



Report on the Quality Assurance of the SACAI November 2016 National Senior Certificate Examinations

UMALUSI



Council for Quality Assurance in
General and Further Education and Training

REPORT ON THE QUALITY ASSURANCE OF THE SACAI NOVEMBER 2016 NATIONAL SENIOR CERTIFICATE EXAMINATIONS

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EXECUTIVE SUMMARY

Umalusi is mandated by the General and Further Education and Training Quality Assurance Act (Act no. 58 of 2001, amended in 2008) to quality assure all exit-point assessment practices for all public and accredited private assessment bodies offering qualifications registered on its sub-framework. The South African Comprehensive Assessment Institute (SACAI) is one of the two independent assessment bodies conducting the National Senior Certificate (NSC) examinations.

All aspects of assessment as required for the NSC examinations and other assessment have been moderated, verified and quality assured. The purpose of this report is to present the findings reported by Umalusi's external moderators and monitors. The information contained in it serves to inform the Umalusi Council about the processes followed, the areas of good practice as well as areas where there is cause for concern. This should place the Council in a position to take an informed decision regarding the standardisation and approval of the results of the National Senior Certificate (NSC) examinations administered and presented by this assessment body, and to provide directives for compliance and improvement.

Nine aspects of the SACAI 2016 assessments and examinations have been quality assured and reported on by Umalusi staff, moderators and monitors. These aspects form the nine chapters of this report. Each chapter provides summaries and analyses of the findings of the various assessment processes:

- Chapter 1 : Moderation of the examination question papers and marking guidelines;
- Chapter 2 : Moderation of school-based assessment (SBA);
- Chapter 3 : Monitoring of the state of readiness;
- Chapter 4 : Monitoring of writing;
- Chapter 5 : Monitoring of marking;
- Chapter 6 : Marking guideline discussions;
- Chapter 7 : Verification of marking;
- Chapter 8 : Standardisation and resulting; and
- Chapter 9 : Certification

In 2016, Umalusi moderated 46 question papers for a total of 26 subjects submitted by SACAI for the November 2016 NSC examinations. Twenty percentage (20%) of the question papers were approved at first moderation, 60% at second moderation and 20% at third moderation. Umalusi moderators have commended SACAI for the noticeable improvement in the quality of question papers submitted for moderation. This report confines itself to reporting only on the quality assurance processes leading to the November 2016 NSC examinations.

Furthermore, Umalusi conducted moderation of school based assessment (SBA) administered at the various centres affiliated to the SACAI. Most of the centres were compliant with the requirements for the implementation of the SBA. Umalusi also

commend SACAI for rectifying the weightings of SBA tasks in Mathematics and Life Sciences to ensure appropriate recording. However, poor quality of tasks administered in some centres and lack of analysis grid to indicate the distribution of cognitive demands is a cause for concern.

The audit of the state of readiness (SoR) of SACAI examination office and examination centres has confirmed that SACAI was compliant in most of the requirements to administer the November 2016 NSC examinations. Twenty-two centres registered to write the November 2016 NSC examinations under SACAI were monitored during the writing phase. Despite a few administrative challenges, the conduct, management and administration of the NSC examination of SACAI were handled. Reports also show that SACAI monitored their centres adequately.

SACAI conducted the marking of the November 2016 NSC examinations in two phases. In comparison to 2015, the marking processes in 2016 were conducted more efficiently. This is owed to the more rigorous marker training conducted during both phases and the availability of senior marking personnel throughout the marking period in most subjects. Despite time constraints, the large majority of subjects indicated that they had engaged in productive discussions that informed the marking guidelines meaningfully. As a result, the conduct, management and administration of the marking of the November 2016 NSC examination scripts were executed in a very proficient manner. The marking phase of the examination can therefore be accepted as valid and credible.

The SACAI reported a few technical irregularities that occurred during the administration of the November 2016 NSC examinations. There were measures in place to deal with the eventuality of technical irregularities. For example, backup question papers were available for use when an incorrect paper was administered for Engineering Graphics and Design (EGD). The technical irregularities were reported to Umalusi and measures were put in place to address those irregularities.

Umlusi conducted onsite verification of marking on 16 NSC subjects during the marking period at SACAI offices. The selected subjects comprised of ten gateway subjects and six subjects with a practical component. The marking was rated as fair and consistent in all the subjects selected for verification. The addition of marks was mostly found to be accurate. The internal moderation was meticulously carried out and the tolerance range was also well managed.

A total of 28 subjects were presented to Umalusi in December by SACAI for standardisation purposes. The standardisation and resulting of SACAI examinations was conducted successfully on the 19 December 2016. The Assessment Standards Committee (ASC) of Umalusi Council made use of qualitative input reports from external moderators, post exam analysis reports from Umalusi independent evaluation teams, internal moderators' reports from SACAI, distribution tables and pairs analysis as a basis for the decision-making process. The adjustments of marks

occurred as follows: nine (9) subjects were adjusted upward, three (3) subjects were adjusted downward, and raw marks were accepted for sixteen (16) subjects.

The SACAI has shown a huge improvement overall in the conduct, management and administration of the NSC examination compared to the past two years. Significant improvements have been noted ranging from the setting of question papers to the actual administration of the examination. The conduct of school based assessment has also shown noticeable improvement. The SACAI's attention is drawn to the highlighted areas of concern contained in this report and urged to work on the directives for compliance and improvement.

ACRONYMS AND ABBREVIATIONS

AB	Assessment Body
AMP	Agricultural Management Practices
CALP	Cognitive Academic Linguistic Language Proficiency
CAPS	Curriculum and Assessment Policy Statement
CAT	Computer Applications Technology
CE	Chief Examiner
EGD	Engineering Graphics and Design
EM	External moderator
ELP	Evidence of learner performance
FAL	First Additional Language
GENFETQA	General and Further Education and Training Quality Assurance
HL	Home Language
ID	Identification Document
IM	Internal moderator
IT	Information Technology
KZN	Kwa-Zulu Natal
LO	Life Orientation
Ms	Markers
MCQ	Multiple Choice Question
NSC	National Senior Certificate
NQF	National Qualifications Framework
QIs	Quality Indicators
P1, P2, P3	Paper 1, Paper 2, Paper 3
QAA	Quality Assurance Assessment
SACAI	South African Comprehensive Assessment Institute
SAG	Subject Assessment Guideline
SAL	Second Additional Language
SBA	School Based Assessment
SoR	State of Readiness
Umalusi	Council for Quality Assurance in General and Further Education and Training

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CHAPTER 1 MODERATION OF QUESTION PAPERS

1.1 Introduction and Purpose

One of the aspects of the mandate of Umalusi is to ensure that the question papers for the South African Comprehensive Assessment Institute (SACAI) NSC examinations written at the end of the year and their respective marking guidelines meet the criteria and quality indicators to certify them as fair, valid and reliable. This process, undertaken by subject experts in the field, is a rigorous and often challenging one. Umalusi, in consultation with external moderators and other professional assessment experts, have designed a quality assurance (QA) framework that comprises of 11 (eleven) criteria and a total of 85 (eighty-five) quality indicators. It is only once the criteria specific to the subject are in compliance with curricula and examination guidelines that the question papers and marking guidelines are approved for administration during examinations.

This chapter reports on the findings of reports of the 26 (twenty-six) subjects of the November 2016 NSC examinations, submitted by the external moderators. It provides the scope and approach used in the question paper moderation and focuses on the summary of findings on first moderation, areas of good practice, areas of concern and directives for compliance and improvement.

1.2 Scope and Approach

Umalusi has undertaken to quality assure a total of 26 (twenty-six) subjects, totalling 46 (forty-six) question papers and their respective marking guidelines. These were submitted to Umalusi for external moderation between 01 February 2016 and 31 August 2016. However, two question papers viz. Civil Technology and English First Additional Language (FAL) Paper 2, are excluded from this process as they were drawn from the item bank. The external moderation was conducted using the Umalusi Instrument for the moderation of question papers. This instrument comprises 3 (three) parts (moderation of question paper, moderation of marking guidelines and overall impression and general remarks) with a total of 12 (twelve) criteria. Each criterion consists of a variable number of quality indicators (QIs), totalling 85 (eighty-five).

Table 1A below, indicates the 8 (eight) fields of learning incorporating 26 (twenty-six) subjects and the 46 (forty-six) moderated question papers.

Table 1A: The organising fields of learning and selected subjects

No.	Organising fields of learning	Selected question papers within each field
1	Agriculture and Nature Conservation	Agricultural Management Practice Agricultural Sciences Paper 1 and Paper 2
2	Business Commerce and Management Studies	Accounting Business Studies Economics Paper 1 and Paper 2
3	Communication Studies and Languages	Afrikaans Additional Language Paper 1, Paper 2 and Paper 3 Afrikaans Home Language Paper 1, Paper 2 and Paper 3 English First Additional Language, Paper 1 and Paper 3 English Home Language Paper 1, Paper 2 and Paper 3
4	Human and Social Studies	Geography Paper 1 and Paper 2 History Paper 1 and Paper 2 Religion Studies Paper 1 and Paper 2
5	Physical Science, Mathematics, Computer and Life Sciences	Computer Application Technology Paper 1 and Paper 2 Information Technology Paper 1 and Paper 2 Life Sciences Paper 1 and Paper 2 Mathematics Paper 1 and Paper 2 Mathematical Literacy Paper 1 and Paper 2 Physical Sciences Paper 1 and Paper 2
6	Culture and Arts	Dramatic Arts Visual Arts Paper 1 and Paper 2
7	Manufacturing, Engineering and Technology	Electrical Technology Engineering Graphics and Design Paper 1 and Paper 2 Mechanical Technology
8	Services	Consumer Studies Hospitality Studies Tourism

Below in Table 1B, is an overview of the criteria with the number of quality indicators being provided in brackets next to each criterion.

Table 1B: The Umalusi criteria for the moderation of question papers

Part A Moderation of question paper	Part B Moderation of marking guidelines	Part C Overall impression and remarks
1 Technical Criteria (14) 2 Internal Moderation (4) 3 Content Coverage (5) 4 Text Selection, Types and Quality of Questions (22) 5 Cognitive Skills (5) 6 Language and Bias (8) 7 Predictability (3)	8 Development (3) 9 Conformity with Question Paper (3) 10 Accuracy and Reliability of Marking Guideline (12)	11 General Impression (6) 12 General Remarks

Using the above instrument, the question papers were moderated for 4 (four) degrees of compliance viz. *no compliance*, *limited compliance*, *compliance in most respects* and *compliance in all respects*. External moderators engaged with the question papers until a level of compliance on each criterion was achieved and the final evaluation (general remarks) is either ‘*approved*’ (where there are no changes to be made to the paper) or ‘*conditionally approved, not to be submitted for second/subsequent moderation*’ (where there were minimal changes to be undertaken by the internal moderator of the paper). Hence, the examination papers underwent a number of moderations until they were evaluated as being fair, valid and reliable.

1.3 Summary of Findings

The summary of findings discussed below illustrates the number of moderations for approval, the overall compliance, and the levels of compliance per criterion of the question papers and their marking guidelines at the first moderation.

Compliance per moderation level

Figure 1A below presents a comparison between November 2015, and November 2016, National Senior Certificate (NSC) examination papers with regard to the level of approval of 48 (forty-eight) and 46 (forty-six) papers, respectively.

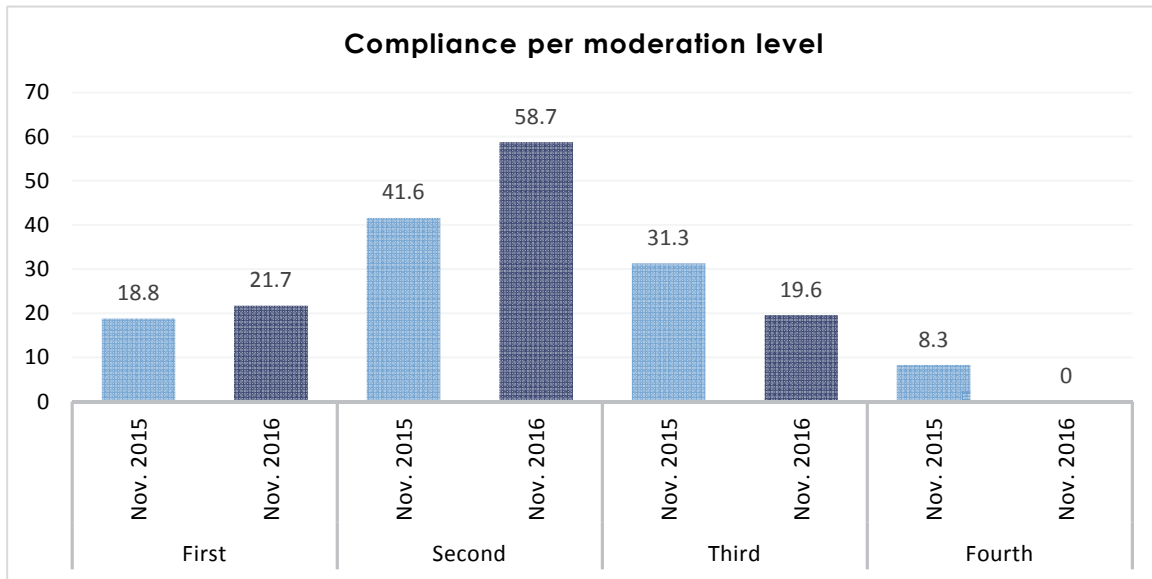


Figure 1A: Comparative compliance per moderation level

The graph above, for November 2015, and November 2016 NSC examination question papers, shows that there was an improvement in the percentage of papers that were approved at first and second moderations. A 17.1% improvement in the number of question papers that were approved at second moderation was noted, thus reducing the number of question papers needing to be approved at third moderation. Of particular significance is that in November 2016, no question papers required a fourth moderation.

Compliance per criterion

A detailed analysis of the 4 (four) levels of compliance (*no compliance, limited compliance, compliance in most respects and compliance in all respects*) according to each of the 11 (eleven) criteria mentioned above, was conducted. The following, Table 1 C, illustrates the number and percentage of the question papers that were in full compliance per criterion at first moderation.

Table 1C: Compliance per criterion in all respects

Criterion	1	2	3	4	5	6	7	8	9	10	11
Compliance in all respects	6	23	33	10	16	15	34	12	10	11	16
Percentage	13	50	72	22	35	33	74	55	45	24	35

The table shows that the 2 (two) criteria that were most in compliance are content coverage (criterion 3) and predictability (criterion 7). However, the large majority of criteria fell below the 50% achievement level, with accuracy and reliability of marking guidelines, text selection, types and quality of questions, and technical criteria having the least compliance.

Question paper and marking guideline moderation criteria

The following in-depth analysis and subsequent comments with regard to each of the 3 (three) sections comprising 11 (eleven) criteria outlined above, draw on reports of the first moderation only. Those criteria that did not meet with approval were subsequently satisfactorily addressed. Section below will focus on the summary of findings for the moderation of question paper.

1.3.1 Technical criteria

Table 1D below presents a summary of the number of question papers that did not achieve compliance for each of the quality indicators (QIs) in the Technical Criteria category.

Table 1D: Non-compliance for technical criteria

QI	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	1.10	1.11	1.12	1.13	1.14
QI Deviance	2	2	1	17	7	5	2	2	7	2	3	6	20	4
QI Deviance %	4.3	4.3	2.2	40	15.2	11.9	4.3	4.3	15.2	4.3	6.5	13	43.5	8.7

The table clearly demonstrates that each of the 14 (fourteen) quality indicators for Technical Criteria was deviant in at least one of the subject. QI 1.3 (details on the cover page and instruction to candidates) was the least deviant. The 2 (two) most prevalent anomalies for QI 1.13 (quality of visual materials) were found in 20 question papers and anomalies for QI 1.4 (the lack of clarity in questions) were found in 17 question papers. The QIs are significant as they directly impact on learner reading and interpretation of visual texts and questions. Similar results for this criterion were cited for November 2015, suggesting that adherence to technical criteria continues to be a challenge.

1.3.2 Internal moderation

Table 1E below illustrates the number of question papers that did not comply with each of the quality indicators for internal moderation.

Table 1E: Non-compliance for internal moderation

QI	2.1	2.2	2.3	2.4
QI Deviance	0	0	18	2
QI Deviance %	0	0	39	4.3

QI 2.1 (the inclusion of the IM's report) and QI 2.2 (evidence of internal moderation) were in full compliance, showing improvement from November 2015. However, QI 2.3 appropriateness of quality and input by internal moderator (IM) continues to be problematic. Generally, some of the reasons provided for the latter are that the various errors in the question papers could have been identified by the Internal

moderator(IM) (e.g. Accounting and CAT) and the *quality* of input by the IM should be more rigorous (e.g. Afrikaans HL, Business Studies, English HL and Geography). On the whole, the external moderators with specific regard to QI 3, indicated that the IMs should align more closely with the external moderation instrument.

1.3.3 Content coverage

Table 1F below shows the number of question papers that did not comply with each of the quality indicators for content coverage.

Table 1F: Non-compliance for content coverage

QI	3.1	3.2	3.3	3.4	3.5
QI Deviance	4	6	3	1	0
QI Deviance %	8.7	11.9	6.5	2.2	0

The purpose of this criterion is to assess whether question papers have complied with content coverage as stated in the Curriculum and Assessment Policy Statement (CAPS) and the Subject Assessment Guideline (SAG). A high level of compliance for content coverage was generally noted across the 5 (five) QIs. This could be attributed to the design of the CAPS and examination guidelines which explicates the specific content to be examined and the weightings of different components of the content. The question papers which were found to have challenges with this criterion are Computer Applications Technology Paper 2, Business Studies, Consumer Studies, English HL (Papers 2, 3), Geography Paper 1, Hospitality Studies, Life Sciences Paper 1, Mathematical Literacy Paper 2, Mathematics Paper 2, Religion Studies (Papers 1, 2) and Tourism.

1.3.4 Text selection, types and quality of questions

This criterion, comprising a total of 22 (twenty-two) QIs consists of 3 (three) general QIs (4.1 – 4.3) and 3 (three) specific QIs, Text selection (4.4 – 4.9), Quality of questions (4.10 – 4.16) and Multiple-choice questions (MCQs) (4.17 – 4.22). For ease of reading, the former two sub-criteria and the latter two sub-criteria are presented as Table G and H respectively.

Table 1G: Non-compliance for general questions and text selection

	General questions			Text selection					
QI	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9
QI Deviance	0	2	10	1	1	7	5	2	4
QI Deviance %	0	4.3	21.7	2.2	2.2	15.2	11.9	4.3	8.7

Table 1H: Non-compliance for quality of questions and MCQs

	Quality of questions							MCQs					
QI	4.10	4.11	4.12	4.13	4.14	4.15	4.16	4.17	4.18	4.19	4.20	4.21	4.22
QI Deviance	1	19	9	9	7	1	5	0	2	0	0	1	5
QI Deviance %	2.2	41.3	19.6	19.6	15.2	2.2	11.9	0	4.3	0	0	2.2	11.9

In the QI category of general questions, QI 4.3 showed the greatest deviance. There was a lack of correlation between the mark allocation and level of difficulty in the question papers of subjects such as Agricultural Sciences, English HL and Mathematical Literacy. QIs 4.6 and 4.7 were found to be most anomalous with regard to text selection; selected texts were not functional and language complexity was not appropriate for the Grade 12 learner, as seen in English HL, Mathematical Literacy and Tourism questions papers. Of greater significance, is QI 4.11 of the sub-criterion 'quality of questions'; questions contained vaguely defined problems, ambiguous wording, extraneous information and unintentional clues to answers in Afrikaans FAL, Afrikaans HL, Mathematical Literacy, Mathematics, Religion Studies and Tourism question papers. Subjects such as Accounting, CAT and Mathematical Literacy report that examination questions failed to provide clear instructional verbs and that some questions contained insufficient information to elicit appropriate responses (QIs 4.12 and 4.13). The QIs for the MCQs were, on the whole, in compliance except for QI 4.22; Economics, Physical Sciences, Religion Studies and Visual Arts question papers indicated that the correct answer included elements in common with the distractors.

1.3.5 Cognitive skills

Table 1I below, shows the number of question papers that did not attain compliance for each of the quality indicators for cognitive skills.

Table 1I: Non-compliance for cognitive skills

QI	5.1	5.2	5.3	5.4	5.5
QI Deviance	5	21	8	2	4
QI Deviance %	11.9	45.7	17.4	4.3	8.7

The purpose of this criterion is to assess whether the cognitive levels in each question are appropriately matched to an appropriate educational taxonomy for the specific subject. This criterion is critical for ensuring that the cognitive levels of each paper is aligned with policy and examination guidelines per paper. However, on first moderation each of the five QIs was disregarded. Five question papers (Accounting, CAT Paper 1 and Paper 2, Geography and Religion Studies) failed to clearly show the cognitive levels of each question/sub-question (QI 5.1). The greatest deviance is found in QI 5.2; 21 (twenty-one) papers indicated an inappropriate distribution of cognitive levels according to the norm. There was also evidence that there were instances of incongruence in interpretation of the cognitive domain in questions between the IM and EM. This particular criterion remains a cause for concern and has been since November 2015.

1.3.6 Language bias

Table 1J below, shows the number of question papers that did not comply with each of the quality indicators for Language Bias.

Table 1J: Non-compliance for language bias

QI	6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.8
QI Deviance	9	8	12	17	6	0	5	0
QI Deviance %	19.6	17.4	26.1	40	3	0	11.9	0

This criterion, comprising 8 (eight) QIs, aims to establish whether the language used is grammatically correct; that the register and level of complexity is at the level of the target candidates; that there are no biases; and that questions accommodate special needs students. The most salient overall deviations were found with QI 6.4 and 6.3; 17 (seventeen) and 12 (twelve) question papers respectively, showed evidence of grammatical errors and subtleties in grammar that could create confusion in the interpretation of questions. Evidence also depicted that for some subject question papers the subject terminology and/or data were incorrectly used (e.g. Afrikaans FAL, Afrikaans HL, Mathematical Literacy and Mathematics); the language, register and complexity of language was inappropriate for the Grade 12 learner (e.g. CAT, English HL, Geography and Information Technology); some questions contained over-complicated syntax (e.g. Agricultural Management Practice, Agricultural Sciences, Consumer Studies and Life Sciences); and that there was evidence of gender bias (Business Studies), religious bias (English HL Paper 1) and political bias (Geography Paper1).

1.3.7 Predictability

Table 1K below shows the number of question papers that did not attain compliance with each of the quality indicators for Language Bias.

Table 1K: Non-compliance for predictability

QI	7.1	7.2	7.3
QI Deviance	4	6	4
QI Deviance %	8.7	13	8.7

The purpose of this criterion is to assess the level of originality in the question papers as proof that questions were not a repeat from the previous three years' examination papers. On the whole a total of 14 (fourteen) question papers showed some deviance for the criterion of predictability; the large majority of question papers, 32 (thirty-two), were in compliance, attesting to the vigilance of adhering to the criterion of Predictability. However, Accounting showed no compliance with 3 (three) QIs; Electrical Technology, English HL Paper 3 and Visual Arts Paper 1 indicated that the questions were of such a nature that they could be predicted (i.e. QI 7.1); evidence of verbatim repetition of questions from previous examination papers in Business Studies, Geography Paper 2, Mathematical Literacy and Visual Arts Paper 1 (i.e. QI 7.2); and questions in English HL Paper 1 and Mathematical Literacy lacked an appropriate degree of innovation (i.e. QI 7.3).

1.3.8 Development of marking guidelines

This section presents findings and a discussion of the three criteria of moderation of marking guidelines viz. development, conformity with question paper and accuracy and reliability of marking guidelines.

Table 1L below shows the number of question papers that did not comply with each of the quality indicators for Development.

Table 1L: Non-compliance with development

QI	8.1	8.2	8.3
QI Deviance	2	4	2
QI Deviance %	4.3	8.7	4.3

The above table suggests that this criterion was mostly in compliance. Marking guidelines (QI 8.1) had not been developed alongside the question paper in only 2 (two) question papers (Afrikaans FAL Paper 2 and Business Studies); in four question papers (Economics Paper 1 and Paper 2, English HL Paper 1 and Tourism) the marking guidelines did not reflect the assessment objectives of the curriculum in correct proportions (QI 8.2); and in 2 (two) question papers (English HL Paper 1 and Paper 2) the marking guidelines did not maintain the intellectual challenge from one year to the next (QI 8.3).

1.3.9 Conformity with the question paper

Table 1M below, shows the number of question papers that did not achieve compliance for each of the quality indicators for conformity with the question paper.

Table 1M: Non-compliance of conformity with the question paper

QI	9.1	9.2	9.3
QI Deviance	5	5	1
QI Deviance %	10.9	10.9	2.2

Five questions papers (Afrikaans FAL Paper 2, Economics Paper 1, Geography Paper 1, Mathematical Literacy Paper 2 and Religion Studies Paper 2) indicated that the marking guidelines did not correspond with the questions in the question paper (QI 9.1). With QI 9.2, five question papers (Economics Paper 1 and Paper 2, English HL Paper 2, Geography Paper 1 and Mathematical Literacy Paper 1) revealed that the marking guidelines failed to match the command words in the question. Only one question paper (Mathematical Literacy Paper 2) indicated that there was a lack of correspondence between the marks for each sub question shown in the marking guidelines and the question paper (QI 9.3).

1.3.10 Accuracy and reliability of marking guidelines

Table 1N below shows the number of question papers that did not attain compliance for each of the quality indicators for Accuracy and Reliability of Marking Guidelines.

Table 1N: Non-compliance with accuracy and reliability of marking guidelines

QI	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	10.10	10.11	10.12
QI Deviance	17	12	5	7	0	5	0	0	0	1	10	0
QI Deviance %	40	26	10.9	15.2	0	10.9	0	0	0	2.2	21.7	0

The table shows that there was full compliance for 5 (five) of the 12 (twelve) QIs (i.e. QIs 10.5, 10.7, 10.8, 10.9 and 10.12). However, QI 10.1 showed the most deviance; the marking guidelines were incorrect in terms of the subject matter in 17 (seventeen) question papers. The subjects that showed non-compliance in all of their respective question papers were Afrikaans HL, Life Sciences, Mathematical Literacy, Mathematics and Religion Studies. The second highest level of non-compliance was found with QI 10.2; 12 (twelve) question papers across 7 (seven) subjects (Afrikaans FAL, Economics, English HL, Geography, Information Technology, Mathematical Literacy and Religion Studies) indicated that the marking guidelines contained typographical errors or errors in language. The third highest level of non-compliance was with QI 10.11 where 10 (ten) question papers, of which Mathematical Literacy

and Economics showed non-compliance in each of their two question papers, revealed that relevant alternative responses were not provided. Seven question papers were non-compliant with QI 10.4; Afrikaans FAL Paper 2 and Paper 3, Business Studies, English HL Paper 2, Mathematical Literacy Paper 1 and Paper 2, and Religion Studies Paper 1 indicated that the marking guidelines were not appropriate to facilitate effective/successful marking. With QI 10.3, 5 (five) question papers (Afrikaans FAL Paper 3, Business Studies, English HL Paper 2 and Mathematical Literacy Paper 1 and Paper 2) had marking guidelines that were not clearly laid out. Five question papers (Economics Paper 1 and Paper 2, English HL Paper 2 and Mathematical Literacy Paper 1 and Paper 2) marking guidelines did allocate marks corresponding with the demands of the questions (QI 10.6). Lastly, QI 10.10, the marking guideline did not provide enough detail to ensure reliability of marking, and this QI was not attained in only one subject, English HL Paper 2.

1.3.11 Overall impression and general remarks

This section examines only criterion 11, overall impression, of the 46 (forty-six) question papers, as criterion 12, general remarks has been discussed in 1.3, the summary of findings.

Table 10 below, shows the number of question papers that did not achieve compliance for each of the quality indicators for overall impression.

Table 10: Non-compliance with overall compliance

	11.1	11.2	11.3	11.4	11.5	11.6
QI Deviance	7	18	3	20	14	2
QI Deviance %	15.2	39.1	6.5	43.5	30.4	4.3

This criterion provides the overall impression of the question paper and the marking guidelines informed by the foregoing criteria and which informs the General Remarks. The two most contravened QIs were 11.4 and 11.2 where 20 (twenty) and 18 (eighteen) question papers, respectively, were not of an appropriate standard and that they were not fair, valid and reliable at first moderation. Fourteen question papers across 7 (seven) subjects (Accounting, Afrikaans HL, CAT, Economics and English HL, Mathematical Literacy and Religion Studies) did not compare favourably with previous examination papers (QI 11.5).

Seven question papers (Accounting, Geography P1, Mathematical Literacy Paper 1 and Paper 2, Physical Sciences Paper 1 and Religion Studies Paper 1 and Paper 2) indicated that the marking guidelines were not aligned with policy and examination guidelines (QI 11.1). With QI 11.3, 3 (three) question papers (Business Studies and Religion Studies Paper 1 and Paper 2) showed that the paper, as a whole, did not assess the outcomes of the Curriculum Statement. Lastly, with QI 11.6, two question papers (Accounting and English HL Paper 2) revealed a lack of balance between the assessment of skills, knowledge, attitudes, values and reasoning. On the whole, for the 6 (six) QIs comprising Overall Impression, the subjects that were non-compliant

for 3 (three) to 6 (six) QIs were Accounting (5 QIs), Afrikaans HL (3 QIs), Economics (3 QIs), English HL (3 QIs for Paper 1 and Paper 3, and 4 QIs for Paper 2), Mathematical Literacy (4 QIs) and Religion Studies (4 QIs for Paper 1 and 3 QIs for Paper 2).

1.4 Areas of Good Practice

The following areas of good practice were extrapolated from the analysis and for which the examining panels of SACAI must be complimented:

- There was evidence that all question papers were internally moderated and that all Internal moderators (IM) submitted their reports;
- That for the large majority of question papers, there is sufficient evidence to show that the recommendations of the IM were adopted;
- Question papers were representative of the latest developments of the subject;
- Question papers included a variety of question types as commanded by the subject;
- The large majority of the subjects showed that the source materials were subject specific and of the required length;
- For the MCQ questions, the options followed grammatically from the stem, were free from absolute terms (e.g. 'always' and 'never'), and were approximately of the same length and were language comparable;
- The overwhelming majority of the question papers showed that the questions relate to what is pertinent to the subject and were free from ambiguities that might have arisen from the use of double negatives;
- Foreign names, terms and jargon across all subjects were accompanied by a glossary;
- Questions allowed for the adaptations and modifications for assessing special need students in the interest of inclusivity; and
- With regard to the marking guidelines, they were complete with mark allocation and mark distribution within each of the questions; encouraged a spread of marks; awarded marks positively and utilised level responses and analytical approaches where appropriate.

1.5 Areas of Concern

The following areas compromised the quality and standard of the question papers at first moderation:

- The approval of question papers only at the third moderation is of grave concern as this suggests that the requested changes and recommendations by the External moderators were not rigorously applied. Question papers of concern are: Afrikaans FAL Paper 2, Afrikaans HL Paper 1, Business Studies, CAT Paper 2, English HL Paper 1 and Paper 2; Life Sciences Paper 1, and Mathematical Literacy Paper 1 and Paper 2;
- The quality, standard and input from the IMs are lacking in rigour for a large number of question papers. These include:

- the criteria of content coverage; text selection, types and quality of questions;
- appropriate distribution of a relevant educational taxonomy in accordance with the norm provided for the subject;
- meticulous scrutiny of language use – for grammatical accuracy, level of complexity and clarity in phrasing;
- ensuring that papers are free from any form of bias; and
- that there is no repetition of texts and/or questions from previous examination papers and accuracy of the marking guidelines.

1.6 Directives for Compliance and Improvement

SACAI is urged to ensure compliance with the following directives for compliance and improvement:

- The subjects for which question papers were approved at third level should be investigated to ensure that a repeat is avoided in the next examination session;
- SACAI should train its internal moderators on:
 - applying the moderation instrument to the question papers and marking guidelines;
 - applying the relevant educational taxonomy effectively; and
 - enhancing editorial and proofreading skills.

Such training should draw on Umalusi's expectations and quality standards for an examination. It is Umalusi's firm belief that such training could address the high levels of non-compliance in the various criteria; and

- SACAI should consider the aspects highlighted in this report for inclusion when training its examiners on questioning style and effective and appropriate application of the relevant educational taxonomy.

1.7 Conclusion

Drawing on the reports received from external moderators across the 46 (forty-six) question papers, it can be concluded that the examination papers and marking guidelines were progressively brought to the point of print-readiness. They were thus deemed to be fair, valid and reliable at final external moderation. The 46 (forty-six) examination papers have displayed varying degrees of compliance and non-compliance across the specified criteria and their respective quality indicators. SACAI is thus encouraged to continue with the areas of good practice identified, take note of the marked areas of concern and apply the directives for compliance and improvement. It is critical that the IMs ensure that the question papers adhere to the various criteria outlined in the moderation instrument before they are submitted for external moderation.

CHAPTER 2 MODERATION OF SCHOOL BASED ASSESSMENTS (SBA)

2.1 Introduction

School based assessment (SBA) serves as an important assessment component contributing 25% towards the candidates' final marks in the National Senior Certificate (NSC). As such, Umalusi is responsible for determining the quality (appropriateness of the standard) of samples of work used to generate this SBA mark in addition to the accuracy of the mark (valid, fair and reliable) allocated by the schools and endorsed by South African Comprehensive Assessment Institute (SACAI) and its internal moderators.

The focus of this chapter is to summarise the findings of the Umalusi external moderators' (EMs) verification of samples of teacher and learner evidence files, to identify areas of both good practice and concern, as well as to provide directives for compliance and improvement.

2.2 Scope and Purpose

In 2016 Umalusi took the decision to moderate the South African Comprehensive Assessment Institute's (SACAI) SBA in two phases. These phases looked into the following centres and schools:

In both phases, Umalusi has independently sampled subjects in different centres for moderation. A sample of ten subjects was selected for SBA moderation, namely; Accounting, Civil Technology, Computer Applications Technology, Economics, English First Additional Language, Hospitality Studies, Life Orientation, Life Sciences, Mathematics and Physical Sciences.

The moderation instrument for the SBA consists of three parts, as depicted in Table 2B below. Part A, which consists of seven criteria, focuses on the moderation of the teacher files. Part B, with three criteria, is used to record the moderation of the evidence of learner performance (ELP). Part C, which is the last section of the instrument, consists of three criteria that summarise the findings.

Table 2A: Umalusi criteria for the moderation of SBA

Part A Moderation of teacher portfolios	Part B Moderation of learner portfolios	Part C Summary
1. Technical criteria 2. Content coverage 3. Quality of tasks 4. Cognitive demand 5. Quality of marking tools 6. Adherence to policy 7. Internal moderation 8. Overall impression	9. Learner performance 10. Quality of marking 11. Internal moderation	12. Areas of good practice 13. Areas of concern 14. Recommendations

The combined findings of the moderation of SBA for all of the subjects moderated are then combined into one consolidated report. The findings of the analyses of ten (10) consolidated subject reports are summarised in Section 2.3 below.

2.3 Summary of Findings

This section summarises the findings as outlined in the SBA moderation reports of the various subjects for both Phase 1 and Phase 2. The findings are presented based on the eleven criteria outlined in the Umalusi SBA moderation instrument.

Teacher portfolios

2.3.1 Technical criteria

Generally, the overall presentation and organisation of files was good across the subjects at SACAI and the technical aspects of the assessment tasks were found well covered in most cases. However, in subjects such as Civil Technology, the June 2016 examination paper did not have the name of the centre, (Excelsior Akademie Rooihuiskraal). While the subject assessment guideline (SAG) clearly stated that tests should have a total of 70 marks, the test at this school was found with a total of 60 marks.. Tests should preferably not count 60 marks or less. The norm in the examination paper is 54 seconds for one mark. This means that test should count at least 70 marks

2.3.2 Content coverage

While most of the subjects fully complied with content coverage as prescribed, there were components of the content in some subjects, which were only partially compliant with the CAPS. In Civil Technology no questions were found set on materials and no graphic communication and applied mechanics was apparent in

Term 1 (Auxilio Learning Academy). In Mathematics, all prescribed content with regard to trigonometry had not been covered, for example, trigonometry graphs were not examined and there was evidence of failure to address content as required by CAPS, and it was also found that the Term 3 test contained a question based on linear programming, a topic no longer examinable in CAPS in one of the centres moderated, (Free2beme centre).

Lastly, In Economics at one of the centres moderated it was found that the content for Paper 1 was examined in Paper 2 and vice versa (Volkskool Orania centre).

2.3.3 Quality of tasks

It was noted that while some subjects met the requirements with regard to quality of tasks. In those cases where there was only partial compliance, the quality of tasks was compromised because the tasks were poorly constructed, for instance the June 2016 Mathematics Paper 2 did not comply with the prescribed cognitive weighting norms. In particular, questions embracing problem solving and the higher order difficulty level was found seriously lacking (e.g. at Alpha Education SA and NSC Centre- Science Bridge at UJ). In addition, the DBE November 2015 Mathematics question paper was used as a preliminary examination question paper which is totally unacceptable. Again, non-compliance was also observed in Accounting where the case study was used as a test which is also found to be irregular (Didaskos Akademie).

2.3.4 Cognitive demand

In some schools the levels of cognitive demand for some tasks were satisfactory but some subjects, such as Civil Technology, one school in particular struggled to set higher order questions in their assessment tasks, (Excelsior Akademie Rooihuskraal). No weighting grids were available for the tasks set by SACAI (Practical Task Term 3, Assignment, Preliminary Examination Paper 1 and 2) in Life Sciences in all schools moderated. Discrepancies in allocation of marks was found despite the common question papers provided by the centres at Edu Funda in which Question 3.3 of Paper 1 was found with a different mark allocation in English FAL.

Additionally; the June 2016 Mathematics Paper 2 did not comply with the prescribed cognitive weighting norms, and in particular, questions embracing problem solving and the higher order difficulty level were seriously lacking, (Free2beme centre). In Mathematics, it was found that problem solving questions, which require higher order thinking, need to be included in the assessments in all schools. Questions, which were taken from previous examination papers or adapted from previous examination papers, may not necessarily be classified at the levels indicated in the grid if they have been seen by learners prior to the test or examination.

A number of the subject tasks seemed to only address lower order questions and medium order questions with very limited number or lack of problem solving questions as required by CAPS (Mathematics, Mathematical Literacy, Accounting, Geography, Dramatic Arts and Life Orientation). More than 40% of all the assessment tasks included in the teacher portfolios were found not accompanied by cognitive

demand analysis grids which almost certainly contributed to the lack of compliance with this criterion in many subjects.

2.3.5 Marking tools

Several schools were found to struggle with the formulation of objective marking guidelines which ensure that assessment tasks are fairly assessed in the various subjects. In Civil Technology, the marking tools were not allocated next to the answers in the June examination (Auxilio Learning Academy). No evidence of a rubric for English Paper 3 in the educator file, and no indication was evident on the scripts on how to arrive at the marks allocated, (Edu Funda).

The marking guidelines provided for the preliminary Physical Sciences examination were found to be incorrect e.g. the question on the Doppler Effect (Question 6 of Paper 1) was outside the scope of the syllabus and the solution provided was incorrect. A further concern raised was that some errors in the marking guideline (Paper 1 of the preliminary examination) were not corrected by all the learning centres, (Purpose College and Healing Wings SA) which resulted in disadvantaging the candidates.

2.3.6 Adherence to policy

In Life Sciences, the difference in the calculations of the SBA marks by Impak and SACAI was identified. The weightings used by Impak for Life Sciences was found to be incorrect. SACAI adjusted the raw marks submitted by Impak, through their system, to give them the correct weighting. However, this raises the question of which SBA marks were communicated to the learners.

2.3.7 Internal moderation

The compliance levels for this criterion were lower than for the other criteria. The levels of moderation and quality of moderation were found to vary from one centre to the other.

2.3.8 Moderation of learner portfolios

a) Learner performance

The evidence of learner performance (ELP) in the samples moderated showed a range of work from very good to poor performance. In Mathematics it was noted that not all learners interpreted the assessment tasks correctly. In most centres verified the responses of candidates did not meet the expectations and demands of assessment tasks and learners had difficulty in responding to all the aspects (in terms of level difficulty) set in the tasks, (Alpha Education SA, Entheos Christiaan School and NSC Centre-Science Bridge at UJ).

b) Quality of marking

Some, marking in all subjects was of an acceptable standard with marking guidelines being followed by some schools. In Mathematics, it was found that the marking guideline at some schools did not show the complete distribution of marks in the

June examinations in the following questions: Q1.1; 1.6; Q1.7; Q1.10; Q2.1 and this compromised consistency in marking, (Alpha Education SA). The standard of marking in Hospitality Studies was not acceptable resulting in an inflated SBA mark, (Pietermaritzburg Campus).

In addition, discrepancies in the allocation of marks were found despite the common question papers provided by the centres (Edu Funda) in which Question 3.3 of Paper 1 was found with a different mark allocation in English FAL. In Civil Technology, the number of ticks found did not correspond with the mark/s for each sub-question, (Excelsior Akademie Rooihuskraal). The quality of marking in English FAL was of concern as marks were inflated, (Didaskos Akademie, Advanced College, Edu Funda and Roepersfontein).

In Life Orientation, the quality of marking found at certain centres was of concern as the marks were also found to be inflated, (Edu-Funda, Alhabib College, Alpha Education SA and Neos Christian School). This was evident in the Section C of the Common Task (CAT). In Physical Sciences poor marking was evident, (Free2Bme Academic Centre and Pierre van Ryneveld Christian Academy).

c) Internal moderation

The quality of the internal moderation of learner work at centre level needs to be improved. The moderation of learner work was particularly lacking in Mathematics, (Alpha Education SA). "Shadow" moderation was found in Life Orientation, (Edu-Funda School, Redwood Academy and Alpha Education SA). No constructive feedback was provided to learners in Civil Technology in all centres moderated (IMPAK, Auxilio Learning Academy and Didaskos Akademie).

2.4 Areas of Good Practice

The following are areas of good practice identified during SBA moderation:

- The quality of the files presented was generally good with well-developed subject policies included in the teacher files in some cases. Some teacher files included copies of detailed/comprehensive subject assessment and examination guidelines drafted by the assessment body;
- Moderation at SACAI level was found to be thorough across centres;
- SACAI moderators provided detailed feedback to teachers; and
- The instructions to learners in test papers were in accordance with the SACAI examination papers. Question papers generally complied with the necessary prescribed technical requirements. In some instances, marking guidelines were neatly typed and set out.

2.5 Areas of Concern

The following are areas of concern observed during SBA moderation:

- **Cognitive demands** – The cognitive demands of the assessment tasks were found to be very low for instance, the June Mathematics Paper 2 did not comply with the prescribed cognitive weighting norms, and in particular questions embracing problem solving and the higher order difficulty level was seriously lacking;
- **Marking tools** – The marking of the assessment tasks was found inconsistent in some subjects, (Civil Technology), the number of ticks did not correspond with mark/s for each sub-question and the extra ticks in the test and June marking guideline led to confusion of the total mark;
- **Lack of analysis of grids** – No analysis grid was found in Hospitality Studies and Life Sciences;
- **Feedback to learners** - No detailed constructive qualitative feedback was provided to the learners after moderation;
- **Recycling of previous question papers** - The Mathematics Paper 2 preliminary examination paper was a repeat of the DBE November 2015 question paper with no changes in one of the SACAI centres.
- **Marking of assessment tasks** – In Life Orientation, Physical Sciences and English FAL, the quality of marking was found to be poor, dominated by shadow marking; and
- **Types of assessment tasks** – In Accounting, the case study was recorded as one of the controlled tests, yet it had to be a “stand alone” assessment tasks as well. There is evidence of poor quality of tasks for Civil Technology with particular reference to Excelsior Akademie Rooihuiskraal and Auxilio Learning Academy.

2.6 Directives for Compliance and Improvement

In order to improve, SACAI should address the following:

- Ensure that centres set the assessment tasks that address all levels of cognitive demands to ensure that learners are thoroughly prepared for the final year examination. An analysis grid for every assessment task must be developed clearly indicating the weightings used in the distribution of cognitive demands. In addition, evidence of internal moderation is a requirement before the paper is administered;
- SACAI must ensure that the common assessment task developed for practical subjects are administered in all its centres to improve the quality of tasks;
- Centres must provide constructive feedback to learners after every assessment administered;
- Avoid recycling DBE previous question papers and set well designed question papers for the preliminary examinations;

- Ensure that weaker centres like Excelsior Akademie Rooihuskraal, Auxilio Learning Academy, Free2beme centre, Alpha Education SA) are given training, support and guidance for the development and implementation of SBA tasks, and should be prioritised for internal moderation in 2017 to monitor progress; and
- Ensure that each assessment task being set complies with such a task's characteristics to achieve its objectives.

2.7 Conclusion

This section has highlighted the findings of the moderation of a selection of SACAI teacher files and evidence of learner performance across a range of subjects. It was found that, on the whole, compliance with SACAI SBA practices is variable, which compromises the comparability of SBA marks. Some SBA practices were found to be of an excellent standard, while others were not as good. Schools, where issues were identified, need to be supported and monitored so that their SBA practices improve. The quality of the SBA tasks can be improved if the SACAI takes cognisance of the above recommendations.

CHAPTER 3 MONITORING THE STATE OF READINESS

3.1 Introduction

Umalusi is the quality council responsible for the General and Further Education and Training sub-framework. As a quality council, Umalusi has the responsibility to ensure that the conduct, administration and management of examination are credible. As part of its mandate, Umalusi verifies the extent to which assessment bodies are ready to conduct the national examinations.

This chapter reports on the findings gathered during the state of readiness of the South African Comprehensive Assessment Institute to administer the November 2016 National Senior Certificate (NSC).

3.2 Scope and Approach

The external monitoring by Umalusi was intended to verify appropriateness of examination processes and procedures that SACAI has put in place at national and examination centre level to conduct the November 2016 NSC examinations.

Umalusi officials visited the SACAI office to conduct the verification process of the state of readiness on 23 September 2016. The data was collected through observation, interviews, and verification and observing presentations from SACAI officials and systems, using pre-determined audit tools. The findings, areas of good practice, areas of concern and directives for compliance are detailed hereunder.

3.3 Summary of Findings

The following findings were made during the state of readiness visit at the SACAI:

3.3.1 Registration of candidates and examination centres

a) Registration of candidates

Table 4A provides the number of registered candidates for the November 2016 NSC examinations.

Table 3A: Number of candidates registered to write the November 2016 NSC

Category	NSC
Part-time candidates	1 232
Immigrant candidates	27
Repeaters	518

Category	NSC
Concessions granted	130
Total	1 777

Registration of candidates was completed in the first term and verification and checking of candidate data was completed through preliminary entries by 05 August 2016.

SACAI registered a total of 1777 candidates for the November 2016 NSC examinations. This showed a slight increase from a total of 1604 candidates in 2015. The number of concessions granted SACAI has increased as compared to 2015 as SACAI has registered more part-time candidates in 2016.

b) Registration of examination centres

Table 4B provides the number of centres registered to write the examinations as per provinces.

Table 3B: Examination centres across provinces

Category	Number
Eastern Cape	6
Free State	3
Gauteng	39
Kwa-Zulu Natal	13
Limpopo	6
Mpumalanga	3
Northern Cape	6
North West	4
Western Cape	10
Namibia	2
Total	92

All examination centres had been physically verified by the SACAI for the state of readiness. Umalusi verification noted that all examination centres were verified and contracts signed between SACAI and the examination centres but such contracts were not available for verification by the Umalusi team at all centres. Centres with a history of irregularities from past years were de-registered as examination centres for 2016.

Table 3C illustrates the risk level category of the examination centres based on its audit and availability of evidence of readiness.

Table 3C: Categorisation of centres according to risks

Level of Risk	Number
Low risk	65
Medium risk	21
High risk	6
Total	91

It was highlighted that the categorisation of centres according to the risk profiles will enable proper planning in terms of monitoring whereby the high risk identified centres are to be closely monitored and daily reports will be submitted for every sitting.

3.3.2 Conduct of internal assessment

The following documents were verified:

- Policy on School Based Assessment (SBA) implementation, monitoring and moderation;
- A disk which contains a variety of SBA instruments was compiled and distributed to centres to be used; and
- Teacher file for Mathematics against learner file and learner support guide – moderated and compliant.

SACAI final moderation of SBA, Practical Assessment Task (PAT), Oral and Practical mark sheets will be completed by 23 October 2016. Moderators are trained on the outcomes and procedures to be followed for the moderation of SBA. Two levels of moderation have been scheduled for 2016; the first initial moderation was completed in July 2016.

3.3.3 Printing, packaging and distribution

a) Printing and packaging

SACAI uses an in-house printing facility which was visited by the Umalusi officials. The printing process is managed by a private service provider that has been used by SACAI since its inception. Printing of question papers was completed before the Umalusi visit. All personnel involved in the printing process at the unit have signed a confidentiality form. The strong room area, where all printed material is stored, has a proper surveillance system and uses a secure double locking system. Access to the packaging area is limited to authorised personnel only.

All question papers are packaged in tamper-proof plastic sachets and a tracking and bar-coding sticker is used for security of the examination material. Concerns were raised about limitations of the available security features at the printing and distribution area, which needed to be addressed.

b) Distribution

SACAI uses a secure storage area as its distribution point. All distribution boxes are locked with steel bars and combination locks managed by the SACAI office. Transporting of examination material is outsourced to a courier company and material is delivered to the examination centres bi-weekly through dedicated delivery vehicles. All consignments are acknowledged through electronic signing by the receiving official. A distribution plan was available for verification.

3.3.4 Conduct of examinations

SACAI had conducted and completed training of chief invigilators by 12 September 2016. Chief invigilators were trained at three different venues. Invigilators, in turn, will be trained by the chief invigilators. The State of Readiness audit of examination centres was completed by the SACAI office and a consolidated list of centres on the readiness of each centre was provided to Umalusi officials.

SACAI has planned to conduct two monitoring cycles during the examination, one after the delivery of question papers and one during the writing process of the examination. A service provider is used to assist with the preparations for IT and CAT examinations.

Training programme and monitoring instruments to be used are ready. A risk profile list of all examination centres is drawn with the aim of close monitoring (see Table 3 above).

SACAI has also appointed a centralised irregularities committee and all examination related irregularities will be reported to this committee.

3.3.5 Appointment and training of marking personnel

SACAI planned to use one centralised venue for the marking of November 2016 NSC examinations. Table 3D below gives the details of the number of marking personnel involved in the 2016 marking process.

Table 3D: Number of marking personnel appointed by SACAI for the November 2016 NSC examinations

Marking personnel	Number
a) Markers	152
b) Chief markers	27
c) Internal moderators	27
d) Centre manager	01
e) Examination assistants	N/A
f) Irregularities official	04

a) Appointment of markers

Marking personnel have been selected and appointments was to be completed by 30 September 2016. Appointment of markers is done according to the criteria set by SACAI. Evaluation forms from the previous marking cycle are used for selection and Umalusi has verified a sample of appointment letters, contracts and statistics.

b) Training of marking personnel

Training programme for markers, including the management plan, was in place. Training of chief markers and internal moderators was to be coordinated by the SACAI office. Training was planned to take place on the afternoon of 17 November 2016 for Group A and 01 December 2015 for Group B. Markers were to be trained a day after the above training.

3.3.6 Marking centres and centre managers

a) Marking centres

Table 3E below gives the details of the marking period for the November 2016 NSC marking process.

Table 3E: SACAI November 2016 NSC marking programme

Marking	Group A	Group B
Commencement	18 November 2016	02 December 2016
Termination	23 November 2016	05 December 2016

b) Centre manager

The co-ordinator for support services of SACAI will serve as the marking manager as per her line function.

3.3.7 Capturing, release of results and certification

a) Capturing and resulting

Capturing of marks for SACAI will take place at the SACAI offices and be controlled by SACAI officials. Capturing process will commence on 01 December 2016 and will be concluded by 03 December 2016. Capturing of marks will be done by SACAI appointed contractors whose contract has not yet been signed. A double capturing system will be used to capture all marks. All personnel involved in capturing will sign a declaration of confidentiality.

Capturing of SBA and PAT is done by assessment centres and assessment marks are imported into the assessment body examination system. SACAI will monitor the resulting process through a preliminary schedule.

b) Certification

Certification of candidates will be done as per regulation by Umalusi after the due process of the examination has been completed. Two fulltime officials are responsible for the certification process.

3.3.8 Concessions

Policy, minutes and lists of candidates granted concession for November 2016 NSC examinations was available for verification. All concessions were granted by the committee comprising of SACAI internal staff members. Umalusi recommended that SACAI must appoint specialists to serve in the committee by 2017 as the current composition of the SACAI committee is not compliant with the NSC regulations. A total of one hundred and thirty (130) candidates are granted concession for November 2016 examination.

3.3.9 State of readiness of centres

This section of the report captures information on the State of Readiness of examination centres. A sample of thirty-nine (39) examination centres was verified by Umalusi monitors. The list of centres verified is provided in Annexure A.

The registration process and the return of a preliminary schedule has been completed by all examination centres visited. No major challenges were noted during the registration of candidates.

Collection, acknowledgement and return of examination material will be handled by chief invigilators at all centres. All centres have reasonable security storage facility for the examination material. The examination material is received and returned on a bi-weekly basis. Principals/centre managers are generally appointed as the chief invigilators.

Adequate measures that included appropriate training of invigilators and candidates were put in place by SACAI to avoid any irregularities. All irregularities were expected to be handled by the SACAI irregularities committee.

All thirty-nine (39) centres monitored fulfill the minimum requirements to administer the October/November 2016 NSC Examination.

4.4 Areas of Good Practice

- Registration process of candidates has been effectively completed;
- The system is built to detect duplicate candidates;
- The entry schedule is signed by the candidate, parent and principal to ensure the accuracy of data;
- All centres have been audited and contracts have been signed between SACAI and the examination centres;
- Centres with previous irregularities are de-registered by SACAI;
- Printing and packaging of the question papers is complete;
- Entry to the security area is restricted to authorised personnel only;
- The strong room is controlled via a double locking and electronic access system;
- All crates used for examination material is tracked and secured through combination locks;
- Training of chief invigilators is complete;
- Criteria for appointment of markers are set and appointment is done accordingly; and
- Evaluation forms of previous marking are used during selection.

3.5 Areas of Concern

The following areas of concern are noted for SACAI's attention:

- Date of entry into SA education system for some of the immigrant candidates was not captured as per policy;
- Lack of policy on cell phones, electronic devices and personal belongings at the security area;

- Occupational Health and Safety (OHS) compliance certificate is not available;
- Availability of external copying devices on the main computer used for printing poses a risk on the safety of examination certificates; and
- SACAI did not have a therapist (i.e. someone specialising with learning barriers) in the concession committee.

3.6 Directives for Compliance and Improvement

The following directives for compliance and improvement are given for SACAI's attention:

- SACAI needs to consult and comply with the relevant regulations and legislation on registration of immigrant candidates;
- All external copying devices from the printing source computer need to be disabled during the printing period;
- Operational plan for monitoring should include all new centres and centres with previously reported irregularities;
- SACAI must appoint (a) specialist(s) who deal(s) with barriers to learning to serve in the concession committee by 2017; and
- Security features at the examination venues must be strengthened for the safe keeping of examination material.

3.7. Conclusion

The audit of the state of readiness of SACAI examination office and examination centres has confirmed that SACAI is compliant in most state of readiness requirements to administer the November 2016 NSC examination. The assessment body needs to consider the areas for improvement as noted in this report and ensure that better preparation for examinations in the future is done.

CHAPTER 4 MONITORING OF WRITING

4.1 Introduction and Purpose

In terms of the General and Further Education and Training Quality Assurance (GENFETQA) Act (No 58 of 2001, as amended in 2008), Umalusi has the mandatory obligation of ensuring that the examinations on the qualifications for which it certifies, are conducted, administered and managed in a credible manner by assessment bodies.

During the month of October and November 2016, the South African Comprehensive Assessment Institute (SACAI), administered and managed the National Senior Certificate (NSC) examinations across the affiliated centres. In verifying the credibility of the writing of these examinations, Umalusi undertook a rigorous and extensive monitoring of the conduct of the examinations.

This chapter provides a summary of findings gathered from the sample of centres monitored, and acknowledges areas of good practices observed, identifies areas of concern and further outlines directives for compliance and improvement with which assessment body must comply.

4.2 Scope and Approach

Monitoring of the writing phase was done by monitors appointed by Umalusi. They observed the availability and implementation of appropriate policies and the compliance level to relevant regulations on the conduct of examinations. A sample of twenty-two (22) examination centres wrote the NSC examinations conducted by SACAI. The reports were compiled on the basis of data collection through verifications, observations and interviews carried out on the conduct, management and administration of examinations.

Table 4A below provides the details of examination centres, subjects and dates monitored.

Table 4A: Examination centres monitored for the writing of examinations

	Centre	Date	Subject	Candidates registered	Candidates wrote
1	Elroi Academy Sunnyside	28/10/16	Mathematics P1 Mathematical Literacy P1	10 3	6 3
2	ASG Lyttelton	08/11/16	Economics P2	8	6

	Centre	Date	Subject	Candidates registered	Candidates wrote
3	Science Bridge @ UJ	14/11/16	Physical Science P2	47	47
4	Thinkrite Self Directed Learning	03/11/16	Afrikaans Home Language, Afrikaans First Additional Language	12 3	12 3
5	My Tutor and Teaching Centre	22/11/16	Engineering and Graphics Design P1	1	1
6	Didaskos Akademie	07/11/16	Life Sciences P1	4	4
7	Dynamic Academy	03/11/16	Afrikaans Home Language P2, Afrikaans First Additional Language P2	9 1	8 1
8	Unlimited Success	28/10/16	Mathematics P1 Mathematical Literacy P1	24 17	19 17
9	City College Welkom	28/10/16	Mathematics P1	41 40	40 16
10	City College Potchefstroom	31/10/16	Mathematical Literacy P2 Mathematics P 2	26 10	24 9
11	My Tutor and Teaching Centre	28/10/16	Mathematics P1 Mathematical Literacy P1	9 24	9 23
12	School of Transformation	24/10/16	Business Studies	8	7
13	Epsilon Academic Support Centre	03/11/16	Afrikaans Huis-Taal P2	28	28
14	Alpha Exam Writing Centre	20/10/16	Information Technology P1	2	2
15	Dynamic Kidz	28/10/16	Mathematics P1 Mathematical Literacy P1	7 20	6 20

	Centre	Date	Subject	Candidates registered	Candidates wrote
16	Free 2B Me Academy	19/10/16	Computer Applications Technology P1	15	15
17	Wings Aviation Academy	19/10/16	Computer Applications Technology P1	6	6
18	Die Leersentrum	28/10/16	Mathematics P1 Mathematical Literacy P1	9 13	9 13
19	Upington High School	19/10/16	Computer Applications Technology P1	138	138
20	Overberg Academy	31/10/16	Afrikaans Huistaal P3	4	3
21	Dot's Learning Centre	31/10/16	Mathematical Literacy P2 Mathematics P2	6 26	4 24
22	Mi Su Casa Private	14/11/16	Physical Sciences P2		

Monitors visited the examination centres on selected days and were required to complete a pre-designed monitoring instrument. They recorded observations and verbal responses from the chief invigilator and invigilators on the administration of examinations. The monitors also verified documents available at the examination centres.

4.3 Summary of Findings

The findings below are presented in terms of the criteria used for the monitoring of the writing phase of examinations, as prescribed by Umalusi.

Table 4B below indicates the level of compliance of the twenty-one (21) centres used for the comparative analysis to the eight (8) critical criteria indicators as prescribed in the monitoring instrument.

Table 4B: Level of compliance in relation to criteria

Criterion	Met all criteria	Met 80% criteria	Met 60% of criteria	Met 40% of criteria	Did not meet criteria 0%	Total
Delivery and storage of examination material	17 (81%)	2 (9.5%)	2 (9.5%)			21
The invigilators and their training	20 (95%)	1 (5%)				21
Preparations for writing and examination room/venue(s)	11 (52%)	9 (43%)	1 (5%)			21
Time management for the conduct of examinations	13 (62%)	6 (28%)	1 (5%)	1 (5%)		21
Checking of the immediate environment	18 (86%)				3 (14%)	21
Activities during writing	15 (71%)	5 (24%)	1 (5%)			21
Packaging and transmission of answer scripts	14 (67%)	7 (33%)				21
Monitoring by the assessment body	10 (47%)	5 (24%)		2 (10%)	4 (19%)	21
Total	118 (70%)	35 (21%)	5 (3%)	3 (2%)	7 (4%)	168

4.3.1 Delivery and storage of examination material

Examination material is either collected by the chief invigilators, accompanied by other personnel, from the nodal points or the chief invigilator receives the material from the courier service. The question papers arrived in sealed plastic packets and secured in a security coded crate from the assessment body. The code is made accessible to the centre on two occasions for a two-week period at the commencement of the examinations. On arrival at the exam centre, the question papers are locked into secured storage facilities until taken to the examination venues.

At all centres adequate security was available for the safe keeping of the examination material. The key to the locking facility was kept by the chief invigilators and/or Principal for the duration of the examination.

4.3.2 The invigilators and their training

At all centres monitored, the principal or head of the centre was appointed as the chief invigilator, except in one instance where the general manager was the chief invigilator, and in another it was the facilitator. All chief invigilators were appointed officially by the Head of SACAI to hold the position for the current examination period. A copy of the appointment letter was available for verification. Appointment of personnel other than the Principals as chief invigilators should be viewed against the *Regulation pertaining to the conduct, administration and management of the National Senior Certificate Examinations (Government Gazette No. 31337 as amended)*, Annexure I 1(1). All chief invigilators were trained by SACAI officials for their duties and responsibilities between August and October 2016.

The centre personnel were appointed as invigilators. All invigilators, except at one centre, were officially appointed and trained by the chief invigilators or SACAI personnel before the commencement of the examination. The statistical analysis on Table 2 substantiates the above.

4.3.3 Preparations for writing and the examination venues

It was found that in all centres monitored, the direction and signage to the examination venue were well or adequately displayed. The environment inside and outside the examination rooms was of an acceptable standard. The noise levels were reasonably managed.

Furthermore, the monitors noted that the examination centres were devoid of display material that could assist the candidates. The furniture used by candidates was adequate and suitable for writing. In the majority of examination centres, the information boards clearly displayed date, subject and start-finish times. The requirement to display a clock, was adhered to.

However, at two centres it was noted that there was no seating plan and at one an invigilator used her cell phone in the exam room; at two centres the ID and admission letters were not verified; two centres did not have attendance registers for monitors to sign and one centre did not have a relief timetable.

Examination centres maintained examination files relatively well with most required documents. Candidates were in possession of necessary identification documents with them at all examination centres, except at two centres.

Checking of the calculators was limited to the subjects that required them but monitors could not confirm proper checking of these calculators by the invigilators. In

the sample of centres that were monitored, these centres clearly practised a strict “no cell phone policy” in the examination rooms and this was adhered to.

All examination centres had the required number of invigilators to meet the 1:30 ratio stipulation as per the examination regulations.

4.3.4 Time management

Invigilators and candidates reported to the examination rooms thirty (30) minutes before the start of the examination. This ensured sufficient time for the administrative matters to be addressed before the commencement of the writing. All examination centres managed to distribute the answer books and question papers to the candidates on time. Within the twenty-one (21) centres monitored, eighteen (18) centres read examination rules to the candidates with only three (3) not complying. It was observed that question papers were checked for technical accuracy at eighteen (18) centres while three (3) centres did not perform this.

It was evident that two (2) centres did not comply with the stipulated ten (10) minutes reading time. Notably, the majority of centres started the examination at the stipulated time and were able to end the examination timeously, except for one centre that commenced earlier with the writing of Computer Applications Technology Paper 1 at 08h30 to accommodate a second group due to a shortage of computers.

4.3.5 Checking the immediate environment

Generally, the facilities used for the writing of examinations complied with the required norms and standards as prescribed in the regulation pertaining to the conduct, administration, and management of examinations. The immediate surroundings to the examination rooms were checked by the invigilators or other centre staff to ensure that there was no material that could be used to the advantage the candidates.

4.3.6 Activities during writing

Invigilators confirmed the correctness of the information on the cover page of the answer book before the start of writing or at the end of the examination during the collection of the scripts, except for two (2) centres.

Invigilators were generally vigilant and mobile. Candidates did not request any clarification of question papers from the invigilators at any of the monitored examination centres. It appeared that candidates, who went to the toilets when examination was in progress, were accompanied by an invigilator of the same gender.

It was highlighted that the candidates were not allowed to leave the examination room in the last 15 minutes. Examination answer scripts of candidates who finished

early were collected by the invigilators whilst candidates remained seated. There was one erratum at one centre where an information sheet had to be printed and given to candidates.

4.3.7 Packaging and transmission of answer scripts

The following quality assurance process was followed:

- Examination answer books were counted and packed in the examination room of all twenty-one (21) centres. In all instances, this was done by the chief invigilator and invigilators in the presence of Umalusi monitors;
- Scripts were arranged using the sequence on the mark sheet and in all cases, candidates marked present were accounted for and tallied with the number written on the wrapper; and
- Scripts were packaged and sealed in the official sealable plastic bags provided by SACAI. All centres completed dispatch forms.

A mixed collection of scripts was adopted, as there were instances where the scripts were transported to SACAI nodal point by chief invigilators or delegated personnel within one hour of the completion of the examination, whilst in some cases, a courier service was used for returning the scripts to SACAI.

4.3.8 Monitoring by the assessment body

Four (4) of the centres sampled by Umalusi were not monitored by the assessment body at the time of Umalusi monitoring visits and seven (7) of the centres fulfilled these criteria partially.

4.3.9 Irregularities identified by the Umalusi monitors

The following irregularities were noted by the monitors during the visit:

- The admission letters and IDs were not checked at two of the examination centres;
- Two of the examination centres did not have attendance registers for monitors to sign; and
- Two examination centres did not conform to the seating requirements.

4.3.10 Irregularities reported by the assessment body

Table 4C below provide information of irregularities as reported to Umalusi by the assessment body.

Table 4C: Irregularities reported by the assessment body

Subject	Name of the centre	Nature of Irregularity	Action taken
Computer Applications Technology P1	High School Upington 807405	<ul style="list-style-type: none"> • Candidate 9612065044086 did not save work • Lost all data and had to restart at 11:00 	<ul style="list-style-type: none"> • Restarted at 11:00 • No extra time allowed • SACAI monitor, Mr van Wyk was present during this incident
Information Technology P1	Alpha Examination Writing Centre 804426	<ul style="list-style-type: none"> • Candidate 9804250116080 encountered a debugger notification "Provider cannot be found" (debugger error) • Candidate was moved from PC1 to PC3 to restart, again the candidate experienced problems. The candidate notified the CI that she could correct the problem herself. • Candidate moved to PC 3 then the Chief Invigilator and IT specialist observed that the candidate was accessing the data module_u_pas and doing her configurations. The two suspected that the candidate was doing something incorrectly to cause this error on PC2 – 3 because PC3 was functioning without any errors. • The candidate's data file on PC1 	<ul style="list-style-type: none"> • Candidate was moved from PC1 (Windows 7) to PC3 (Windows 8.1) to restart, again the candidate experienced problems. • The IT specialist observed that the candidate was accessing the datamodule_u_pas and doing her configurations and then suspected that the candidate was doing something incorrectly to cause this error on PC3. • SACAI requested a Post investigation and diagnostic test on the relevant PCs as done by Mr Kevin de Jonge from 3DMM. The company that supplied the computers. • PC3 did have the correct AccessDatabaseEngine.exe file found during the investigation and that also the Delphi.Exe file from the candidate file did run correctly without any errors. PC3 was indeed correct and the candidate should not have had any problems, but the candidate did experience problems according to her affidavit

Subject	Name of the centre	Nature of Irregularity	Action taken
		<p>and PC3 during this investigation were not interfered with nor modified.</p>	<p>IT specialist (Mr K de Jonge) conclusion:</p> <ul style="list-style-type: none"> • PC1 had a fault on. PC3 was functioning without any errors. Technical specifications were indeed correct and set according to SACAI's requirements, however the error on PC1 was found on the basis that the AccessDatabaseEngine .exe file was from a 64bit file source and therefore a run error on the Delphi.exe 32 bit occurred. • The candidate's data file on PC1 and PC3 during this investigation were not interfered with nor modified. • Candidate was requested to submit an affidavit. Affidavit received on 21/10/2016
<p>Physical Sciences Paper 1 and Paper 2</p>	<p>Morning Star Education and Consultancy, Vryheid.</p>	<ul style="list-style-type: none"> • The courier transporting the answer scripts (Physical Science Paper 1 and Paper 2) from the Morning Star Education and Consultancy to the SACAI office in Pretoria was hijacked on Thursday, 17 November 2016 at 21:00. 	<p>From the Police:</p> <ul style="list-style-type: none"> • A police investigation is underway, and the driver will be submitted to a polygraph test. • A search for the missing cargo continues alongside the investigation. <p>From SACAI:</p> <ul style="list-style-type: none"> • SACAI immediately requested Morning Star Education and Consultancy to overnight courier the teacher files and learner portfolios. • Identified the affected

Subject	Name of the centre	Nature of Irregularity	Action taken
			NSC candidates.
Engineering Graphics & Design Paper 1	My Tutor & Teaching Centre - Hillcrest	<ul style="list-style-type: none"> • Chief Invigilator opened EGD Paper 2 and distributed the paper to the candidate as paper 1. • Candidate wrote Paper 2 and was not even aware that it was the wrong paper. • The chief invigilator notified SACAI at 12:00 that the candidate had written the EGD Paper 2 instead of EGD Paper 1. 	<ul style="list-style-type: none"> • SACAI reported the irregularity to Umalusi on an urgent basis with all relevant facts. • The EGD back-up Paper 2 was printed and distributed to 51 centres on an overnight courier service. • CIs of the centres were notified by email as well as a SACAI official phone call alerting them that the EGD Paper 2 would be replaced by the EGD back-up Paper 2. Centres received the back-up paper on time for the second session dated 24/11/2016.

4.4 Areas of Good Practice

Monitors acknowledged the following areas of good practice as experienced at the examination centres that were monitored:

- Examination material was collected from and returned to the nodal points in the stipulated time prescribed by SACAI;
- Training and appointment of chief invigilators and invigilators were completed well ahead of the examination;
- At all examination centres, question papers were opened in front of the candidates;
- Policy of no cell phones in the examination room was followed by all examination centres; except in one instance where the invigilator was using her cell phone in the exam room; and
- Starting and ending time of examination was strictly observed by examination centres; except at one centre where the CAT paper commenced earlier to cater for the second group.

4.5 Areas of Concern

The following areas of concern were noted during the monitoring visits and they need to be addressed: (Refer to **Annexure 4A** for the summary of concerns and centres implicated):

- Invigilators appointment letter not available;
- Seating plan not drawn and/or not followed for the examination session;
- Attendance register for monitors not compiled;
- Verification of candidate's ID/admission documents not done on entry;
- Question papers not checked for technical accuracy;
- Examination rules not read to candidates.
- Daily situational report not written; and
- Some examination centres did not keep copy of the dispatch form of examination material.

4.6 Directives for Compliance and Improvement

The following directives are made with respect to the conduct of the writing of the NSC examinations for compliance and improvement, based on the findings made by monitors at examination centres in the different provinces:

- Invigilators appointment letters must be available;
- Seating plan must be drawn and followed for the entire examination session;
- Attendance register for monitors must be compiled;
- Verification of candidate's ID/admission documents must be done on entry;
- Question papers must be checked for technical accuracy;
- Examination rules must be read to candidates;
- Daily situational report must be written whether there were irregularities or not; and
- All examination centres must keep a copy of the dispatch form of examination material.

4.7 Conclusion

Despite a few administrative challenges, the conduct, management and administration of the November 2016 National Senior Certificate examinations under the auspices of SACAI was handled well by all twenty-one (21) examination centres monitored. The information gathered at the writing phase of the examination can be accepted as being valid and credible.

CHAPTER 5 MONITORING OF MARKING

5.1 Introduction and Purpose

In accordance to the *Regulations Pertaining to the Conduct, Administration and Management of the National Senior Certificate Examinations, August 2008*, assessment bodies have the total responsibility for the credible conduct, administration and management of the marking of examinations of qualifications for which they are registered and accredited to offer.

Umalusi's founding Act, the General and Further Education and Training Quality Assurance Act (GENFETQA) 58 of 2001 as amended in 2008, and the National Qualifications Framework Act 67 of 2008, mandates Umalusi to verify the extent to which the conduct, administration and management of marking processes at marking centres comply with the legislation governing the conduct of the National Senior Certificate (NSC) examinations, that the Southern African Comprehensive Assessment Institute (SACAI) administers.

The purpose of this chapter is to report on the findings gathered during the conduct of 2016 October/November National Senior Certificate Examinations as administered by SACAI. The report acknowledges areas of good practice, areas of concern observed during the monitoring of the conduct of examinations across monitored centres and it suggests directives for compliance and improvement with which the assessment body must comply.

5.2 Scope and Approach

SACAI had centralised its marking processes to the head office at 278 Serene Street, Garsfontein in Pretoria, which was monitored by two (2) monitors from Umalusi. The reports were compiled on the basis of data collection through verification, observations and interviews carried out on the conduct, management and administration of the marking centre.

Monitors visited the marking centre on 3 December 2016 and were required to complete a pre-designed monitoring instrument. They recorded observations and verbal responses from the marking centre manager, the chief marker, the markers and the examination assistants on the administration and management of the marking process. The monitors also verified documents available at the marking centre.

5.3 Summary of Findings

The findings below are presented in terms of the criteria used for the monitoring of the marking phase of examinations, as prescribed by Umalusi. Table 5A below indicates the level of compliance of the center to the nine (9) critical criteria indicators of the conduct, administration and management of the marking.

Table 5A: Level of compliance in relation to criteria

Criterion	Met all criteria 100%	Met 80% criteria	Met 60% of criteria	Met 40% of criteria	Did not meet criteria 0%	Total
Planning for Marking	X					1
Marking Centre	X					1
Security		X				1
Training of Marking Personnel		X				1
Marking Procedure	X					1
Monitoring of Marking		X				1
Handling of Irregularities		X				1
Quality Assurance Procedures	X					1
Reports		X				1
Total	4	5				9

5.3.1 Planning for marking

It was reported that SACAI had a detailed marking management plan and every subject being marked at the centre, had its own marking management plan. The markers were divided into two groups: Group A and Group B. Group A reported for duty at the centre on 17 November 2016 and Group B on 1 December 2016.

The centre had a list of chief markers, markers, internal moderators, examination assistants and Umalusi moderators.

5.3.2 Marking centre

As indicated above, SACAI marking was conducted at its head office at 278 Serene Street, Garsfontein, Pretoria.

Seven conference and training rooms were used, with the number of scripts to be marked dictating the size of the room. The training hall was used as the script control room. All scripts were dispatched in the morning and collected in the evenings.

The report highlighted that the general conditions at the marking centre were excellent and all markers were independent of SACAI affiliation. The centre was open from 06h00 to 19h00 every day during the marking period.

5.3.3 Security

From the information gathered by Umalusi's monitors, it is reported that the norms and standards prescribed for marking centres were found adequate.

The following security measures were in place at the marking centre:

- Two security guards were on duty during the day and two at night;
- The alarm system is linked to armed security response and surveillance cameras;
- The ADT security company also uses the centre as its control point;
- A security guard was on duty at the entrance of the marking centre where visitors signs-in; and
- The marking centre was equipped with good security measures such as a monitored alarm system and surveillance cameras.

5.3.4 Training of marking personnel

Sufficient evidence was provided by the Chief Executive Officer (CEO) indicating that training of marking personnel had taken place and was carried out in accordance with the marking plan developed by the assessment body. The approach was as follows:

- The CEO of SACAI, Dr Niebuhr, trained the marking centre manager, who in turn trained the chief markers, markers and internal moderators.
- The script control managers and the examination assistants were trained by the assistant centre manager; and
- Group A and B were trained on 17 November 2016 and 01 December 2016 respectively. All markers were exposed to the marking of "dummy scripts".

5.3.5 Marking procedure

The marking approach adopted at the marking centre was to mark question-by-question. The following were observed:

- All markers signed the attendance register in the morning which was controlled by the chief marker/ centre manager;
- All markers were independent of SACAI affiliation which means they will not mark scripts of their own candidates;
- In most instances, the marking was done question-by-question and if a question was answered twice, then only the first answer was marked;
- Mark allocation was denoted by ticks and the chief marker and internal moderator randomly checked these; however, the primary checkers were the examination assistants;
- The direct supervision of marking was done by the chief marker and internal moderator. The centre manager was responsible for the overall management of the marking process; and
- Any discrepancies in marking resulted in consultation between the chief marker and internal moderator, after which a discussion with the markers/responsible marker ensued.

5.3.6 Monitoring of marking

The centre manager was responsible for the overall monitoring of the performance of markers while the chief marker had subject specific responsibility. Underperforming markers were called to order immediately by the chief marker and the centre manager intervened if necessary. This was evident with Group B where a marker was requested to resign because of underperformance.

5.3.7 Handling of irregularities

It was noted that all markers were fully aware of what constituted an irregularity. This aspect was discussed at training and all markers were issued with guidelines/policies. The irregularity committee comprised the CEO, the centre manager and the subject specific Umalusi moderator. A register of irregularities was maintained at the marking centre.

In cases where an irregularity was suspected, the marker would inform the chief marker who would then complete the necessary forms. The centre manager would submit the forms to the SACAI CEO. The CEO would finally convey the information to Umalusi within an hour. However, the marking centre had not experienced any irregularities prior to the monitoring by Umalusi.

5.3.8 Quality assurance procedures

The quality assurance procedures adopted by SACAI were informed and well managed. To ensure the entire script was marked, the following checks were in place:

- In some subjects the entire answer book was checked and all blank pages had a red line drawn across them;

- Random checks were done by the internal moderator, but the EAs checked the entire script for marking and mark transcription;
- A tick indicated that a mark and different colour pens were used for checks and balances, e.g. the EAs used a blue pen when checking; and
- The transfer of marks from script to mark sheet was double-checked for correctness (two different EAs checked the same scripts at different intervals).

5.3.9 Reports

It was observed that chief markers completed a qualitative report at the end of their marking session. These reports are used for future standardisation purposes and for submission to Umalusi. The report consists of inputs made by the internal moderator and the performance in each question as submitted by the markers. All chief markers handed in their reports to the academic head prior to their departure from the marking venue. The academic head then compiled a composite report for SACAI which will be submitted to Umalusi not later than the 16 December 2016.

The CEO ensures that reports satisfy the minimum criteria. These reports are used for:

- standardisation purposes;
- statistical analysis;
- feedback to NSC centres;
- teacher training, and are
- placed on the website for easy reference.

5.4 Areas of Good Practice

Monitors acknowledged the following areas of good practice at the SACAI marking centre:

- Clear directions within marking rooms;
- All processes and procedures were in accordance with acceptable norms and standards;
- The venue had good facilities, inclusive of catering needs and this enhances marking; and
- There was sufficient space in the marking rooms. The SACAI marking centre was operating at a very high standard and the management of the centre was exceptional.

5.5 Areas of Concern

The following areas of concern were noted during the monitoring visits:

- The security guard at the entrance into the marking centre was not vigilant at all times especially during breaks. There was no relief guard on stand-by as well.

5.6 Directives for Compliance and Improvement

SACAI must consider the following directives to improve the marking processes of the NSC examinations in future:

- Norms and standards for security must be in place and enforced.

5.7 Conclusion

The conduct, management and administration of the marking of the National Senior Certificate Examination scripts under the auspices of SACAI were executed in a very proficient manner. The marking phase of the examination can be accepted as valid and credible.

CHAPTER 6 MARKING GUIDELINE DISCUSSIONS

6.1 Introduction and Purpose

The quality assurance of marking comprises two processes, namely, the approval of the final marking guidelines at the marking guideline discussion (MGD) meetings and the verification of marking. Umalusi engages in its annual quality assurance of the marking exercise in preparation for the marking processes to ensure that markers maintain appropriate standards and uphold marking quality.

The marking guideline discussions for SACAI took place at the SACAI offices in Garsfontein, Pretoria. These meetings consisted of selected panels for a total of twenty-six (26) subjects. Each panel comprised the Umalusi external moderator (EM) responsible for the moderation of the SACAI National Senior Certificate (NSC) question papers, internal moderator (IM), chief marker (CM) and appointed Markers for each subject. The meetings, which were hosted by SACAI, were divided into two groups: Group 1 comprised of eleven (11) subjects and Group 2 comprised of fifteen (15) subjects. The marking guideline discussion meetings were held for each group on 18 November 2016 and 2 December 2016, respectively. The meetings focussed on standardisation of the marking guidelines. This was done by means of mediation of the marking guidelines, shared understandings by all participants and incorporation of alternative responses, which would not compromise the cognitive level of the relevant question and the examination paper as a whole. Consensus was reached for consolidation of final marking guidelines before commencement of the marking process.

6.2 Scope and Approach

The marking guideline discussion meetings for SACAI were held for twenty-six (26) subjects, written during the November 2016 NSC examinations. The subjects sampled for marking guideline discussions are listed in Table 6A below:

Table 6A: List of subjects sampled for marking guideline discussions

Subjects sampled for marking guideline discussions	
Group 1: 18 November 2016	Group 2: 02 December 2016
Accounting	Agricultural Sciences
Afrikaans First Additional Language	Agricultural Management Practice
Afrikaans Home Language	Civil Technology
Business Studies	Consumer Studies
Computer Applications Technology	Dramatic Arts
English First Additional Language	Economics

Subjects sampled for marking guideline discussions	
Group 1: 18 November 2016	Group 2: 02 December 2016
English Home Language	Engineering Graphics and Design
Information Technology	Electrical Technology
Life Sciences	Geography
Mathematical Literacy	History
Mathematics	Hospitality Studies
	Mechanical Technology
	Physical Science
	Religious Studies
	Visual Arts

The SACAI marking guideline discussion meetings were chaired and facilitated by either the internal moderator (IM), chief marker (CM) or examiner. After engaging in discussions, each response was endorsed by the EM before endorsement of the marking guidelines document as a whole.

The marking guideline discussions for SACAI, presented in Table 6A above, were conducted using the Umalusi marking guideline verification instrument based on the criteria listed on Table 6B which comprises three parts. The number of quality indicators for each criterion is indicated in brackets.

Table 6B: Umalusi criteria for monitoring the marking guideline discussion meetings

Part A	Part B	Part C
Pre-marking guideline discussion meeting (1)	Processes and Procedures (14)	Training at marking guideline discussion meeting (3)
Preparation of chief markers and internal moderators (3)		Quality of the final marking guideline (6)
		Conclusions and Reflections

Part A (two criteria comprising four quality indicators) focuses on the level of preparation of the delegates at the marking guideline discussion. Part B (a single criterion comprising fourteen (14) quality indicators) focuses on the processes and procedures followed during the marking guideline discussion meetings. Finally, Part C (comprising two criteria and eight quality indicators) addresses the training for marking. The instrument also make provision for external moderators to make general comments, conclusions and reflections.

6.3 Summary of Findings

This section reports on the collective findings by external moderators with regard to the twenty-six (26) SACAI question paper marking guideline discussions. These reports were based on the criteria listed in Table 6B, above. These criteria are important for determining the levels of compliance at the marking guideline discussion meetings with respect to attendance, refinement of the marking guidelines and the training of appointed markers in the use of the marking guidelines. It is also crucial for making overall judgements about the quality of training and ratification of the final marking guidelines.

6.3.1 Part A: Pre-marking guideline discussion and preparation by markers and internal moderators

The first criterion, 'pre-marking guideline discussion', relates to whether or not a pre-marking guideline discussion meeting had taken place between the examination panel and the external moderator for each subject. The reports for each of the 26 subjects that held marking guideline discussions indicated that no provision is made by SACAI for pre-marking guideline discussion meetings, rather the EM had only met with the IM and CM in the afternoon of the date set aside for the marking guideline discussions.

The second criterion, 'preparation by markers and internal moderators', comprises three quality indicators: (i) preparation by the examination panel with evidence of prepared possible answers; (ii) marking of sample scripts prior to the marking guideline discussions; and (iii) indication of the number of scripts marked by the IM and CM. The analysis shows that four subject panels, Computer Applications Technology (CAT), Life Sciences, Economics and Visual Arts had not prepared themselves with written answers at the marking guideline discussions. Three subjects, Life Sciences, Economics and Visual Arts reported that the IMs and CMs had not marked a sample of scripts prior to the discussions. The number of sample scripts marked prior to the discussions ranged from zero (Economics and English Home Language (HL), Paper 3) to twenty-three (23) (Afrikaans First Additional Language (FAL)) across the sampled subjects.

6.3.2 Part B: Processes and procedures

This third criterion comprises a total of fourteen (14) quality indicators: (i) attendance; (ii) logistical arrangements; (iii) processes and procedures followed; (iv) meaningful contribution by participants to the discussion; (v) identification of common errors that could be made during initial marking; (vi) discussions for clarification of answers and increase in markers' ability to assess interpretative questions, such as essays; (vii) discussions for eliciting alternative responses; (viii) an explanation of the role of the EM at the discussion; (ix) a positive correlation between the final examination paper and that approved by the EM; (x) changes made at the marking guideline discussion; (xi) questions that elicited a large number of alternative responses; (xii) provision of motivation for changes made; (xiii) approval of changes and/or

additions by the EM; and (xiv) the impact that changes made on the marking guideline had on the cognitive level of the relevant questions.

The analysis of the sampled subjects indicated that, with the exception of CAT, English HL and Civil Technology, the remaining twenty-three (23) subjects were in full compliance with all fourteen (14) quality indicators of this criterion. CAT reported that the logistic arrangements compromised effective discussions as the venue had to be shared with other subjects and in addition, the venue was not equipped with a data projector and screen. CAT also indicated that the marking guideline discussion had already been concluded by the time the EM arrived. However, the EM noted that upon his/her arrival, s/he received a well-structured file, which included the practical examination paper as well as the amended marking guideline for the practical paper. The effected changes to the marking guidelines for the practical paper were discussed with the EM who ratified the final marking guideline document. English HL indicated that the newly appointed independent IM (who was not the IM of the examination question papers) was not present for Paper 2 and Paper 3 as he had not been released by the principal of the school, but he was present for the Paper 1 discussions. English HL also noted that the discussions for Paper 2 and Paper 3 did not elicit alternative responses. The report showed that the participants were fully satisfied with the marking guidelines and directives to markers and therefore did not implement any changes. Similarly, Civil Technology flagged that rigorous discussion did not occur for the drawings as answers did not require further interpretation. Changes to the marking guidelines were also not necessary because there was consensus on the inclusion of alternative responses. Of the twenty-six (26) subjects, all, excluding CAT, indicated that the EM had exercised a robust role in discussions and had made the final decisions where changes and/or alternative answers were provided.

6.3.3 Part C: Training at the marking guideline discussion meetings and quality of the final marking guidelines

Criterion 4, 'Training at marking guideline discussion meeting', focuses on: (i) provision made for the marking guideline discussion meeting; (ii) whether the CM and IM had received a representative sample of scripts to mark at the training centre; and (iii) six quality indicators of the actual training. Criterion 5, 'Quality of the final marking guideline', comprises six quality indicators. A total of twenty-four (24) subjects showed full compliance for Criterion 4 and Criterion 5 and their respective quality indicators. The two subjects that were not in compliance, Afrikaans HL Paper 1 and Life Sciences, indicated that the IM and CM had not received a representative sample of scripts for the training session.

6.3.4 Conclusions and reflections

This final part of the instrument provides the EMs' reflections and comments that were not appropriately addressed during the initial moderation process. The analysis shows that while twenty-two (22) subjects noted that the marking guideline discussions were productive, Afrikaans HL, English HL, CAT and Life Sciences made contrary comments specific to their subjects. Afrikaans HL and English HL emphasised

that due to the nature of the subject, it was not possible to include every alternative response, hence, directives for the marking of logical alternative responses were provided to markers. Similarly, CAT stated that as the subject is of a 'dynamic nature', especially in terms of newly updated programmes, it was not always possible for the panel 'to provide every conceivable answer to a question', and that even though the marking guideline discussions provided alternatives, there would always be candidates who would provide unforeseen, correct answers. Life Sciences reported that while the moderation process had been thorough, a printing error had occurred in Paper 2: two paragraphs for a particular question were merged. However, the EM for Life Sciences indicated that this anomaly would not have disadvantaged learners in any way as provision had been made in the marking guideline to address this point. Finally, all subjects stressed that sample scripts should be provided timeously to ensure rigorous marking guideline discussions.

6.4 Areas of Good Practice

The report shows many good practices by SACAI with regard to the marking guidelines discussions:

- For twenty-five (25) subjects (English HL being the only exception), attendance at the marking guideline discussions was excellent as all key participants were represented;
- In addition to the IM and CM, appointed markers were active participants of the discussion meetings;
- Participants contributed meaningfully to the discussions and informed the content of the marking guideline documents;
- Participants respected the role of the Umalusi external moderators and acknowledged their final judgement on an answer;
- Changes made to the marking guidelines were carefully thought out. The inclusion of alternative responses and/or revisions to the marking guidelines did not affect the cognitive weighting of the relevant question and the paper as a whole;
- Clear motivations were provided for changes made to the relevant marking guidelines.
- The quality of the final marking guidelines was to the satisfaction of the EM.

6.5 Areas of Concern

The following were noted as areas of concern as they could negatively impact consistent marking and the standardisation process:

- While a pre-marking discussion took place between the CM and IM of each subject, due to time constraints this discussion did not include the EM;
- Even though the participants were fairly well prepared for the marking guideline discussion meetings, not all subjects showed evidence of preparedness with written answers;

- The large majority of subjects did not have sufficient number of sample scripts: some subjects such as Afrikaans HL Paper 1, English HL Paper 2 and Paper 3, Life Sciences Paper 1 and Paper 2, Mathematical Literacy Paper 1 and Paper 2, Civil Technology, Economics, Geography, Religion Studies and Visual Arts received zero to three (3) sample scripts; and
- The allocation of three hours for the marking guideline discussions for each subject, irrespective of the number of question papers per subject, is insufficient for robust and in-depth discussions, training of markers and the signing off of the final marking guidelines by the EM. This was clearly evident in Afrikaans HL and English HL which require robust discussions and mediation of the rubrics.

6.6 Directives for Compliance and Improvement

To ensure that marking is conducted in a fair and consistent manner across the subjects in the future, SACAI needs to review some of its practices as follow:

- Set aside time for pre-marking discussions between the CM, IM and EM;
- Request all participants to report for discussions with prepared written responses to the question paper to encourage rigorous and meaningful discussions during the marking guideline discussion meetings.;
- Ensure that subject panels have sufficient sample scripts in preparation for the discussions;
- Provide sufficient time for the marking guideline discussions, particularly for subjects with more than one question paper; and
Provide a reasonable amount of time for the marker-training process.

6.7 Conclusion

Umalusi monitored 26 marking guideline discussion meetings and reports thereof provided evidence of compliance for the large majority of criteria and their respective quality indicators. On the whole, despite time constraints, the large majority of subjects indicated that they had engaged in productive discussions that informed the marking guidelines meaningfully. The final marking guidelines were of a good quality in that they served as excellent guidelines to markers, thus ensuring,, reliability, credibility and validity in the SACAI examinations.

CHAPTER 7 VERIFICATION OF MARKING

7.1 Introduction and Purpose

As one of its key quality assurance practices, Umalusi verifies the marking process of selected subjects offered by SACAI for the National Senior Certificate (NSC). The verification process ensures that there is consistency in the interpretation and application of the marking guidelines, and safeguards fairness in marking across the subjects.

The verification of marking for SACAI was conducted on-site by the external moderators (EMs), for a selected number of subjects. A significant benefit of conducting the verification process on-site was that inconsistencies or discrepancies in marking could immediately be identified and addressed by the EMs. In most cases, the marking of the SACAI papers took place immediately after the marking guideline discussions, and the EMs for the relevant subjects were deployed to SACAI premises while the marking was in progress.

7.2 Scope and Approach

This chapter reports on the findings and assessment of the EMs of 16 subjects identified in Table 8A, below.

Table 7A: List of subjects verified by Umalusi external moderators

Subjects			
1	Accounting	9	English Home Language
2	Agricultural Management Practice	10	Geography
3	Business Studies	11	History
4	Computer Application Technology	12	Life Sciences
5	Consumer Studies	13	Mathematical Literacy
6	Economics	14	Mathematics
7	Engineering Graphics and Design	15	Physical Sciences
8	Electrical Technology	16	Visual Arts

The Umalusi verification of marking Instrument that was used for the quality assurance of the marking process consists of four parts, each of which comprise a variable number of criteria, presented in Table 8B, below. Part A, 'Adherence to marking guidelines' is comprised of three criteria, Part B, 'Quality and standard of marking' four criteria, Part C, 'Candidates' performance makes provision for EMs to report fully

on learner performance and Part D, 'Findings and suggestions', is a summary of findings and suggestions.

Table 7B: Umalusi criteria for verification of marking

Part A: Adherence to marking guidelines		Part B: Quality and standard of marking		Part C: Candidate performance		Part D: Findings and suggestions	
1	Adherence to marking guidelines	4	Consistency in the allocation of marks	8	Performance of learners with specific reference to questions	9	Findings and suggestions to be noted by the IM and CM
2	Changes made to marking guidelines at the marking centre	5	Accuracy in addition of marks and calculation of totals				
3	Process followed	6	Internal moderation of marks				
		7	Fairness, validity and reliability				

7.3 Summary of Findings

This section uses Table 7B as a framework for the analysis and discussion of a summary of findings for the verification of marking conducted for the 16 subjects presented in Table 7A, above.

7.3.1 Part A: Adherence to marking guidelines

The 16 identified subjects indicated that the internal moderator (IM), chief marker (CM) and markers adhered to the marking guidelines that were ratified and signed off by the EMs at the marking guideline discussion meetings. Accounting, Consumer Studies and Life Sciences noted particular alignment and accuracy in accordance with the marking guidelines. English Home Language (HL), Geography, History and Mathematics indicated that initially there were a few inconsistencies in the marking, but when addressed, the relevant questions were accurately assessed. None of the subjects affected changes to the marking guidelines approved by the EMs at the marking guideline discussion meetings, and thus there was no need to follow procedures for changes.

7.3.2 Part B: Quality and standard of marking

With regards to the first criterion of Part B (Criterion 4), 15 of the 16 subjects showed that there was consistency in the allocation of marks. The only subject that contravened this criterion was Business Economics which indicated that part-mark allocation was inconsistent, that for some questions, markers exceeded the maximum mark of the question and that they favoured leniency for vague answers. In contrast, Economics specifically pointed out that as the two chief markers were the only markers for the paper, their accurate interpretation of the marking guidelines contributed to their consistent and accurate marking. Electrical Technology particularly stated that consistency in marking was achieved from the outset. In addition, as noted above, some subjects such as English HL, Geography, Life Sciences, History and Mathematics stated that discrepancies and inconsistencies, initially identified, were immediately addressed and consistency in the marking was achieved. The source of inconsistencies in English HL and Life Sciences were found to be in the interpretation of the marking rubrics for essays.

For Criterion 5, which refers to accuracy in calculation of marks, one subject, Computer Application Technology (CAT), specified that there were numerous errors. In addition, three subjects, Mathematics, Physical Science and Visual Arts, mentioned that there were one or two errors, but that those were rectified by the examination assistants. For Criterion 6, which centres on the internal moderation of the marked scripts, all 16 subjects indicated that there was evidence of internal moderation by both the CM and IM. However, the quality of such moderation varied across the subjects. English HL, Economics, Engineering Graphics and Design (EGD), Consumer Studies and Mathematics, for example, complimented the quality of internal moderation, stating that IMs were judicious, consistent and accurate.

With regard to the fourth criterion of Part B, Criterion 7, 'Fairness, Validity and Reliability', 15 of the 16 subjects indicated that by the end of the verification process, the marking could be declared fair, valid and reliable. Markers had addressed inconsistencies and as a result, the variance in marks between the EM and the Marker was insignificant. Accounting, however, felt that a judgement for this criterion could not be made at that particular stage, it was still too early in the marking process to do so. However, the marking in Accounting was also finally declared to have been fair, valid and reliable.

7.3.3 Part C: Candidate performance

The performance of learners has been generally found to be poor. Reasons for poor performance obtained from the qualitative comments for the 16 subjects have been summarized below:

- Large sections of the examination question paper were omitted, many questions were not attempted and/or learners failed to answer the required number of questions, (Accounting and Business Studies);

- Lack of basic conceptual knowledge and subject-specific terminology, (Geography, English HL, AMP, Life Sciences and Electrical Technology).
- Lack of subject specific knowledge, (Economics, English HL, Geography and Mathematical Literacy);
- Superficial interpretation of literary texts and poor language usage, (English HL).
- Inability to apply knowledge to the task(s) given (English HL, AMP, Life Sciences, Physical Science and EGD); and
- Inability to develop and sustain a line of argument in essay writing, (History).

7.3.4 Part D: Findings and suggestions

This final part of the verification of marking Instrument, requires the EM to provide informative comments to be noted by the IM and CM. The following is a summary of significant comments made by the EMs for the 16 subjects:

- The IM and CM must be complimented on their judicious, consistent and accurate marking and should continue with their good practices, (Consumer Studies, Economics, English HL, EGD, Geography and Mathematics);
- Technicalities regarding the stapling of the examination question should be addressed, (Accounting);
- SACAI had ignored irregularities: learners did not use prescribed answer books; answer books were not properly bound; typed answers were not accompanied by concessional letters; and the final mark on the learner mark sheet reflected the mark of the marker and not that of the final moderator, (Business Studies);
- When variances in marks are detected, these should be addressed immediately and markers should be alert to repetitive or irrelevant responses, (Economics);
- Answers provided evidence that many learners did not have the relevant subject textbook and South African National Standards document, (EGD) which are critical for good performance;
- The IM should be present for the marking session on an on-going basis to address marking inconsistencies, (English HL); and
- When a marker failed to report for duty, it caused problems, (Visual Arts).

7.4 Areas of Good Practice

Drawing on the quantitative and qualitative data that the EMs for the 16 subjects provided, the following areas of good practice were noted:

- The thorough and judicious marking practices of the IM, CM and Markers for Consumer Studies, Economics, English HL, EGD, Geography and Mathematics must be continued in the forthcoming marking sessions; and
- The detection and immediate resolve of inconsistencies by either specific markers or specific questions for the large number of subjects, have

contributed significantly to the overall fairness, validity and reliability in marking.

7.5 Areas of Concern

The following areas of concern were noted:

- There were technical deviances in paper stapling, (Accounting);
- SACAI had ignored irregularities: learners did not use prescribed answer books where necessary whilst others were not properly bound; typed answers were not accompanied by concessional letters; and the final mark on the learner mark sheet reflected the mark of the marker and not that of the final moderator, (Business Studies);
- The IM was not always present to address marker inconsistencies, (English HL).
- Training of markers was not sufficiently conducted, especially for markers called to replace those who could not report for duty. This hampers the flow of marking and could be a source for inconsistent marking, (Visual Arts, Life Sciences);
- Language usage by learners is poor, (English HL and Life Sciences); and
- Learner performance is extremely poor and is probably as a result of home-schoolers who do not receive any kind of formal teaching and/or exposure to cognitive academic language proficiency, (CALP) skills.

7.6 Directives for Compliance and Improvement

The following directives are given to SACAI for compliance and improvement:

- SACAI should have policies and procedures in place to manage irregular practices;
- SACAI should make every effort to ensure that appointed IMs, CMs and Markers are able to report for duty for the full duration of the marking process (unless, of course, if absence is due to unforeseen circumstances); and
- Formal teaching sessions for the acquisition of CALP, English language usage and subject content knowledge must be put in place and/or carefully monitored. The current status of learner performance has provided great cause for alarm.

7.7 Conclusion

For the November 2016 NSC examinations, Umalusi was able to deploy external moderators for selected subjects to the SACAI marking centre. The findings have shown that the verification process undertaken for the 16 identified subjects was successful. External moderators were able to intervene where inconsistencies were identified during marking and positively facilitate the marking toward attaining minimal variance in marks. All 16 subjects declared the marking process to be fair, valid and reliable. A significant favourable finding is that, with the exception of one subject, the internal moderators and chief markers were commended for their

organizational skills, their judicious moderation and their ability to train their markers for consistency and accuracy. However, poor learner performance is cause for concern, and the overall recommendation is that learners must be exposed to some kind of formal teaching for both subject content knowledge and English language development.

CHAPTER 8 STANDARDISATION AND RESULTING

8.1 Introduction and Purpose

Standardisation is a statistical moderation process used to mitigate the effects on performance of factors other than learners' ability and knowledge. The standardisation of examination results is necessary in order to reduce the variability of marks from year to year. Such variability may be the result of the standard of the question papers, as well as the quality of marking. Thus, standardisation ensures that we deliver a relatively constant product to the market.

According to the General and Further Education and Training Quality Assurance Act (GENFETQA), 2001, as amended in 2008, Section 17A (4), the Quality Council may adjust raw marks during the standardisation process. During the standardisation process, which involves statistical moderation, qualitative inputs from external moderators, internal moderators and post examination analysis reports, as well as the principles of standardisation, are taken into consideration.

Various processes are involved in standardisation to ensure it is carried out accurately, including the verification of subject structures, electronic data booklets, and development of norms, and the approval of adjustments.

8.2 Scope and Approach

SACAI presented a total of 28 subjects for statistical moderation in the November 2016 National Senior Certificate (NSC) examinations. The verification of mark capturing was carried out by Umalusi at the SACAI offices.

This section summarises the discussion on the verification of the standardisation and results system, the areas of good practice and the areas of concern, as well as directives for improvement. Table 8A below lists the subjects presented by SACAI for standardisation:

Table 8A NSC subjects presented for standardisation

1. English FAL	15. Physical Sciences
2. English HL	16. History
3. Afrikaans FAL	17. Geography
4. Afrikaans HL	18. Dramatic Arts
5. Business Studies	19. Visual Arts
6. Mathematics	20. Economics
7. Mathematical Literacy	21. Religious Studies

8. Computer Application Technology	22. Agricultural Sciences
9. Information Technology	23. Mechanical Technology
10. Life Sciences	24. Hospitality Studies
11. Accounting	25. Electrical Technology
12. Tourism	26. Civil Technology
13. Consumer Studies	27. Life Orientation
14. Engineering Graphics and Design	28. Agricultural Management Practices

8.3 Standardisation and Resulting

8.3.1 Development of historical averages

The subject structures were verified and approved. The Umalusi directives and requirements documents stipulate that examination results data for the past three to five years is required for calculating historical averages. Thus, the historical averages were not calculated as this is only the third year that SACAI has administered the NSC examination.

8.3.2 Capturing of marks

Monitoring of the capturing of the November 2016 NSC examination marks was conducted at the SACAI Garsfontein offices. The system administrators gave a description of the capturing process, and a sample of the mark sheets was verified. Subsequently, a description of the security system in use for the examination materials was provided and verified.

The verifiers also checked that the data capturing rooms were appropriate for the purpose. In addition, the captured marks were verified against the mark sheets, and the alignment between the two was evidenced.

8.3.3 Electronic data sets and standardisation booklets

The electronic data sets were verified before the final standardisation booklets were printed. The following data sets were verified and approved after several moderations: the statistical distribution, the raw mark distribution and the graphs per subject, paying particular attention to different colours and raw mark adjustments. The pairs analysis and the percentage distribution per subject were also verified and approved. However, none adherence to guidelines in the colour coding of the booklet was noted and could not be rectified. The use of a bold line after every year was also not adhered to.

8.3.4 Standardisation

The qualitative input reports were presented by Umalusi staff and the external moderators. The reports focused on the moderation process, the standard and

quality of the question papers, the marking guideline discussions and the verification of marking. Thus, the Assessment Standards Committee was guided by both qualitative input reports and quantitative reports in the form of pairs analysis and standardisation principles in determining the adjustments per subject.

8.3.5 Standardisation decisions

The decisions for the SACAI November 2016 NSC examinations were informed by the 2014 and 2015 data but relied heavily on the pairs analysis, and the internal and external moderators' reports as outlined in Table 8.B below:

Table 8B: Standardisation decisions for the NSC

Description	Total
Number of learning areas presented	28
Raw marks	16
Adjusted (mainly upwards)	9
Adjusted (mainly downwards)	3
Number of learning areas standardised:	28

8.3.6 Post-standardisation

The assessment body was required to submit the adjusted data sets as per the agreed standardisation decisions. These were confirmed after a few verifications and adjustments were approved after rectifying the differences.

8.4 Areas of Good Practice

The SACAI is commended for the following areas of good practice:

- Accountability measures were in place as one administrator was responsible for controlling the movement of mark sheets within the capturing teams, and good supervision of data capturers was observed;
- The capturing room was conducive for the purpose, allowing data capturers' sufficient space to conduct their duties. The SACAI is to be commended on the excellent security features in the capturing area; and
- SACAI's adherence to policy in the submission of data sets and standardisation booklets is commendable.

8.5 Areas of Concern

The SACAI must pay attention to the following areas of concern:

- The absence of a centre management file at the capturing venue; in addition, the fact that all documents were printed during the visit was a waste of time;
- The absence of appointment letters for permanent staff for the capturing process poses a security risk for the SACAI. The lack of name tags for the data capturers is an area of concern as it also presents a security risk;
- The use of incorrect colour coding on the statistics table.; and
- Failure to use a bold line on the statistical tables after every year.

8.6 Directives for Compliance and Improvement

The following directives are given to the SACAI for compliance and improvement purposes:

- There should be a management file available at the capturing venue containing all the necessary official documents in order to ensure that the verification is conducted easily, for example, the capturers' signed declaration, organograms, and the like; and
- All officials involved in the capturing process must be trained and evidence of training should be presented during the verification visit. SACAI needs to ensure that the colour coding of the statistics table and the use of the bold line adheres to the guidelines given by Umalusi.

8.7 Conclusion

Although there was no management file at the capturing venue and non-alignment of the statistics tables graphs booklet with the guidelines, the credibility and integrity of SACAI NSC November 2016 Examinations were not compromised.

CHAPTER 9 CERTIFICATION

9.1 Introduction and Purpose

This chapter serves to inform interested parties of the current state of the certification of learner achievement for the National Senior Certificate for candidates registered to write the examinations through the private assessment body, South African Comprehensive Assessment Institute (SACAI). Umalusi affirms the general adherence to policies and regulations promulgated by the Minister of Basic Education for the *National Senior Certificate*, which was written by the first cohort of learners in November 2008.

Through the founding General and Further Education and Training Quality Assurance Act (GENFETQA, Act No. 58 of 2001), as amended in 2008, Umalusi is responsible for the certification of learner achievements for South African qualifications registered on the General and Further Education and Training Sub-framework of the National Qualifications Framework (NQF), including the *National Senior Certificate: a qualification at Level 4 on the NQF*.

Certification is the culmination of all the quality assurance processes including a final examination process conducted by an assessment body, in this instance the South African Comprehensive Assessment Institute (SACAI).

This process has a number of different steps, commencing with the registration of students and ending with the writing and resulting of the examination. After the candidate has written the examination, which is administered by the assessment body, the examination scripts are marked, the marks are processed, and only after quality assurance and approval by Umalusi, are students presented with individual Statements of Results (SoR). These documents are preliminary, outlining the outcomes of the examinations, and are issued by the assessment body. The statement of results are, in due course, replaced by the final document, a certificate, issued by Umalusi. (Certain additional processes, such as re-marks and/or supplementary examinations may cause changes to marks between the SoR and the final certificate, but these changes *must* be quality assured by Umalusi before certification.)

In order to give further effect to its certification mandate, Umalusi must ensure that certification data have been submitted in the format prescribed by Council, and that the data are both valid and reliable. For that reason, Umalusi publishes directives for certification that must be adhered to by all assessment bodies when they submit candidate data for the certification of a specific qualification.

SACAI must therefore ensure that *all* records of candidates who registered for the NSC examinations, including those who qualify for a subject only in a particular examination cycle, are submitted to Umalusi for certification. It is imperative that

datasets also include the records of students who have not qualified for a certificate. These will be the students who withdrew from the course/qualification (that is, candidates who registered to write examinations, but did not write any subjects) as well as those who failed all subjects (candidates who wrote the examination, but did not pass any subject).

On receipt of these data, Umalusi verifies that the certification request corresponds with the quality assured results. Where these do not correspond, SACAI is obliged to supply supporting documentation and explanations for such discrepancies. This process serves to ensure that the candidate is not inadvertently advantaged or disadvantaged as a result of a possible programme and/or human error; it also limits later requests for the re-issue of an incorrectly issued certificate.

The closing of the examination cycle is confirmed by the issuing of certificates, subject statements and confirmation of those candidates who have not qualified for any type of certificate – viz. instances where candidates failed all subjects or did not write the examination.

Umalusi currently charges certification fees only for private assessment bodies, of which SACAI is one. Certification for public assessment bodies is funded by a funding agreement with the Department of Basic Education.

9.2 Scope and Approach

The NSC is a three-year qualification, during which a candidate must meet the requirements for Grade 10, before being promoted to Grade 11 and from there to Grade 12.

SACAI assesses in a unique context as candidates are generally home-schooled. They do have a number of processes in place to ensure that the candidate has indeed met the requirements of a lower grade, but due to the nature of the market, this assessment of requirements is not necessarily accurate.

The state of readiness visit and the records submitted for certification form the basis of this report.

9.3 Summary of Findings

During the state of readiness visit a number of areas were examined. For the purposes of certification, the focus was on the registration of candidate information, the resulting of candidates and the actual certification submissions.

The registration of candidates is completed on a spreadsheet, which is electronically uploaded onto the examination system. The centre, where the candidate has registered, also supplies a completed registration form and copies of identification documents such as a South African Identity Document, Passport or birth certificate.

Upon completion of the upload of registration and verification of captured information, a schedule of entries is sent to the centre for signature by the candidate, parent and centre manager, thus vouching for the accuracy of the captured information. It was found that where a candidate indicated that information was not correct, an amendment was not captured on the system prior the issuing of the timetable. Timetables were then returned to the assessment body indicating that there were errors which still needed correction.

All subject changes should be completed in December of the previous year and captured on the system at that time. There is no apparent record of any subjects having been changed.

The application of the policy for the registration of immigrant candidates remains a concern. Supporting documentation as required by the NSC policy could not be supplied in all instances. Candidates are also registered as immigrants based on subject choices, which is an incorrect approach: subject choices should be determined according to status, and not the other way around.

The resulting of candidates is completed in time, although changes made to approved results cause problems at certification, when the certification data is compared to the resulting data.

There were numerous candidates where the re-mark data was *not* submitted to Umalusi. In some instances, the candidates were disadvantaged as the re-mark meant a higher overall mark and the candidate were certified using the lower mark.

Table 9A: Certificates issued during the period 1 December 2015 to 1 December 2016

Type of certificate	Number issued
Subject Statement ¹	685
NSC with admission to Higher Certificate study	142
NSC with admission to Diploma study	403
NSC with admission to Bachelor's degree study	174
Replacement (Change of status) ² NSC with admission to Higher certificate study	8
Replacement (Change of status) NSC with admission of Diploma study	13

¹ A Subject Statement is issued where a candidate has not met the requirements for the awarding of the qualification, but has passed certain subjects. The Subject Statement reflects the subjects passed.

² A replacement certificate change of status is issued where the candidate has met the requirements for the awarding of the qualification over multiple examination sittings. For each sitting the candidate is awarded a Subject Statement.

Type of certificate	Number issued
Replacement (Change of status) NSC with admission to Bachelor's degree study	20
Re-issue ³ Subject Statement	1
Re-issue NSC with admission to Diploma study	3
Re-issue NSC with admission to Bachelor's degree study	1

9.4 Areas of Good Practice

SACAI has implemented an examination system that detects duplicate ID numbers and follow-up is made with the examination centre to determine the valid ID number for the candidates concerned. This is good practice.

The IT service provider is able to generate a report indicating any outstanding marks for candidates and, thus, promote the timeous certification of learner achievement. This is further assisted by the fact that there are no manually generated mark sheets.

9.5 Areas of Concern

The following is, however, noted with concern:

- None of the SACAI staff are able to supply answers to all system related enquiries. It is only the IT service provider that can do so. During the monitoring of the capturing of marks, it was noted that a script must be written to generate the requested reports. The processes followed for the registration of immigrant candidates are incomplete and do not comply with the policy; and
- The capturing of re-mark marks and the late submission of these creates problems at certification.

9.6 Directives for Compliance and Improvement

The following directives for compliance and improvement are brought to SACAI's attention:

- Reports that are regularly required must be automated to enable the SACAI staff themselves to generate such without recourse to the IT service provider;
- The registration of Immigrant candidates must adhere to the National Policy document from 2017 onwards;
- Re-mark marks must be submitted and captured on time; and

³ A re-issue of a certificate happens when some aspect of the information on the original certificate is not correct. Supporting documentation is required.

- The certification record must be the final record generated for the candidate and should not permit for changes, other than under exceptional circumstances.

9.7 Conclusion

SACAI is an assessment body with a small number of candidates. With the anticipated growth, however, not only the number of staff managing registration, resulting and certification will need to be increased, but their skills enhanced also. The examination system too will require further enhancements to automate processes.

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ANNEXURES

Annexure A: Examination Centres monitored

	Province	Name of Centre	Date of visit
1	Eastern cape	Ariston Christian Private School	30/08/2016
2	Eastern Cape	J'bay Academy	29/08/2016
3	Free State	Central Home Schooling	25/08/2016
4	Free State	City College	25/08/2016
5	Gauteng	Alpha 69 Tutoring Centre	22/08/2016
6	Gauteng	Champions Edu Centre	23/08/2016
7	Gauteng	Closing the Gap Education	23/08/2016
8	Gauteng	Didaskos Akademie	23/08/2016
9	Gauteng	Epsilon Academic Support Centre	23/08/2016
10	Gauteng	Gwenlo Tutoring Centre	23/08/2016
11	Gauteng	Lighuis Akadamie	23/08/2016
12	Gauteng	Mega Mind Tutor Centre	23/08/2016
13	Gauteng	My Tutor and Teaching Centre	23/08/2016
14	Gauteng	Phoenix Education Centre	23/08/2016
15	Gauteng	Redwood – Lenasia	24/08/2016
16	Gauteng	Science Bridge – UJB	22/08/2016
17	Gauteng	Unlimited Success	24/08/2016
18	Gauteng	Zerowa Christian Academy	24/08/2016
19	Gauteng	3D Christlike Akademie	26/08/2016

	Province	Name of Centre	Date of visit
20	Gauteng	Whispering Willows	26/08/2016
21	Gauteng	AGS Littleton	26/08/2016
22	Gauteng	DITC Dynamic Intervention	23/08/2016
23	Gauteng	School of Transformation	23/08/2016
24	Kwa-Zulu Natal	Alpha Examination Centre (Durban)	30/08/2016
25	Kwa-Zulu Natal	Amanzimtoti High School	30/08/2016
26	Kwa-Zulu Natal	Dynamic Kidz	29/08/2016
27	Kwa-Zulu Natal	Alpha Examination Centre (P'maritz)	25/08/2016
28	Kwa-Zulu Natal	My Tutor and Teaching Centre	26/08/2016
29	Kwa-Zulu Natal	Light House Edu Centre	25/08/2016
30	Limpopo	Free 2B Me	30/08/2016
31	Limpopo	Roepersfontein	29/08/2016
32	Mpumalanga	Die Leersentrum	30/08/2016
33	Namibia	Dolphin Secondary	29/08/2016
34	Namibia	Educare Learning Centre	29/08/2016
35	Namibia/Windhoek	Afrikaanse Privaatskool	29/08/2016
36	North West	City College	02/09/2016
37	North West	Pro Active Learning Academy	01/09/2016
38	Western Cape	Dots Learning Centre	23/08/2016
39	Western Cape	Emmanuel Christian Academy	23/08/2016

Annexure B: Summarised areas of concern – Writing Phase

Criteria	Nature of non-compliance	Centres implicated
The Invigilators and their training	Invigilator appointment letter not available	Science Bridge @ UJ
Preparations for writing and the examination venues	Seating plan for candidates not available	City College Potchefstroom
	Candidates not sitting according to the seating plan	Science Bridge @ UJ
	Candidates not verified before entry into examination room	Science Bridge @ UJ City College Welkom
	Examination rules not read to the candidates	Overberg Akademie Science Bridge @ UJ
Time management for crucial activities	Question Papers not checked for technical accuracy	Wings Aviation Academy Science Bridge @ UJ Dynamic Kidz
Activities during writing	Cover page not checked	Elroi Science Bridge @ UJ



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