competence* to create a more meaningful learning experience. However, they expressed a concern that the more open-ended questions under the NSC introduce a challenge for reading and interpretation, which is especially significant for second language learners. The **Business Studies** evaluation team was similarly positive about the overall structure of the NSC examination, but the team members did express concern over the challenging nature of this exam, in that it was more demanding than even the previous Higher Grade, thus not allowing for evidence of performance by the previous average Standard Grade learner. This was possibly due to the more advanced content topics that have been incorporated into the NCS, which require problem-solving skills.

The **Economics** evaluation team expressed concern that the general structure of the examination meant that there was a much higher percentage of difficult questions, since an entire section that constituted a third of the paper consisted of difficult questions. They further found that there were several instances where the clarity of the NSC examination questions could have been better. Some questions were vague, lacking in clarity, or were ambiguous in that they did not in any substantive way signal to the learner what the expectation was.

The **History** evaluation team was of the opinion that the NSC exam papers were not a particularly good model for future examinations. The team members found unevenness in the levels of difficulty between the various questions, as well as between Paper 1 and Paper 2. They commented that the quality of the NSC papers was not good in that the kinds of sources chosen were often inappropriate, and that many of the questions asked were not historical in nature. Source-based questions tended to be fragmented, with too few marks allocated to each question.

4.6 Language levels in the 2009 NSC papers

The Umalusi teams were divided on the issue of the appropriateness of the language used in the 2009 NSC examinations. The **Economics** evaluation team was of the opinion that the language level of the 2009 NSC examination was of an appropriate level, and would not unduly disadvantage second language learners.

The **Accounting** evaluation team felt that the subject-specific terminology may have been problematic for learners whose home language was not English or Afrikaans. The conceptual, financial interpretation and problem-solving questions in the paper required explanations and comprehension skills. In spite of this, they concluded that there was no unnecessary inclusion of wordy paragraphs, and that the language level of the NSC examination was of an appropriate level.

The **Business Studies** evaluation team found that the use of complex language in the examination questions would have been very likely to disadvantage second language learners. The team members noted that the structure of the NSC examination required excellent reading and understanding abilities to cope with numerous short questions, scenarios and case studies.

The **History** evaluation team noted that second language English speakers would have found it far more difficult to engage with unfamiliar sources in an exam environment, and may have been hindered by unfamiliar vocabulary. Hence, the high percentage of marks in the NSC papers that was allocated to source-based questions would have been problematic for these learners and may have placed them at a disadvantage. The team members further noted that there is a marked tendency in the 2009 papers to use loaded words like “depth of despair”, “fraught with uncertainty, fear and anxiety”, which would have made it difficult for second language learners to decode the questions.

5. Concluding comments

The Umalusi evaluation teams were asked to provide clear concluding statements that addressed the research questions described in section 2.4 of this report. Although there are variations in these conclusions among the evaluation teams, there are some overall trends that stand out from this research.

In general, in terms of breadth and level of difficulty of content and skills, the Umalusi teams found that the NCS bears more resemblance to the NATED Higher Grade curriculum than the Standard Grade curriculum. The evaluation teams also found that the NCS is significantly different to the NATED curricula for all subjects, in that it has a stronger conceptual basis and broader learning outcomes, compared to the narrow content focus of the NATED curricula. Concerns were raised around content overload for all of the subjects, and this issue needs urgent attention to avoid learners having to resort to superficial rote learning to cover the specified content.

Despite the greater weighting on higher order cognitive skills, the NCS does offer a broader range of degrees of challenge, enabling a wider range of learners to engage meaningfully in the learning process. These include greater opportunities for learners to engage with more accessible content than offered by both the NATED HG and SG curricula.

On the whole, the NCS is a well-organised curriculum, and is aligned to sophisticated educational and human rights principles. The contextualisation and application to everyday contexts was commended by all teams. When implemented in well-resourced contexts with highly experienced and skilled teachers, the NCS should offer a meaningful learning experience. Its adaptability to the South African context, where many teachers are under-prepared, and hence not able to design the types of meaningful classroom activities envisaged in the curriculum, is a concern.

An overarching trend which emerged regarding the NSC examinations is that there seems to be a variation in the levels of difficulty between the 2008 and 2009 NSC examination papers. This makes it difficult for teachers and learners to know what standard to expect, and results in wide variations in the results from one year to the next.

A further concern regarding the standard of the examinations is that there is unevenness between the different subjects in terms of the difficulty of the examinations. Two of the Umalusi teams reported that the examinations were substantially more demanding than the previous Higher Grade examinations, while the remaining teams found the standard to be less demanding than the previous Higher Grade. There seems to be a need for greater clarity about the standard of the new NSC examinations across the different subjects to ensure that the NSC qualification as a whole has coherence and reliability.

It is hoped that, in time, the expected standard of these examinations will become more clearly understood by examiners and moderators, particularly with the need in the new NSC to set one exam which meaningfully discriminates the top and bottom end learners, as well as all the grades in between. In order to achieve greater evenness in the standard of the examinations, it is recommended that the Umalusi exam paper evaluation tool be used for the moderation of future exam papers.

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