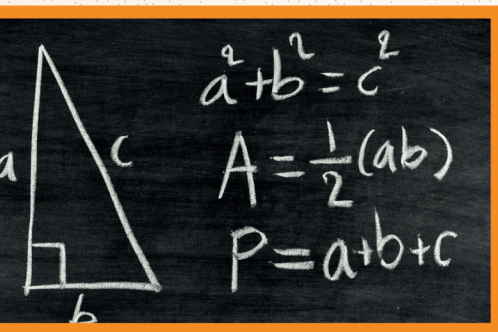
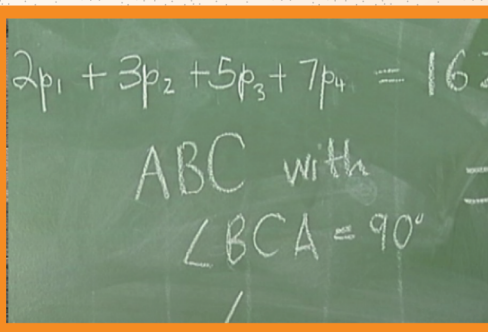
2015

NATIONAL SENIOR CERTIFICATE EXAMINATION

DIAGNOSTIC REPORT

NSC





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Read to Lead
A Reading Nation is a Leading Nation

NATIONAL SENIOR CERTIFICATE EXAMINATION

2015

DIAGNOSTIC REPORT

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LIST OF ACRONYMS AND ABBREVIATIONS

CAPS	Curriculum Assessment Policy Statement
DBE	Department of Basic Education
FET	Further Education and Training
ICT	Information and Communication Technology
NCS	National Curriculum Statement
NSC	National Senior Certificate
PEDs	Provincial Education Departments
MCQs	Multiple Choice Questions
LOLT	Language of Learning and Teaching
LTSM	Learning and Teaching Support Material

FOREWORD

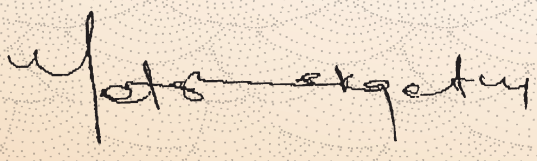
As we celebrate 20 years of public examinations in South Africa, I am pleased to release the 2015 National Diagnostic Report on Learner-Performance. This report is a comprehensive analysis of candidates' performance in the second National Senior Certificate examinations based on the Curriculum and Assessment Policy Statement (CAPS).

This report provides classroom practitioners, subject advisors, curriculum planners, education officials and social partners with insight into learners' performance in the 11 key subjects. Information in this report can be used to improve planning at all levels of the system, so that the improvement in the quality of teaching and learning we are intent upon achieving is directed by reliable and relevant information.

In this document, a detailed per-question analysis of learners' responses is provided for each of the 11 subjects: Accounting, Agricultural Sciences, Business Studies, Economics, English First Additional Language, Geography, History, Life Sciences, Mathematics, Mathematical Literacy and Physical Sciences. Analysis conducted provides a clear indication of the weaknesses in learner responses in the different subjects. Uncovering misconceptions or error patterns in the learner responses can directly inform instructional practice. In response to the weaknesses identified, the report goes on to suggest remedial measures that should be adopted at school level, allowing teachers to review and refine their teaching strategies accordingly.

Teachers are encouraged to conduct and integrate the diagnostic analysis into their everyday teaching and assessment, so that the performance of learners in classroom-based tests and assessment tasks are also analysed and linked to the findings of the National Diagnostic report. This would provide valuable formative information and feedback to the teacher that will assist in improving the quality of teaching and learning,on an ongoing basis.

The *National Diagnostic Report on Learner-Performance* is in its fifth year of publication and has been welcomed by classroom practitioners as a key resource. We will continue to develop responsive and appropriate interventions that place teacher-development, teacher-professionalism, curriculum delivery, credible assessments, and intensive monitoring and support at the heart of our efforts to improve participation and accountability at all levels of the system. We acknowledge the commitment and dedication of teachers, principals, education officials and social partners across all provinces who supported the Class of 2015 so that they could achieve their National Senior Certificate.



MRS AM MOTSHEKGA, MP

MINISTER OF BASIC EDUCATION

05 JANUARY 2016

1.1. INTRODUCTION, SCOPE AND PURPOSE

This National Diagnostic Report on Learner-Performance provides teachers, subject advisors and curriculum planners with a picture of learner-performance in each of the key subjects.

Each subject's diagnostic report presents comparative data on the performance trends observed over a four-year period and the overall performance of candidates per question in the respective question papers in the subject. Common errors, misinterpretations and misconceptions identified during marking and suggestions for improvement are also provided. The remedial suggestions are not exhaustive and, therefore, teachers and subject advisors should use these suggestions as a foundation for developing, implementing and monitoring the most appropriate remedial measures.

In certain subjects, there is evidence, especially in how learners responded to questions on specific content areas, that teachers have engaged with from the 2014 Diagnostic Report on Learner-Performance and implemented recommendations to guide their teaching in 2015. Where possible, attempts have been made to track progress made in the subject and content areas that were highlighted as problematic in the previous years. Progress or lack thereof, in the said areas, should determine the extent to which further intervention is required in 2016. This also suggests that continued reference to the previous reports by all practitioners involved in curriculum delivery is essential to ensure improved learner-performance.

The Department of Basic Education and Provincial Education Departments will monitor the distribution and utilisation of this report. Subject advisors are encouraged to mediate this key resource in their workshops with teachers in 2016. It is expected that the content and pedagogical challenges identified in the 2015 diagnostic analysis report will not recur in learner-responses during the 2016 examinations. This will be a confirmation of a successful application of the diagnostic report.

Teachers needing additional professional development and support in remediating identified areas must liaise with their respective Heads of Department, and the subject specialists at their local district offices, who are responsible for curriculum oversight. An extended effort will be made to solicit feedback from teachers and subject advisors on the usefulness of these reports and how they could be improved in future years. Opportunities must be created for teachers and subject advisors to make the desired inputs at school and district-level forums to further advance effective curriculum implementation.

1.2 METHODOLOGY

During the marking of the 2015 NSC examination, 100 scripts per paper per subject were randomly selected from each province across all the 121 marking centres countrywide. The scripts were randomly selected from a number of districts to cover low, medium and high scores.

The internal moderators and chief markers analysed and noted learners' responses to each question. This entailed recording the marks obtained by learners from the 100 scripts on a per question basis. The individual scripts were scrutinised to provide an in-depth understanding of the range of different responses and to note the strengths and weaknesses. Particular attention was given to common errors and misconceptions identified in the learners' responses. Based on the analyses, a detailed explanation is provided per question/sub-question under the following three main titles:

Section 1: Performance Trends (2012 – 2015)

This section entails a comparative analysis of the performance of learners over the last four years in terms of the number of learners who wrote, the number and percentage of learners who achieved at 30% and above, and, the number and percentage of learners who achieved at 40% and above. The information is presented in tables and graphs to enable easier interpretation of any trends, especially on changes over the medium term as well as changes from year to year.

Performance distribution curves are also provided to graphically present the distribution of learner-scores in the last three examinations. Any improvement or decline in the performance can be observed from the skewedness of the graph, either to the left or the right. A graph skewed to the right suggests an improvement in performance, while a shift to the left indicates a decline in performance.

Section 2: Overview of Learner-Performance

This section summarises the performance of learners in the question paper as a whole. It makes reference to generic areas of good performance or weakness, and the possible reasons for these observations.

Section 3: Diagnostic Question Analysis

This includes the following:

- A graphical representation of average marks per question expressed as a percentage;
- An analysis of the performance of learners in the specific questions, stating whether the question was well answered or poorly answered (and the reason for that);
- Highlighting common errors and misconceptions that were identified in candidates' responses; and
- Suggestions for improvement in relation to teaching and learning, content and methodology, subject advisory support and provision, and the utilisation of Learning and Teaching Support Material

The reports from all 9 provinces for each question paper per subject were consolidated and the findings are summarised in this report. It is recommended that this report be read in conjunction with the November 2015 NSC question papers. References are made to specific questions in the respective question paper in each subject.

1.3 LIMITATIONS

The diagnostic analysis of learner-performance in this publication is only limited to the 11 subjects that have high enrolments. It is hoped that the reports compiled by the provincial chief markers and internal moderators in subjects not covered by this publication, will fill that void.

The focus of this report is more qualitative than quantitative. The quantitative aspects are limited to the performance trends in each subject and the average performance per question in the 2015 examination papers. Further quantitative data would have been useful in providing feedback for the purpose of test development, but that is not the intention of this publication.

There are many focused strategies that have been elaborated in each subject with the intention of strengthening the areas of weaknesses and thus improving learner and subject-performance in 2016. The success of this document in achieving this goal is dependent on the level of intent and purpose by subject teachers to adopt and implement these strategies. It is envisaged that subject advisors will provide the necessary professional development and support opportunities for this to be realised.

1.4 GENERAL FINDINGS

The 2015 diagnostic report for the 11 subjects covered in this publication indicate that the pass rate has decreased at varying degrees in these subjects. There were also fewer distinctions achieved in 2015 than in 2014. These decreases must be viewed in context of higher throughput rates in the Further Education and Training (FET) band. The Class of 2015 was the largest cohort of candidates ever to participate in public examinations in South Africa. For example, in Mathematics, the number of candidates increased significantly by 40 916 from 232 432 in 2014 to 273 348 in 2015 and, while overall average performance has remained low, there has been an average annual increase in black African high-level achievers since 2008 and many of these learners come from historically disadvantaged schools.

The Curriculum and Assessment Policy Statements (CAPS) was implemented for the first time in 2014 in Grade 12 and teachers and learners are still becoming familiar with its content. As we move into the third year of the CAPS implementation, we need to reflect on and learn from the performance of the candidates of the 2015 examinations. In this regard, it is important to note the following areas of concern:

- There is a strong correlation between reading skills of candidates and their inability to decode the requirements of a question. All the subject reports in this publication indicate that the poor language skills of numerous candidates are a major reason for under-achievement. This adversely affects the ability of those candidates to interpret questions and source material accurately, and to frame appropriate responses to questions. This was observed in the difficulty many learners had in correctly interpreting the cognitive verbs used in a question, responding to data response questions, understanding and applying the correct terminology where they were required to do so. A lack of competence in using and understanding subject-specific terminology and definitions has obvious implications for the ability of candidates to engage with subject content generally and to express their knowledge of the subject, while a lack of understanding of the action verbs used in the questions inevitably leads to inaccurate interpretation of specific questions.

- In the case of subjects requiring the use of mathematical or calculation skills, it is evident that candidates lacking these skills are severely disadvantaged when it comes to earning marks for even the most basic application-type questions, and this adds to the complexity of them responding to more cognitively demanding questions.

- It also appears that deficiency in understanding specific subject-content is a serious ongoing problem in many schools. However, it is probable that this problem is caused by shortcomings in the teaching strategies or methodologies applied by teachers, by the lack of content knowledge on the part of teachers themselves, or by teachers neglecting to cover the entire curriculum. The poor quality of answers even in lower-order questions suggests that some of the candidates were not adequately exposed to the relevant content, confirming the trends observed in the Annual National Assessments in lower grades. Meaningful and effective interventions at teacher-level consequently remain a major priority. The acquiring of subject knowledge by learners is not a one-year process. Responsibility rests upon all teachers to develop the necessary skills in learners as they progress from one grade to another.

- The examination papers cover the full range of cognitive levels. In many cases, candidates appear to cope only with questions involving application of routine procedures that have been taught in the classroom, and struggle with those that require more independent or creative thought. The majority of subject reports indicate that numerous learners tend to lack basic understanding of concepts which are the prerequisite for higher level thinking. Moreover, there is a lack of proficiency in dealing with analytical, evaluative or problem-solving questions. This indicates that teachers might be neglecting to cover basic concepts effectively in the process of progressing to higher-order aspects of topics, and are not providing learners with sufficient practical experience in applying higher cognitive skills in class activities or in informal and/or formal assessment tasks.

1.5 KEY RECOMMENDATIONS

- Integrated interventions focused on addressing real gaps in teaching and learning, as well as the consistent and urgent application of subject-content knowledge and teaching-practice interventions remain a priority.

- The contents of the previous Diagnostic Reports 2011-2014 are also pertinent to the gaining of a broader insight into learners' performances and to the identification of gaps in teaching and learning. Teachers and all other stakeholders involved in teacher-professional development and capacity-building are urged to reflect on the contents of these reports as they plan for 2016. It is important that they develop substantial and practical plans to bring about an improvement in learner-achievement in 2016.

- Once the report is received, PEDs should facilitate a capacity-building session for the subject advisory services so as to ensure that this report is thoroughly mediated with this critical support structure. Subject advisers remain under immense pressure to provide much-required mentoring and support to schools and teachers, and their own professional capacity is limited by understaffing and high vacancy rates in circuits and districts. This prevents them from being able to deliver as effectively and efficiently as all their schools and teachers require.

- The 2015 National Diagnostic Report for Learner-Performance can be used as a planning tool by districts to identify learning gaps for schools, strengthen school-based assessment (SBA), and support teacher-development activities in 2016.

- This report can be also used by subject advisers as the basis for all capacity-building interventions planned for teachers in their respective subjects (workshops and on-site support). Subject advisers should also monitor the improvement plans of their teachers, looking specifically for the inclusion of recommendations emanating from the individual subject reports.

- Teachers should appreciate that, as is the case in other major professions, continuous professional development is ultimately the responsibility of the individual professional. The shortcomings in content knowledge of teachers remain a serious concern that can be solved by the individual teacher's own initiative in a variety of ways, e.g. answering the NSC papers oneself under simulated examination conditions so that one can fully appreciate the needs of learners in understanding content and examination techniques more effectively; reading more widely on topics by referring to more than one textbook and by following media features to keep up to date with current trends in the subject; and developing and conducting short informal assessment tasks to diagnose content gaps in specific topics.

- Teachers should also be directed to reflect on and take ownership of content coverage and expose their learners to the full range of cognitive levels in their teaching and assessment strategies. Mere recall of procedures or specific content on the part of learners will not enable them to achieve academically to their full potential. Teachers must prepare learners adequately with regular coverage, practice and application of basic theoretical and conceptual knowledge, as well as provide opportunities for learners to reflect on, analyse and evaluate topics and content, in order to develop their holistic understanding, applied competence and confidence in each topic.

- Teachers must also be focused on aspects of language competence and examination technique, particularly in Grades 10–12, at regular and appropriate intervals. Strategies that could productively be employed include on-going informal assessment of terminology and definitions, and when revising past papers, reading, analysing and discussing the requirements and action verbs of questions with learners, before requiring them to answer the questions.

- District officials should closely monitor curriculum coverage to ensure that all the topics in a subject have been covered according to the annual teaching plan. This would ensure that all topics receive due attention, allowing candidates to be better prepared for the examination. The monitoring process also needs to focus on the standard and quality of the tasks used for SBA and whether these tasks are preparing learners for questions at different cognitive levels well before the NSC examinations. Teaching and learning interventions must gain traction, also well before the NSC examinations.

CHAPTER 2

ACCOUNTING

The following should be read in conjunction with the Accounting question paper of the November 2015 Examination.

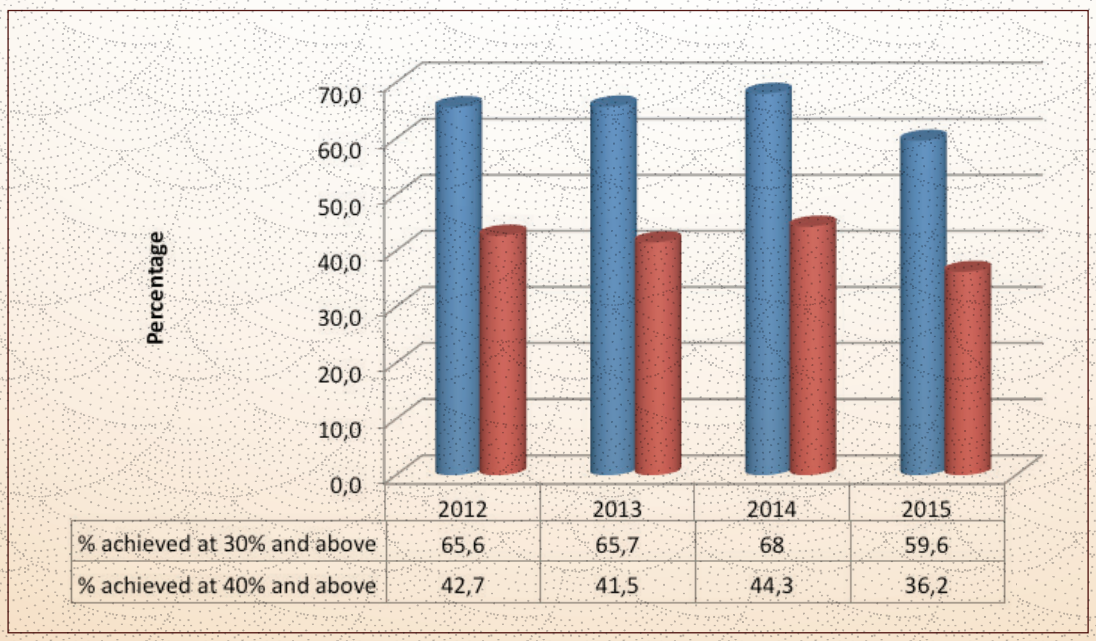
2.1 PERFORMANCE TRENDS (2012 – 2015)

The number of candidates increased by 14 487 in comparison to that of 2014. The general performance of candidates decreased this year as indicated by 59.6% of candidates achieving 30% and above, with 36.2% achieving 40% and above.

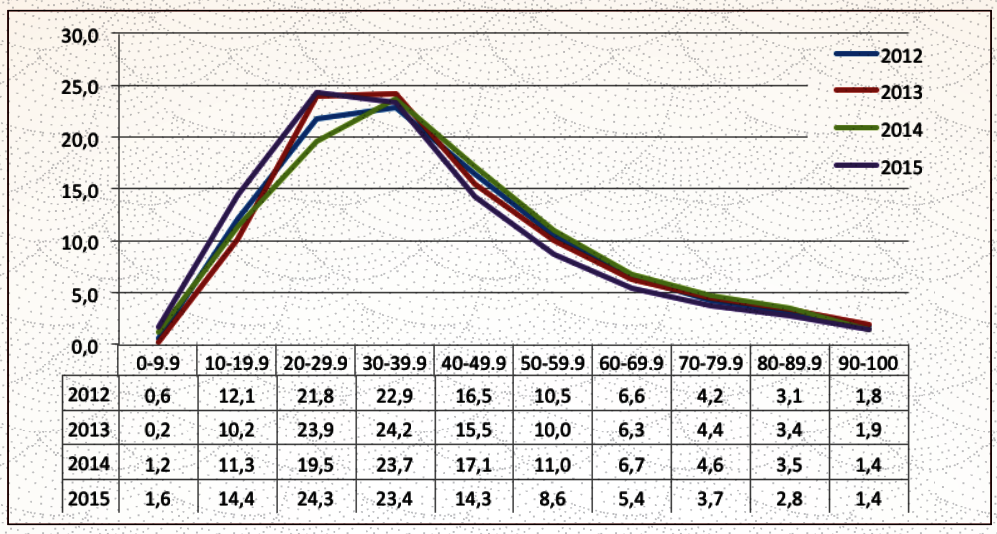
Table 2.1.1 Overall achievement rates in Accounting

Year	No wrote	No. achieved at 30% and above	% achieved at 30% and above	No. achieved at 40% and above	% achieved at 40% and above
2012	134 978	88 508	65.6	57 621	42.7
2013	145 427	95 520	65.7	60 311	41.5
2014	125 987	85 681	68.0	55 837	44.3
2015	140 474	83 746	59.6	50 906	36.2

Graph 2.1.1 Overall achievement rates in Accounting



Graph 2.1.2 Performance distribution curves in Accounting



	0-9.9	10-19.9	20-29.9	30-39.9	40-49.9	50-59.9	60-69.9	70-79.9	80-89.9	90-100
2012	0,6	12,1	21,8	22,9	16,5	10,5	6,6	4,2	3,1	1,8
2013	0,2	10,2	23,9	24,2	15,5	10,0	6,3	4,4	3,4	1,9
2014	1,2	11,3	19,5	23,7	17,1	11,0	6,7	4,6	3,5	1,4
2015	1,6	14,4	24,3	23,4	14,3	8,6	5,4	3,7	2,8	1,4

From the above graphs, it is evident that after the improvement in 2014, there has been a disappointing decrease in the performance of candidates in 2015.

2.2 OVERVIEW OF LEARNER-PERFORMANCE

General comments

(a) All topics in the CAPS have been covered in at least one of the seven year-end or six supplementary examinations since 2008. Candidates, therefore, had extensive resource material to assist them in preparing for the November 2015 paper. The Diagnostic Reports of 2012 to 2014 highlighted weaknesses and proposed strategies that should also be taken into account to assist learners in being adequately prepared for the NSC Accounting examination. It is apparent that these resources were not utilised in certain centres to prepare learners. This could be due to a lack of finances to cover the costs of reproducing the past papers, or that the diagnostic report was not well mediated by subject advisors in many PEDs.

(b) The 2015 paper was generally regarded as fair and credible in terms of addressing subject content, cognitive levels and degrees of challenge. The questions in all Accounting papers are structured to reflect an appropriate balance between the different cognitive levels, as well as an appropriate balance between the different degrees of challenge. It should be noted that different degrees of challenge apply at all cognitive levels. For example, certain questions covering the lower-order cognitive range may be considered challenging for learners, while some questions covering the middle or higher-order cognitive range might be deemed less challenging.

(c) CAPS content that was newly introduced in 2014 was included in the 2015 Accounting NSC paper to the extent of 9 marks as follows:

Q3.1.2	Repurchase of shares in the context of Retained Income (5 marks).
Q4.2.2	Repurchase of shares in the context of Cash Flow Statements (4 marks).

This content was clarified in the Examination Guidelines and reflected in the 2014 NSC and Exemplar papers. Judging from the responses of candidates to the 2015 NSC Accounting paper, it is evident that teachers had focused heavily on this content as it was well answered by most candidates.

(d) There was evidence that some teachers had seriously considered the contents of previous Diagnostic Reports for Accounting. This, together with the interventions by the PEDs to assist learners, has ensured pleasing progress in many centres. Nonetheless, it is disappointing to note that candidates in several centres did not perform well, as the opportunities existed for them to do so.

(e) The vast majority of candidates engaged with every question, or at least in part. There were very few centres where candidates ignored questions. Vital skills that separate the successful candidate from the less able candidate include the ability to address the specific requirements of each sub-question, to focus specifically on the information that is relevant to answer each sub-question, and to use the allocated time more effectively.

(f) Certain major CAPS topics that were also included in previous curricula continued to present major problems for candidates in many centres. Such topics included preparation of a Balance Sheet, interpretation of financial information, calculation of figures for a Cash Flow Statement and analysis of a Cash Budget or Projected Income Statement.

(g) The poor quality of responses in many centres indicates that problems still exist in the teaching and learning process. It is a concern that many candidates presented completely inappropriate responses to certain middle-challenge or easy questions involving basic arithmetical calculations and preparation of certain statements, as evidenced by superfluous and misplaced items.

(h) Many of the easy sub-questions covered basic knowledge essential for enabling candidates to engage with the more complex aspects of each topic. The continued failure of weaker candidates in some centres to answer these questions indicates that basic concepts were not properly covered and that basic formats of financial statements, reconciliations or ledger accounts were not regularly or effectively reinforced.

(i) General factors that contributed to candidates not achieving better results this year were:

- **Inability to successfully deal with certain calculations**: Accounting examination papers contain a number of arithmetical calculations. Many candidates did not understand the logic of these calculations, e.g. positive/negative signs, Rands/cents, percentages and ratios.
- **Inability to accurately address the requirements of questions**: This was evident in several sub-questions where learners' responses were not in line with the specific requirements. Weaker candidates also tended to provide incomplete or unclear responses, e.g. if an explanation is required, a one-word answer is likely to be insufficient.
- **Inability to identify relevant information**: Weaker candidates appeared to be disadvantaged by being unable to strategically identify relevant information without inspecting every figure or item of information given. Weaker candidates also tended to provide less important or immaterial information in supporting their explanations, while ignoring significantly more relevant and pertinent information.

General suggestions for improvement

Teachers are advised to build the following practices into their work plans for the year:

(a) **Use of past NSC papers**: Every learner should have access to past examination papers. With the introduction of the CAPS in 2014, it is necessary for teachers to adapt parts of certain questions so that they can be used for revision purposes. Questions that include par value of shares and share premium must be altered and adapted. To comply with the CAPS, teachers should ensure that learners have sufficient practice with questions involving repurchase (buy-back) of shares and Cash Budgets and Projected Income Statements in the context of companies (i.e. not simply in the context of sole traders). Teachers should also answer these papers themselves so as to improve their own confidence in their ability to deal with each topic.

(b) **Basic concepts and the Accounting equation**: Teachers should ensure that learners understand and can explain the essential basic concepts and terminology before engaging in Accounting applications in each topic.

(i) The most vital concepts are those contained in the expanded Accounting equation: **A**ssets + **E**xpenses + **D**rawings = **C**apital + **I**ncome + **L**iabilities. The process of conceptualising and understanding the above goes much further than simply the rote-learning of definitions.

(ii) It is also necessary for learners to appreciate the difference between different types of assets, different types of liabilities and different types of activities, i.e. current and non-current assets; current and non-current liabilities and operating, financing and investing activities. This will enable them to prepare and interpret the different financial statements more effectively.

(c) **Revision of relevant content of Grades 10 and 11**: 20% of an examination paper may contain content from previous grades that is pertinent to Grade 12 content. Vital aspects that must be consistently reinforced in the Grade 12 teaching programme include disposal of fixed assets, Cash Budgets, Projected Income Statements, cost accounting and reconciliation statements (i.e. bank, debtors and creditors). The above topics must be revised and reinforced within the Grade 12 syllabus. The tight time frames in Grade 12 do not allow for complete re-teaching of these topics. Consolidation tasks on these topics are advised for weaker learners at the end of Grade 11, even after examinations have been written.

(d) **Memorising and understanding basic formats**: Teachers should ensure that the basic formats of financial statements and ledger accounts are fully understood by learners.

(e) **Internal control and ethical issues**: Teachers should not only teach the logic and application of each Accounting process in the curriculum, but also the internal control measures and ethical considerations that are relevant to each process. These aspects must be integrated into the teaching of the relevant topics. Furthermore, as these issues are integrated in different topics in examination questions, integration in the teaching of the different topics should result in more effective understanding of them.

(f) **Enhancing learners' skills in accurately interpreting specific sub-questions and using information that is relevant**: When using past examination questions or papers as revision, teachers are advised to actually read and interpret the requirements with their classes and to teach learners how to use their prior knowledge of the topic in efficiently identifying the information that is relevant to each sub-question. Accounting examination papers contain all the financial information relevant to each question. Tables are often used to reduce the amount of verbal reading. Learners must understand that there is a logical manner in which this information is set out in the most user-friendly format possible, using sub-headings and tables. Moreover, examples are provided in this report to address this ongoing problem.

(g) **Time management**: Learners must be trained in the art of managing their time and to adhere to the suggested time allocations provided in the paper. The mark allocation and the spaces provided in the answer book are also good indicators of the amount of information needed.

(h) **Comments, evidence and explanations:** Teachers need to train learners to express themselves clearly and succinctly where comments or explanations are required. In Accounting, the use of bullet points and short, concise sentences is acceptable. Language proficiency and learners' ability to express themselves clearly and precisely should no longer be seen as an obstacle to presenting correct responses. However, learners must not assume that a partial, simple or single-word response will be sufficient if an explanation is required. They should also be made aware that they will often be required to quote figures or other evidence from the information provided, and that this cannot be omitted if full marks are to be awarded for an answer to a specific sub-question.

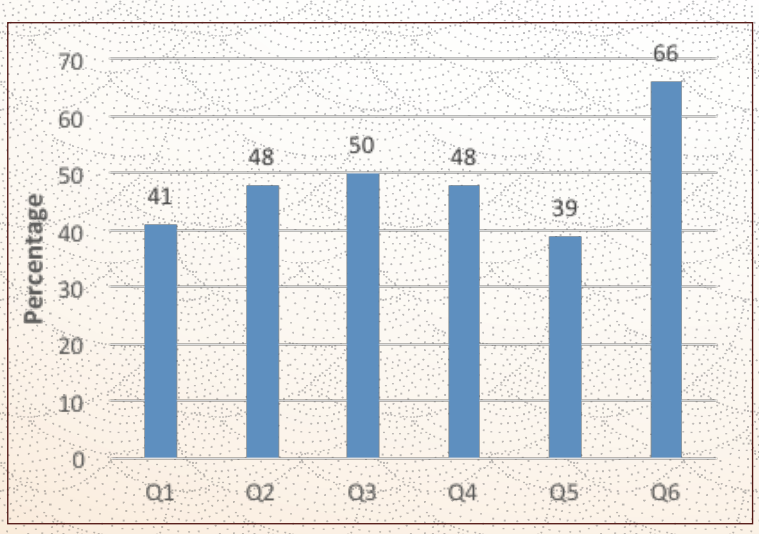
(i) **The importance of formative testing:** Teachers should ensure that they build up the confidence of learners in all topics through the use of short, informal formative tests. It is more effective if learners mark these formative tests themselves for immediate feedback and for an appreciation of how marks for easy parts of an examination question can be obtained. This will also force learners to take ownership of the learning process. The 'confidence-booster' easy sections in each of the questions in the NSC Accounting papers can be used as formative tests that may be self-marked by learners. Formative tests can also be used to great effect in introducing the new sub-topics in CAPS, e.g. repurchase (buy-back) of shares and reconciliation with creditors' statements.

(j) **Previous recommendations**: Recommendations contained in the 2014 Diagnostic Report should also be taken into account in preparing learners for future NSC papers. Some of these recommendations are repeated below, where they are pertinent to questions in the 2015 NSC paper.

2.3 DIAGNOSTIC QUESTION ANALYSIS

The following graph is based on data from a random sample of candidates. While this graph might not accurately reflect national averages, it is useful in assessing the relative degrees of challenge of each question as experienced by candidates.

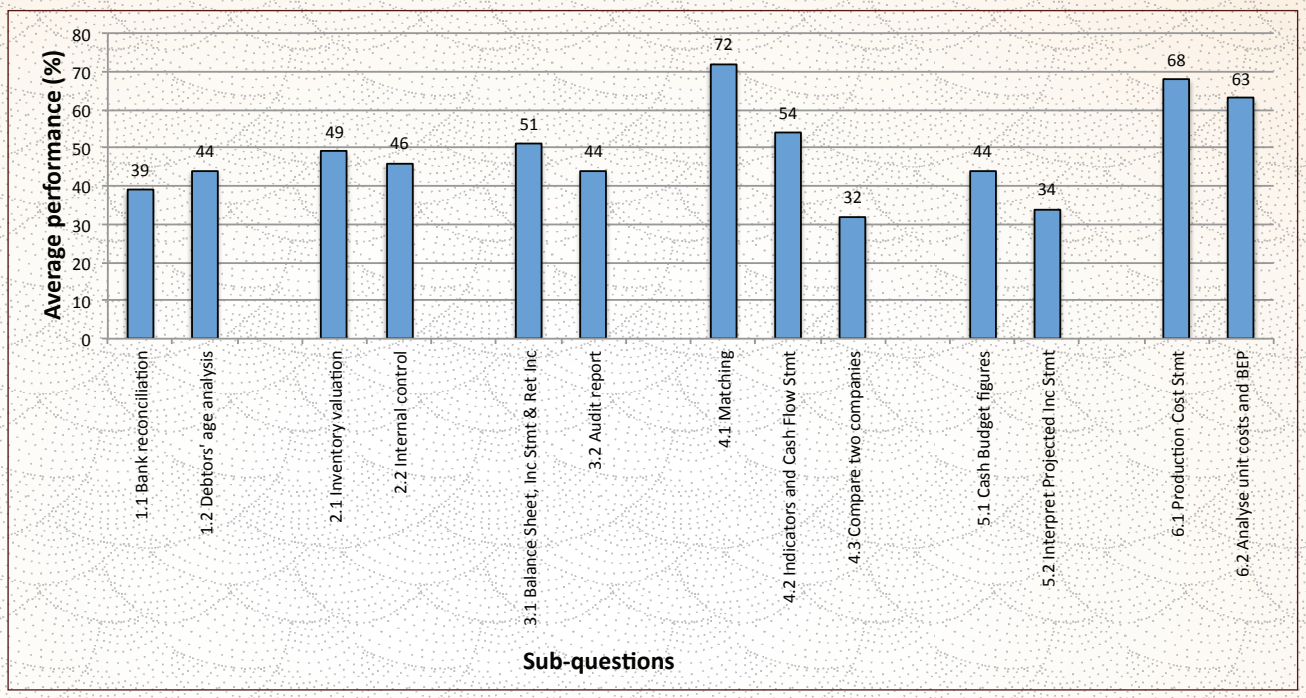
Graph 2.3.1 Average marks per question expressed as a percentage



Q1	Bank reconciliation, internal control & debtors' age analysis
Q2	Inventory systems & valuation
Q3	Balance Sheet & audit report
Q4	Cash Flow Statement & interpretation of financial information
Q5	Cash Budget & Projected Income Statement
Q6	Production Cost Statement and Analysis

From the above graph, it can be seen that performance in individual questions ranged from 39% (in Q5) to 66% (in Q6).

Graph 2.3.2 Average marks per sub question expressed as a percentage



2.4 ANALYSIS OF LEARNER PERFORMANCE IN INDIVIDUAL QUESTIONS

QUESTION 1 BANK RECONCILIATION, INTERNAL CONTROL & DEBTORS' AGE ANALYSIS

This was regarded as an easy question, but the process of compiling a Bank Reconciliation Statement (Q1.1.1; 13 marks and Q1.1.2; 8 marks) was very poorly done by the majority of candidates. This is cause for concern, given the frequency with which this type of question has appeared in past papers. Most candidates appeared to be more adept at analysis of the debtors' age analysis (Q1.2.2; 2 marks; Q1.2.3; 9 marks).

The difference in performance in the two parts of this question seems to indicate that while weaker candidates seem to be able to offer comments on figures, they are not proficient in processing specific entries.

Common errors and misconceptions in Q1.1 (Bank Reconciliation & internal control)

(a) It was disappointing that many candidates had no idea where to place relevant figures in the CRJ, CPJ and Reconciliation Statement. This indicates extensive ignorance of the reconciliation process. Both the single-column and the debit/credit-column method are permitted for the reconciliation (Q1.1.2; 9 marks), but candidates using the latter method often placed figures in the incorrect columns. Many weaker candidates also repeated figures in the journals and the reconciliation statement, and were penalised for foreign entries.

(b) Information A, B & C in Q1.1 included standard entries that are found in journals and bank statements, yet most candidates were unable to take advantage of the 13 easy marks in Q1.1.1 and the 6 easy marks in Q1.1.2. Entries from the bank statement, and the correction of the error were erratically treated by candidates, and the incorrect figure of R2 300 was used for the dishonoured cheque, instead of the net figure of R2 250.

(c) Many candidates did not use the totals from the CRJ and CPJ to calculate the closing bank balance; and many inappropriately placed the opening bank overdraft balance of R2 300 in the CPJ. This calculation (Q1.1.1; 5 marks) contained 3 method-marks which should have been easily obtained by all candidates. The question required a calculation, and candidates were at liberty to use any method, including a T-account if preferred.

(d) Information E was the only higher-order cognitive aspect of the reconciliation. More able candidates recognised that the difference of R7 000 between the deposit slip and the cash slips indicated missing cash, i.e. a probable theft problem for which a prudent approach should be used in the books. As non-existent cash cannot be entered in the CRJ, it, therefore, cannot be reflected as an outstanding deposit in the reconciliation. Nonetheless, candidates who did not understand this lost only 2 marks in the reconciliation (Q1.1.2). They were not penalised in the CRJ (Q1.1.1) as this was not regarded as a foreign item.

(e) Although candidates were generally able to identify the problem of the rolling of cash and explain it satisfactorily with appropriate advice (Q1.1.3), many were not able to do likewise regarding the apparent theft problem and, therefore, lost 3 marks.

Suggestions for improvement

(a) It appears that teachers focused more intensively on the new aspects of CAPS content, at the expense of the standard procedures such as reconciliations. Bank reconciliations are common monthly procedures in all businesses, and involve several standard procedures. Grades 11 and 12 candidates obviously do not have the luxury of repetitively preparing reconciliations on a monthly basis. It is, therefore, necessary for teachers to provide weaker learners with regular revision practice on this topic.

(b) When teaching reconciliations, teachers should consistently refer to the internal control benefits of this process. Learners must understand that a document received from another organization plays an important part in internal control and internal audit procedures. A reconciliation becomes necessary if information on that document does not agree with the internal records of a business, so that the reasons for differences can be identified and addressed. This point was noted in the 2014 Diagnostic Report in the context of a creditor's reconciliation and it is evident that a similar lack of understanding manifested itself this year in the context of discussion of a bank reconciliation.

(c) In this question (Q1.1.1; 13 marks, and Q1.1.2; 8 marks), the external source is the bank statement, which must agree with the books of the business in question. Differences noted must either be corrected or noted for future attention in the reconciliation statement.

(d) In revising and teaching this section of work, teachers are advised to refer continually to the source documents supporting the entries in the cash journals, and the relationships between these documents e.g. the deposit slips reflecting receipts and cash slips; the bank statement reflecting cheques, EFTs and cash withdrawals. Any anomalies in the comparisons are likely to indicate potential errors, incompetence and fraud.

(e) The CAPS stipulates preparation of reconciliations in Grade 11, with the analysis and interpretation thereof in Grade 12. Learners cannot be expected to apply higher order thinking skills relating to reconciliations if they have not previously become confident in the middle-order application processes. The CAPS also stipulates that examinations may comprise content stipulated in previous grades and which have an impact on assessment in subsequent grades, to an extent of 20% of an examination. Teachers of Grade 12 learners will therefore have to ensure that there is adequate in-depth revision of preparation in all forms of reconciliations that are covered in Grade 11 (i.e. bank reconciliations, creditors' reconciliations, and reconciliations of debtors/creditors lists to the control account).

(f) Use of past NSC questions in the teaching and learning process will ensure that candidates are familiar with these topics and the different ways in which they can be tested. Reconciliation questions lend themselves to short, formative tests in class that can be self or peer-marked. This will force learners to become accountable for their shortcomings. It will also get them to appreciate how and why penalties for superfluous entries are applied in examination situations.

Common errors and misconceptions in Q1.2 (Debtors' Age Analysis)

(a) Although candidates were generally able to identify the lack of division of duties in the bookkeeper's roles (Q1.2.1) and the debtors qualifying for higher credit limits (Q1.2.2), the third part of Q1.2 presented a greater challenge to weaker candidates.

(b) In Q1.2.3, it was encouraging to observe that weaker candidates were able to identify one or two problems of slow payment beyond 30 days and debtors exceeding credit limits; however, weaker candidates were often not able to provide appropriate evidence by way of debtors' names or figures to support their explanations. Most candidates were not able to identify a third problem, i.e. continuing to make sales to debtors whose accounts were overdue. It is acknowledged that this was a more challenging part of this question, which only stronger candidates were able to identify and explain.

Suggestions for improvement

(a) Learners should understand that there are basically three types of problems exhibited in an age analysis, i.e. slow payers, exceeding of credit limits, and continued sales to errant debtors. Teachers must reinforce the skill of providing the appropriate evidence as required by Q1.2.3. Evidence may comprise figures or debtors' names in this case.

(b) Age analysis questions are appropriately reinforced through short formative tests and brief classroom discussions. Past NSC papers can be used for this purpose.

QUESTION 2 INVENTORY VALUATION & INTERNAL CONTROL

The first part of this question focused on inventory valuation. In this regard, the calculation of the stock values using the weighted-average and FIFO methods (Q2.1.2; 9 marks and Q2.1.4; 6 marks) was relatively well done, mainly due to the predictable nature of this question. Candidates were also able to provide a reason for and against changing the method of valuation (Q2.1.4; 4 marks).

The second part of this question focused on control of three items of stock. This was presented in a problem-solving structure, requiring explanations and advice. In this regard, most candidates were able to earn part-marks or full-marks on the calculation of shirts stolen, and on offering appropriate advice (Q2.2.1; 9 marks).

Common errors and misconceptions

(a) It was evident that many candidates could not effectively explain a difference between the perpetual and periodic stock methods (Q2.1.1; 2 marks). Most earned a part-mark on this question because of incomplete or unclear answers.

(b) The calculation of the stock holding period (Q2.1.3; 5 marks) was generally not well done, possibly because this is a financial indicator covered in Grade 11 and which might not have been adequately revised in Grade 12. Candidates were required to use the closing stock figure which should have been easier than using the average stock figure, yet many candidates stereotypically applied the normal formula without complying with the question. Nonetheless, they lost only 1 mark for this error, as method marks were applied.

(c) Although most candidates were able to provide reasons for and against the change in valuation methods (Q2.1.4; 4 marks), many earned part-marks only for unclear or incomplete answers. For example, an answer such as 'gross profit' might have been provided, whereas the candidate should elaborate that the higher stock values under FIFO would increase gross profit due to a lower cost of sales figure.

(d) In providing advice to avoid stock shortage of shirts (Q2.2.1; 4 marks), many weaker candidates did not provide regular stock counts as an obvious alternative. Although other factors such as security procedures and division of duties might be relevant, it is a concern that stock counts were ignored as they are the most effective way of identifying the extent of the shortages promptly and motivating action that will solve the problem.

(e) Although many candidates were able to comment on the high or low stock levels (Q2.2.2; 9 marks), others were not able to explain their effect on the business, e.g. low levels of shirts could cause the business to lose customers.

(f) In assessing the prices charged for the three products (Q2.2.3; 6 marks), many candidates did not appreciate the effect that high or low prices could have on the stock levels and vice versa. For example, the high mark-up on jeans could be the cause of the low number of units sold. Many attempted to answer this question by focusing on process independent of stock levels. For example, the mark-up on shirts was 107%. The high demand for shirts actually warranted a price increase rather than a decrease.

Suggestions for improvement

(a) In providing explanations, learners should be encouraged to focus on major issues rather than minutiae that may be insignificant. For example, many candidates used 'carriage on purchases' as a point of difference between the two stock methods (Q2.1.1; 2 marks), whereas the major factor is actually the continuous recording of cost of sales in the perpetual system.

(b) In calculating financial indicators, learners must be encouraged to understand the logic of the indicator. In this case (Q2.1.3; 5 marks), the rationale was that there might have been a concern about the high value of the unsold stock at the year-end, rather than the average stock for the year which could be diluted by a low value of opening stock. In the case of stock-holding periods, learners must understand that the calculation is an indication of how long it will take the business to sell the stock. Whichever method of stock valuation is used, it is still based on cost prices. Learners should, therefore, understand that, in the calculation of the holding period, the current level of stock (at cost) should be compared to the historical/annual cost of sales that have recently occurred, and that the answer should be in days or months (depending on the requirements of the question).

(c) Teachers must continue to integrate theoretical knowledge of internal control and business ethics into the teaching of practical aspects of inventory valuations; and they should conduct classroom discussions on the figures that learners have calculated. This will serve to encourage a critical thinking approach by learners. Scenarios such as those contained in Q2.1.4 and Q2.2 can be used to good effect as a classroom discussion to support the learning process and to reinforce the consequential effects of the stock valuations (i.e. on cost of sales and gross profit) and prices charged for various products (i.e. on sales and stock holding periods).

QUESTION 3 COMPANY FINANCIAL STATEMENTS AND AUDIT REPORT

The specific financial adjustments in this question reflected a range of challenge, from easy through to moderately difficult. Performance in this question was satisfactory, although weaker candidates continue to reveal serious errors of principle in their answers.

There was an improvement in the quality of preparing the Retained income note, even in the case of weaker candidates (Q3.1.2; 11 marks). This problem had been mentioned in the 2013 and 2014 Diagnostic Reports and it appears that teachers had focused heavily on the accounting treatment of this particular note to the Balance Sheet. This question incorporates relatively new content in the Grade 12 CAPS, comprising the treatment of the repurchase of shares (Q3.1.2; 4 marks), and was generally well treated by most candidates.

Candidates were also able to adequately answer the questions on the audit report (Q3.2; 6 marks). In most cases, part-marks were earned for incomplete answers.

Common errors and misconceptions

(a) Although most candidates were able to treat the repurchase of shares correctly (Information C iii), many did not transfer this knowledge to calculate final dividends (Information C ii) despite the fact that it was expressly stated that shares repurchased did not qualify for dividends. These candidates did not appreciate that it would have been unreasonable for dividends to be calculated on all shares, particularly as the repurchase occurred well before the last day of the financial year. Weaker candidates also did not transfer the profit after tax from Q3.1.1 to the Retained Income note (Q3.1.2).

(b) There was a wide range in the quality of performance by candidates in the adjustments to the net profit (Q3.1.1; 13 marks). Weaker candidates were not able to take advantage of the 7 relatively easy marks in this question for trading stock deficit, rent received in advance, income tax, and the method marks for sub-totals. Many candidates were not able to comprehend that an entry of R13 600 was required to correct the difference between a R6 800 loss and a R6 800 profit on disposal of an asset.

(c) Weaker candidates again reflected an inability to understand the basic components of the Balance Sheet (Q3.1.3; 30 marks). This is an ongoing problem which was referred to in the 2014 Diagnostic Report. There were 13 easy marks available in the Balance Sheet, covering pre-adjustment figures and method marks for sub-totals. Weaker candidates failed to transfer the figure of the Retained Income note to the Balance Sheet, thereby losing 2 method marks for the Equity section. They were also not able to add up the Balance Sheet appropriately, thereby losing opportunities to earn method marks on the sub-totals, final totals and the missing figure for Cash and cash equivalents. A number of inappropriate entries were noted, e.g. insurance prepaids being shown as part of trade & other payables, or deferred incomes being shown as trade & other receivables.

(d) Weaker candidates were not able to treat the amount due to SARS for income tax correctly (Q3.1.3; 3 marks), often not offsetting the provisional tax payment against the total tax for the year.

(e) Although the questions on the Audit Report were attempted by most candidates, many did not identify that it was a disclaimer report, despite providing the correct reason for this (Q3.2.1; 2 marks). Fortunately, these aspects were marked independently. Most candidates earned only part-marks on their explanations for the consequences of the audit report for the company and/or the CEO. This was due to unclear or incomplete answers, e.g. the clichéd 'fire the CEO' cannot be seen as a complete answer as there is a due process which needs to be completed first.

Suggestions for improvement

(a) The 2014 NSC paper also included a Balance Sheet. Shortcomings similar to those noticed in previous NSC paper were evident yet again in the performance of the 2015 candidates. The recommendations noted below serve to re-emphasise similar comments noted in the 2014 Diagnostic Report.

(b) The formats of the major financial statements are rooted in the basics of financial reporting covered in Grade 10, which should then be revised and further developed in Grades 11 and 12. In the NSC exam, 300 marks have to be distributed to cover three modules. It is, therefore, not possible to examine all financial statements in one paper. For this reason, the different financial statements are rotated randomly over a period (in no predictable fashion). Learners must get to know the basic formats of all major financial statements from Grade 10, as well as the relevant notes. This can be achieved by formative testing formats without the use of figures.

(c) It is essential that the expanded Accounting Equation (A+E+D=L+C+I) be fully understood from an early stage of studies in Accounting, i.e. from the GET phase, and particularly from Grade 10 in the FET phase. The components of this equation reflect the basic concepts which learners must be able to understand and explain. They should also be able to identify and provide examples of items relating to each component.

(d) Candidates should be alerted to the easily obtainable method marks for sub-totals, even if errors have been made in the preceding figures. Easily obtainable 13 marks out of the 30 for the Balance Sheet were easily obtainable, i.e. they could have been earned even without any adjustments being correct. This can be communicated to learners through a formative class test which is peer or self-marked, followed by a full explanation of the principle of method marks.

(e) Regular formative tests should be conducted on calculations relating to the number of shares, the average share price, the shares repurchased and the number of interim and final dividends.

(f) Regarding the repurchase of shares, teachers are advised not to unnecessarily complicate the entries by introducing new ledger accounts. Teachers are referred to the Examination Guidelines for further explanation. In essence, learners need to focus only on the simple overall effect which is summarised as follows:

Reduce: Share capital	*By*: The number of shares repurchased (based on average issue price per share).
Reduce: Retained income	*By*: The difference between the amount paid to repurchase the shares and the original issue value of the shares repurchased (based on average issue price).
Reduce: Bank	*By*: The total amount paid.
Note that shares repurchased at a price below average issue price are not often encountered in practice, and will, therefore, not be examined at Grade 12 level.	

(g) For questions requiring explanations, learners must be instructed to provide more substantial responses in line with the demands of the question. For example, in Q3.2.1 one word to *identify* the type of audit report is sufficient, i.e. 'disclaimer'. However, to *explain* a consequence, one word such as 'investigation' or 'suspension' would be regarded as insufficient to earn full marks.

QUESTION 4 CASH FLOW STATEMENT AND INTERPRETATION OF FINANCIAL INFORMATION

This question comprised two main aspects:

- Concepts, cash flow and calculation of financial indicators of a company.
- Evaluation of two companies.

Considering that Cash Flow Statements are regarded as one of the more challenging topics, Q4.2.1 (15 marks) and Q4.2.2 (12 marks) were generally well answered by most average and capable candidates. Relatively new content in this question comprised the entry in the cash flow statement for shares repurchased (Q4.2.2; 4 marks). Although repurchase of shares was tested in Q3, this question focused on a different scenario, i.e. cash outflow, and as such is not considered as double testing.

Aspects of this question in which most candidates were able to earn full- or part-marks were: identification of concepts (Q4.1; 4 marks), income tax paid (Q4.2.1; 5 marks), proceeds of fixed asset disposal (5 marks) and certain aspects of the Financing activities section of the Cash Flow Statement (4.2.2; 12 marks).

It appears that centres which have focused on the calculation of financial indicators (Q4.2.3; 12 marks) continue to reflect improvement. However, in-depth revision will be required with each cohort of learners to develop their confidence in the calculation and interpretation of the indicators.

There was variable performance by candidates in the evaluation of the two companies (Q4.3; 22 marks). Certain centres had clearly prepared their candidates well by exposing them to this type of question from past papers; however, this was not generally evident. Candidates were able to quote the relevant financial indicators for each question, but lacked the skill to comment with understanding and insight.

Common errors and misconceptions

(a) Although most candidates were able to answer the first three parts of the question on concepts (Q4.1.1; 4 marks), many incorrectly identified the Cash Flow Statement, instead of the Balance Sheet, as the statement which shows the financial position of a business on a certain date.

(b) Weaker learners neglected to include depreciation in calculating the proceeds from the disposal of fixed assets (Q4.2.1; 5 marks).

(c) The calculation of the net change in cash and cash equivalents (Q4.2.1; 5 marks) was very poorly done. Many candidates did not recognise that a conversion from an overdraft situation to a positive balance reflects a significant cash inflow. Instead, they simply subtracted figures, arrived at a negative answer, and regarded this as an outflow. Some also excluded the petty cash or cash float figure of the previous year. This amount could have been calculated by preparing the note to the Cash Flow Statement for Cash and cash equivalents or by preparing a T account to include the bank balances.

(d) Although the Cash effects of financing activities was generally well done, many candidates used R4.30 as the re-purchase value per share, rather than the figure of R5.20 which included the 90 cents differential paid by the company. Some candidates also netted off the issue and repurchase of shares instead of disclosing these separately. The marking guideline made provision for the alternative valid presentations. This ensured that candidates who showed some understanding were credited for their efforts.

(e) The calculation of financial indicators (Q4.2.3; 12 marks) was generally well done. Weaker candidates continued to display weakness in basic arithmetical calculations, especially in determining average values and in reflecting final answers in their correct form e.g. percentages or Rands/cents. For example, NAV was often shown as 0.4948 cents instead of R4.99 or 498.5 cents. This indicates that some learners do not understand the logic of the calculation.

(f) In the questions covering the evaluation and comparison of two companies (Q4.3.1-Q4.3.3; 18 marks), candidates were specifically required to compare the information given, quote the relevant financial indicators of both companies and make a choice or explain how their choice would be affected, in their comments. In each case, 4 marks were awarded to the quoting of two relevant indicators, with 2 marks allocated to the comment on comparing the indicators of the two companies. While most candidates were able to earn full-marks or part-marks for the quoting of the indicators, they provided simplistic comments on each company separately rather than making a comparison between the two companies.

(g) Although most candidates were able to quote the relevant financial indicators to comment on liquidity (Q4.5; 9 marks), some did not earn full marks because they neglected to mention the trends (i.e. from one year to the next) in their answers. This was specifically required in the question.

(h) In the question on the value of the shares (Q4.3.1; 6 marks), many candidates simply referred to the JSE prices of the shares instead of relating these to NAV as well.

(i) The question on dividend pay-out policies (Q4.3.2; 6 marks) was particularly poorly done, with most candidates simply quoting the DPS of each company, instead of also considering EPS to evaluate the pay-out %. This was intended as a higher-order question, and it proved to be accessible to the more competent candidates.

(j) In the question on risk and gearing (Q4.3.3; 6 marks), many candidates simply quoted the debt/equity ratios without considering the % ROTCE as well.

(k) The question on other factors to be considered (Q4.3.4; 4 marks) was an open-ended question, yet many candidates could not present any two valid points, indicating a lack of understanding on the process of evaluating companies holistically.

Suggestions for improvement

(a) The preparation and interpretation of Cash Flow Statements and the calculation and interpretation of financial indicators have traditionally presented difficulties for teachers and learners; however, the recent improvement in these areas is encouraging. Teachers are advised not to be complacent and assume that each cohort of learners will inevitably reflect the same degree of confidence and ability in these areas. A strong foundation needs to be laid in Grades 10 and 11 regarding basic concepts and the calculation and interpretation of financial indicators. This should be reinforced by regular formative tasks or tests that could be peer or self-marked in order to develop confidence and proficiency. Each past NSC Accounting paper, both year-end and supplementary, includes questions on these topics.

(b) Teachers are advised to conduct regular class discussions on the figures calculated by learners when undertaking tasks on preparation of Cash Flow Statements. This will serve to develop understanding of the logic of these statements, which will enhance learners' ability to understand the statement and to evaluate figures. For example, movement of bank balances from overdraft to positive would reflect an inflow of cash. In these discussions, teachers should reinforce the purpose of each statement to prevent misunderstanding of the information that is being communicated by each statement.

(c) The Cash Flow Statement should be taught by focusing on specific aspects in isolation in order to develop learners' confidence in identifying appropriate figures and practising the correct use of brackets to indicate outflows. Some of these figures are relatively easy to calculate, e.g. the difference between loans at the beginning and the end of the year will indicate the value of the cash outflow (in brackets) or the cash inflow (without brackets). Short, formative tests on the individual components of each section would be beneficial in developing learners' knowledge and skills. These can be peer- or self-marked. The main purpose of the CFS is to clearly reflect the inflows and outflows of cash. Learners must understand that they will be penalised if inflows and outflows are not properly indicated as such by making effective use of the brackets.

(d) The issue of shares (i.e. the inflow of cash) and the repurchase of shares (i.e. the outflow of cash) are material items affecting the evaluation of a company that must be disclosed as two separate items under the financing activities section of the Cash Flow Statement. This principle is also applied in disclosing of movements in fixed assets which form part of investing activities. Learners should understand that this is generally an easy calculation as it is presented by the number of shares repurchased multiplied by the repurchase price.

(e) Basic arithmetical calculations of ratios, percentages and Rands/cents, should be within the capability of each Grade 12 Accounting learner. This is a life skill that should be developed over a period of time. However, gaps are evident in the arithmetical skill of many students. Responsibility for revision of these concepts, therefore, falls upon the Accounting teacher. Teachers need to identify such deficiencies and address them on an individual basis.

(f) Teachers must inform learners that questions covering interpretation of financial information could comprise:

- Evaluation of one company over time, in which case answers should involve comparison and quoting of trends from one year to the next; or
- Evaluation of a company's performance against set targets, e.g. gross profit; or
- Evaluation of more than one company, in which case answers should involve quoting of indicators of each company and specific comparison of the companies.

Teachers must provide learners with examples of each type of question in class tasks, formative tests and examinations. The second term project on published financial statements is a more than useful tool to encourage individual work on a real-life experience. Effective feedback and class discussions will stimulate further interest.

(g) In interpreting financial statements, teachers should devote time to brief discussions on the statements prepared, i.e. whether the figures are satisfactory, whether they are significant (i.e. material) or not, and whether they reflect good or bad decisions by directors. This will serve to sow the seeds of an analytical or inquisitive approach in learners, thereby broadening their understanding of financial indicators. Analogies of other types of indicators found in real-life situations, e.g. batting or bowling averages in cricket, could be used to good effect in enhancing understanding of how indicators should be utilised i.e. as indications or signals of positive points or problems rather than as conclusive evidence.

(h) In teaching the repurchase of shares, teachers are advised to use the figures in a question to calculate % shareholdings of hypothetical minority or majority shareholders with their classes. This should help learners to appreciate that decisions on share repurchases can positively or negatively affect the remaining shareholders.

(i) Despite the improvement noticed in the calculation of financial indicators, weaker candidates do require additional support. Teachers must continue to conduct formative tests on this topic at regular intervals, as this lends itself to all sections across the curriculum. Learners must also be taught to understand the logic underlying each financial indicator. It is a retrogressive step to expect learners to memorise formulae because these can easily be forgotten if the underlying logic is not understood. Also, inserting figures into a rote-remembered formula serves no positive educational purpose as learners will not be able to offer meaningful interpretations of the results. The formative tests should, therefore, cover both the calculation and the purpose of the financial indicator.

(j) Teachers must also ensure that other ratios and financial indicators not tested in this question be given the same emphasis, e.g. financial indicators on mark-up and profitability as indicated in the Income Statement, and calculation of ROTCE, EPS and DPS.

QUESTION 5 CASH BUDGET AND PROJECTED INCOME STATEMENT

The first part of the question (Q5.1; 25 marks) covered identification of figures and calculations of amounts from a Projected Income Statement for inclusion in a Cash Budget, whereas the second part covered interpretation of figures and problem-solving (Q5.2; 25 marks).

Performance on this question was generally poor, indicative of a lack of understanding by candidates on the difference between these two statements, and a lack of revision of Grade 11 content regarding identification and calculation of figures for inclusion in the Cash Budget.

Candidates were generally able to identify the effect of a new competitor on the sale of beds (Q5.2.3; 4 marks), comment on the cash balances and provide advice on improvement (Q5.2.4; 6 marks).

Common errors and misconceptions

(a) Weaker candidates could not take full advantage of the 9 easy marks contained in the identification of Cash Budget figures in Q5.1. For example, they could not identify cash sales from the total sales figure (2 marks), did not understand that the closing balance for November is the opening balance for December (1 mark) and method marks on the subtotal for the surplus and closing balance for December (2 marks).

(b) Weaker candidates also appeared to be unable to complete basic arithmetical calculations e.g. calculating the figure for sundry expenses from a higher figure of the previous month (2 marks).

(c) Weaker candidates showed no understanding that the Projected Income Statement reflects income and expenses based on the accrual/prepayment system, and that the Cash Budget might reflect receipts/payments in months different to those reflected in Projected Income Statement for each specific item. For example, figures for commission income that appeared in the Projected Income Statement were simply repeated under the same months for the Cash Budget.

(d) Calculations of the figures for payment to creditors (2 marks), loan repayment (2 marks) and monthly interest (2 marks) were intended as comprising the more challenging parts of the Cash Budget question. Well prepared candidates were able to easily achieve these marks.

(e) In the interpretation of the Projected Income Statement, most candidates did not identify the audit fees as the conclusive reason for satisfaction with the work done by the bookkeeper and internal auditor, as indicated by the R40 000 underspent on that item. Most failed to appreciate that had problems occurred in the recording or control of documents or financial data, it would have been likely that actual audit fees would have exceeded the budgeted amount. Instead, a relatively immaterial factor, i.e. sundry expenses, was provided as evidence that the accountant, an internal auditor had done a good job.

(f) While many candidates were able to identify the effect of the competitor on the sale of beds, most were not able to provide three valid ways in which the business had responded (Q5.2.3; 9 marks). Some managed to identify the deliberate increase in credit sales or the increase in advertising, but failed to notice the increase in delivery costs. Many candidates also neglected to quote the relevant figure when identifying the relevant information.

Suggestions for improvement

(a) The 2014 Diagnostic Report also lists concerns similar to those outlined above. Content in the Grade 11 CAPS relates to the preparation and presentation of the Cash Budget and the Projected Income Statement, while CAPS also stipulates that examinations may comprise content stipulated in previous grades to the extent of 20% of an examination. Teachers are advised to actively encourage learners to engage with questions involving interpretation of a Cash Budget and Projected Income Statement in class and in their revision activities. It is essential that the Grade 11 content be effectively revised in order to develop learners' proficiency in identifying and calculating relevant figures. This would also serve to improve learners' confidence in interpreting the figures, as stipulated in the Grade 12 content.

(b) In order to develop an understanding of the Cash Budget and Projected Income Statement, it is important for learners to understand the purpose and components of both the Cash Budget and the Projected Income Statement, and the nature of the information that each contains. This topic is often based on common sense and logic which should be regularly reinforced by teachers through explanations and informal questioning techniques.

(c) The basic calculations are often not challenging and merely require practice and the application of arithmetical logic. Learners must also be made aware that they deny themselves the opportunity of earning additional marks by neglecting to quote the relevant figures as evidence of their explanations. Both these short-comings can be addressed through short formative tests which can be peer- or self-marked.

(d) It remains a problem that many weaker learners experience difficulty in properly interpreting a question or the information appropriately. In Q5.1, Information A & B related to figures to be identified for the Cash Budget. In Q5.2, the projected and actual figures in a Projected Income Statement were provided for two months. It was evident that many weaker candidates lacked the ability to inspect the information provided and glean relevant points from it. Teachers are advised to institute a class activity in which they spend time actually reading a specific sub-question and the relevant information with their classes, requiring the learners to answer the question themselves immediately, and then affirming or correcting their responses immediately. Teachers of weaker classes will find that a piecemeal approach such as this will tend to reap the rewards of better comprehension by learners of questions and information.

QUESTION 6 MANUFACTURING

Candidates generally performed well on this question. This can be attributed to the predictable nature of the content.

It appears that candidates were aware that some easily obtainable marks are available in a Production Cost Statement (Q6.1; 21 marks) and in the calculation of unit costs (Q6.2.1; 3 marks). Most were able to work backwards from the Total cost of production to calculate work-in-process at the end of the year.

The calculation of the break-even point (BEP) has been traditionally regarded as challenging (Q6.2.1; 5 marks); however, most candidates were able to do this correctly. In addition, the comments on the BEP by the candidates were also generally well done. It is evident that teachers had focused attention on these aspects. Most candidates could also identify another problem relating to the business with ease (Q6.2.3; 2 marks).

Common errors and misconceptions

(a) Only the Factory overhead cost created difficulties for candidates, owing to the nature of the arithmetical calculation in the correction of rent (2 marks) and the lack of understanding of the figures from the salaries journal (4 marks).

(b) Some very weak candidates did not fill in missing details in the Production Cost Statement correctly, i.e. the three costs and work-in-process, thereby forfeiting easy marks for details.

Suggestions for improvement

(a) It is acknowledged that this question is less difficult than the other questions in this paper, and it did not contain higher-order problem-solving as was the case in the 2014 paper. Teachers are consequently advised to make good use of Manufacturing questions from other past papers in exposing learners to a variety of questioning techniques on this topic.

(b) The splitting of costs between the different departments is an essential part of the topic of Manufacturing. Short formative tests on the splitting of costs according to ratios or percentages are essential, particularly for weaker candidates. Revision of Grade 10 and 11 content on year-end adjustments and reversals is also necessary for the weaker candidates.

(c) When teaching the preparation of the Production Cost Statement, teachers are advised to refer to the unit cost of production and to unit costs for materials, labour and factory overheads. This can be done without requiring learners to formally calculate the unit costs at that stage, but it will serve to enhance understanding of the purpose and structure of this statement.

(d) Refer to the suggestion provided above relating to Q5 regarding the proper reading of the question and the identification of relevant information. The piecemeal approach suggested can also be applied appropriately to Q6.2. The suggestion provided regarding the formative testing of basic arithmetical calculations in Q5 in the context of budgets, will apply equally in the Q6 context of manufacturing.

(e) It must be appreciated that deep problem-solving questions will contain a variety of information. Candidates will be expected to engage with the figures to identify problems and offer valid explanations and solutions. Separating the relevant and useful information from the irrelevant information is part of the problem-solving skills that should be developed in learners. This can be achieved by engaging in such questions from past year examination papers as well as from a variety of textbooks.

CHAPTER 3

AGRICULTURAL SCIENCES

The following should be read in conjunction with the Agricultural Sciences question paper of November 2015 Examination.

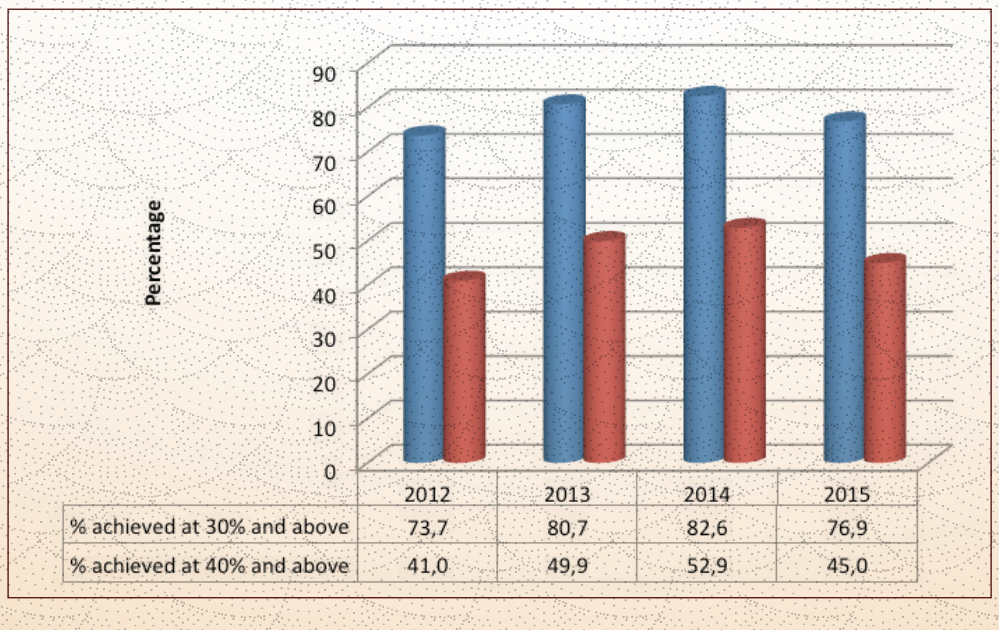
3.1 PERFORMANCE TRENDS (2012 – 2015)

The number of candidates increased by 26 188 in comparison to that of 2014. The general performance of candidates decreased this year as indicated by 76.9% of candidates achieving 30% and above, with 45.0% achieving 40% and above.

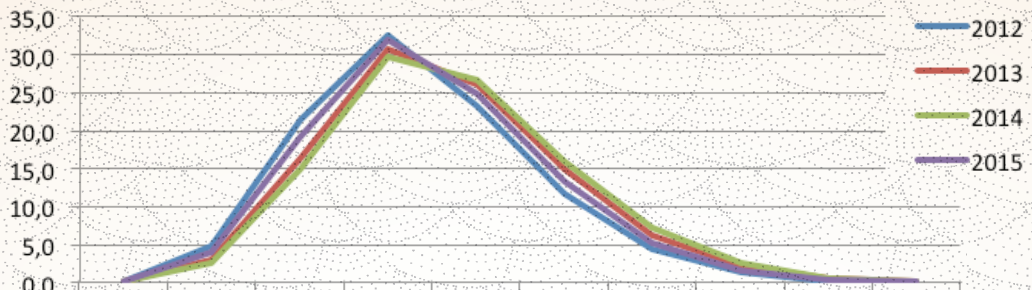
Table 3.1.1 Overall achievement rates in Agricultural Sciences

Year	No wrote	No. achieved at 30% and above	% achieved at 30% and above	No. achieved at 40% and above	% achieved at 40% and above
2012	78 148	57 571	73.7	32 064	41.0
2013	83 423	67 437	80.7	41 654	49.9
2014	78 063	64 486	82.6	41 280	52.9
2015	104 251	80 125	76.9	46 895	45.0

Graph 3.1.1 Overall achievement rates in Agricultural Sciences



Graph 3.1.2 Performance distribution curves in Agricultural Sciences



	0-9.9	10-19.9	20-29.9	30-39.9	40-49.9	50-59.9	60-69.9	70-79.9	80-89.9	90-100
2012	0,1	4,8	21,5	32,6	23,3	11,8	4,5	1,3	0,2	0,0
2013	0,0	3,0	16,3	30,7	26,1	14,9	6,2	2,2	0,5	0,0
2014	0,0	2,5	14,9	29,7	26,6	16,0	7,3	2,5	0,5	0,0
2015	0,1	4,0	19,1	31,9	24,7	13,2	5,2	1,6	0,3	0,0

From the above graphs, it is evident that after the improvement in the previous three years, there has been a disappointing decrease in the performance of candidates in 2015.

3.2 OVERVIEW OF LEARNER-PERFORMANCE IN PAPER 1

General comments

(a) The performance of candidates in question 1 decreased as compared to 2014. Poor performance was noted mainly on sub-questions that required subject terminology (Q1.3 and Q1.4).

(b) The performance in question 2 on animal production, protection and control, has improved. This question required the drawing of a graph and so the improved performance may be due to an improvement in the candidates' ability to draw graphs.

(c) Question 4 on animal reproduction was generally poorly answered. The poor performance in this question could be attributed to misconceptions around the reproductive processes. Candidates' responses reflected that 'cloning' was confused with 'embryo transfer'.

(d) Data response questions still pose a challenge to candidates as they were unable to interpret graphs, tables, illustrations, pictures, photographs and diagrams.

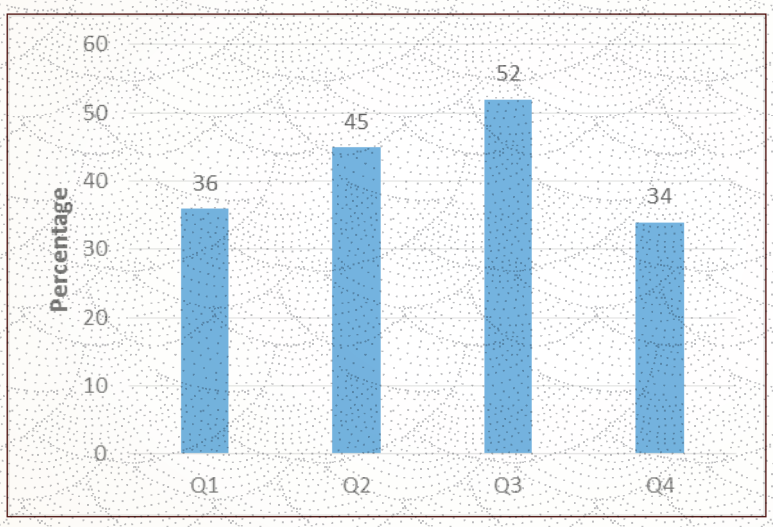
(e) Follow-up questions requiring motivation or justification were generally poorly answered by most candidates, indicating a lack of exposure to these types of questions in class.

3.3 DIAGNOSTIC QUESTION ANALYSIS FOR PAPER 1

3.3.1 PERFORMANCE PER QUESTION

The following graph is based on data from a random sample of candidates. While this graph might not accurately reflect national averages, it is useful in assessing the relative degrees of challenge of each question as experienced by candidates.

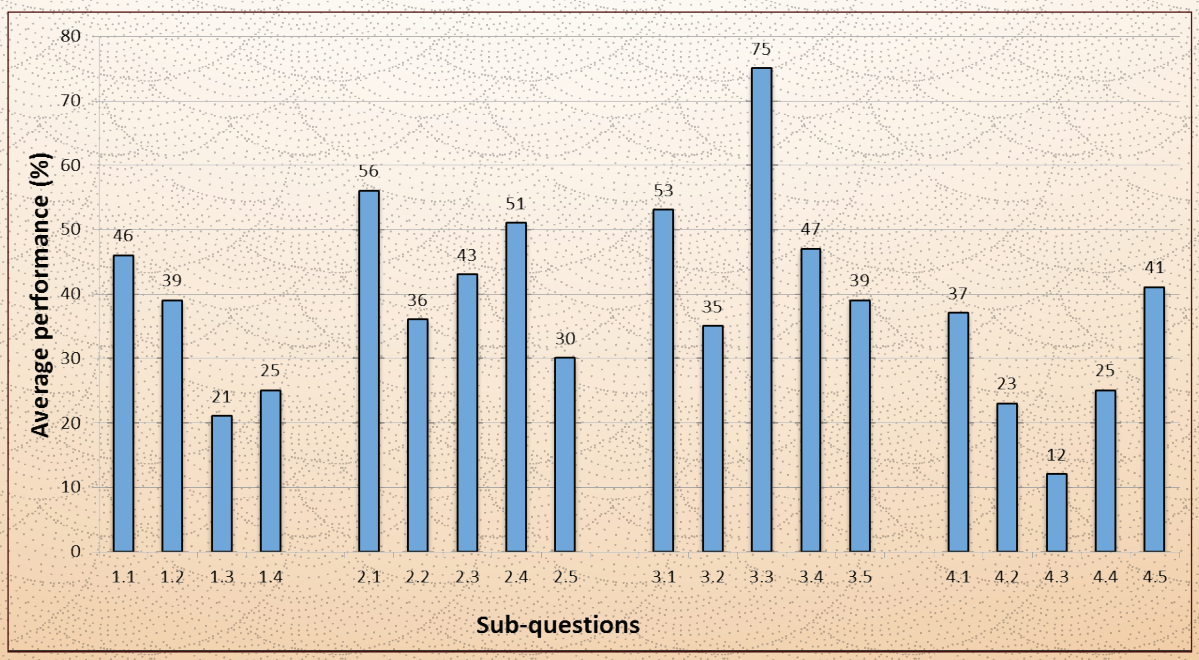
Graph 3.3.1: Average marks per question expressed as a percentage: Paper 1



Q1	Multiple choice, match type, terminology & replacement: Animal Sciences
Q2	Animal nutrition
Q3	Animal production, protection and control
Q4	Animal reproduction

The worst performance by candidates was in the question on animal reproduction (stages of parturition, cloning and oogenesis) and in those sub-questions requiring subject terminology (match type, terminology and replacement).

Graph 3.3.2: Average performance per sub-question: Paper 1



3.4 ANALYSIS OF LEARNER PERFORMANCE IN INDIVIDUAL QUESTIONS IN PAPER 1

QUESTION 1 SHORT QUESTIONS (ANIMAL SCIENCES)

The question is mainly on subject terminology and when comparing to the performance in 2014, the question is still ranked third. Candidates generally followed the instructions by answering this question in the answer book, as was the case in the previous year. Responses of candidates reflect that there is still lack of knowledge of subject terminology and many misconceptions among candidates.

Common errors and misconceptions

(a) In Q1.1.3 and Q1.1.6, candidates failed to provide the correct combinations. This may imply that candidates were not able to eliminate options to come up with correct answers. In Q1.1.10, that listed numerous hormones, candidates failed to pick the most appropriate hormone that plays a role in lactation.

(b) In Q1.3, candidates demonstrated a poor knowledge of terminology. Candidates responded to Q1.3.3 as though the question required an organism causing diseases, hence they wrote 'pathogen' instead of 'vector'. In Q1.3.5, candidates wrote 'importance' instead of 'impotence'. This has a different meaning and candidates lost 2 marks in that question for the wrong spelling. The error could be attributed to a language barrier.

(c) In Q1.4, the majority of candidates displayed poor performance. In Q1.4.1 in particular, candidates referred to a fodder flow programme as a feed plan. In Q1.4.3, candidates' responses reflected that most of them could not differentiate between acute, per acute and chronic diseases. In Q1.4, few candidates wrote 'true' or 'false' instead of replacing the underlined word to make the statement correct. This suggests misinterpretation of the question and a language barrier for some candidates. Some candidates failed to follow the instructions in Q1.4 by writing 'A' instead of 'A only'.

Suggestions for improvement

(a) Learners should be acquainted with the correct subject terminology. Teachers should penalise learners for words spelt incorrectly. Learners should have a glossary of terms from which to learn.

(b) All hormones in reproduction should be taught with the accompanying role of each hormone.

(c) The term 'fodder flow programme' should be used instead of the term 'feed plan'. Learners should be made aware that a fodder flow programme has to do with the fodder requirements of livestock over a production cycle.

(d) Informal assessment tasks should include the replacement question so that the instruction to write 'A only, B only, Both A and B or None' could be practised and learners who fail to follow the instruction should be penalised.

QUESTION 2 ANIMAL NUTRITION

There is remarkable improvement in the performance of candidates in this question. In 2014, this question produced the worst results but in 2015, the performance in this question has been the best.

Common errors and misconceptions

(a) In Q 2.1.1, instead of providing the type of farm animal represented by the diagram, candidates indicated the specific farm animal ('pig' instead of 'monogastric animal'). This had an impact on the subsequent question (Q2.1.2) where candidates could not use the diagram to motivate the answer in Q2.1.1. In Q2.1.4, candidates were expected to state a reason why roughage cannot be fed to a monogastric animal but instead they provided characteristics of roughage.

(b) In Q2.2.1, candidates provided general functions of water instead of functions of water in nutrition. In Q2.2.2, candidates wrote either vitamin or mineral without specifying the name of the vitamin or mineral responsible for the given deficiency.

(c) In Q2.3.1, the calculation of the digestibility co-efficient still poses a challenge to candidates. Most candidates did not use the correct formula. Others ignored the conversion before calculating and some left out the unit after the correct answer. In Q2.3.2, candidates were expected to state the processes that improve digestibility of a feed but instead, they listed factors determining the digestibility of a feed.

(d) In Q2.4.1, on the calculation using Pearson square method, candidates used the requirements of the animal at the centre of the square but did not subtract diagonally as is required. Some candidates, who calculated correctly, lost marks because they referred to parts as percentages. In Q2.4.2, candidates could not do the calculation on the percentage of maize to be included in the mixture.

(e) In Q2.5.1, the responses of the candidates suggest a misinterpretation of the question. Whereas the correct answer was 'December and January' as the only months with sufficient veld fodder, candidates provided 'June and July' as the answer. It is possible that they confused 'sufficient' with 'insufficient' in the question. This misinterpretation had an impact on Q2.5.2 since the justification was irrelevant. In Q2.5.4(a), candidates did not change tons into kilograms before performing the calculation.

Suggestions for improvement

(a) In the teaching of the alimentary canal, learners should be made aware that farm animals are classified and grouped according to the alimentary canal. This will prevent learners from confusing a type of a farm animal with the name of a specific farm animal. Furthermore, the types of feeds should not be isolated from the teaching of the different alimentary canals of farm animals.

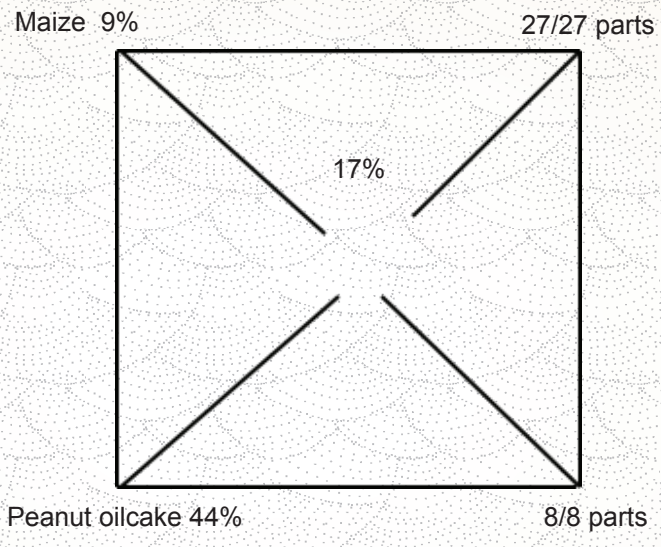
(b) Functions of water that are directly involved in nutrition should be clearly demarcated from the general functions of water. It should also be indicated from the onset that the section is on nutrition and hence, the role of water in nutrition should be emphasised. The teaching of functions of minerals and vitamins should also go hand in hand with the deficiency symptoms.

(c) In the teaching of the digestibility co-efficient, learners should be made aware that the following will be assessed:

- Conversion of moisture content = 1 mark
- Correct formula = 1 mark
- Correct substitution = 1 mark

- Correct answer = 1 mark
- Correct unit (%) = 1 mark

Learners should also be made aware that in the use of the Pearson square method, all the differences after calculations are not percentages but parts, as in the example below:



(d) In the question where learners have to calculate in kg when the data is in tons, the first step is to convert tons into kilograms. To convert a ton into a kilogram, a learner should multiply by 1000 as there is 1000kg in 1 ton. To convert a kilogram into a ton, a learner should divide by 1000.

QUESTION 3 ANIMAL PRODUCTION, PROTECTION AND CONTROL

Most candidates performed reasonably well in this question. There is a remarkable improvement in the drawing of a graph as compared to previous years.

Common errors and misconceptions

(a) Generally, responses of candidates in Q3.1.1 reflected a lack of knowledge of subject terminology. Instead of indicating intensive and extensive production systems, candidates used the term 'intensive' instead of 'internal' and 'extensive' instead of 'external'. In Q3.1.2, candidates were expected to compare the two production systems based on environmental conditions, human input and productivity but candidates indicated the impact of these three factors instead.

(b) In Q3.2.1, where the question required the form of heat loss, candidates gave a description of heat loss without naming the form of heat loss in each case. Candidates could not state signs of heat loss in farm animals in Q3.2.3. The management practices to reduce heat loss in Q3.2.4 were also a challenge to candidates.

(c) Even though there is a remarkable improvement in the drawing of a graph, some candidates failed to put the correct unit on the Y-axis in Q3.3.1. Some candidates did not label the X- and Y-axes.

(d) In Q3.4.1, candidates did not indicate the major symptom of Foot and Mouth disease. They provided general symptoms of diseases instead. In Q3.4.2, candidates incorrectly provided a pathogen as a vector for Redwater disease.

(e) Methods used to administer remedies to farm animals were randomly indicated by candidates in Q3.5. These were not directed to the specific situations given.

Suggestions for improvement

(a) Teachers should use excursions and DVDs to help learners towards a deeper understanding of production systems. In comparing production systems based on the provided factors, learners are not required to explain the impact of the factors but are required to look at how each factor is incorporated in each production system.

(b) Forms of heat loss should be taught to learners and these should not be isolated from the management practices to reduce heat loss. Different resources on signs of heat loss should be consulted.

(c) In the teaching of a graph, it is important that learners be made aware that the independent variable should always be on the X-axis and the dependent variable should be on the Y-axis. In the drawing of the graph, the following criteria should be taken into consideration:

- Correct heading
- Type of graph (bar/line)
- X-axis correctly labelled
- Y-axis correctly labelled
- Correct units on both axes
- Accuracy

(d) In the teaching of the diseases, teachers should consult the current examination guidelines. It should be emphasised that diseases, pathogens, symptoms and the animals affected should not be studied in isolation. The administration of remedies should also be taught.

QUESTION 4 ANIMAL REPRODUCTION

The performance of candidates in this question was comparatively the worst in 2015. There were cases of poor performance in many sub-questions.

Common errors and misconceptions

(a) Poor performance can be attributed to the fact that candidates did not differentiate between the two parturition stages as illustrated in Q4.1.1. Consequently, they failed to associate the two stages with activities given in Q4.1.3. Candidates also confused behavioural changes during parturition with signs of parturition in Q4.1.4.

(b) In Q4.2.1, candidates defined oestrus while the question required them to define the oestrus cycle. Candidates indicated a specific day instead of days or a range of days as was required in Q4.2.2. Candidates were unable to respond to the influence of oestrogen on LH and instead they simply described what was in the graph.

(c) Q4.3 posed a challenge to most candidates. They were unable to link statements to the devices used by farmers to detect if dairy cows are in oestrus.

(d) Embryo transfer was mistakenly provided as an answer for Q4.4.1 whereas cloning (nuclear transfer) was the correct answer. That had a direct bearing on Q4.4.2 on the definition of cloning (nuclear transfer) and Q4.4.4 on the aims of cloning (nuclear transfer). This indicates that candidates were not able to differentiate between the reproductive processes.

Suggestions for improvement

(a) Teachers should not spend too much time on the teaching of the reproductive systems at the expense of other content topics in animal reproduction. Parturition and all its stages are imperative. Practical observations would assist in this regard so that learners would have a deeper understanding of everything relating to parturition.

(b) In the teaching of the oestrus cycle, learners should be made aware that oestrus is just one stage of the whole cycle. Hormones that are responsible for the cycle should be emphasised. Teachers are advised to concentrate not only on oestrogen and progesterone. The roles of FSH and LH in the oestrus cycle should also be emphasised.

(c) Physical ways and devices to detect cows in oestrus are a part of the new content prescribed by the CAPS policy document. Learners should be made aware that these are totally different from signs of oestrus. Excursions to neighbouring farms could assist in exposing learners to these ways and devices.

(d) All reproductive processes as contained in the CAPS policy document should be taught and learners should be regularly assessed on them in order to eradicate misconceptions. Learners should know that when a nucleus is donated, the process would be referred to as cloning (nuclear transfer). It cannot be embryo transfer because there is no embryo (an embryo is a developed zygote).

3.5 OVERVIEW OF LEARNER PERFORMANCE IN PAPER 2

General comments

(a) As in paper 1, candidates performed poorly in question 1, mainly on those sub-questions requiring subject terminology.

(b) Questions on market legislation posed a serious challenge to candidates.

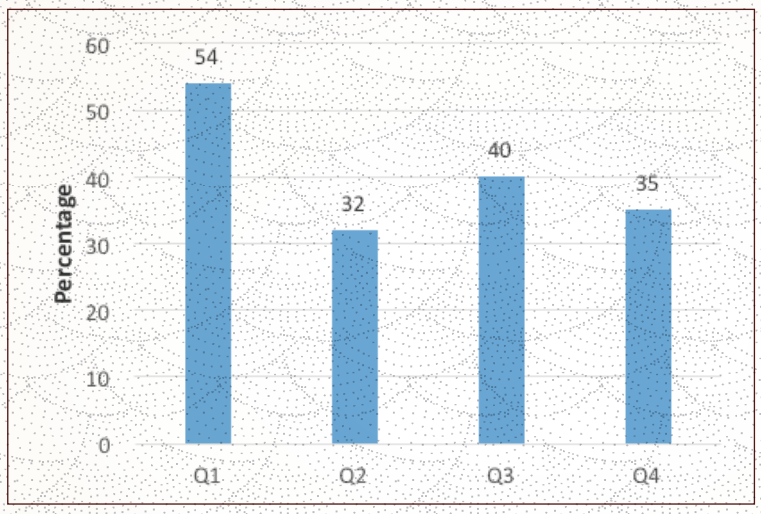
(c) Data response questions, particularly in question 2 based on the scenario on entrepreneurial qualities, still posed a challenge.

(d) Basic genetics is still a serious challenge to candidates. Candidates struggled with the calculation of the EBV (Estimated Breeding Value), identification of breeding systems, selection of gametes to be crossed in the Punnet square and Genetically Modified Organisms (GMO).

3.6 DIAGNOSTIC QUESTION ANALYSIS FOR PAPER 2

The following graph is based on data from a random sample of candidates. While it might not accurately reflect national averages, it is useful in assessing the relative degrees of challenge of each question as experienced by candidates.

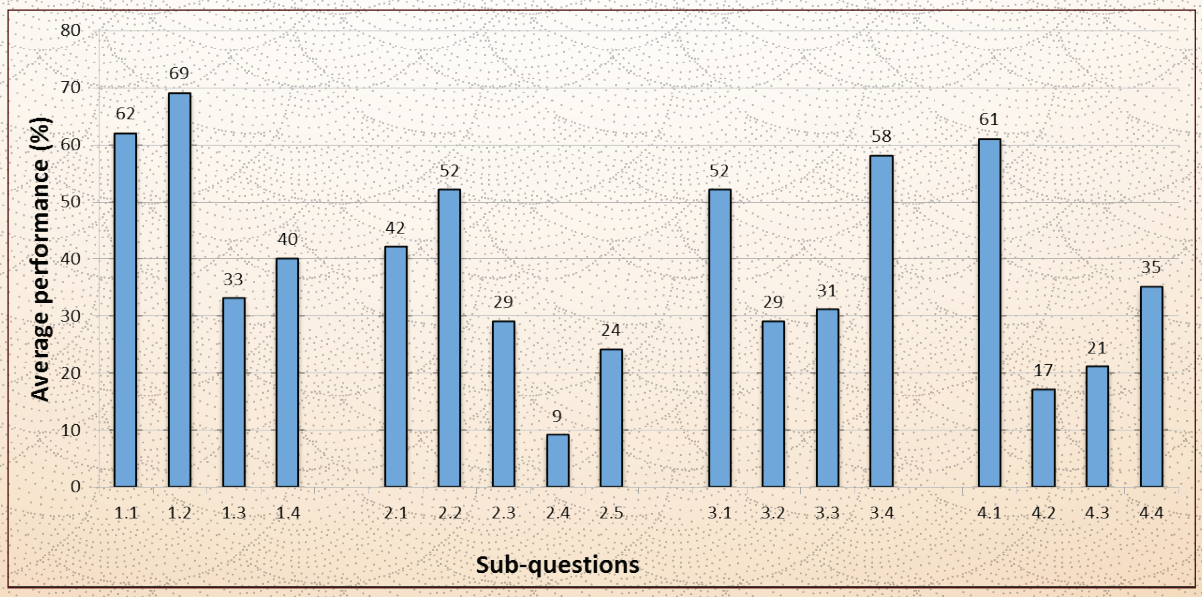
Graph 3.6.1: Average marks per question expressed as a percentage: Paper 2



Q1	Multiple choice, match type, terminology & replacement: Agricultural Management & Genetics
Q2	Agricultural management and marketing
Q3	Production factors
Q4	Basic Agricultural genetics

Candidates generally performed poorly in questions on agricultural management and marketing (marketing legislation, agri-business plan, entrepreneurial qualities and the relationships among price, supply and demand).

Graph 3.6.2 Average performance per sub-question: Paper 2



3.7 ANALYSIS OF LEARNER PERFORMANCE IN INDIVIDUAL QUESTIONS IN PAPER 2

QUESTION 1 SHORT QUESTIONS (AGRICULTURAL MANAGEMENT & GENETICS)

This was comparatively the best answered question. There has been a remarkable improvement in this question compared to the 2014 performance. It should also be noted, however, that some sub-questions were not well answered by candidates.

Common errors and misconceptions

(a) In Q1.2.4, candidates could not differentiate between pedigree selection and family selection. As a result of this, they wrote H as the correct letter instead of C.

(b) In Q1.3.1, most candidates wrote 'business plan' instead of 'planning' as an answer. This implies they could not differentiate between a document and an action. In Q1.3.3, candidates confused cash flow, budget and balance sheet for income statement. In Q1.3.4, candidates wrote 'depreciation' and 'inbreeding' as their responses instead of 'inbreeding depression'. In Q1.3.5, candidates wrote 'homologous' instead of 'homozygous'.

(c) In Q1.4, candidates performed poorly due to an inability to define concepts. For instance in Q1.4.2, candidates wrote 'production' instead of 'productivity'. The correct answer for Q1.4.4 is 'entrepreneurial' and posed a serious challenge to candidates as many incorrect responses were provided. This indicates a lack of knowledge of terminology on the part of candidates.

Suggestions for improvement

(a) As indicated in paper 1, learners should be acquainted with the subject terminology. A glossary of terms should be made available to learners. Wrong and incorrect spelling of terms should be penalised so that learners are encouraged to provide correct subject terms and concepts in order to be able to differentiate between these terms and concepts.

(b) Learners need to be tested informally on a regular basis on items from a glossary so as to afford them more exposure to the relevant subject terminology.

QUESTION 2 AGRICULTURAL MANAGEMENT AND MARKETING

Candidates performed the best in this question in 2014, but it was the worst in 2015. The poor performance could be attributed to an increase in the number of data response items in this question.

Common errors and misconceptions

(a) In Q2.1.2, most candidates could not provide reasons for the type of marketing system illustrated but rather stated advantages of a free marketing system instead.

(b) In Q2.1.4, advantages of direct marketing for a producer were erroneously given instead of concentrating on the consumer.

(c) In Q2.2.1, most candidates failed to indicate the relationship among price, supply and demand. Some candidates opted to define the three concepts individually without showing the relationships among them. Drawing a graph was a challenge, since many candidates failed to identify the dependent and independent variables accurately and this led to incorrect labelling of the axes.

(d) In Q2.3, candidates provided the contents of a business plan rather than giving the problems encountered in the drawing up of an agri-business plan.

(e) In Q2.4, candidates were unable to give the marketing legislation that applied to each of the statements provided.

(f) Identifying entrepreneurial qualities from the scenario in Q2.5 was a challenge to candidates as some provided skills and management principles instead. Those who provided the correct qualities failed to refer to the scenario for an explanation of each quality.

Suggestions for improvement

(a) Marketing has always been a feature in the examination. Learners should know the characteristics of different marketing systems. On free marketing system, learners should know all the channels and the teaching of these channels should be encouraged through the use of pictures for better understanding. It should also be indicated to learners that advantages and disadvantages apply separately to consumers and producers.

(b) Demand, supply and price will always influence each other. Learners should be made aware that the relationship among these three concepts simply means the impact of each on the other.

(c) Just as in paper 1, in teaching the drawing of a graph, learners should be able to differentiate between the independent and dependent variables. They should also know that the independent variable is put on the X-axis while the dependent variable is put on the Y-axis. In the drawing of a graph, the following criteria should be considered:

- Correct heading
- Type of graph (bar/line)
- X-axis correctly labelled
- Y-axis correctly labelled
- Correct units on both axis
- Accuracy

(d) In the teaching of the agri-business plan, all aspects relating to the plan should be covered.

(e) Teachers should focus on all aspects of the content that are listed in both the CAPS policy and the Examination Guidelines. There might be topics that have not been covered in recent question papers, but they remain important content topics.

(f) Regarding data response questions, teachers are advised to expose learners to these types of questions in the classroom and encourage them to be creative in thinking of valid responses. However, teachers must make learners aware that their responses must be valid, based on fact and in line with the requirements of the question.

QUESTION 3 PRODUCTION FACTORS

Performance in this question was below average, even though there were instances of exceptionally good performance in some sub-questions. The poor performance could be attributed to the inability to respond appropriately to follow up questions.

Common errors and misconceptions

(a) In Q3.1.1, candidates struggled to relate the type of farm labour practice to the photographs provided. In Q3.1.2, candidates described what was being done by labourers without providing reasons as required by the question.

(b) Candidates experienced a challenge in linking the economic characteristics of land to the situations given in the question paper. Some candidates confused functions of land and economic characteristics of land in Q3.2.1.

(c) It was evident from candidates' responses that they did not understand the scenario in Q3.3 and, therefore, failed to relate it to the content they had studied.

(d) In Q3.4.1, responses reflected that candidates had no idea of what overhead costs are. In Q3.4.2, candidates experienced difficulty in separating income from expenditure and did not know the formula to be used in calculating the net income.

Suggestions for improvement

(a) Teachers should teach learners how to identify specifically what the illustrations, pictures, scenarios and photographs require. If this were to be done before the learners started writing class tests, the problem of learners not answering examination questions appropriately would be minimised.

(b) Informal assessment tasks are developmental in nature. It is recommended that such tasks be administered on a regular and consistent basis so that learners are taught to link concepts, characteristics and functions to the situations provided. Furthermore, functions and characteristics of land should be studied with concrete examples so that learners would not be tempted to confuse the two.

(c) In the teaching of income, expenditure and all other accounting concepts, it is highly recommended that there be co-operative teaching with the Accounting teachers for a better comprehension and understanding of these Accounting concepts.

QUESTION 4 BASIC AGRICULTURAL GENETICS

Performance in this question showed a slight improvement this year as compared to 2014. The attention given to this question is gradually bearing the desired fruits.

Common errors and misconceptions

(a) In Q4.1.3, candidates gave incomplete or co-dominance as the answer instead of complete dominance, indicating that terminology is still a challenge in this knowledge area. Candidates incorrectly represented a dihybrid cross even though just one trait was involved. In Q4.1.5, some candidates used different letters to those that were provided.

(b) Candidates could not identify that the breeding system in Q4.2.1 was upgrading but instead they gave inbreeding, line breeding and cross breeding as answers. In Q4.2.4, most candidates just gave the answer (87,5%) without showing how they arrived at the answer, thereby losing 3 marks for the calculation. It can, therefore, be concluded that the instruction to 'show all calculation' was not heeded to by the candidates.

(c) Calculation of the EBV (Estimated Breeding Value) in Q4.3.1 posed a challenge to candidates. They subtracted the average birth weight of the flock from the birth weight of the lamb without multiplying by the heritability percentage.

(d) In Q4.4.3, candidates provided information on the benefits of GMOs (Genetically Modified Organisms) whereas the question required benefits of the process of genetic modification.

(e) Although graphical interpretation was not a challenge in Q4.4.1, candidates could not explain how GM production compares to non-GM production in different situations presented in the question paper.

Suggestions for improvement

(a) Teachers should pay special attention to a basic crossing, genetic concepts and terminology in their teaching of this topic. Teachers should make sure that they teach learners both monohybrid and dihybrid crosses, as prescribed in the CAPS policy.

(b) Emphasis should be given to different breeding methods and systems. Learners should be exposed to practical observations of these methods and systems.

(c) The teaching of genetics should be enhanced by providing practical examples within the learning site, such as plants, flowers and livestock. There should also be integration with Life Sciences, as genetics is taught comprehensively in Life Sciences.

(d) The key to mastering basic genetics is the understanding of terminology. Learners should be able to describe concepts and provide practical examples to illustrate their understanding of the terms and concepts.

(e) A formula is a prerequisite to any calculation. It is advised that learners should be taught the formula for the calculation of EBV (Estimated Breeding Value). The formula for EBV is as follows:

EBV = (Animal weight – Average weight) x % heritability.

CHAPTER 4

BUSINESS STUDIES

The following should be read in conjunction with Business Studies question paper of November 2015 Examination.

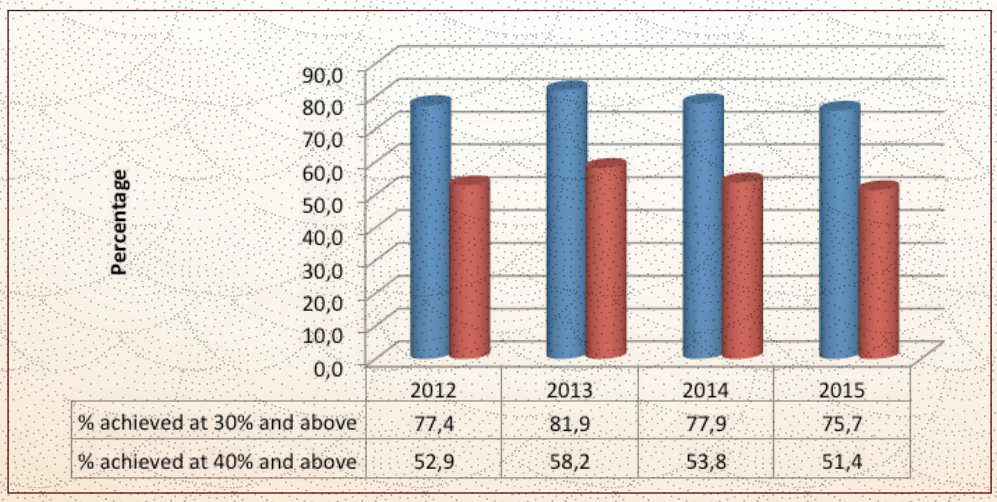
4.1 PERFORMANCE TRENDS (2012 – 2015)

The number of candidates increased by 40 163 in comparison to that of 2014. The general performance of candidates declined this year as indicated by 75.7% of candidates achieving 30% and above, with 51.4% achieving 40% and above.

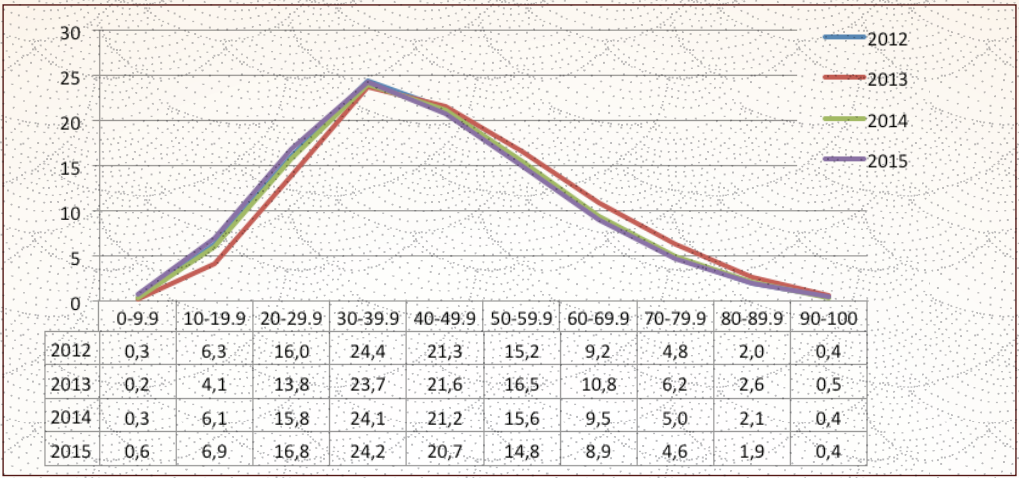
Table 4.1.1 Overall achievement rates in Business Studies

Year	No wrote	No. achieved at 30% and above	% achieved at 30% and above	No. achieved at 40% and above	% achieved at 40% and above
2012	195 507	151 237	77.4	103 470	52.9
2013	218 914	179 329	81.9	127 422	58.2
2014	207 659	161 723	77.9	111 743	53.8
2015	247 822	187 485	75.7	127 453	51.4

Graph 4.1.1 Overall achievement rates in Business Studies



Graph 4.1.2 Performance distribution curves in Business Studies



	0-9.9	10-19.9	20-29.9	30-39.9	40-49.9	50-59.9	60-69.9	70-79.9	80-89.9	90-100
2012	0,3	6,3	16,0	24,4	21,3	15,2	9,2	4,8	2,0	0,4
2013	0,2	4,1	13,8	23,7	21,6	16,5	10,8	6,2	2,6	0,5
2014	0,3	6,1	15,8	24,1	21,2	15,6	9,5	5,0	2,1	0,4
2015	0,6	6,9	16,8	24,2	20,7	14,8	8,9	4,6	1,9	0,4

From the above graphs, it is evident that after the improvement in 2013, there has been a disappointing decline in the performance of candidates in 2014 and 2015.

4.2 OVERVIEW OF LEARNER-PERFORMANCE

General comments

(a) Many candidates misinterpreted questions due to a lack of understanding of the meaning of verbs. Key verbs such as justify, elaborate, discuss the impact, analyse, recommend, distinguish were problematic to many learners. Some candidates tend to name items without explaining or discussing them.

(b) Candidates performed poorly on new CAPS topics that were asked for the first time. It appears that these topics were not adequately taught and assessed as per Annual Teaching Plan (ATP) or that teachers did not expose candidates to provisions in the Examination Guideline (EG).

(c) The candidates performed well in multiple-choice questions (Section A). However, they did not do so in the other sections (Section B & C) because of their inability to address the specific requirements of questions.

(d) Some candidates still experience difficulty in writing essay questions. While many were able to use an appropriate structure, lack of content knowledge resulted in poor performance in the essay questions.

(e) Many candidates could not present responses which would have earned them full marks. Part marks were awarded for vague or incomplete answers.

(f) Some candidates did not correctly number questions in Section B and C.

General suggestions for improvement

(a) Learners must be taught the meaning of the essential action verbs that indicate the level of cognitive demand in questions. In order to do this, teachers are referred to the CAPS, ATP, EG and to the published marking guideline of the November 2015 NSC examination.

(b) Teachers should ensure that teaching and learning takes place within the scope of CAPS, ATP, the 2015 EG and relevant LTSM that addresses the core content.

(c) Teachers should refrain from relying on past NSC papers during formal and informal assessment as these papers do not necessarily cover new CAPS topics. Teachers are advised to develop new questions which address the new topics.

(d) Teachers should aim to make use of scenarios that are current, in order to provide learners with experience in answering questions based on topical issues.

(e) Controlled tests and examinations should be in line with the structure of the NSC paper as per Circular S7 of 2013. This will give learners the opportunity to get used to answering direct and indirect questions in both Section B and C.

(f) Learners must be encouraged to write full sentences and provide clear explanations to achieve full marks on any question. The rationale behind the splitting of ticks and awarding of part-marks is to reward candidates who are unable to do this. Teachers should use the correct method of marking in their assessment of learners to encourage learners to engage with questions.

(g) Teachers must refer to November 2015 NSC paper and the Marking Guideline to advise learners on matters that could affect their performance in future. These include: new CAPS content that requires attention; the allocation of marks and part-marks; the importance of addressing requirements of questions; and awareness of action verbs that influence the response required.

(h) Learners must be given the opportunity to practice essay questions. However, it is essential for learners to understand how to analyse and engage with the requirements of each question. Teachers are advised to actually read and interpret the requirements with their classes from time to time so that learners can acquire this skill.

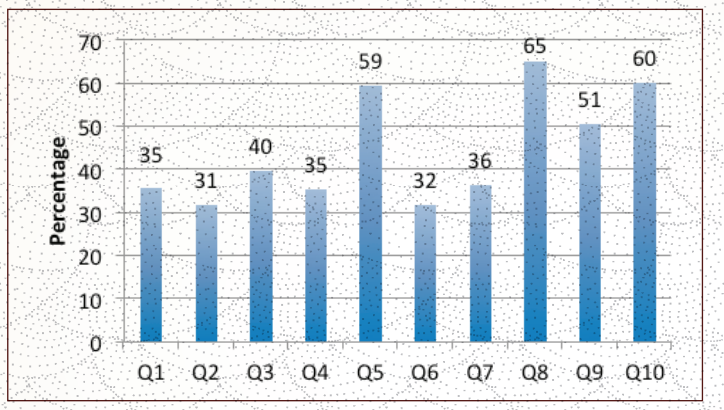
(i) There needs to be a greater emphasis on the learning of appropriate terminology related to the various topics. Teachers should use the following strategies to improve the teaching of terminology:

- Identify new terms in every lesson and write them on the board.
- Instruct learners to take down terms at the back of their notebooks.
- Encourage learners to write down the meanings of these words, as ascertained by being attentive during the lesson or by finding the meaning in a dictionary or textbook.
- Make learners aware of the meanings of new terms by using them in sentences.
- Include Business Studies terms in all daily assessment tasks.
- Ensure that by the end of the year, all learners have a comprehensive glossary of all terms.

4.3. DIAGNOSTIC QUESTION ANALYSIS

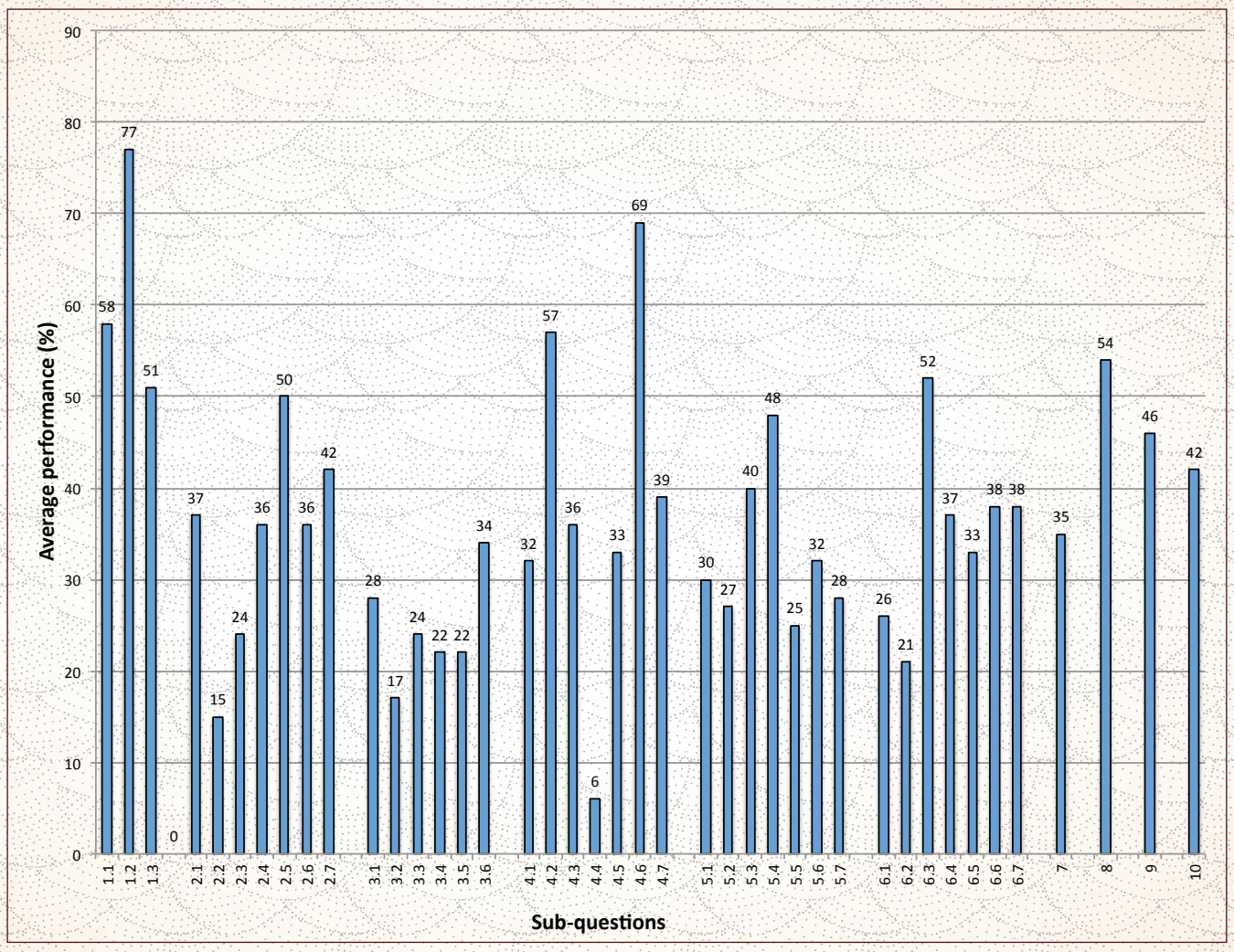
The following graph is based on data from a random sample of candidates. While this graph might not accurately reflect national averages, it is useful in assessing the relative degrees of challenge of each question as experienced by candidates.

Graph 4.3.1 Average marks per question expressed as a percentage



Section A : Compulsory	
Q1	Compulsory (Multiple choice, choosing correct words and matching columns)
Section B: Choice questions (Answer three)	
Q2	Business environment
Q3	Business ventures
Q4	Business roles
Q5	Business Operations
Q6	Miscellaneous
Section C: Choice questions (Answer two)	
Q7	Business environment : Business strategies
Q8	Business Ventures: Presentations
Q9	Business Roles: Human right, inclusivity & environmental issues
Q10	Business Operations: Quality of performance

Graph 4.3.2 Average marks per sub question expressed as a percentage



4.4 ANALYSIS OF LEARNER-PERFORMANCE IN INDIVIDUAL QUESTIONS

SECTION A MULTIPLE CHOICE / SHORT ANSWER QUESTIONS

QUESTION 1 COMPULSORY (MULTIPLE CHOICE, CHOOSING CORRECT WORDS AND MATCHING)

The performance of candidates in this question ranged from good to poor, with an average of 35%.

Common errors and misconceptions

(a) In Q.1.1.10, candidates could not apply a SWOT analysis from the given scenario/statement. Teachers might not have adequately taught this topic in Grade 12 since it is also covered in Grade 10 & 11.

(b) In Q1.2, candidates confused quality control with quality assurance. These concepts are similar but differ in terms of the stages of quality control.

(c) In Q1.3.5, candidates could not match the King Code principle to an appropriate description. King Code principles might have been overlooked when teaching ethics and professionalism.

Suggestions for improvement

(a) Learners must be taught how to apply all the industrial analysis tools using a variety of scenarios and case studies. Teachers must always administer the baseline assessment method to establish the level of learners' understanding especially if the topic is also covered in Grade 10 & 11.

(b) Teachers are advised to use practical examples to distinguish between different concepts related to quality management. A clear distinction must be made to avoid confusion.

(c) King Code principles must be integrated when teaching ethical business practices. Teachers must use recent examples of businesses that follow these principles when dealing with stakeholders.

(d) Teachers should ensure that candidates know specific subject terminology as well as basic interest calculations. Learners must be able to apply this knowledge in the correct context.

SECTION B: LONGER AND PARAGRAPH QUESTIONS, USING CASE STUDIES AND INFORMATION

QUESTION 2 BUSINESS ENVIRONMENT

The performance of most of the candidates in this question varied from poor to average. The possible reason for poor performance could be that candidates were not able to adequately respond to indirect questions based on scenarios.

Common errors and misconceptions

(a) In Q 2.1, candidates could not correctly identify the relevant BBBEE pillar from the given statements. The reason could be that teaching focused on the naming and defining of these pillars rather than on the application or classification of the pillars.

(b) The topic of strategic management process was covered for the first time in November NSC 2014 paper. However, in Q2.3, candidates still confused this question with steps in evaluating the strategy. This could be that 'evaluation' is the last step of the strategic management process. They also confused strategic management process with types of business strategies and problem solving steps.

(c) In Q2.3, candidates confused the impact of the Labour Relations Act (LRA) on businesses with the functions of trade unions, provision of BCEA and the Employment Equity Act. This is despite the topic having been covered in the November NSC 2014 paper. Candidates might have made this error because the LRA makes provision for the establishment of trade unions. Candidates might have confused the functions of the LRA with trade unions. Teachers should be aware that there is a general tendency for learners to confuse all the Acts as they find the contents of the Act difficult to comprehend.

(d) Q.2.4 was poorly answered because candidates confused the impact of COIDA with compliance. Some did not know the meaning of the word 'impact' which resulted in general and irrelevant responses. COIDA is a new CAPS topic and has not been covered in past papers.

(e) In Q2.6, candidates did not understand the meaning of the action verb 'recommend'. Many candidates provided the functions or purpose of the SDA or SETAs. This is also a new CAPS topic which has not been covered in past papers.

(f) Q.2.7 was an analysis question. Candidates could not analyse Porter's five forces from the scenario. Some were able to only name the forces and some provided the elements of the market environment. The reason for this could be that candidates did not understand the meaning of the verb 'analyse'.

Suggestions for improvement

(a) Teachers are advised to adopt a holistic approach in the teaching of all topics which integrates theory, application and reflection, i.e. the 'what', 'why' and 'how'. Learners must be exposed to different types of assessment including questions that require them to apply knowledge.

(b) Teachers should note that the strategic management process forms part of strategy formulation. Learners can formulate business strategies based on the results obtained from scanning the environments using the three industrial analysis tools. Businesses strategies should not be taught in isolation without linking the strategies to the findings or results obtained from the strategic management process.

(c) Learners must be taught to differentiate between various Acts in terms of the nature, purpose, impact, compliance and penalties. Teachers must also ensure that the functions of trade unions are covered in Grade 11 and not in Grade 12.

(d) The word 'impact' has always been used in past papers. Learners must understand that it either means 'advantages/positives' or 'disadvantages/negatives'. Learners can adopt a stance either for or against, or may present a mixed response.

(e) All new CAPS topics must be assessed using a variety of action verbs so that learners are able to answer any type of questions asked.

(f) Case studies or scenarios, extracted from the media or various textbooks should be used to regularly to consolidate compliance or non-compliance and drill specific terminology and vocabulary. This should always form part of formal and informal assessment tasks.

(g) Class notes on the various Acts should be in tabular format in order to summarise different aspects such as content, impact, compliance and non-compliance. This will tend to reduce the confusion in the learners' minds.

(h) Learners should be encouraged to compile their own vocabulary list or glossary on subject terminology related to business environments.

QUESTION 3 BUSINESS VENTURES

The performance of learners varied from average to poor.

Common errors and misconceptions

(a) In Q3.1.2, candidates could not identify long term insurance from the scenario. It is clear that they did not know the difference between short term and long term insurance because, in Q3.1.1, they provided examples of life insurance instead of stipulating 'long term insurance'.

(b) Most candidates did not make any attempt to answer Q3.1.3. This question required candidates to define the meaning of 'average clause' and 'reinstatement'. Some responded by stating 'over' and 'under' insurance in each concept instead of explaining the meaning of these concepts. The reason for this could be that teachers use different type of textbooks and these concepts are not adequately covered in some textbooks.

(c) Q.3.2 was not answered by many candidates. Some candidates did not know the importance of a State Owned Company (SOC) and could not come up with the reasons for its formation. Those who answered this question based their responses on the services that are rendered by the government instead of the reasons why these companies were established. Some confused the state-owned companies with the public company and Personal Liability Company. It appears that teachers did not focus on the characteristics, advantages and disadvantages of SOC in their recap of the content in Grade 12.

(d) In Q3.3, candidates confused unit trusts with other forms of investment. Many candidates could explain unit trusts but could not discuss the advantages or positives. These candidates could not be awarded full marks, resulting in low scores in this question. This is another example of a question that has not been asked in previous papers.

(e) In Q.3.4, candidates could not provide a clear description of ordinary and preference shares. Terminology regarding shares was incorrectly applied e.g. % of profits instead of dividends and voting rights.

(f) In Q3.5, candidates could not explain how division of labour and legislation influence the success or failure of the business. Instead, they focused on the characteristics of these forms of ownership that were not relevant to the question. Many candidates could not identify the form of ownership based on the suffix 'Pty Ltd'. Terminology such as "shareholders' vs. 'employees' was used out of context. Shareholders were confused with partners and members. This topic has always been a challenge since the inspection of NSC and CAPS. Teaching and learning does not address how these factors or criteria influence the success or failure of any form of ownership.

(g) In Q3.6, candidates could not identify the bureaucratic leadership style and confused it with autocratic leadership style. The bureaucratic leadership style is a new topic in CAPS and has not been asked in previous papers.

Suggestions for improvement

(a) Teachers should explain all insurance concepts using practical examples. Learners should be requested to visit or research insurance companies and enquire about different types of insurance, long and short term insurance . Insurance concepts should be assessed during formal and informal assessment.

(b) Learners should be taught the difference between 'average clause' and 'reinstatement' when covering under/ over insurance.

(c) Teachers should ensure that learners are well conversant with the characteristics, advantages and disadvantages of all forms of ownership. This is Grade 11 content which can be assessed in Grade 12 as part of recap content.

(d) Learners should be taught how to evaluate different kinds of shares and provide practical examples of each type of share.

(e) Teachers should ensure that learners should first know the advantages and disadvantages of all forms of ownership to enable them to understand the factors that influence the success or failure of each form of ownership.

(f) All leadership styles as listed in the EG should be taught and not only the 'popular' ones, i.e. democratic and laissez-faire/free reign.

QUESTION 4 BUSINESS ROLES

This question was fairly answered. Learner-performance ranged from excellent to very poor.

Common errors and misconceptions

(a) Candidates did not attempt to answer Q4.1, probably because it is a new content in the CAPs and had not been asked previously. Candidates were not able to list the economic rights of employees in the workplace. Instead, they listed general rights of employees.

(b) In Q4.3, candidates could only list the stages of team development but they could not explain the concept. Some provided the characteristics of successful teams.

(c) In Q.4.4, candidates did not understand social rights in the workplace and, therefore, could not suggest ways to promote these rights. They sometimes confused social rights with human rights. This is also a new CAPS topic and it was asked for the first time. Some candidates thought social rights referred to social gatherings, e.g. braai.

(d) In Q4.5, candidates could not provide a clear distinction between professionalism and ethics. Instead, they used examples to explain these concepts. Teachers might not have taught this topic in detail since it was dealt with in Grade 11.

(e) In Q4.6.1, candidates could identify the unethical business practices from the scenario. However, they were not able to recommend ways businesses can address the unethical business practices that they identified in Q4.6.1. Many candidates simply made general or vague suggestions or merely changed the 'negative' in Q4.6.1 to a 'positive' in Q 4.6.2.

(f) In Q4.7.2, candidates could not explain the advantages of creative thinking as a problem-solving technique even though this question was asked in the November 2014 NSC paper. It is possible that teachers focused on the application of creative thinking, without considering the theoretical basis.

Suggestions for improvement

(a) Learners must be taught different kinds of rights (i.e. social, human and economic) and their implications on businesses as stated in the CAPS and EG. Teachers should refrain from restricting their teaching to human rights only.

(b) Grade 11 topics that integrate with Grade 12 content should not be neglected. For example, the stages of team development should be revised in Grade 12.

(c) Teachers should not assume that learners fully understand concepts such as professionalism and ethics which would have been covered in Grade 11. Practical examples could be used to explain the relationship between these concepts. For example, a school code of conduct that shapes learners' behaviour can be used as a point of departure to explain how ethical codes shape professional behaviour.

(d) Learners should be given case studies and scenarios that require them to recommend or suggest strategies in which businesses could address the challenges that have been identified from the scenario or case study.

(e) The advantages of creative thinking in the workplace are covered in Grade 10 & 11 syllabus. Teachers should reinforce this topic in Grade 12 by requesting learners to brainstorm these advantages during class discussions.

QUESTION 5 BUSINESS OPERATIONS

This was a popular question which was answered by most candidates. It was also one of the better-answered questions in the paper. Although business operations have limited sub-topics, some candidates tended to misinterpret the questions.

Common errors and misconceptions

(a) In Q5.2, many candidates were not able to make the link between salary determination and BCEA. They focused instead on the conditions of BCEA. This topic has always been covered in NSC and CAPS, however, it had not been asked in previous papers.

(b) In Q5.3.2, candidates were not able to discuss the advantages of external recruitment, and explained only the concept. This could be attributed to the fact that they probably did not read the question accurately as it consisted of two action verbs.

(c) In Q5.4.2, candidates confused the differences between the roles of the interviewer with that of the interviewee. The reason for this might be because the role of the interviewee was never assessed previously.

(d) In Q5.5, candidates failed to state the quality indicators of the purchasing function. Instead, they mentioned the functions of the latter. They also confused quality indicators of the purchasing function with the production function. It appears that teachers probably focused more on Total Quality Management.

(e) In Q5.6.1, although most candidates could quote the relevant statements from the scenario, they were not able to link it to the correct TQM element. Candidates who did not know the TQM elements would have been unable to elaborate on its advantages. The elements of TQM are new in CAPS and learners might not have anticipated that this topic could be asked differently from that asked in the November 2014 NSC paper.

Suggestions for improvement

(a) Teachers should link all Acts that are stated in the ATP and EG under Business Operations with the HR function. Learners must be able to discuss the impact of these Acts on either HR or businesses, depending on the context of the question.

(b) Learners should be trained on how to answer questions that comprise two verbs in one question. Teachers should ask such questions during formal and informal assessment.

(c) Teachers should refrain from over-reliance on previous questions during teaching and learning. The EG clearly states that learners should be well conversant with the role of the interviewer and interviewee during the interview.

(d) The quality of performance of different business functions still forms part of Grade 12 content. Teachers should ensure that learners understand the functions of each business function before teaching quality indicators. Learners should be able to identify or list quality indicators (i.e. practical 'actions') in all business functions that will reflect the quality performance of each.

(e) The EG outlines ten TQM elements, whereas the CAPS and ATP list only three. Teachers must focus on all ten elements. Learners should also have an understanding of the application and impact thereof in the TQM process.

QUESTION 6 MISCELLANEOUS

This question comprised all four main topics. This posed a challenge to many candidates as they had to study the entire curriculum. Responses ranged from fair to very poor.

Common errors and misconceptions

(a) In Q6.1.2, candidates could not identify the consumer right that was violated, but rather gave an explanation of the violation. They quoted examples from the scenario, e.g. false advertising as a violation of a consumer right.

(b) In Q6.1.3, candidates analysed the impact of CPA on consumers instead of its impact on a business. They also explained consumer rights instead of the impact of CPA. Candidates could have thought the company in the scenario (i.e. JSS) was a consumer instead of a business. Although CPA is a relatively new CAPS topic, it was covered in the November 2014 NSC paper.

(c) In Q6.2, few candidates were able to identify the type of investment described in the scenario. Some candidates provided different methods of investing in RSA retail savings bonds instead of explaining the benefits of investing in these bonds. This could have been because they did not understand key words from the given scenarios.

(d) In Q6.3, candidates were not clear on the fact that RAF provides cover for road accidents, and referred instead to accidents in general or in the workplace. Candidates' responses were based on how RAF is funded instead of the benefits. This topic has been asked in the several past papers.

(e) In Q6.4, candidates could not suggest ways in which businesses could deal with difficult people. Instead, they discussed steps in conflict management. This is a relatively new CAPS topic and some learners might not have been adequately prepared it.

(f) In Q6.5, many candidates confused the criteria for successful teams with the characteristics of successful teams.

(g) In Q6.7, although many candidates understood the selection process, they did not provide complete answers in full sentences and consequently did not earn full marks. It appeared that candidates were unfamiliar with the demands of this type of question.

Suggestions for improvement

(a) Learners should be given a variety of statements, case studies and scenarios based on consumer rights and they should be required to identify these rights and make recommendations for improvement.

(b) Teachers should ensure that learners are able to discuss the impact of all recent legislation that is stated in the ATP. Learners should be taught how to respond to direct questions and avoid incorrect interpretation of questions.

(c) Teachers should teach learners the characteristics or nature of different types of investments and use indirect questions to assess learners' knowledge prior to teaching the advantages and disadvantages of each type of investment. Learners should know how to analyse types of investments and select the best investment option with an appropriate motivation.

(d) Teachers should refrain from using one assessment method and should use different cognitive verbs so that learners are able to answer questions from different perspectives.

(e) Learners must be taught the difference between conflict management and how to handle difficult people with different personalities. Teachers must point out that conflict management relates to people working as a team, while difficulty relating to specific people may result from personality clashes or challenges in the workplace.

(f) The criteria for successful teams is clearly outlined in the ATP and Exam Guideline. Teachers should ensure that learners do not confuse these criteria with the characteristics of successful teams. Learners should also understand the some of the characteristics of successful teams are embedded in the criteria for successful teams.

(g) Learners should be taught how to discuss or explain all topics that consist of a process or procedure, e.g. selection, recruitment or placement. Learners should be encouraged to write full sentences and they must not expect to be awarded two marks for one word answers or vague responses.

SECTION C: ESSAY QUESTIONS (TWO QUESTIONS TO BE ANSWERED)

QUESTION 7 BUSINESS ENVIRONMENT: BUSINESS STRATEGIES

This was not a popular question and the performance ranged from good to very poor.

Common errors and misconceptions

(a) Many candidates did not understand this question. It appeared that they read only the first part of the question and ignored the last part.

(b) Candidates were not familiar with business's use of the PESTLE model to scan the macro environment. Many identified PESTLE factors only and could not identify the challenges from the scenario. They also focused on the challenges Subashnee may encounter in Soweto rather than explaining how the PESTLE model can influence the business.

(c) The political and legal components were confused and challenges identified did not match the relevant components.

(d) The steps for evaluating strategies were not well answered and they were confused with the problem-solving cycle or steps.

(e) The recommendations were based on business strategies and were not linked to the identified challenges. This has always been a concern, and many candidates appear to have inadequate skills in recommending or devising strategies that are relevant to challenges identified from the given scenario or case study.

Suggestions for improvement

(a) Learners must be taught how to respond to questions that consist of two actions verbs. This should form an integral part of teaching and assessment.

(b) Learners must be exposed to more case studies or scenarios covering PESTLE analysis as part of informal assessment in order to improve their analysis of scenarios used in essay questions. Theory should be revised as it is recap content from Grades 10 and 11. Learners should be taught how to.

(c) A clear distinction must be made between political and legal components. This should be done using practical examples as part of the informal assessment process.

(d) Teachers are advised to emphasise the differences in the processes for problem-solving and evaluating strategies by summarising these in tabular format.

(e) Learners must be taught how to make recommendations that are in line with the challenges they have identified. They should also be made aware they cannot simply guess possible responses. Recommendations must be made by identifying challenges from any given scenario, statement, extract or case study.

QUESTION 8 BUSINESS VENTURES: PRESENTATIONS

This question was the most popular question. This was the best-answered question in the paper. Performance ranged from average to excellent.

Common errors and misconceptions

(a) Although there was an improvement in the use of the headings for the introduction and conclusion, many candidates did not obtain factual marks under these headings. Candidates repeated the statement or extract from the question either as an introduction or conclusion.

(b) Most candidates confused factors that must be considered during the actual presentation instead of preparing for the presentation. The phrasing of this question is new and more specific in relation to the manner in which it was asked previously.

(c) Candidates could name only types of visual aids without evaluating the impact of the former. The types of visual aids for verbal presentations included graphs and tables. This question was asked in previous papers and there is no valid reason for learners to perform poorly in these sub-questions.

(d) Most candidates could not discuss how the presenter can improve on her next presentation. Instead, they repeated factors that must be considered when preparing for the presentation. This could be attributed to the fact that teachers might have overlooked teaching this topic as it is the last aspect of presentations.

Suggestions for improvement

(a) Learners must be taught the importance of reading all sub-topics asked in essay questions so that their introduction and conclusion cover some part of these sub-topics. Essay questions should be administered on a regular basis after the completion of each topic. This will give learners the opportunity to develop writing skills and it should also alleviate fears of answering essay questions.

(b) Teachers should make good use of the November 2015 NSC examination marking guideline as it clearly distinguishes between factors that must be considered before and during presentation. This must be a practical assessment that should take place when learners are assessed on their presentation skills. Grade 11 teachers should also be advised to teach this topic in detail so that learners are adequately prepared for Grade 12.

(c) A clear distinction should be made of visual aids for verbal and non-verbal presentations. Teachers should teach various types of visual aids in terms of their advantages and disadvantages. Learners should be required to provide other alternative answers to assess their understanding. This will enable teachers to administer intervention strategies if deemed necessary.

(d) Teachers must ensure that all sub-topics in the CAPS receive equal attention in the classroom.

QUESTION 9 BUSINESS ROLES: HUMAN RIGHTS, INCLUSIVITY AND ENVIRONMENTAL ISSUES

This question was answered satisfactorily. Responses ranged from poor to good.

Common errors and misconceptions

(a) Some candidates' responses were based on the scenario. However, they simply discussed human rights, inclusivity and environmental issues in general without linking them to the question asked.

(b) This question was asked in the November 2013 NSC paper and recommendations were made in the 2013 National Diagnostic Report on learner performance. Candidates' performance was expected to be excellent. Although many candidates knew five human rights, they were not always able to explain these in the context of the workplace.

(c) Many candidates confused a diverse workforce with equity and/or labour relations. Some did not attempt to answer this sub-question. It appeared that candidates were unfamiliar with this relatively new CAPS topic.

(d) Candidates could not suggest ways in which business can address gender and poverty. Instead, they suggested practical ways businesses can contribute to CSI. Some candidates explained discrimination in the attempt to answer this sub-question. They also explained the purpose of the Employment Equity Act as providing ways that businesses can address gender issues. This is also a new CAPS topic which has not been asked in previous papers.

Suggestions for improvement

(a) Learners must be taught how to analyse all topics that require application of knowledge. They must be able to understand the implication of human rights in the workplace so that they are able to make recommendations.

(b) Diversity in the workplace relates to measures that businesses take in order to address inclusivity in the workplace. All aspects that are covered under this topic must be discussed in detail and recommendations must be made on how businesses can achieve a diversified workforce.

QUESTION 10 BUSINESS OPERATIONS: QUALITY OF PERFORMANCE

This was not a popular question. However, this was one of the better-answered questions in the paper.

Common errors and misconceptions

(a) Most candidates could not discuss the impact of TQM elements on large businesses. Many were not sure what each element entailed and were, therefore, unable to discuss the impact. This could be attributed to the fact that the elements of TQM are not adequately covered in some textbooks. Teachers might have to obtain additional resources to fill this gap.

(b) Candidates confused quality management system with TQM, with some elements of TQM being repeated under the benefits of quality management system. Furthermore, quality management was confused with the levels of management. Quality management process has not been asked in past papers. Teachers might not have assessed it during the academic year.

(c) Candidates did not understand the meaning of 'continuous improvement to processes and systems'. They repeatedly stated that businesses should send their employees for skill development programmes. This clearly indicates lack of knowledge regarding the advantages of continuous improvement to processes and systems.

Suggestions for improvement

(a) A clear distinction must be made between the impact of the elements of TQM on small and large businesses. Teachers should use practical examples when teaching this topic, e.g. they must request learners to compare the impact of the elements of TQM on small local businesses with large companies.

(b) Learners must be taught the differences between quality management system and TQM. The rationale behind the latter is to ensure that businesses improve on the quality of goods and services on continuous basis.

(c) Learners must be taught that continuous improvement to processes and systems is aimed at improving all aspects of business operations, not only on improving employees' skills.

CHAPTER 5

ECONOMICS

The following report should be read in conjunction with the Economics question paper 1 and 2 of the November 2015 Examination.

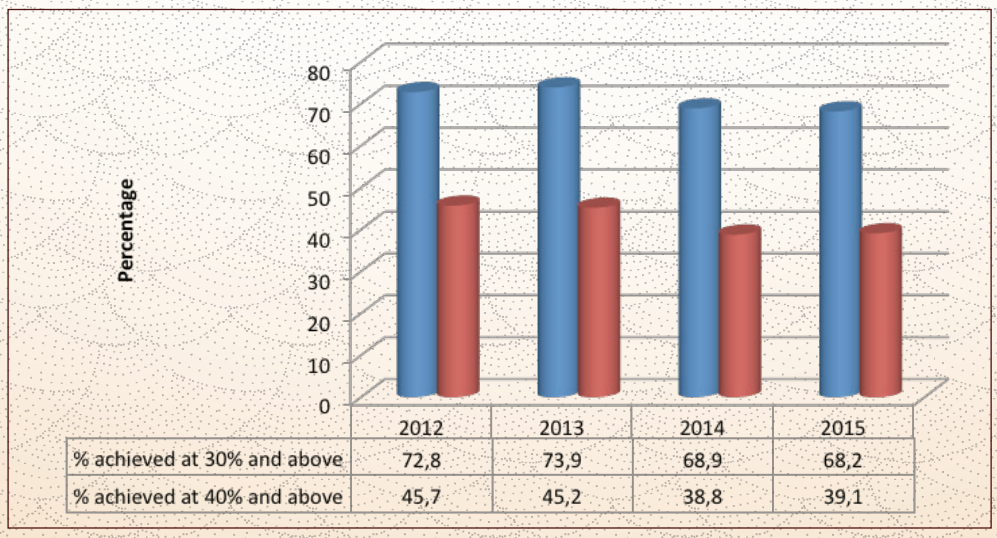
5.1 PERFORMANCE TRENDS (2012 – 2015)

The number of candidates increased by 28 164 in comparison to that of 2014. The general performance of candidates declined slightly this year as indicated by 68.2% of candidates achieving 30% and above, with 39.1% achieving 40% and above.

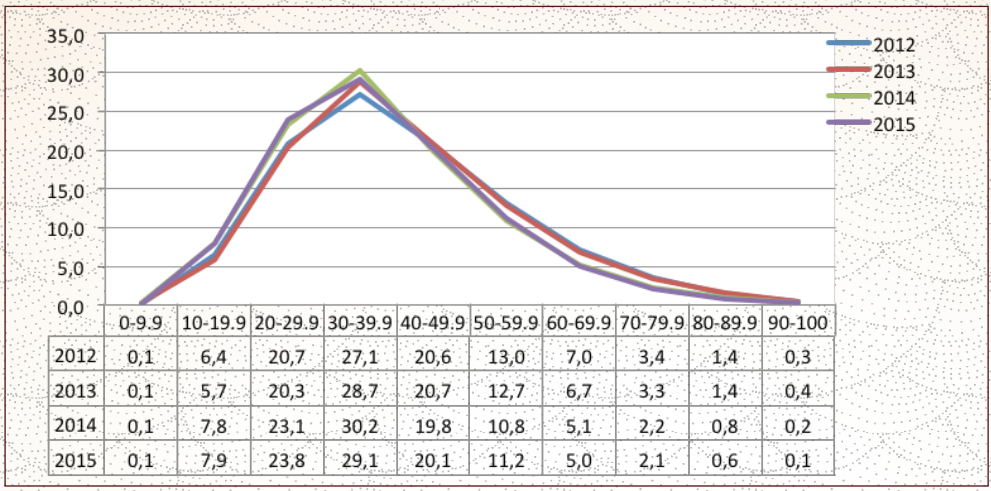
Table 5.1.1: Overall achievement rates in Economics Paper 1 & 2

Year	No wrote	No. achieved at 30% and above	% achieved at 30% and above	No. achieved at 40% and above	% achieved at 40% and above
2012	134 369	97 842	72.8	61 452	45.7
2013	150 114	110 869	73.9	67 795	45.2
2014	137 478	94 779	68.9	53 294	38.8
2015	165 642	112 922	68.2	64 780	39.1

Graph 5.1.1: Overall achievement rates in Economics Paper 1 & 2



Graph 5.1.2: Performance distribution curves in Economics



	0-9.9	10-19.9	20-29.9	30-39.9	40-49.9	50-59.9	60-69.9	70-79.9	80-89.9	90-100
2012	0,1	6,4	20,7	27,1	20,6	13,0	7,0	3,4	1,4	0,3
2013	0,1	5,7	20,3	28,7	20,7	12,7	6,7	3,3	1,4	0,4
2014	0,1	7,8	23,1	30,2	19,8	10,8	5,1	2,2	0,8	0,2
2015	0,1	7,9	23,8	29,1	20,1	11,2	5,0	2,1	0,6	0,1

From the above graphs, it is evident that there has been a decline in the performance of candidates in each of the past three years.

5.2 OVERVIEW OF LEARNER-PERFORMANCE: PAPERS 1 & 2

General comments

(a) The quality of candidates' performance is disappointing when compared to that of the previous years. It appears that the 2014 *Diagnostic Report for Economics* was considered by PEDs for purposes of intervention and the assistance of teachers and learners in preparation for the final examination. These interventions included the *Mind the Gap 2014* initiative by the DBE, which supplied much-needed uniformity in factual content. This should have helped candidates in general and the weaker learners especially, to take advantage of the low-difficulty questions that comprised ±30% of the paper.

It was clear from the performance of some centres that candidates had used previous question papers as well as the *Economics Exemplar Papers* and the *Mind the Gap* to prepare themselves thoroughly for the 2015 papers. It is clear from the results which candidates or centres had been given exposure to tables, graphs, extracts, news articles and figures on a regular basis. Increasing the duration of the economics paper from 1½ hours to 2 hours definitely helped candidates perform better.

(b) It is, however, clear that many centres did not make use of the previous papers or the *Mind the Gap* to prepare their learners. Many candidates lacked comprehension and interpretation skills. This is evident in the answers provided to the different data-response questions (Section B) and the lack of planning of essays (Section C). The poor quality of answers in many centres indicates that problems still exist in the teaching and learning processes. The main reasons for underperformance are the following:

- 2014 introduced a new syllabus (CAPS) with new content not yet covered in the past.
- Some textbooks do not cover this content in detail so as to ensure good performance by candidates.
- With the introduction of CAPS, the subject now focusses its assessment based on the contextual, real-life scenarios. The problem is compounded by poor language skills of the candidates.
- Most candidates were not prepared to solve problems, give their own opinions, or evaluate data connected to their study material.
- Candidates seem to lack basic knowledge of the general economic issues of the day.

(c) Judging from the performance of candidates in the 2015 papers, the general performance or lack thereof resulted from the following:

- **Content coverage**: Candidates from centres that performed well had been exposed to the entire curriculum. These candidates were able to make sound choices between questions in Section B and Section C. It is, however, evident from the poor performance of many candidates that they were not exposed to the details prescribed by policy and discussed in the *Examination Guidelines 2014.* Basic economic concept/terminology seemed to be lacking among many candidates and knowledge of current economic issues also seems to be a challenge. *Paper 1: Explain the term corridors.* **OR** *Paper 2: Explain the term externality.*

- **Exposure to different types of questions**: Skilled Economics learners can write essays and paragraphs and offer their opinions with confidence. These learners have the ability to focus specifically on the information that is relevant to the answering of each question. Teachers play a crucial role in the moulding of their learners to deal with a variety of questions with different cognitive verbs such as *why, how and what* and the unlocking of knowledge in a variety of ways. A variety of higher-order thinking skills should be developed in the context of the subject content being taught. Learners should be challenged to solve everyday problems experienced in their own communities. E.g. *Paper 1: How can the South African government improve the efficiency of service delivery?* **OR** *Paper 2: What are the benefits of using technology in sustaining the environment?*

- **Language ability**: Although language deficiency is still a drawback for many second-language candidates, many centres in deep rural areas have excellent results compared to others experiencing similar circumstances. Teaching should take place in such a way that the learners understand the content.

General suggestions for improvement

Teachers are advised to build the following practices into the work plan for the year:

(a) **Use of past NSC/CAPS papers and CAPS exemplar papers:** In preparation for the 2016 year-end papers, every learner should use the previous final (2014, 2015) and supplementary (2015, 2016) papers for clear guidance. Teachers should build their own confidence in their ability to deal with each topic in the classroom situation and to assist learners through their teaching. Owing to the changed format of Economics examination papers from TWO x 1½ hour papers (2014) to **TWO x 2 hour papers** (2015) all content should be considered of equal importance. Teachers should further use the *Examination Guideline 2014* and *Mind the Gap* as support mechanisms when it comes to the scope and depth of content and how to assess learners' understanding of the specific content matter. In cases where old question papers are used for teaching and learning, they should be CAPS compliant and aligned to the changes made in the Examination Guidelines. Using previous marking guidelines is good as a revision tool but not as a teaching tool. Interpretation of questions is critical; content should continually be assessed in line with the *Examination Guidelines 2014*.

(b) **Basic concepts:** Teachers should ensure that learners understand essential basic concepts and terminology before engaging in their applications. More time should be spent upgrading the reading skills of second-language learners especially. Continual testing of terminology is strongly advised, as is the use of *Mind the Gap*, where all relevant concepts are explained. A quiz bowl, crosswords or team challenges can be interesting tools to assess knowledge of economic concepts. This will help build confidence in learners. Classwork or homework on definitions would ensure that learners stay familiar with these basic concepts.

(c) **Requirements of questions:** Teachers should ensure that learners understand the requirements of typical questions in future NSC (CAPS) papers. . For example, if a question requires calculation of figures, this must be done to earn the relevant marks e.g. *Paper 1: Calculate the compensation of employees as a percentage of GDP at market prices in 2013. Paper 2: Explain long-run equilibrium of the monopolist with the aid of a neatly labelled graph.* Educators should expose the learners to the new way of questioning, e.g. the 'what', 'why' and 'how' type of higher order question. Learners should be guided by the mark allocation in terms of the depth of the answer. With regard to higher-order questions (especially 2.5, 3.5, 4.5 and the additional part of the essay questions), a candidate needs to read the question carefully and highlight the key issue required. Reading the question again would ensure greater accuracy in the candidate's response. Responses need to be formulated and there should be a constant reference back to the question to ensure the response logically suits it. It is not wise to respond immediately after the initial reading of the question. Time must be taken to understand the question clearly.

(d) **Comments and explanations:** Teachers need to train learners to express themselves clearly where comments or explanations are required. Learners need guidance on how to express the opinions that are relevant to the context. Refer to *Examination Guidelines 2014* where typical higher order ('hot') questions are provided, e.g. *Paper 1: Explain how fiscal and monetary policy might be used to stimulate economic activity during a recession* (page 8) **OR** *Illustrate the composition of the public sector by means of a diagram* (page 9). *Paper 2: Examine in detail how cost and revenue curves can be used to illustrate and explain the dynamics (working) of markets* (page 13) **OR** *In your opinion is the competition policy in South Africa destroying or saving businesses?* (page 14)

(e) **The importance of formative testing:** Teachers should build the confidence of learners through the use of short informal formative tests and tasks. Small formative assessment tasks should be used to ascertain whether candidates are able to apply their knowledge, placing emphasis on their own opinion and understanding. This would force learners to take ownership of the learning process [see *Examination Guidelines* (page 12): *Identify how social rights are embedded in the budgets of the South African government*].

(f) **The structure of the paper**

- **SECTION A** should be explained to learners to enable them to organise their answers properly. Adhering to instructions would make assessment easier. Leaving lines open between sub-sections, using the correct numbering system and not omitting question numbers are examples of issues that make assessment more effective.

- **SECTION C (Essay):** Teachers must stress the importance of the layout of the essay: introduction, body (main and additional part) and conclusion. There should be a clear distinction between the various aspects with line spacing between them. The use of sub-headings is crucial as this earns marks. Learners should make reference to the structure of the essay, which is clearly outlined in the question paper.

- Learners must be made aware that no marks will be earned if any part of the question is repeated in the introduction. The conclusion must not include any point mentioned in the body but can include the learner's own opinion, an alternative viewpoint, any fact to support the body or a summary of the discussion.

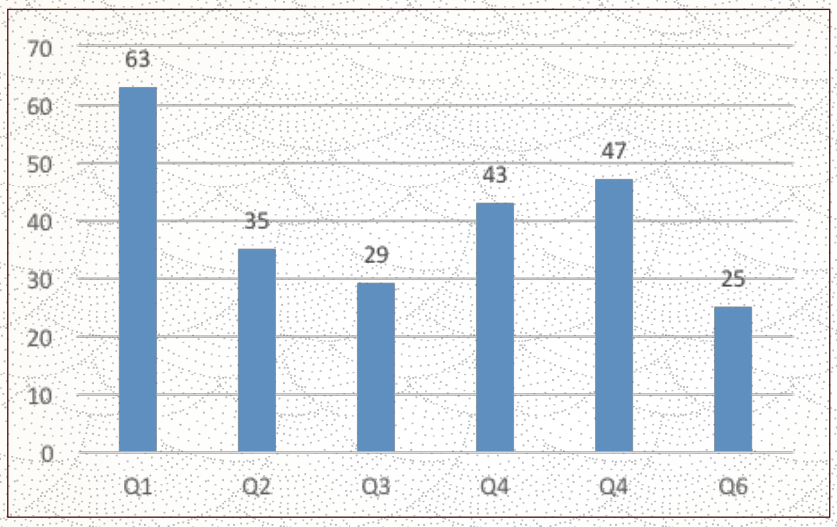
- Teachers must make provision for learners to practise the answering of essay questions. When a topic or chapter is finished, an essay question should be given as a test or homework. If given as homework, the essay can be assessed in terms of the following important aspects (detailed assessment is not necessary):

  1. Relevant Introduction.
  2. Sub-headings in the main part.
  3. The appropriateness of the additional part.
  4. Relevant conclusion.

5.3 DIAGNOSTIC QUESTION ANALYSIS FOR PAPER 1

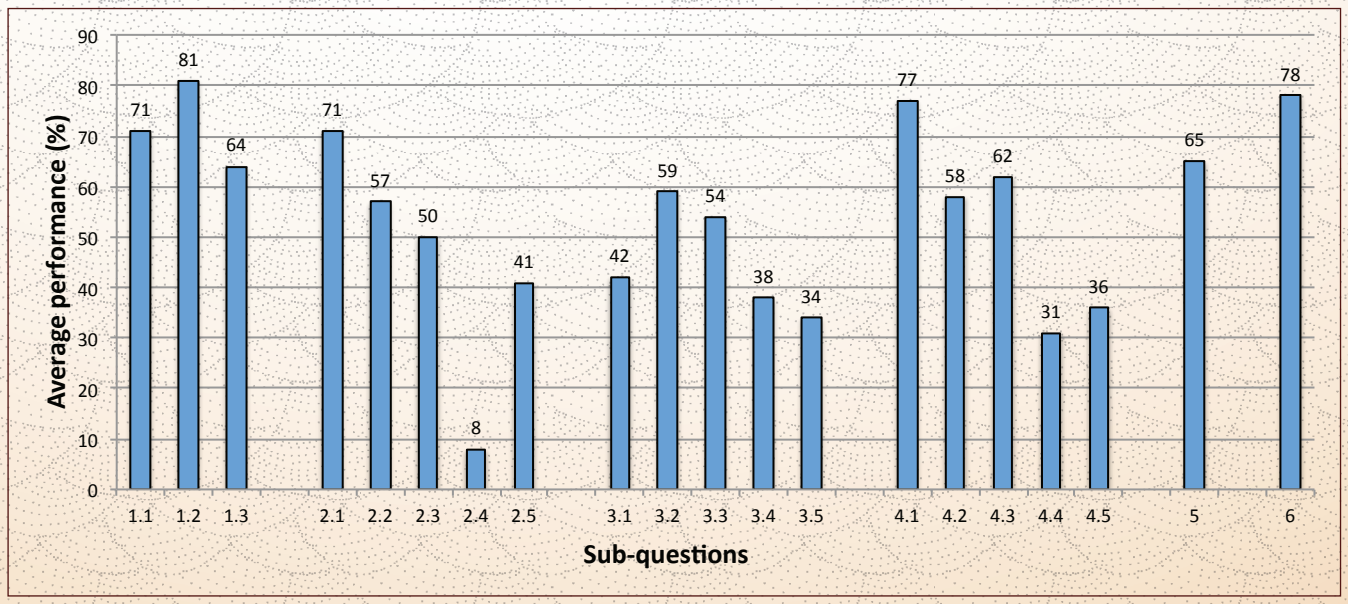
The following graph is based on data from a random sample of candidates. While this graph might not accurately reflect national averages, it is useful in assessing the relative degrees of challenge of each question as experienced by candidates.

Graph 5.3.1: Average marks per question expressed as a percentage



Q1	Macro-economics & economic pursuits
Q2	Macro-economics
Q3	Economic pursuits
Q4	Macro-economics & economic pursuits
Q5	Macro-economics
Q6	Economic pursuits

Graph 5.3.2: Average marks per sub question expressed as a percentage



5.4 ANALYSIS OF LEARNER-PERFORMANCE IN EACH QUESTION IN PAPER 1

QUESTION 1 MACRO-ECONOMICS & ECONOMIC PURSUITS

The performance of learners ranged from excellent to poor, where some candidates got full marks compared to others who did not even attempt to answer some of the questions. A pass mark for this question usually indicates that the candidate was prepared for the examination paper as a whole. The question was compulsory.

Common errors and misconceptions

(a) The multiple-choice questions in Q1.1 were answered fairly well, although some candidates preferred to leave open spaces when they were not certain of the answers. In many instances, this led to the misnumbering of questions.

(b) In Q1.2, candidates had to match an Economics term with given statements. Overall, candidates performed well in this sub-section. In some cases, they left out certain answers by mistake or changed their original answers without cancelling the first one. Generally, lack of content knowledge impaired performance.

(c) In Question 1.3, the candidates had to give an Economics term for a given statement. Overall, the performance was very poor, although the memorandum did make provision for various answers, e.g. Q1.3.2: *money, financial* **OR** *Q1.3.3: merit, public*. Basic knowledge of subject terminology remains very important and was the main determinant of the overall quality of a candidate's performance, e.g. Q1.3.6, where candidates could not identify the concept in question and gave a figure instead.

Suggestions for improvement

(a) Question 1 provides a clear indication of the knowledge of candidates and includes both *Macro-economics* and *Economic Pursuits* equally. Learners should first determine what the answers are before they look at the three distractors. The structure of Section A should be explained to learners to enable them to organise their answers properly. Adhering to instructions will make assessment easier. Leaving lines open between sub-sections, using the correct numbering system, and not omitting question numbers are examples of issues that make assessment more effective. The confidence of learners should be built by spending more time on the understanding of economic terminology, definitions and concepts so as to ensure expanded knowledge over the broad spectrum of the subject.

(b) The general improvement in the performance of candidates in this section serves as a very strong indication that substantial attempts have been made to expose candidates to basic economic concepts. Candidates should answer all questions, especially Q1.1 and Q1.2, where the answers are provided. Learners should also concentrate on more detailed preparations regarding concepts and terminology to ensure high marks for Q1.3.

(c) Although multiple-choice questions provide the alternatives, they require full content knowledge. Q1.3.3 and Q1.3.6 are good examples thereof, because typical answers from candidates reflected a broad knowledge of the subject matter, and not in-depth knowledge. Continual testing of terminology is strongly advised.

(d) Difficult topics should be the centre point of discussion e.g. *Special Economic Zones* and the *different kinds of tariffs as method of import substitution*.

QUESTION 2 MACRO-ECONOMICS

The performance of learners in this question ranged from very poor to excellent. Comprehensive knowledge is needed for success in the writing and completion of this section of the paper.

Common errors and misconceptions

(a) A few candidates could not give two examples of injections in the circular flow in Q2.1.1 and confused injections with leakages. Q2.1.2 is a higher order question requiring in-depth knowledge. Candidates tended to explain the concept of quotas instead of explaining the effect quotas will have on imports.

(b) Many candidates were not familiar with examples of taxes on products in Q2.2.2 thus performed poorly although all data requested by the various questions were based on recall. In Q2.2.4, candidates could not convert the GDP to GNP. The calculations required in Q2.2.5 were poorly executed by most candidates.

(c) Owing to lack of interpretation skills, candidates failed to explain how South Africa benefits from trade relations with China in Q2.3.4. Some candidates did not know the international organisation that promotes free trade in Q2.3.2.

(d) Candidates struggled to explain the different kinds of tariffs as a method of import substitution (Q2.4). Most candidates were given zero to four marks for the basic mentioning of the different kinds of tariff and tended to explain the different methods of import substitution instead.

(e) Candidates performed poorly in Q2.5, and only explained the role of the household in short, instead of elaborating on the contribution it has made to building the economy.

Suggestions for improvement

(a) It is of utmost importance that learners be prepared on the whole syllabus and not only parts thereof. Knowledge of the latest statistical data made available by Stats SA and SARB should always be studied in detail to ensure that learners know exactly how to prepare themselves thoroughly for the final exam. Candidates should be able to make use of the provided information to answer questions appropriately.

(b) Calculation and conversion of figures should receive special attention in the preparation of the learners for the final examination (Q2.2.4 and 2.2.5).

(c) There is a clear shift towards the candidate's own opinion, interpretation and problem-solving skills as part of data response questions (Q2.1.2 and Q2.3.4). A variety of cartoons, extracts from newspapers and magazines and graphs/tables should be discussed during class. Learners should be exposed to current economic issues and should be guided in their answers.

(d) Learners should be exposed to advanced paragraph-type questions and guided as to how to express their opinion and to support their responses if required to do so. Full exposure to the syllabus is needed.

(e) Candidates should read questions carefully to determine what is expected from them.

QUESTION 3 ECONOMIC PURSUITS

Performance ranged from mediocre to poor. Although the question was fair, only a few candidates attempted it. The performance of candidates was impaired by the more indirect way of questioning, demanding that candidates use advanced thinking skills.

Common errors and misconceptions

(a) Many candidates misinterpreted the cartoons and data-response questions. Most of the questions needed time to read and interpret correctly. Candidates could not differentiate between policies and redress measures (Q3.1.1).

(b) Candidates who did not perform well could not interpret the cartoon in Q3.2 correctly and failed to explain the message depicted in the cartoon. In Q3.2.3, candidates did not understand the effect of subsidising agricultural products by wealthy countries in their trading with developing countries.

(c) Candidates could not associate content learnt and its contextualisation – this indicated a lack of general knowledge and interpretation skills.

(d) Candidates had not been exposed to current economic issues in the classroom; hence they performed badly. Candidates' responses were too generic and lacked factual knowledge of the content.

(e) Candidates were unable to describe topics in sufficient detail to earn marks and gave generic information with no relevance to the success rate of the government's fiscal policy in ensuring a desirable redistribution of income (Q3.5).

(f) It is clear from the answers of most candidates that they are used to pure recall of facts, but lack answering the *how* or the *why* part of each question (see Q3.1.2, 3.2.1, 3.2.2, 3.2.3, 3.2.4 and 3.5).

(g) Language still seems to be a barrier and candidates lose marks owing to poor command of the language and not explaining concepts fully. Many responses are mainly generic and absolutely void of Economics.

Suggestions for improvement

(a) Learners need to be taught to apply factual knowledge to solve typical day-to-day problems experienced in economies worldwide through a variety of classroom activities.

(b) Formative tests should be used to ensure that learners are able to understand and define what is meant by: redress, economic growth and economic development, the North/South divide, SDIs, SEZes and Corridors.

(c) Extra learning material should be given to learners during the academic year. Data provided in data-response questions should be read like a newspaper (two to three times) before candidates attempt to answer any questions. A general complaint is that candidates do not know whether the answer appears in the extract or whether they should give their own opinion. If candidates had studied the extract or the cartoon (Q3.3 and Q3.4) closely, they would have been able to find possible answers to some of the questions asked.

(d) More case study questions should be handled orally and as homework. Debates and presentations of certain topics as speeches should be practised regularly to improve learners' vocabulary. Teachers ought to include the typical '*why', 'which', 'how', 'when', 'whom'* types of questions to teach learners to think further than typical textbook knowledge. This type of exercise should form part of everyday teaching. When such a question is put to the class, many learners should get the opportunity to practise answering. Learners' responses should include the influence on government, business, (the individual) consumer or foreign investor. Teachers should always acknowledge the correct part of learners' responses to encourage them to engage in broader thinking and practise their higher-order thinking skills.

QUESTION 4 MACRO-ECONOMICS AND ECONOMIC PURSUITS

The general performance of learners in this question ranged from excellent to poor. Most candidates earned marks for Q4.1, which was the most popular question.

Common errors and misconceptions

(a) Most candidates could not identify information already supplied by the source in the table. Candidates failed to think out of the box. It remains difficult for candidates to calculate and interpret the given figures (Q4.2.4 and 4.2.5). This part of the question was poorly answered.

(b) Higher-order thinking skills are targeted more and more. Most candidates could not answer the database questions in Q4.3.3 and 4.3.4 correctly. Interpretation of graphs seems to be a major stumbling block to learners.

(c) The responses to Q4.4 were impaired mainly because candidates were confused about the distinction between *devaluation and appreciation* of a currency. Some candidates confused devaluation, revaluation, appreciation and depreciation. Most candidates only partly defined the concepts and ignored that devaluation is a deliberate decrease in the value of a currency by authorities or an increase in the value of a currency by market forces (appreciation).

(d) In Q4.5, most candidates included only a description of service delivery but ignored how the government can improve its efficiency. They did not answer the how part, but only listed some facts.

Suggestions for improvement

(a) Learners need to be prepared in the right way to be able to answer higher order questions in the correct way, especially those starting with who, what, why and where. Learners need to be prepared to solve problems and not only to be knowledgeable.

(b) Textbooks vary as to content. Teachers should use a variety of resource materials to prepare learners properly for their final examination. During teaching in class, current economic issues should be used as examples to illustrate the subject in action. Economics in the classroom should be linked to Economics in real life by exposing learners to actual data, graphs and statistics. Educators should ensure that learners know what is expected of them when command verbs (e.g. argue, analyse, differentiate) are part of a question. Learners lack insight into current economic affairs and should be guided to answer questions on issues concerning everyday life.

(c) A detailed study of the *Terms of Trade* and the *Laffer Curve* is strongly advised – the focus should be on components, calculation and the conversion of figures as well as a detailed interpretation of the graph. Too much confusion exists between the demand curve, the supply curve, the Lorenz curve, the Phillips curve and the Laffer curve.

(d) Learners should be prepared to choose questions in both Section B and Section C. It happens too often that all of the questions in Section B are answered. The choice lies in the hands of the candidate – not in the hands of the marker. Learners should understand the instructions.

QUESTION 5 MACRO-ECONOMICS

The general performance of learners in this question ranged from extremely poor to excellent. Although the question was attempted by the majority of candidates, they did not address it adequately in their responses. Some discussed taxation, not relating it to how it can be used in fiscal policy to influence the direction of the economy. E.g. instead of discussing decrease in taxes during recession phase to encourage or stimulate growth, they merely said that tax is money paid to the government, without clearly indicating how it is used to smooth the cycle or elaborating on whether it should be increased or decreased. Learners found the additional 10-mark section too difficult – this required higher-order thinking.

Common errors and misconceptions

Most candidates could provide headings (reduce costs, improve efficiency of markets, improve efficiency of inputs), but failed to discuss each one in sufficient details to earn full marks. The additional part of the essay, where candidates had to produce substantial evidence to support their answers, was not dealt with in sufficient detail.

Suggestions for improvement

(a) Educators should encourage learners to read, listen and watch news bulletins to accumulate the necessary information linked to topics in the syllabus.

(b) Educators should expose learners to numerous question papers to enable wider awareness of different question types. Learners should be exposed to questions on all levels of difficulty during class activities, tests and internal examinations.

(c) Over and above literal reading of texts, learners need to be guided to read between the lines, infer and evaluate texts, and use their own words to express their views.

(d) Content coverage is critical. It seems as if certain parts of the syllabus are left out or regarded as inferior in the preparation of learners for the final exam paper.

QUESTION 6 ECONOMIC PURSUITS

The general performance of learners in this question ranged from very poor to excellent. Most candidates did not choose this question. Some candidates focussed on one of the indicators only or discussed various indicators not included in the question.

Common errors and misconceptions

(a) Learners who performed badly did not expect only two topics to be explained in more detail.

(b) The additional part was ignored by most candidates.

(c) Learners spotted certain questions and included answers that were not relevant at all.

(d) In the conclusion, many candidates repeated facts already mentioned in the introduction, body and/or conclusion of the essay.

Suggestions for improvement

(a) Learners should be guided to analyse the requirements of each question. This would ensure that they do not omit any crucial aspect of the answer. Focus should be on areas that can cause confusion.

(b) Basic content should not only be covered but also linked to the creativity of learners in the practical implementation of each topic. Case studies and class discussions can be used gainfully in this regard. Candidates need to improve their evaluation skills. Knowledge about recent developments can assist in making the module more interesting.

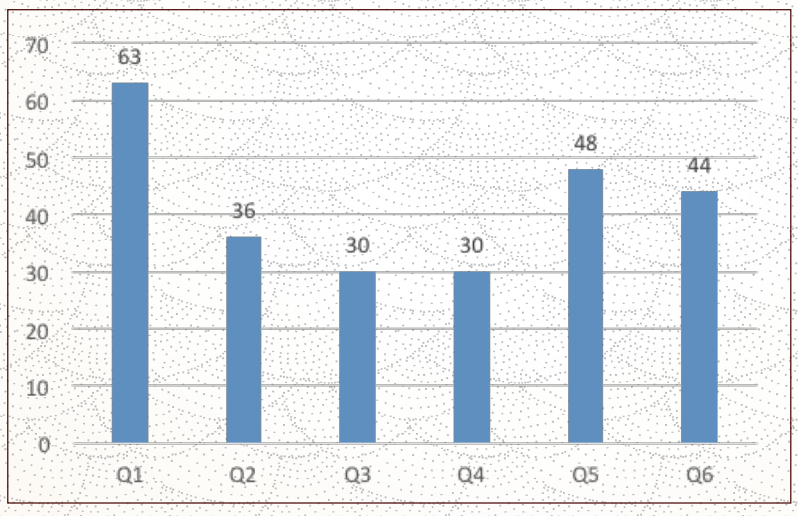
(c) Formative tests should be used to ensure that learners are able to understand and discuss all relevant topics. The whole syllabus should be completed well in advance to ensure sufficient time for revision. Learners should keep abreast of current news pertinent to aspects of Economics and discuss these regularly in class.

5.5 DIAGNOSTIC QUESTION ANALYSIS FOR PAPER 2

The following graph is based on data from a random sample of candidates. While this graph might not accurately reflect national averages, it is useful in assessing the relative degrees of challenge of each question as experienced by candidates.

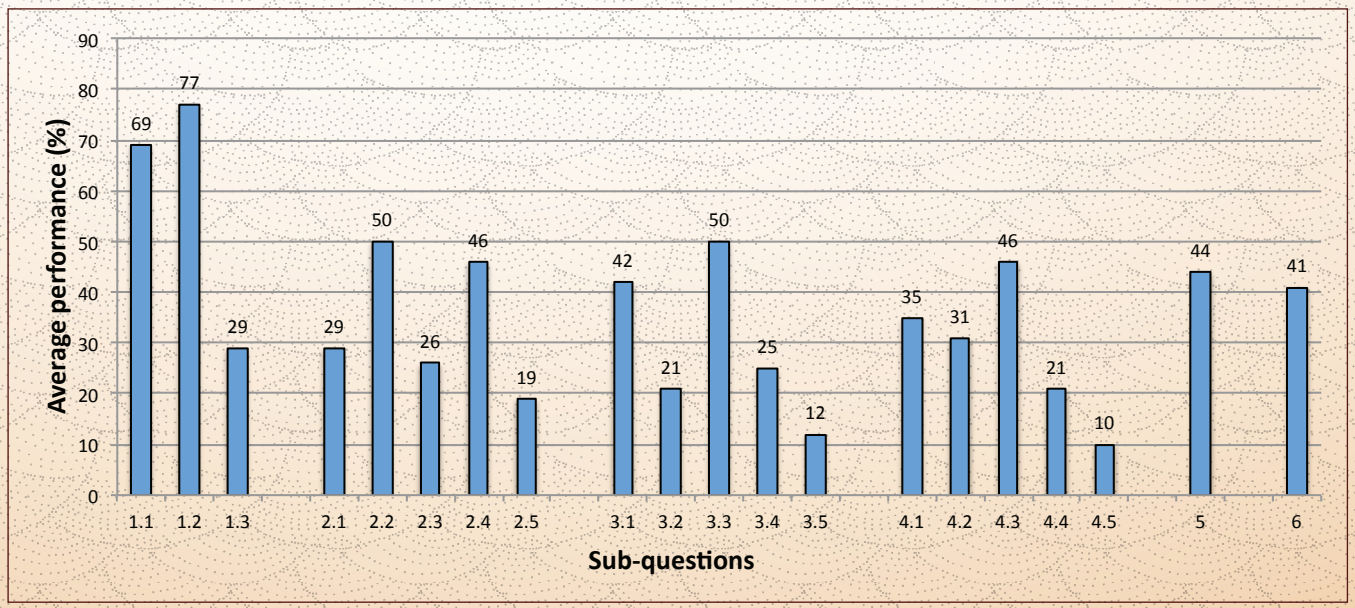
When comparing this year's analysis to 2014 performances, a slight improvement in Section A was noted. In Section B, all questions showed a decline in performance whereas there was an improvement in Section C where the average from the sample was 45% as compared to last year's 37%.

Graph 5.5.1: Average marks per question expressed as a percentage



Q1	Micro-economics & Contemporary economic issues
Q2	Micro-economics
Q3	Contemporary economic issues
Q4	Micro-economics & Contemporary economic issues
Q5	Micro-economics
Q6	Contemporary economic issues

Graph 5.5.2: Average marks per sub question expressed as a percentage



5.6 ANALYSIS OF LEARNER PERFORMANCE IN EACH QUESTION IN PAPER 2

QUESTION 1 MICRO-ECONOMICS & CONTEMPORARY ECONOMIC ISSUES

Common errors and misconceptions

The performance of candidates ranged from excellent to very poor, where some candidates got full marks compared to others who did not even attempt to answer most of the questions. The average mark was **63%**. Many candidates were able to pass due to their performance in Question 1. The general indication is that most candidates performed better in Question 1 compared to last year's performance.

(a) In Q1.1, the multiple choice questions were answered very well, although some candidates left out certain answers, which led to the incorrect numbering and marking of questions. There was some concern with Q1.1.6 that since CPIX is no longer used that it should not be tested. The textbooks do mention that CPIX is no longer used by the SARB. As an educator, when teaching inflation concepts like headline inflation, core inflation, administered inflation, etc, it is wise to explain CPIX as part of the learners' extended knowledge to understand and appreciate the relation between these concepts. This concept will not be tested in detail but may be included as a lower-order question in Section A.

(b) In Q1.2, most candidates performed fairly well. In some cases, they left out certain answers by mistake, or changed their original answers without cancelling the first one. Generally, a lack of content knowledge impaired performance.

(c) In Q1.3, candidates had to identify an economic term from a given statement. Overall, the performance was poor, although the memorandum did make provision for alternative answers e.g. Q1.3.2 *minimum or price floors*, 1.2.4 *Duopoly, monopoly, imperfect market, oligopoly and monopolistic market structure*. Many candidates left blanks. Basic knowledge of subject terminology remains crucial to overall understanding. In Q1.3.4, many candidates included market failure as an answer when the question required a type of market e.g. *monopoly, imperfect market*. In question Q1.3.5, *inflation* was a common answer instead of *cost inflation.*

It seems that candidates do not read the statement completely and answer by focusing on a few key words or part of the statement.

Suggestions for improvement

(a) With regard to Q1.1, candidates should write only the letter (A, B or C) of their choice next to the question number. If they prefer to write the answer out in full, they should not leave out any part of the answer. Candidates should first determine what the answers are before they look at the three distractors to make their choice. If they do not know an answer, they should be able to work it out by eliminating the obviously incorrect options.

(b) Candidates should know that no marks will be awarded when they provide more than one answer to a short question. It is imperative that candidates cancel an incorrect answer in Q1.1 and Q1.2 and write the correct one next to it, instead of writing over the incorrect answer. Short formative tests on basic concepts are advised.

QUESTION 2 MICRO-ECONOMICS

The performance in this question ranged from very poor to average.

Common errors and misconceptions

(a) In Q2.1.1, learners gave explanations and examples of public goods instead of the characteristics. Answers included 'goods provided by the government, clinics, police, streetlights', etc. Q2.1.2 was challenging to most candidates. It required an application of knowledge. The learners' responses indicated a lack of understanding the requirements of the question. Answers included general characteristics of an oligopoly.

(b) Candidates performed very well in Q2.2, although candidates who did not provide answers in full, lost marks. Q2.2.3 was answered poorly where many candidates wrote *Competition Tribunal* instead of *Competition Appeal Court*.

(c) The performance of the candidates in Q2.3 ranged from poor to average.

Their answers suggested a lack of content knowledge and application thereof. Technically the graph could have created confusion regarding the labelling of the equilibrium points. This graph could be interpreted as a positive or negative externality which the memo catered for (Q2.3.1 and 2.3.4). Most candidates interpreted the graph as a negative externality. If the supply curve is interpreted as a shift to the right, based on the equilibrium points, then the graph reflects a positive externality. In all textbooks that learners are exposed to, a shift of the supply curve to the left is associated with a negative externality (market produces more than is socially desirable) and a shift of the demand curve to the right is associated with a positive externality (market produces less than is socially desirable). A lack of understanding of how an externality causes market failure, resulted in poor performance in Q2.3.4. In Q2.3.3, most candidates did not know what the shaded area on the graph indicated and left the question unanswered. Some candidates interpreted the graph in terms of normal demand and supply curves, which suggested that they were not thoroughly exposed to externalities. They wrongfully indicated the shaded area as a profit or a loss.

(d) In Q2.4, most candidates were able to discuss the relevant facts briefly. Some candidates discussed only the number of businesses and were awarded a maximum of 4 marks. Some candidates discussed other characteristics of a perfect market.

(e) Most candidates did not perform well in Q2.5, which is a typical higher order question. Candidates could only provide two reasons why the government implemented minimum wages in the labour market.

Suggestions for improvement

(a) Learners need to be aware of the specific requirements of a higher order question. In addition educators need to assess higher order questions appropriately, so that learners will understand what is required to earn full marks.

(b) Teachers should pay more attention to the application of knowledge in their assessment of tasks. At the same time, learners cannot apply content they have not learnt or understood. The roles and responsibilities of the organisations of the Competition Act should be emphasised.

(c) Teachers should focus on the content and graphs in micro-economics in order to differentiate clearly between the two externalities and to understand how it causes market failure. As a rule, goods with a negative externality results in the market overproducing them, while goods with a positive externality results in the market under-producing them. In both cases there is a misallocation of resources since goods are not produced in quantities that are socially desirable.

(d) Educators should clearly explain the demand and supply curves used in the graphs for externalities and link them to the MPC, MSC, MPB and MSB curves so that learners can understand and see the relationship between them.

(e) Content workshops should address concepts, e.g. minimum wages and externalities. These concepts involve graphs which may be the reason for them not being taught or not taught well. There is evidence that teachers shy away from the teaching of graphs because they themselves are not sure.

QUESTION 3 CONTEMPORARY ECONOMIC ISSUES

Most candidates struggled with this question and left most unanswered or answered in a general manner (e.g. 3.1.2, 3.2.3, 3.2.4, 3.2.5 and 3.5). Interpreting the graphs and extracts still poses a challenge to learners. There is evidence that candidates are unable to link content to the data given.

Common errors and misconceptions

(a) Q3.1.1 was poorly answered because the majority of candidates listed the types of inflation instead of the ways to measure inflation. In Q3.1.2, many learners wrote about climate change in general, instead of relating to its influence on agricultural production. This indicated that candidates did not read carefully. They tended to focus on a key word e.g. 'climate change' and responded accordingly. This is a difficult lower-order question and requires application of content within a specific context.

(b) In Q3.2.2, most candidates gave the recent inflation rate e.g. 5.8% instead of the inflation target of 3 to 6%. Most candidates in Q3.2.4 provided statements about the balance of payments that did not answer the question directly. Common answers provided include: 'The balance of payments will increase/decrease/decline/fall down'. They could not state the influence of inflation exports and imports which would result in a deficit on the balance of payments. In Q3.2.5, candidates who performed poorly did not know the difference between core inflation and consumer price index. In addition, some explained core inflation and CPI headline inflation without answering the question of why core inflation is lower than CPI. Some also confused the explanation of CPI with that of PPI. For example, learners gave responses like:

- Prices exclude VAT; and
- Interest rates are excluded.

(c) Question 3.3 was fairly well-answered. In Q3.3.1, candidates who failed to get the 1 mark were those that tried to write the answer in their own words and ended up with incomplete answers instead of quoting from the extract as the question required.

(d) Question 3.4 was fairly well-answered but some learners failed to obtain the maximum marks due to lack of depth in answering the question.

(e) In Q3.5 the majority of candidates, including the top performers, misinterpreted the question and referred to the importance of technology in the economy and did not relate technology to how it can sustain the environment.

Suggestions for improvement

(a) Educators should clearly make learners aware of the difference between measures and types of inflation. Intensive teaching of this topic is required as it involves various concepts.

(b) Many aspects of inflation, tourism and environmental sustainability can be directly related to newspaper articles and statistics. Educators are encouraged to make reference to this data when teaching the topic. Data response questions should not always require from learners to copy answers from it, but should guide learners towards the application of the content.

QUESTION 4 MICRO-ECONOMICS/CONTEMPORARY ECONOMIC ISSUES

The general performance of learners in this question ranged from very poor to excellent. Many candidates could not even answer Q4.1.1 (lower order question). This clearly indicates lack of knowledge.

Common errors and misconceptions

(a) Q4.1.2 was generally well answered but some candidates struggled with the phrase 'overexploitation of land' and could not associate it with agricultural output. As a result, their responses did not address the question. Responses related to a general effect on the economy instead of the effect on the agricultural output.

(b) Q4.2 was generally well-answered with the exception of 4.2.4 and 4.2.5. Candidates could not link the content to real life situations. In Q4.2.4, candidates explained 'Short run' in terms of a time period, instead of relating it to at least one of the factors of production remaining fixed. This resulted in the poor performance in Q 4.2.5.

(c) The extract on retirement savings (pensioners) was not answered well. Some candidates struggled with Q4.3.3 because they confused fiscal policy with monetary policy, because 'interest rates' was used as an example. The responses to Q4.3.4 indicated that candidates lack basic general knowledge and logical reasoning. They failed to link information from the extract to answer the question adequately.

(d) Q4.4 was poorly answered, because candidates did not understand the concept CBA (cost benefit analysis). Candidates either discussed the steps involved, gave a general explanation of CBA, or explained social/private costs and social/private benefits, without linking them to the *uses of CBA*.

(e) Q4.5 was poorly answered. Candidates discussed how pollution affected the economy and the factors causing environmental damages, as opposed to linking the *environment as a common resource* to market failure. Interpretation of a higher-order question still poses a major challenge to most candidates.

Suggestions for improvement

(a) Educators must emphasise that the difference between the short run and the long run, relates to the factors of production remaining fixed or variable. Short run and long run do not refer to a specific time period, but rather relate to time horizon or period which has an influence on whether the factors of production can change or not. Therefore, in the short run, variable factors of production can change, e.g. the number of workers. In the long run, however, both fixed (e.g. rent) and variable factors of production can change. Long term is not the same as the long run, because it is possible that in the long term (a specific time period), fixed factors of production may not change.

(b) Educators should clearly differentiate between closely related concepts, e.g. short run and long run, short term and long term; economic loss, normal profit and economic loss; productive and allocative inefficiency; conservation and preservation; deflation, disinflation, stagflation and hyperinflation etc. This will help prevent conceptual confusion which is quite common among candidates.

QUESTION 5 MICRO-ECONOMICS

General performance in the question ranged from poor to excellent. The majority of candidates managed to do better in the main part of the question than in the additional part. Many candidates confused 'perfect competitor' with the various imperfect market structures and answers included facts to do with other market structures. Many candidates who performed poorly in the rest of the paper, managed to do well in the essay. There is still a major concern with the structure used to answer the essay question.

Common errors and misconceptions

(a) In the introduction, candidates were able to give a good introduction to the question. Some candidates only wrote the lead statement to the question as part of the introduction. No credit was awarded to those candidates.

(b) **Main Part:** This was answered fairly well by most candidates.

- Most candidates could provide the basic headings for the monopoly as market structure but failed to describe it in detail. Candidates did not answer in full sentences and lost marks as a result.
- Many candidates included the characteristics of perfect markets and repeated the same fact under different headings. Some candidates confused the characteristics: e.g. 'homogeneous' and 'unique' products to describe the same market structure.

Additional part: This part was answered poorly. The drawing and labelling of graphs was challenging. Very few learners obtained the maximum (6) marks for the graph. Most candidates drew the graph with no explanation. They lost 4 marks in the process. Common errors included:

- Incorrect labelling of the average cost (AC) and marginal cost (MC) curves. Candidates confused the AC with the MC curve and the AR with the MR curve, and this resulted in the incorrect labelling of the profit maximisation point.
- Inclusion of unnecessary graphs due to misinterpretation of the question.
- Some drew the MR curve for the perfect competitor as well as the MR for the monopoly, in the same graph.
- Failure to indicate or label the equilibrium point–profit maximisation point.
- When indicating the economic profit, candidates failed to determine the cost using the AC curve and to determine the price using the AR curve. This was also influenced by the incorrect determination of the equilibrium point.

Conclusion: Although guided in the question paper as to what a conclusion should entail, the writing of a relevant conclusion still proves a major challenge for most candidates. Most candidates could not come up with conclusions that reflect an opinion, a summary of the discussion or an alternative or additional viewpoint to support the body. Most candidates repeated aspects of the body in the conclusion.

Suggestions for improvement

(a) Learners should practise different graphs and supply detailed information as part of each graph. Use the explanations of graphs in *Mind the Gap*. There is a clear indication that graphs are taught, but the most important features are still not emphasised. Points mentioned for the drawing of graphs should be noted. In teaching the content, emphasis should be placed on the shape and labelling of curves, the equilibrium point and position of the various curves.

Teachers should help learners to be able to draw graphs by focusing on the following important aspects:

- Heading of graph.
- Labelling of axes.
- Labelling of curves.
- Indication of equilibrium points or key points by means of a letter.
- Providing relevant explanations of the graph in relation to the question.

(b) Subject Advisers/Cluster Leaders must provide adequate support and material that would help teachers deal with challenging topics, e.g. graphs.

(c) Educators must emphasise the differences between profits and losses in the short run and the long run with graphs and explanations and test this aspect regularly to ensure a thorough understanding of this section.

(d) Teachers must make sure that learners are able to interpret questions correctly so as to avoid irrelevant information and graphs in their responses. Teachers are encouraged to expose learners to different questions on the same topic and help them to interpret the questions. In this connection, learners should practice how to structure responses to questions based on key issues.

QUESTION 6 CONTEMPORARY ECONOMIC ISSUES

In general, the level of performance in response to the question was fair. Most candidates managed to do better in the main part of the question than in the additional part**.** Those who did not perform well were confused by the effects and advantages of tourism. Some included the role of tourism and the different types of tourists, which were not required.

Common errors and misconceptions

(a) Most candidates were able to give a good introduction to their answers.

Incomplete definitions of Tourism resulted in candidates not getting full credit.

(b) **Main Part**:

- Many candidates did not use sub-headings to structure their work, losing marks in the process.
- Many candidates discussed the benefits of tourism (business, government, households and infrastructure) instead of the effects of tourism. Candidates earned marks for relevant ideas concerning both headings, but failed to obtain full marks as they omitted the negative effects and some positive effects of tourism.
- Some candidates misinterpreted the question and responded on the effect **on** tourism instead of the effect **of** tourism on the SA economy.
- Effects of tourism were merely listed without explanations. This cost the candidates full marks.
- Some candidates gave incorrect statistics on the contributions of tourism to GDP and employment.

- Some candidates discussed the main part and additional part as one, with no clear distinction between them. This complicated assessment.
- Repetition of facts occurred regularly.

(c) **Additional Part:** This section was poorly answered by most candidates.

- Interpretation of the question was a big challenge for most as they merely discussed Indigenous Knowledge Systems in general, without explaining how they can be used to promote tourism in South Africa.
- Examples of tourist destinations were listed.

(d) **Conclusion:** Most candidates could not come up with appropriate responses that reflected an opinion/a summary of the discussion or an alternative or additional viewpoint to support the body of the essay. Many candidates repeated the definition of 'tourism'.

Suggestions for improvement

(a) **Conclusion:** learners should be taught how to structure a response in support of or against the facts mentioned in the main part.

(b) The whole syllabus should be completed so that there is time for revision. There is a tendency to rush through the last few chapters and not spend as much time on contemporary economic topics as on other topics. Educators need to plan properly so that each topic is given adequate attention.

(c) Basic content should not only be covered, but also linked to the creativity of learners in the practical application of each topic.

CHAPTER 6

ENGLISH FIRST ADDITIONAL LANGUAGE

The following report should be read in conjunction with the English First Additional Language question papers of the November 2015 Examination.

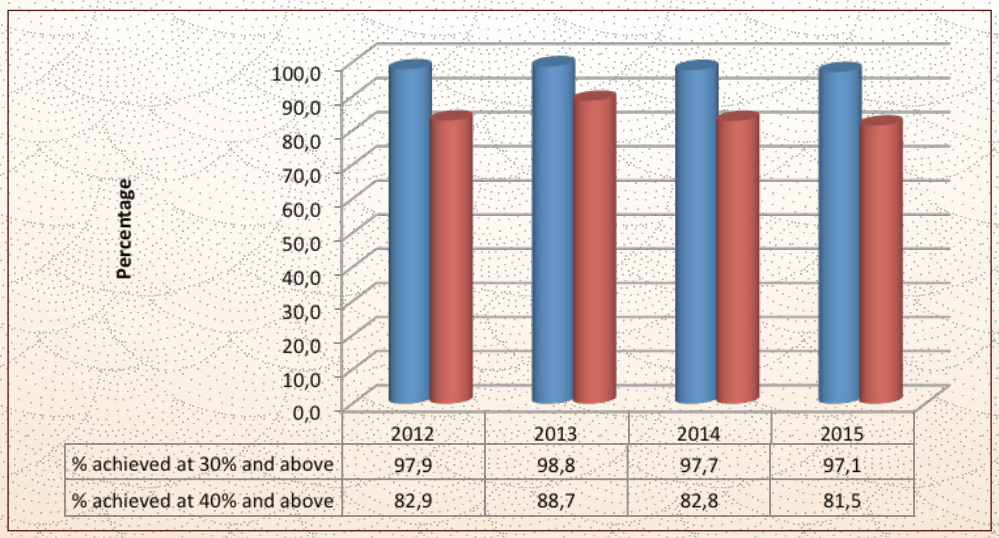
6.1 PERFORMANCE TRENDS: PAPERS 1, 2 & 3 (2012 – 2015)

The number of candidates increased by 111 008 in comparison to that of 2014. The general performance of candidates declined slightly this year as indicated by 97.1% of candidates achieving 30% and above, with 81.5% achieving 40% and above.

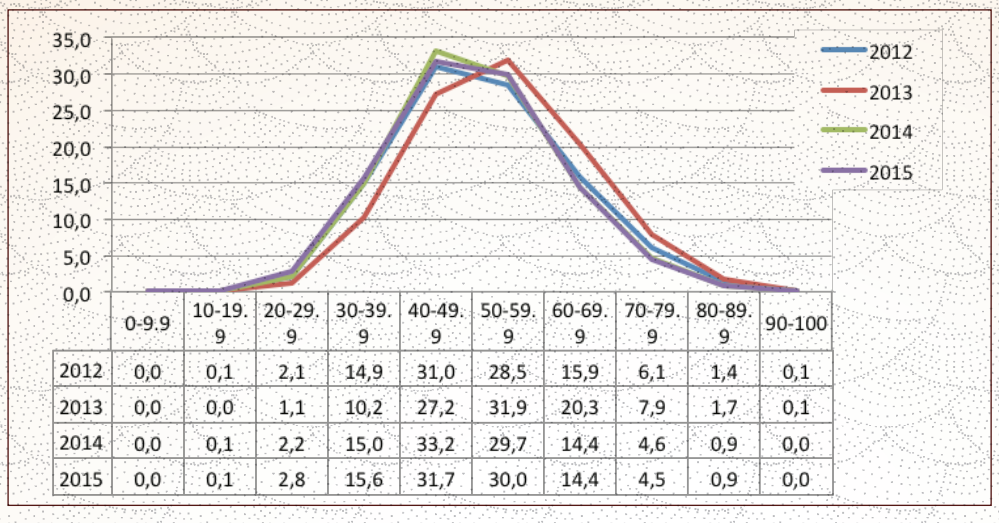
Table 6.1.1 Overall achievement rates in English First Additional Language

Year	No. wrote	No. achieved at 30% and above	% achieved at 30% and above	No. achieved at 40% and above	% achieved at 40% and above
2012	420 039	410 999	97.9	348 261	82.9
2013	454 666	449 420	98.8	403 081	88.7
2014	432 933	423 134	97.7	358 373	82.8
2015	543 941	528 157	97.1	443 083	81.5

Graph 6.1.1 Overall achievement rates in English First Additional Language



Graph 6.1.2 Performance distribution curves in English First Additional Language



	0-9.9	10-19.9	20-29.9	30-39.9	40-49.9	50-59.9	60-69.9	70-79.9	80-89.9	90-100
2012	0,0	0,1	2,1	14,9	31,0	28,5	15,9	6,1	1,4	0,1
2013	0,0	0,0	1,1	10,2	27,2	31,9	20,3	7,9	1,7	0,1
2014	0,0	0,1	2,2	15,0	33,2	29,7	14,4	4,6	0,9	0,0
2015	0,0	0,1	2,8	15,6	31,7	30,0	14,4	4,5	0,9	0,0

From the above graphs, it is evident that after the improvement in 2013, there has been a decline in the performance of candidates over the past two years.

ENGLISH FIRST ADDITIONAL LANGUAGE PAPER 1

6.2 OVERVIEW OF LEARNER-PERFORMANCES IN PAPER 1

General comments

(a) Comprehension skills appear to have improved compared to the previous year. Candidates appear to have performed slightly better in Section A and it remains the section yielding the best results.

(b) The ability to interpret figurative language, as well as improved vocabulary and the disciplined adherence to instructions would enable more candidates to do well in the paper as a whole.

(c) Regular exposure to a variety of texts is essential in preparing candidates.

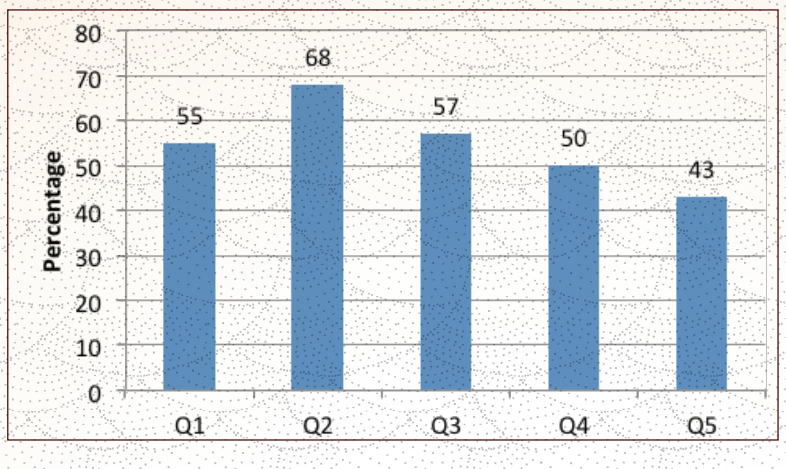
(d) The biggest shortcoming when answering the summary question still seems to be the inability to paraphrase. Summarising remains one of the better skills, however – candidates who seem to be unable to comprehend in Q1, fared above average in Question 2.

6.3 DIAGNOSTIC QUESTION ANALYSIS FOR PAPER 1

The following graph is based on data from a random sample of candidates. This graph might not accurately reflect national averages, but it should still be useful in assessing the relative degree of challenge of each question as experienced by candidates.

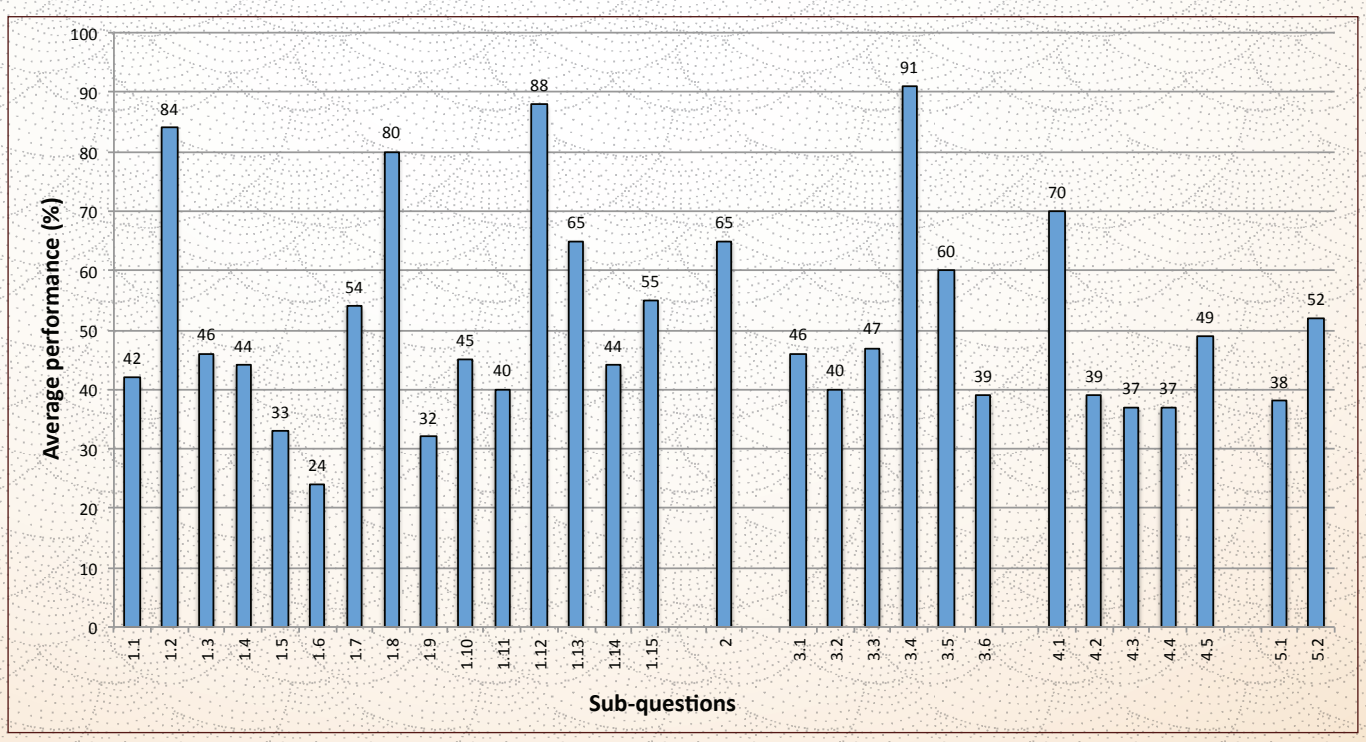
Candidates performed least successfully in Q5, which tested language and editing skills. Candidates performed the best in Q2, the summary. The results for the summary section in the sample showed a big improvement compared to 2014. The performance in Q1, Q3 and Q4 also showed an improvement since 2014, while the performance in Q5 declined slightly.

Graph 6.3.1 Average marks per question expressed as a percentage in Paper 1



Q1	Comprehension
Q2	Summary
Q3	Analysing an advertisement
Q4	Analysing a cartoon
Q5	Language and editing skills

Graph 6.3.2 Average marks per sub question expressed as a percentage in Paper 1



6.4 ANALYSIS OF LEARNER-PERFORMANCE IN EACH QUESTION IN PAPER 1

QUESTION 1 COMPREHENSION TEST

Common errors and misconceptions

(a) Candidates generally did not follow the instructions. Despite the clear reference to paragraph 1 in Q1.1 and the general instruction to use their own words, numerous candidates quoted from paragraph 6. Most candidates failed to adhere to the instruction to quote the 'single word' in Q1.4 and thus lost the mark.

(b) It is clear that many candidates did not read the questions with focused attention. A clear example is Q1.2 which required examples mentioned in the passage, but candidates gave examples from their own general knowledge.

(c) Q1.3 as well as Q1.9.2 exposed candidates' inability to interpret figurative language.

(d) Despite the instruction to use own words, candidates still resorted to quoting chunks from the passage, e.g. Q1.5.

(e) The fact that many candidates were unable to explain the contradiction in the 'tribe of one' as asked in Q1.6, indicates that they were not familiar with the term 'contradiction'. This is disconcerting as this is a term which should be taught and studied.

(f) Candidates will benefit from honing their reading skills and analysing what exactly a question requires. Q1.10 required candidates to state two ways in which communication using digital technology is less rewarding than face-to-face communication. Many candidates did not even mention the 'rewarding' aspect and merely mentioned ways of communicating digitally.

(g) Candidates tended to answer the open-ended questions in vague and general ways, thus forfeiting marks. Q1.11 instructed candidates to discuss whether they agreed with the writer's view of effective communication as it is expressed in paragraph 10. Unfortunately, many candidates did not refer to the writer's view and merely gave their own opinions of social media, also missing the whole issue of effective communication and the reasons for it.

(h) There is a growing tendency for a disharmony between the initial response (Yes/No) and the motivation. Candidates would agree with the statement but give a negative motivation, thus showing their inability to deal with open-ended questions.

(i) Candidates sometimes gave the impression that they did not interact with the given texts, but merely used the questions as prompts to write down their own (often incoherent) thoughts. Q1.13 asked why a picture of a heart was used – the fact that so many candidates wrote general thoughts about hearts or love, shows that they either did not read the question attentively or they really could not express the fact that the symbol would be visually more effective. Furthermore, this inability to read the effect of the symbol may suggest a lack of knowledge in interpretation of ploys authors use to draw the attention of the audience in visual texts.

(j) Candidates' inability to respond fully to Q1.14 is a suggestion of their shortcoming in dealing with visual texts like graphs.

Suggestions for improvement

(a) Encouraging learners to engage with good texts (visual, verbal and even audio) will lead to a better ability to interpret idiomatic language.

(b) Learners must be motivated to use dictionaries and other learning aids. This will not only improve their vocabulary but it will also enable them to express what they have read in a text into their own words. They must be trained to respond correctly to the different kinds of questions, keeping the mark allocation in mind.

(c) Only by exposing learners to texts which allow them to formulate their own opinions and feelings, will teachers help learners to do well in the questions with higher cognitive demand.

(d) The average FAL candidate has to build his/her vocabulary in the classroom, as that is often the only place where he/she interacts with the language. No teacher should allow learners to use another language in the classroom.

(e) Teachers should take up the challenge of setting their own comprehension exercises from current and relevant sources so that their learners will not only enjoy reading the texts, but also have the opportunity to respond to the questions correctly and without quoting verbatim.

(f) Learners must be taught to read, interpret and use vocabulary like increase, decrease, fluctuate to decode the text and insinuations in the graph.

(g) Teachers should instill in learners the importance of adhering to instructions. Learners must be taught to scrutinise questions for key words and phrases like 'quote' and 'own words' so that marks are not lost unnecessarily.

(h) Teachers should help learners to understand and respond appropriately to verbs used in the instructions, e.g. 'mention', 'explain', identify' and 'discuss'.

QUESTION 2 SUMMARY

General comments

(a) Most candidates are now comfortable with the format and general skills required by this question. Very few failed to indicate the number of words and they mostly heed the word limit.

(b) Quoting remains a stumbling block for many candidates. This costs candidates marks, but a large number of them successfully paraphrased, showing understanding and language ability, which are exactly what this paper is assessing.

Common errors and misconceptions

(a) The biggest problem was that many candidates ignored, or did not understand the instruction to summarise the text, *how to change bad habits*. As a result, some candidates merely condensed the passage and reached the word limit before getting to the gist of the summary.

(b) A lack of understanding was clear in many responses, sometimes resulting in jumbled, indecipherable work.

(c) Some candidates did not read the instructions carefully and still listed two facts per number, losing the mark for the second point or the entire mark if the first point was wrong.

(d) Although they were not penalised for doing so, some candidates used paragraph form instead of point form and some simply quoted facts leaving out some words to disguise this instead of rephrasing the relevant points in their own words.

Suggestions for improvement

(a) Summarising is a skill that can be taught and refined. A teacher who allows candidates to attempt the final examination without this skill, is neglecting his/her duty.

(b) Learners should be given numerous opportunities to summarise texts from the early grades on, as required by the curriculum.

(c) The importance of coherence must be pointed out to learners – not only for summarising, but in all written work.

(d) Learners must be taught to use their own words to paraphrase facts.

(e) Learners must be exposed to good summary texts as models from which they can learn.

QUESTION 3 ANALYSING AN ADVERTISEMENT

Common errors and misconceptions

(a) Some candidates were unable to read the target audience, particularly if they had to infer that from the text. As a result, many wrongly identified children as the target audience.

(b) Interpreting figurative meaning is still a challenge as many candidates merely gave literal answers to Q3.2.

(c) Some candidates responded to the 'how' question without using any action word, e.g. Q3.4 to which they responded by writing only the website address.

(d) Q3.5 clearly and in capital letters asked for one word, yet a surprising number of candidates used multiple words.

(e) The inability of candidates to respond to questions set at a higher cognitive level was revealed by the responses to Q3.6, as candidates could not establish a link between the picture and the message of the advertisement. Many candidates merely described the picture, failing to explain how the picture adds to the effectiveness of the advertisement. Another cause for the weak performance in this question may be attributed to the fact that candidates did not read the questions attentively.

Suggestions for improvement

(a) Exposing learners to numerous advertising materials, will enrich their understanding and enjoyment of the genre.

(b) Exercises to hone learners' knowledge of advertising techniques and terminology should be done regularly.

(c) Knowledge and experience of target audience, logo, slogan etc. should be extensively developed as part of the candidates' repertoire when entering the examination venue.

(d) Learners must be taught about, and given practice in using and interpreting figurative language. Advertising largely relies on the figurative meaning of the language used – if learners miss that, they miss out on a wealth of humour, satire, etc.

(e) Learners must be taught how the visual fits into the message of the advertisement and how words are specifically designed to fit in with the message.

QUESTION 4 ANALYSING A CARTOON

Common errors and misconceptions

(a) Candidates did not utilise the provided text. They did not read the note or the speech bubbles; neither did they scrutinise the cartoon for visual clues, even when prompted to do so by the instructions. This suggests that some candidates only encounter cartoons in the examination.

(b) Q4.1 and Q4.2.1 both refer to 'visual' clues and techniques. Some candidates had no idea what to refer to – in a visual literacy question, this is a serious disadvantage.

(c) Inference seems to be a difficult skill, judging by the responses to Q4.2.2. The fact that the visitor is not physically present in frame 2 was a challenge for some candidates, even though the question prompts them to consider the cartoon as a whole. Skills like these can only be acquired through regular exposure to similar exercises.

(d) Candidates experienced difficulty when trying to answer Q4.3 on body language and mood – mostly because of insufficient vocabulary or lack of comprehension of the concepts.

(e) Q4.4 contains the terms 'contradict' and 'stereotype': both these terms appear in the CAPS document as concepts to be taught. Candidates' responses suggest that many of them did not know or understand the meaning of either.

(f) Most candidates still found open-ended questions like Q4.5 challenging as they had difficulty providing clear motivations for their observations and feelings. Furthermore, many of them did not understand the phrase 'eventual situation'.

Suggestions for improvement

(a) The basic features of visual literacy must be taught. Candidates must be taught applicable terms like 'frame' and 'cartoonist'.

(b) Candidates should also be taught to refer to the correct frames and also see the link between different frames.

(c) Learners should be exposed to cartoons on a regular basis so that they become familiar with this type of question. In doing so, they will also pick up useful language structures, idiomatic language and reading skills. Cartoons (and exercises based on them) can be found in many textbooks, on the internet and in the media.

(d) Teachers must expose learners to past examination papers so that they become used to the types of questions, as well as the fact that the language sections starts well before Question 5.

(e) Teachers should provide learners with the vocabulary they can use to describe body language, mood and other aspects of visual literacy. They should also specifically explain what mood is as many learners evidently do not understand it.

(f) All language aspects in the CAPS document must be taught to ensure that candidates are thoroughly prepared to answer questions on basic language usage and terminology.

QUESTION 5 LANGUAGE AND EDITING

This section tests language accuracy, so spelling, punctuation, transcribing accurately and language skills are essential.

Common errors and misconceptions

(a) Many candidates were not able to identify language errors even though this question has become a regular part of Paper 1.

(b) The four language aspects tested in Q5.1, namely: concord, punctuation, spelling and words often confused presented challenges to candidates. Despite the instruction to write down only the corrected words, many candidates still rewrote the sentences.

(c) Candidates did not do well in most questions which used formal language structures e.g. Q5.1.2, Q5.1.3, Q5.1.4, Q5.2.3 and Q5.2.4.

(d) While there may be a case for FAL candidates identifying instead of using parts of speech, they are still required to know them, which was not the case in Q5.1.2b.

(e) While most candidates chose the correct adjective in Q5.2.1a, some spelt the word without its hyphen.

(f) Many candidates could not choose the correct option in Q5.2.1 on the conditional.

Suggestions for improvement

(a) The teaching of grammar should be given serious attention. Q5 tests very basic skills which must be taught, practised and studied.

(b) Basic language skills should be taught on a continuous basis.

(c) The language aspects in all written, oral, visual and audio texts learners deal with, must be dealt with and practised incessantly.

(d) While previous question papers could be used to practise the language assessment, they should not become the only source with which to prepare for examinations.

(e) Texts in which language has been used correctly must be used as model texts.

(f) Texts with errors should be used to correct the errors, both orally and in writing.

(g) The CAPS document makes it easy for teachers to go about teaching these skills methodically, according to a list.

(h) Remedial work after tests and examinations, as well as feedback after homework is essential if skills are to improve.

(i) Teachers and learners must realise that a thorough grounding in the basics of concord, tense and sentence construction, among other language principles, will not only yield good results in this paper, but also in Paper 2 and Paper 3.

ENGLISH FIRST ADDITIONAL LANGUAGE PAPER 2

6.5 OVERVIEW OF LEARNER PERFORMANCE IN PAPER 2

General comments

(a) Evidence suggests that a large number of candidates treated the question paper like a comprehension exercise, looking for the answers in the given passages instead of using those passages only as a base.

(b) It is clear that many candidates did not interact with the prescribed texts on the required level and only did a superficial reading before sitting for the examination, thus lacking some very basic knowledge required to respond to questions.

(c) The candidates who performed well were those who had studied the prescribed texts, followed instructions and responded in accordance with the mark allocation.

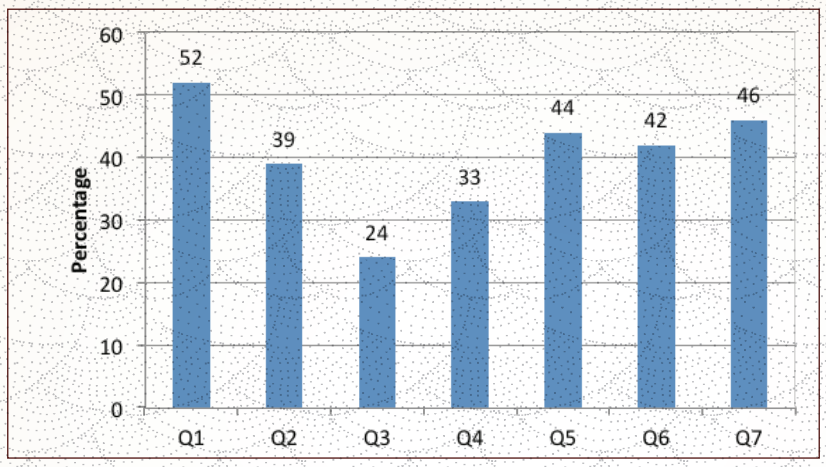
6.6 DIAGNOSTIC QUESTION ANALYSIS OF PAPER 2

The following graph is based on data from a random sample of candidates. While this graph might not accurately reflect national averages, it is useful in assessing the relative degree of challenge of each question as experienced by candidates.

Candidates performed least successfully in Q6 (*A Grain of Wheat*). This novel was also the least popular choice.

Candidates performed the best in Q1 (*To Kill a Mockingbird)* but unfortunately not many candidates answered this question. The most popular questions were Q5, Q6 and Q7 which also yielded the best results of the remaining questions.

Graph 6.6.1: Average marks per question expressed as a percentage in Paper 2



Q1	*To Kill a Mockingbird*
Q2	*Lord of the Flies*
Q3	*A Grain of Wheat*
Q4	*Romeo and Juliet*
Q5	*Nothing but the Truth*
Q6	*Short Stories*
Q7	*Poetry*

6.7 ANALYSIS OF LEARNER-PERFORMANCE IN EACH QUESTION IN PAPER 2

Common errors and misconceptions

(a) Many candidates experienced difficulty with simple questions about the content of the texts (e.g. Q1.1.2; Q2.1.1; Q3.1.1; Q4.2.3; Q5.2.1; Q6.2.1; Q7.1.2b). This points to a lack of preparation or teaching, or a combination of these.

(b) Candidates seemed to lack basic knowledge of the character traits of the central characters, which obviously led to a lack of insight needed in higher-level questions on characterisation (e.g. Q1.2.3; Q2.1.4; Q3.1.3; Q4.1.4; Q5.2.3; Q6.1.3).

(c) When asked to compare aspects or to identify how two things differ, candidates often only focused on ONE of the aspects and forfeited marks in the process (e.g. Q1.2.5b; Q2.1.4; Q6.1.4).

(d) Questions dealing with idiomatic language or figurative meanings were not answered well (e.g. Q1.2.4; Q2.2.4; Q6.1.6; Q7.1.6; Q7.2.4).

(e) Candidates could not identify or discuss the themes in given texts. The impression was sometimes created that answers on theme questions from previous papers were memorised and regurgitated (e.g. Q1.1.5; Q2.2.5; Q3.2.6; Q4.2.7; Q5.2.4; Q6.2.4; Q7.1.7).

(f) In their responses to the questions on theme, candidates very often did not heed the instruction to focus on the theme evident in the given extract, but gave general responses.

(g) Many candidates were not able to identify figures of speech or explain how these devices added to the meaning of texts (e.g. Q1.2.4; Q2.2.4; Q4.2.4; Q6.2.3; Q7.2.4).

(h) The following questions featured in all the genres and presented the same challenges:

- Identifying and discussing the theme: Some candidates were not able to respond properly to the questions, with the weaker candidates faring the worst. Some candidates failed to notice that this question is two-fold: identify the theme and then discuss the theme.

- Stage direction: Most candidates were not able to ascribe an activity and an emotion to the identified character, which suggests inadequate understanding of the text.
- Character traits: Some candidates were not able to display in-depth knowledge of the characters.
- Some candidates did not seem to have fully grasped the requirements of commonly used assessment terms such as 'why', 'how', 'discuss' and 'explain'. In responding to these questions, candidates tended to seek all the answers from the extracts. Furthermore, they tended to give one-word responses when required to explain or discuss.
- Open-ended questions still remain a challenge. Many responses to this type of question showed that candidates were unable to make judgements regarding their understanding of the text.

Suggestions for improvement

(a) Candidates should have in-depth knowledge of the content of the prescribed texts as that is the basis on which appreciation and insight are built.

(b) While support materials like films and DVDs are helpful, learners must be urged to read every word of the text.

(c) Learners must be taught the language of assessment so that an instruction to 'identify and discuss the theme' (e.g. Q1.1.5; Q2.2.5; Q3.2.6; Q4.2.7; Q5.2.4; Q6.2.4; Q7.1.7) will not be a challenge when encountered in the examination.

(d) Learners must be taught that questions are often set beyond the extracts, and thus they need thorough knowledge of and insight into the text. These can more easily and thoroughly be gained if the texts are studied under the guidance of a teacher.

(e) Candidates must be exposed to examination instructions and questions so that they are confident when they are confronted with the question paper.

(f) Multiple-choice questions, fill-in questions, open-ended questions and action words like 'identify', 'explain' or 'discuss' should not be encountered for the first time when the final examination is written.

(g) Learners must be taught that a literary text contains more than a plot. They must be guided to a full understanding of setting, characterisation, structure and themes of the texts. Responses to questions like Q1.2.6, Q2.1.6, Q3.1.5, Q4.1.5, Q5.1.7, Q6.2.5 and 7.2.5 show a lack of understanding of these aspects as well as an inability to form and express text-based opinions. These skills can only be honed by continual exposure to similar questions.

(h) Teachers should not teach literature as isolated pages. The background against which the text was created, must be included in the teaching of that text. For example, the learners must be taught about racism in the American South (Q1), the TRC (Q5) and Apartheid (Q7.2).

ENGLISH FIRST ADDITIONAL LANGUAGE PAPER 3

General comments

(a) Candidates must be encouraged to prepare well for this paper, as the skills and language structures used in the first two papers can be applied here with great success.

(b) The fact that the paper is written very late, towards the end of the examination, may add to the misconception

that it is not important. It is the duty of teachers to stress that this paper carries the most marks and can make a significant difference to the candidates' results.

(c) The positive impact of practical issues like neat handwriting, a pen of good quality, starting each new section on a new page, clearly crossing out all rough work and giving each piece of writing a clear and correct number and title, should be emphasised.

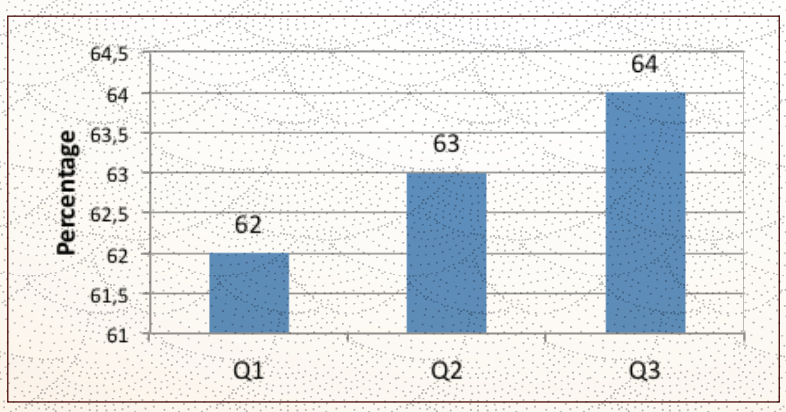
(d) The importance of sentence construction and paragraphing cannot be stressed enough. Figures of speech and control of nuances can enhance writing immensely.

6.8 DIAGNOSTIC QUESTION ANALYSIS FOR PAPER 3

The following graph is based on data from a random sample of candidates. While this graph might not accurately reflect national averages, it is useful in assessing the relative degree of challenge of each question as experienced by candidates.

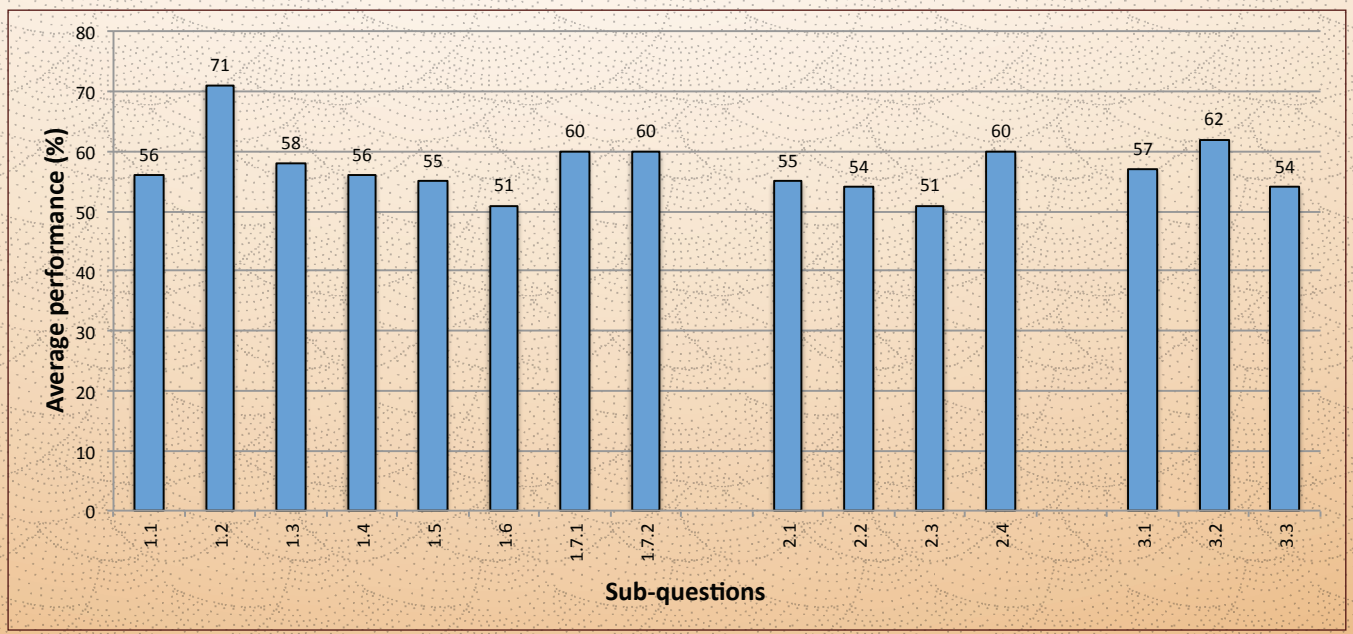
Candidates performed the least successfully in Section A, although the performance in the three sections did not differ significantly.

Graph 6.8.1: Average marks per section expressed as a percentage in Paper 3



Section A	Essays
Section B	Longer Transactional Pieces
Section C	Shorter Texts

Graph 6.8.2: Average marks per sub section expressed as a percentage in Paper 3



6.9 ANALYSIS OF LEARNER-PERFORMANCE IN EACH QUESTION IN PAPER 3

SECTION A ESSAYS

Common errors and misconceptions

(a) Q1.1 resulted in some very good responses. Unfortunately, a large number of candidates did not understand the implied meaning of the expression and misinterpreted it as 'Thank God', resulting in some essays being irrelevant or disjointed.

(b) In Q1.3, a lack of focus was apparent. Candidates launched into a biographical account of Nelson Mandela, giving the impression that they merely latched on to the name in the topic without focusing on, or interpreting the quote.

(c) Similarly, in Q1.4 many candidates simply discussed electronic media – mostly social media. These candidates never came to the gist of the topic, which is the loss of individuality as a result of electronic media.

(d) In Q1.6 candidates once again committed the error of only zooming in on one aspect of the given topic: in this case, many candidates described a season and never even touched on how this season brings out the best in them.

(e) Candidates seemed hesitant to attempt the visual topics (Q1.7.1 and Q1.7.2). This may indicate that they are not regularly exposed to similar stimuli.

(f) In many responses, the basic writing skills like vocabulary, sentence construction, paragraphing, spelling, verb tenses and concord were found to be lacking. Many candidates lacked the skills to convey their ideas successfully.

(g) Many candidates exceeded the limit of 300 words, leading to penalisation as the last part of the essay was disregarded.

Suggestions for improvement

(a) Learners must be exposed to different essay types and given opportunities to practise them.

(b) Learners must be taught the basic essay structure and the art of paragraphing.

(c) The importance of planning, proofreading and editing must be stressed and taught. These will enable candidates to produce well-structured and coherent pieces.

(d) Learners must be taught to cancel the draft so that the edited version and not the first draft will be marked.

(e) Candidates should be taught to analyse and interpret the given topics carefully and ensure that they cover all aspects in their responses. If there are aspects of a topic about which candidates are uncertain, they should rather choose another topic.

(f) The impact of a suitable introduction and a strong conclusion must be taught as they are the hallmarks of a well-written essay.

(g) Learners must be equipped with spelling, concord, sentence construction and all other language skills and rhetorical devices to enhance their writing.

(h) Learners should be exposed to good writing and given enough opportunities to write and improve their own pieces. Feedback and remedial action after assessment are crucial.

(i) Teachers should ensure that candidates know the correct required length for an essay. The CAPS document and Examination Guidelines give clear guidelines.

SECTION B LONGER TRANSACTIONAL PIECES

(a) Although an improvement in candidates' ability to use the correct format was noticed in Q2.1 (letter to the press), Q2.2 (obituary) and Q2.4 (dialogue), very few candidates attempted Q2.3 (informal report). The informal report (personal recount) appeared in a previous paper and is listed in the CAPS document. Had candidates known the relatively simple format required in this option, they might have done well there.

(b) A lack of vocabulary and general awareness of topical issues was revealed in the work of some candidates who chose to write the letter to the press. Candidates seemed unable to sustain the formal tone which is required in a letter of this nature. It was also apparent that candidates are not quite certain of the purpose of a letter to the press, with the result that they express the expectation that the reader of the letter (the editor) is the one responsible for the problems with water and electricity.

(c) Candidates who chose the obituary sometimes displayed a lack of knowledge regarding the purpose of this piece, resorting to writing a very personal and emotional eulogy. Although a tribute/eulogy forms part of an obituary, the question paper did give specific guidance as to the fact that the obituary should also serve to inform people of the death. Many candidates omitted this crucial aspect.

(d) Some candidates still used quotation marks in the dialogue, and burdened their work with unnecessary and lengthy greetings at the beginning of their pieces. Often the dialogue ended in the midst of what could have been a good argument because the word limit has been reached.

Suggestions for improvement

(a) The CAPS document is clear on all the different transactional pieces which must have been taught by the end of Grade 12. Teachers must expose learners to all of these so that the choice is not unfairly limited when it comes to the final examination.

(b) The Study Guide for writing can also be used to support and develop the learners' grasp of the writing aspect.

(c) Teachers should emphasise the purpose of each transactional piece as this determines the tone to be used in the writing.

(d) Learners must be taught to follow instructions and adhere to the prescribed length of the texts.

(e) In order to produce logically structured, coherent pieces, learners have to be taught (and if necessary, forced) to plan, proofread and edit their work.

(f) Candidates must be provided with ample opportunity to write transactional pieces – this is a skill they should be able to acquire and refine. The process writing approach should be used at all times.

(g) Learners must be familiar with the format, context, audience and all the features of the texts.

(h) Correctly written texts must be shared with learners so that they may learn from them.

SECTION C SHORTER TEXTS

(a) Candidates performed the best in this section. The diary entry (Question 3.2) was the most popular choice and candidates wrote well, describing personal thoughts and feelings.

(b) Candidates who did not fare well in Q3.1 (the flyer) were those who did not include the relevant information listed in the CAPS document (e.g. catchy slogans, persuasive language etc.).

(c) Q3.3 elicited some good responses, although some candidates ended up adding bizarre, very long-winded directions strung together with numerous conjunctions and not including landmarks, distances and specific directions as required by the question.

(d) The same lack of focus as in Section A was apparent in many responses in this section. In the flyer, often no reference was made to the physical fitness programme and in the directions the destination was sometimes not clear.

(e) Throughout Section C, it was obvious that some candidates did not make use of any planning or editing and went about their responses without much attention to correct language usage.

Suggestions for improvement

(a) Candidates must be encouraged not to treat this section as less important, even though it carries only 20 marks and appears last in the question paper. This is often the section which boosts the candidates' marks, as the pieces are relatively easy and in many cases they can get away with not writing in full sentences.

(b) Time management should be practised as running out of time may be the reason for the lack of attention to detail which often costs candidates marks in this last section.

(c) When administering SBA tasks, teachers should not neglect the aspect of providing learners the opportunity to exercise choices – if they are given more than one option when doing a task, they learn to study the options carefully and choose the one most suited to their experience, ability and style of writing.

(d) Learners must be taught to follow instructions and keep to the word limit.

(e) The formal and language conventions applicable to a specific text must be taught.

(f) Learners must read and analyse the topic of their choice, underlining key words and using them to ensure that all requirements of the topic are met.

CHAPTER 7

GEOGRAPHY

The following report should be read in conjunction with the Geography question papers of the November 2015 Examination.

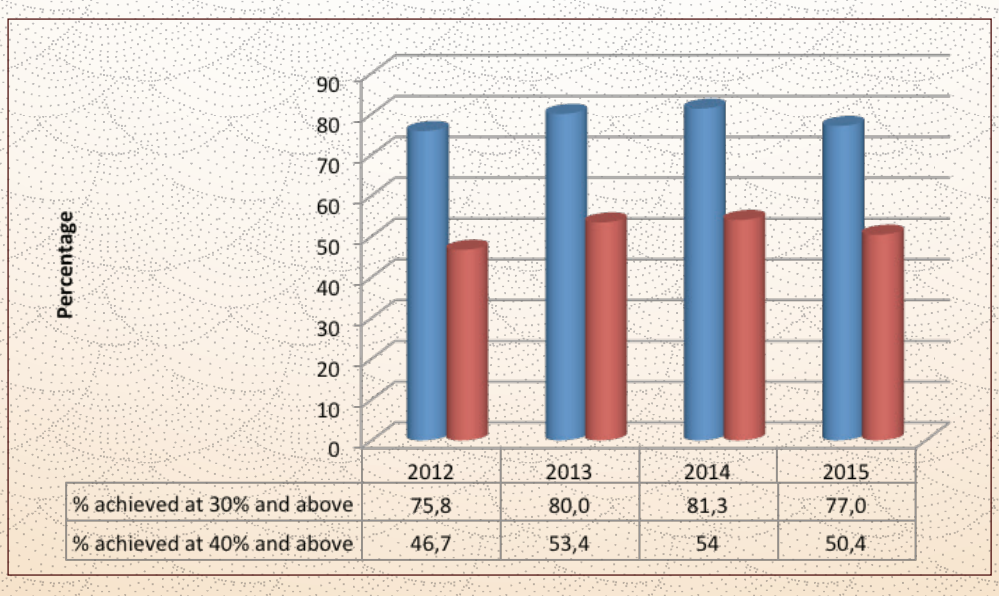
7.1 PERFORMANCE TRENDS (2012 – 2015)

The number of candidates increased by 67 934 in comparison to that of 2014. The general performance of candidates declined this year as indicated by 77% of candidates achieving 30% and above, with 50.4% achieving 40% and above.

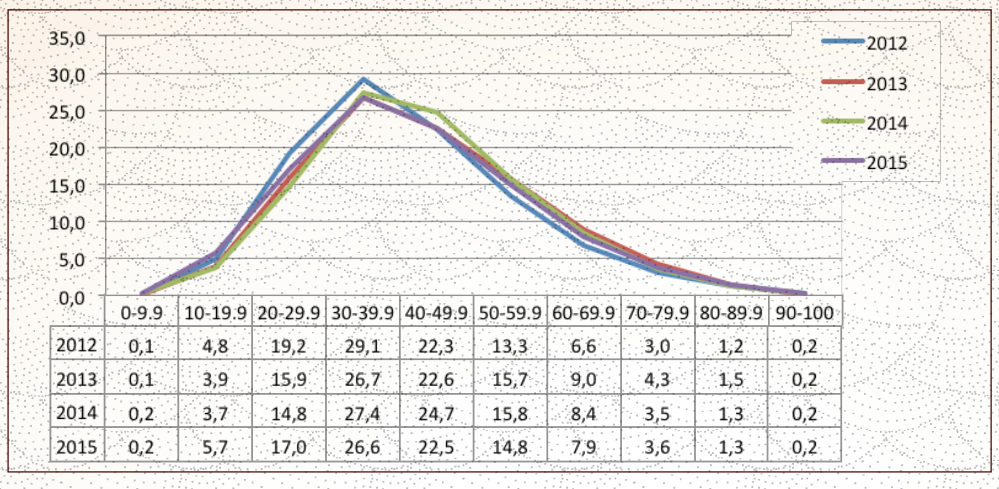
Table 7.1.1 Overall achievement rates in Geography

Year	No. wrote	No. achieved at 30% and above	% achieved at 30% and above	No. achieved at 40% and above	% achieved at 40% and above
2012	213 735	162 046	75.8	99 760	46.7
2013	239 657	191 834	80.0	127 873	53.4
2014	236 051	191 966	81.3	127 358	54.0
2015	303 985	234 208	77.0	153 212	50.4

Graph 7.1.1 Overall achievement rates in Geography



Graph 7.1.2 Performance distribution curves in Geography



	0-9.9	10-19.9	20-29.9	30-39.9	40-49.9	50-59.9	60-69.9	70-79.9	80-89.9	90-100
2012	0,1	4,8	19,2	29,1	22,3	13,3	6,6	3,0	1,2	0,2
2013	0,1	3,9	15,9	26,7	22,6	15,7	9,0	4,3	1,5	0,2
2014	0,2	3,7	14,8	27,4	24,7	15,8	8,4	3,5	1,3	0,2
2015	0,2	5,7	17,0	26,6	22,5	14,8	7,9	3,6	1,3	0,2

From the above graphs, it is evident that after the improvement in 2014, there has been a disappointing decline in the performance of candidates in 2015.

7.2 OVERVIEW OF LEARNER-PERFORMANCE IN PAPER 1

General comments

Despite many similar points being raised in the Diagnostic Report of 2014, it is felt that these remain areas of concern in the context of the 2015 NSC paper and should be emphasised once again.

(a) Many candidates continued to exhibit a lack of content knowledge and did not know the basic definitions of concepts. Candidates who could not deal adequately with the paper did not understand these basic concepts.

(b) Candidates had difficulty with action words that demanded a particular response to questions. The following were noted as examples: 'evaluate', 'discuss', 'describe', 'explain' and 'predict', to mention a few. This resulted in incorrect or inappropriate answers.

(c) Candidates struggled to produce annotated diagrams when required to do so, e.g. in Q1.3.4 and Q2.4.4.

(d) Candidates must get into the habit of always including units (**°C, metres**) in their answers.

(e) Some candidates still completed all 4 questions despite the fact it was very clear in the instructions that only 3 questions were to be selected.

(f) Candidates should have ensured that they had a calculator with them for both Paper 1 and Paper 2.

General suggestions for improvement

(a) Teachers must ensure that learners know all the Geographical definitions required by having them compile a glossary of terms in their notebooks for easy reference in class.

(b) Learners must have a clear understanding of the basic concepts taught in Geography. These should be mastered through repetitive formative tests and regular homework exercises to reinforce the content knowledge.

(c) Before dealing with important concepts and other content in class, teachers must ensure that they are up-to-date with the relevant topical issues in order to cover them effectively. If, for example, a geographical problem is stated, learners should study the causes and effects of the problem, as well as possible solutions to it. An in-depth knowledge of such issues is required by the teacher, and this might have to involve informal research.

(d) Teachers must be encouraged to collect resources on an ongoing basis and be aware of current events such as natural disasters. These should then be incorporated into lessons to ensure that they are topical and relevant to learners.

(e) Teachers are advised to research the topics that are commonly examined and ensure that content is taught accurately. Teachers should set questions on a particular topic from a variety of different perspectives to prepare learners to be competent in approaching a topic from any angle in the examinations.

(f) Teachers must use source-based questions in class assignments, tests and examinations. They must make use of relevant and recent resources from the internet and avoid using only sources that appear in textbooks and are familiar to learners. Resources must vary in nature. The following types of resources are commonly used in Geography examination papers: line sketches, photographs, line graphs, bar graphs, pie charts, tables, cartoons and newspaper extracts. These resources could also be used in combination with one another.

(g) Learners should be taught to interpret the implied meanings of cartoons. The purpose of using cartoons is to evoke an emotion from the person studying it. Teachers and learners alike must be alerted to the fact that these emotions will vary from person to person, and this should be taken into account when marking questions based on cartoons.

(h) Teachers should be fully aware of the relevant subject content to be taught by constantly referring to the CAPS document and Examination Guidelines. Prescribed textbooks do not always contain all the subject content mentioned in the above documents. Teachers should, therefore, consult more than one textbook if possible.

(i) Teachers should provide each learner with a copy of the Examination Guidelines which can be used as a checklist to ensure all content is covered and to be used when preparing for tests/examinations.

(j) Learners should be trained in the meaning and use of action words as provided in the table below. A particular action word can infer either that a one-word answer is sufficient or that a response in sentences is required. Learners should familiarise themselves with the following action words and their expected responses:

Table 7.2.1 Action words and their expected responses

VERB	MEANING	SUGGESTED RESPONSE
Account	to answer for - explain the cause of - so as to explain why	Full sentences
Analyse	to separate, examine and interpret critically	Full sentences
Annotate	to add explanatory notes to a sketch, map or drawing	Add labels to drawings
Appraise	to form an opinion how successful/effective something is	Full sentences
Argue	to put forward reasons in support of or against a proposition	Full sentences
Assess	to carefully consider before making a judgment	Full sentences
Categorise	to place things into groups based on their characteristics	One-word answers/phrases
Classify	to divide into groups or types so that things with similar characteristics are in the same group - to arrange according to type or sort	One-word answers /phrases
Comment	to write generally about	Full sentences
Compare	to point out or show both similarities and differences	Full sentences
Construct	to draw a shape	A diagram is required
Contrast	to stress the differences, dissimilarities, or unlikeness of things, qualities, events or problems	Full sentences

VERB	MEANING	SUGGESTED RESPONSE
Create	to develop a new or original idea	Full sentences
Criticise	to make comments showing that something is bad or wrong	Full sentences
Decide	to consider something carefully and decide what should be done	Full sentences
Defend	to say things to protect something	Full sentences
Define	to give the concise and clear meaning	Full sentences
Devise	to invent a method to do something	Full sentences
Demonstrate	to show or make clear - to illustrate and explain - to prove by reasoning and evidence - examples can be given	Full sentences
Describe	to list the main characteristics of something - give an account of	Full sentences
Develop	to successfully develop and create a new method/idea	Full sentences
Differentiate	to show the difference between things	Full sentences
Discriminate	to recognise the difference between things	Full sentences
Discuss	to examine by means of argument, presenting both sides and reaching a conclusion	Full sentences
Distinguish	to recognise the difference between things	Full sentences
Draw	to show by means of a sketch	A diagram is required
Evaluate	to make an appraisal or express an opinion concerning the value - to define, analyse and discuss	Full sentences
Examine	to look at something carefully - to analyse and discuss	Full sentences
Explain	to make clear, interpret and spell out the material you present	Full sentences
Find	to make a formal decision about something	Full sentences
Formulate	to express an idea/opinion in a carefully organised way	Full sentences
Give	to state facts without discussions	One-word answers
Identify	to give the essential characteristics of - to name	One-word answers
Illustrate	to show what something is like - to show that something is true	Full sentences
Interpret	to give an explanation of - to give the meaning of	Full sentences
Investigate	to try to find the facts about something	Full sentences
Justify	to prove or give reasons for decisions or conclusions, using logical argument	Full sentences
List	to write an itemised series of concise statements	One-word answers
Locate	to find the exact place where something is	One-word answers
Mention	providing relevant facts	Full sentences
Name	to state something - give, identify or mention	One-word answers
Outline	give a summary, using main points and leaving out minor details	Full sentences
Plan	to think carefully about a series of actions that you need to take in order to achieve something	Full sentences
Predict	to say what you think will happen - to foretell - to say in advance	Full sentences
Prioritise	to place in order of importance	One-word answers
Propose	to suggest a plan - to make a formal suggestion	Full sentences

VERB	MEANING	SUGGESTED RESPONSE
Provide	to state facts without discussions	Full sentences/ one-word answers
Question	to have or express doubts about something	Full sentences
Rate	to consider that something has a particular quality or achieved a particular quality/level	Full sentences/ one-word answers
Recall	to remember something	Full sentences/ one-word answers
Recognise	to accept that something is true or important - to give approval to something	Full sentences/ one-word answers
Recommend	to advise that something should be done	Full sentences
Report	to produce an official statement or written document	Full sentences
Select	to choose something from a greater whole	One-word answers
Sketch	to illustrate with a simple drawing	A diagram is required
Solve	to find a solution to something that is causing difficulties	Full sentences
State	to present information plainly without discussion	One-word answers
Suggest	to propose an explanation or solution	Full sentences
Show	to make clear - to point out - to explain	Full sentences
Support	to show that an idea/statement is true	Full sentences
Tabulate	to group like terms or activities under specific headings	One-word answers/phrases
Tell	to recognise something as a result of knowledge	One-word answers
Test	to examine something to find out if it is satisfactory or has a specific quality	Full sentences
Use	to do something using a specific skill or method	Full sentences
Value	to consider the importance/worth of something	Full sentences
Verify	to check/prove that something is correct	Full sentences
Write	to create a formal document	Full sentences

(k) To improve learner-performance, teachers must use previous examination papers as a guide to ensure that the standard of questions used in the assessment at school is appropriate. This would also assist teachers to acquaint candidates with the style of question-setting and how questions are scaffolded, i.e. from those testing low-order cognitive skills, to the higher-order questions testing more advanced thinking skills.

(l) Teachers must ensure that the distribution of marks in the internal assessment tasks is according to the requirements in the CAPS document. The weighting is: 25% lower order, 50% middle order and 25% higher order. If too many lower-order questions are asked in the internal assessment conducted at school, learners will not be exposed to the higher-order questions that are asked in the final examination and will, therefore, have a false notion of the level of performance required to achieve.

(m) Teachers must use a variety of new, interesting and current sources on which to base their questions. If sources are derived solely from the textbook in use at a particular school, learners are not exposed to unseen new sources that they might come across in an external examination. Exposing learners to new sources continuously, trains them to critically analyse any sources to which they are exposed.

(n) Teachers should focus on the interpretation of diagrams, sketches, photographs, cartoons and graphical data. The learners should be taught how to draw on information from these different sources. Teachers and learners must be aware that different sources may also be combined for examination purposes: a photograph and a line graph as in Fig 3.3 or a photograph and text as in Fig 3.4 as per the question paper.

(o) Where alternative terms exist for a specific concept, learners must be provided with all possible terms and not only the term preferred by the teacher.

(p) Learners should be taught paragraph-writing and interpretation techniques. Areas which need attention are repetition and poor punctuation. Regular practice of this in short informal and formal tests as well as in internal examinations will allow the learners to improve these skills and be confident in attempting these questions.

(q) Many learners do not read the questions properly. They see common familiar words and fail to determine what the question actually requires. Learners should be guided in developing techniques for the interpretation of questions e.g. the practice of underlining key words. The above action word guide (j) should be reinforced by teachers when marking learners' responses. No credit should be given for simple single-word responses when a full explanation is required.

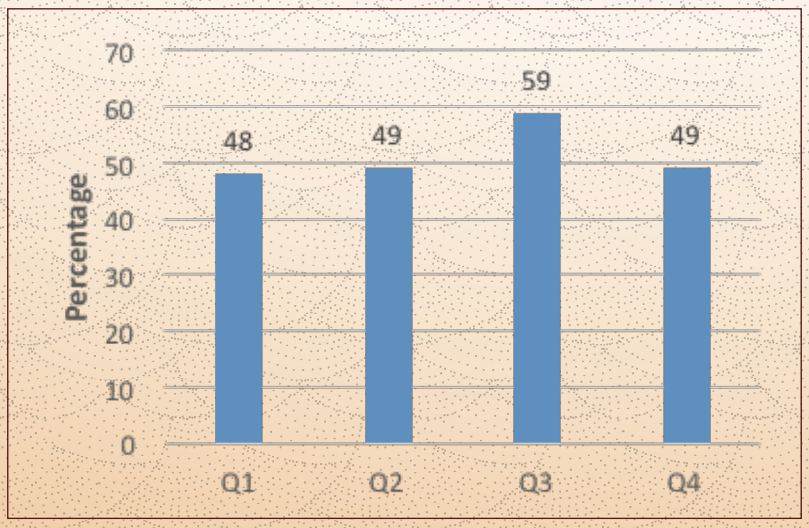
(r) As life-long learners, teachers must stay abreast of new developments in their subject. These changes could be incorporated as contextual questions into internal tests or examinations.

(s) Teachers must note that the short subjective questions (15 marks) at the beginning of each of the 4 questions are not necessarily only going to test low-order thinking skills and straight-forward recall. Some questions might require a higher level of cognitive thinking.

7.3 DIAGNOSTIC QUESTION ANALYSIS FOR PAPER 1

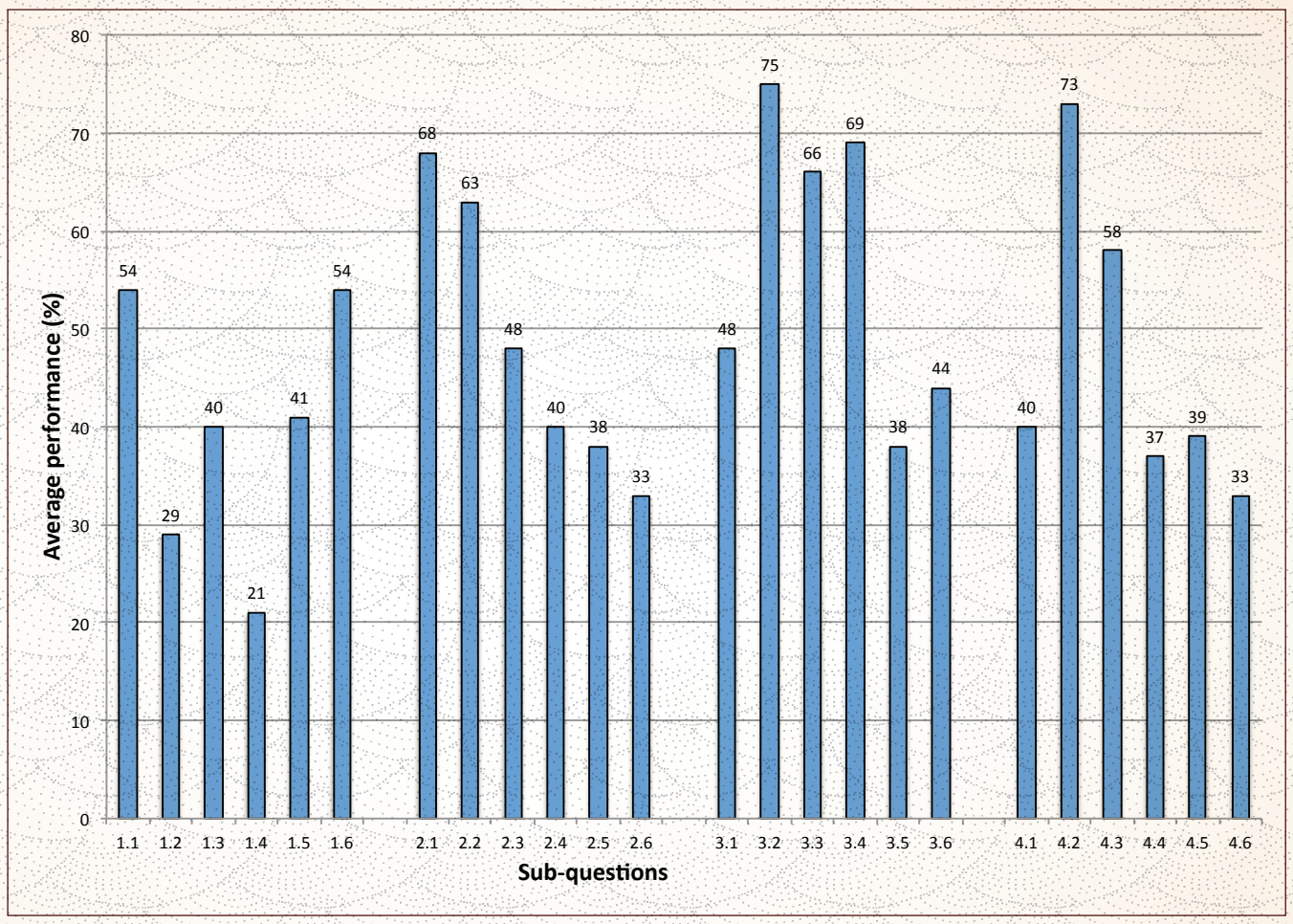
The following graph is based on data from a random sample of 100 candidates. While this graph might not accurately reflect national averages, it is useful in assessing the relative degrees of challenge of each question as experienced by candidates.

Graph 7.3.1 Average marks attained per question as a percentage in Paper 1



Q1	Climate and Weather, and Geomorphology
Q2	Climate and Weather, and Geomorphology
Q3	Rural and Urban Settlements, and Economic Activities of South Africa
Q4	Rural and Urban Settlements, and Economic Activities of South Africa

Graph 7.3.2 Average marks attained per sub question as a percentage in Paper 1



7.4 ANALYSIS OF LEARNER-PERFORMANCE IN EACH QUESTION IN PAPER 1

QUESTION 1 CLIMATE AND WEATHER, AND GEOMORPHOLOGY

Common errors and misconceptions

(a) Many candidates could not differentiate between wind 1 and 2 (Q1.3.2) with regards to temperature, direction or density. A large number of them referred to berg wind conditions instead of an anabatic wind and katabatic wind.

(b) Candidates could also not explain in Q1.3.3 which wind, 1 or 2, would develop if there is a higher pressure at the top of the valley. They failed to interpret that air with high pressure will sink into the valley because it is cold, dense and heavy.

(c) Q1.3.4 proved difficult for many candidates as they could not produce a diagram with labels to explain why visibility on the valley floor is less on winter mornings. Both a diagram and a short explanation were required in order to obtain the full 8 marks. Candidates referred to the inversion layer but not the formation of smog as was required.

(d) Q1.4 looked at a cross-section through a cold front and was poorly answered by most candidates. It seemed that this section of work was not well-taught as it required a high level of understanding of the movement, formation and resultant weather conditions of a cold front occlusion. Many candidates scored no marks for the paragraph question testing the formation of a cold front occlusion (Q1.4.4)

(e) Candidates misinterpreted Q1.5.1c as the question was worded differently from the way in which it was worded in the past when a more direct question was asked. However, the answers required content knowledge which is regularly examined and should be well-known to the candidates.

(f) The definition of an episodic river was not understood by many candidates (Q1.5.1a.)

(g) Candidates could not provide the concept defined, i.e. exotic river, or explain why the river flows throughout the year. (Q1.5.2a and b).

(h) Q1.6.3, the word 'dilute' was not well known to many candidates and they, therefore, struggled to answer the question despite a simpler word, i.e. 'reduce', being offered in brackets.

(i) In Q1.6.4, candidates referred to different types of pollution and their effects rather than how the pollution would impact on the cost of food and electricity if it were uncontrolled. Candidates scored poorly in this question.

Suggestions for improvements

(a) Learners should be taught how to read and interpret questions in conjunction with the associated diagrams and sources. This will prevent the misinterpretation of questions, and learners will answer the question as intended and not provide facts based on what they know about the topic.

(b) Learners are aware of how an inversion layer forms but need to be able to explain how it causes the warm air and pollutants to be trapped in the lower parts of a valley, thereby restricting visibility.

(c) Teachers should focus on the geographical processes responsible for the development of weather and/or climatic conditions associated with mid-latitude cyclones, their formation and the characteristics of the occlusion stage. In the final examination, candidates are expected to explain the development of weather and/or climatic conditions. These explanations should be tested in all internal tests and examinations.

(d) Teachers should focus on the geographical processes involved in the formation of rivers and the characteristics of the different types of rivers that exist. Teachers should use both diagrams and maps to explain where the different types of rivers are located in South Africa. Various aspects of rivers should be tested in all internal tests and examinations.

(e) Teachers should use diagrams and synoptic weather maps to teach mid-latitude cyclones and characteristics of a cold front and the occlusion of both warm and cold fronts.

(f) The Geomorphology section should be taught thoroughly by teachers, using relevant sketches to show various profiles (cross and longitudinal) and drainage basins.

QUESTION 2 CLIMATE AND WEATHER, AND GEOMORPHOLOGY

Common errors and misconceptions

(a) Many candidates could not explain the different rotation pattern of a tropical cyclone in the northern hemisphere (Q2.3.1).

(b) Q2.3.3, asking why the descending air in the eye was dry, proved difficult for some candidates. All of them knew it was dry but could not explain why that was the case.

(c) Q2.3.4 was poorly answered. Candidates could not describe the advantages of a satellite in tracking a tropical cyclone. They incorrectly looked at how to plan evacuations and warn people in advance, instead of actually plotting the path, looking for the characteristic cloud and monitoring the speed of a tropical cyclone using satellite imagery. This is a clear case of candidates not reading the question thoroughly.

(d) Q2.4.1 required a calculator in order to calculate the difference in temperature between the CBD and rural area. Many candidates just wrote down the 33.3°C - 29.4°C which is incorrect.

(e) Candidates struggled to confine their responses to how building density contributes to higher temperatures in the CBD. They wrote about the building materials, activity and large numbers of people in the CBD instead of about how the wind is blocked or channeled by buildings, thus trapping in the heat (Q2.4.3).

(f) Q2.4.4 required the drawing of a diagram indicating the position of an urban heat island during the day. It was very poorly answered by many candidates. It is clear that there was confusion between what a heat island and pollution dome should look like. It appears that the characteristic shape and height of a heat island, i.e. above the building skyline, and typical mushroom shape were not commonly taught.

(g) Many candidates did not know the difference between the terms 'ground water', 'infiltration' and 'run-off' (Q2.5.1 and 2.5.2).

(h) Q2.5.3 was asked from a slightly different angle than usual, resulting in many candidates being unable to explain how groundwater allows a river to flow all year round.

(i) The concept, 'well', confused many candidates although it was clearly indicated on the diagram in the Annexure. Many candidates could not explain how the removal of groundwater influences the water table, causing it to drop (Q2.5.4).

(j) Although the required answer to the paragraph question Q2.5.5 comprises content that is often examined, the fact that the question was asked in a different way meant that some candidates did not understand the question fully and could not provide full responses.

(k) Q2.6.4, where the candidates had to describe the rock type and underlying rock structure associated with drainage pattern A, was not well answered as candidates found it difficult to apply their knowledge to the specific example given.

Suggestions for improvement

(a) Teachers must refer to both southern and northern hemisphere examples of both tropical cyclone and mid-latitude cyclone movement to prepare the learners well. Schematic diagrams and synoptic weather maps should be used to teach tropical cyclones and their characteristics. Learners should be able to distinguish cyclones in both hemispheres. The CAPS emphasises the use and interpretation of satellite images as well.

(b) Learners must be taught the difference between the shape and height of urban heat islands and pollution domes in an urban area and in which part of the day they are most likely to develop.

(c) Teachers must train learners to look for the key words in questions in order to narrow down what is specifically required..

(d) Geomorphological concepts should be identified and defined: shapes of drainage patterns should be identified and their characteristics should be explained with reference to their formation in relation to the underlying rock structure.

QUESTION 3 RURAL AND URBAN SETTLEMENTS, AND ECONOMIC GEOGRAPHY OF SOUTH AFRICA

Common errors and misconceptions

(a) Q3.3.1 was poorly answered. Candidates could not provide an accurate definition for traffic congestion. This term is not synonymous with traffic.

(b) Candidates struggled to determine the trend on the graph from 1982-2010 in Q3.3.3. They could have given the general trend of an increase over time or worked specifically with each year and commented on the changes.

(c) Q3.3.5 asked how the delay due to traffic congestion would impact on commuters instead of the more commonly asked question about the delays caused by traffic congestion. The candidates struggled to discern the difference.

(d) Q3.4.5, which is a paragraph question, required candidates to provide sustainable solutions to improve the living conditions in Tsakane Extension Six. The candidates were intimidated by the word sustainable and many could not come up with four different solutions that could be ongoing. Many candidates mentioned sanitation, water, electricity and basic needs which are the collective names for all those services mentioned. They failed to discuss how these can be sustainable in the future.

(e) Q3.5.1 to Q3.5.6 proved to be challenging for many candidates as the example of a bakery is not a commonly used one. The idea was to apply one's knowledge of secondary industries to the example given. A candidate needed to understand what happens in a bakery and what a light industry entails to score well in this question.

(f) Many candidates struggled with the definition of food security in Q3.6.1.

(g) In Q3.6.2, the calculation of the percentage of the population which is food insecure proved to be problematic. It is possible that either the candidates did not have their calculators with them or they could not distinguish between the two terms. Many candidates merely wrote down the percentage quoted in the accompanying introductory paragraph.

(h) Q3.6.4 proved to be challenging for many candidates. They had to provide suggestions as how to improve food security in South Africa. It would seem that although food security is taught well, the many different ways to ensure it is realised are not discussed as thoroughly. Candidates managed to obtain an average of 4/8 marks only.

Suggestions for improvement

(a) It is important to emphasise once again that a question must be read from beginning to end. This will prevent candidates from answering questions based on what they know, rather than answering the specific question. Candidates must ascertain whether a question asks for general or specific tendencies. This could be mastered by underlining key words in the question.

(b) Learners must be taught to interpret trends in a graph, either the entire graph or different yearly trends. The heading of each axis assists in the determining of a trend as it is a combination of how the two axes relate to each other. This should be practised regularly in class exercises and tests.

(c) Teachers should use a variety of examples when discussing a secondary industry with the learners. The term 'market-orientated industry', as well as the other many types of industries based on their location, should be thoroughly taught.

(d) 'Food security' and 'food insecurity' are two terms that are often confused with each other. Teachers must make sure learners understand both concepts thoroughly. Factors resulting in food insecurity and solutions to sustain food security should also be discussed. South African examples can be used as case studies to assist the learners.

QUESTION 4 RURAL AND URBAN SETTLEMENTS, AND ECONOMIC GEOGRAPHY OF SOUTH AFRICA

Common errors and misconceptions

(a) Candidates confused rural depopulation with rural-urban migration in Q4.3.1.

(b) Q4.3.5, a popular rural settlement question, was not well answered as it was asked from a different perspective. Candidates had to use the diagram provided and discuss how to reverse the process indicated instead of explaining what had caused the problem.

(c) Q4.4.1 was generally poorly answered as some of the candidates struggled to understand the text and its caption and relate it to urban renewal.

(d) Q4.4.3 was confusing for many candidates who could not relate to what an arts mecca was in relation to the text and how it was linked to urban renewal.

(e) The candidates struggled to provide answers as to how the SA government can assist informal cattle farmers to be more productive (Q4.5.4). This question required candidates to think beyond the text, which proved to be difficult. Many candidates just quoted sections of the text and received no marks.

(f) Q4.6.1a was generally not well answered as many of the candidates did not have an in-depth knowledge of the Eastern Cape economic region, and were unable to give examples of the various industries located there.

(g) Q4.6.1c was not well answered as many candidates could not identify why the Eastern Cape economic region contributes the least to the earnings of South Africa.

(h) Candidates struggled to demonstrate their knowledge of the Wild Coast SDI and evaluate how it has resulted in the economic upliftment of the people living in the Eastern Cape. Candidates' answers were too general and very few could evaluate how successful the SDI was.

Suggestions for improvement

(a) Learners must know the relevant definitions well and they should be tested regularly.

(b) Teachers must use relevant diagrams and discuss solutions using current South African examples to illustrate how the cycle of rural stagnation can be halted.

(c) Cattle farming is one of the types of farming that are included in the CAPS document as well as the Examination Guidelines. This is the first time it has been examined in the NSC and it might not necessarily have been well covered in class. Teachers need to note that any topic covered in one of the two documents above may be examined in part or in its entirety and, therefore, must be taught thoroughly.

(d) The Wild Coast SDI is specified in the Examination Guidelines as one of the SDIs to be studied in depth.

(e) Teachers must keep up with economic development in South Africa, e.g. the development of Spatial Development Initiatives (SDIs). This aspect is not covered well in textbooks. Teachers should look beyond textbooks to gain further information on the relevant SDIs mentioned in the CAPS document.

(f) The following aspects of economic development in South Africa should be brought to the attention of the learners:

- A Spatial Development Initiative (SDI) is a programme aimed at improving infrastructure and attracting business and investments to rural areas that were previously neglected.
- By improving infrastructure, more tourists will be attracted, as rural areas will become more accessible. This, in itself, will provide a greater income for the rural communities, and will lead to the upliftment of rural communities.
- SDIs should be studied as case studies with the aim of applying knowledge of infrastructure development, tourism, employment and economic upliftment in previously underdeveloped areas.

7.5 OVERVIEW OF LEARNER-PERFORMANCE IN PAPER 2

General comments

(a) Middle- to higher-order questions continue to be a great challenge to the candidates.

(b) The basic knowledge of calculations is lacking. It appears that many teachers are not well-versed in the various calculation techniques or that not enough time is spent consolidating this aspect of mapwork.

(c) The fundamental knowledge of GIS is lacking. It seems as if many teachers are not familiar with GIS and are just teaching definitions but not the application of the techniques and skills.

(d) The teaching of map and photo interpretation skills must be taught, using both a topographic map and an orthophoto map. Teachers must ensure that all topographic maps and orthophoto maps from past final examinations are kept safely at school. These topographic and orthophoto maps are valuable resource materials that should be engaged with on a regular basis.

(e) The integration of theory and mapwork skills cannot be emphasised enough. Learners must be made aware that Geography Paper 1 and Geography Paper 2 are inter-related and not two separate entities. When certain concepts are taught in the theory section of Geography, this knowledge must be applied in the mapwork paper.

General suggestions for improvement

(a) Teachers should equip learners so that they are able to locate the orthophoto map of a specific area on the topographic map, using latitude and longitude. The area covered by the orthophoto map is usually indicated as a red demarcated area on the topographic map. Learners must be made aware that even though the orthophoto map and the topographic map are similar in size, the orthophoto map represents a much smaller landscape in reality than the topographic map. Understanding the concept of scale is important. The topographic map has a scale of 1: 50 000 and the orthophoto map a scale of 1: 10 000. This means that the orthophoto map will show a feature to be 5 times larger than the same feature on the topographic map.

(b) Learners must be taught to recognise subtle differences in the options given in a multiple-choice question. Teachers should be trained in the correct way of setting multiple-choice questions. Teachers and learners should be aware that the multiple choice questions are not only testing simple recall but can include middle-order cognitive skills testing.

(c) The theory of Climate, Geomorphology, Settlement and Economic Geography of South Africa sections of Geography must be taught by integrating content with topographic maps and orthophoto maps of South Africa.

(d) The integration between theory and mapwork is essential and both must be taught concurrently in the classroom. Teachers should also emphasise the importance of the correct geographic terminology in tests and examinations. For example, candidates often use words such as left and right instead of north, south, east or west.

(e) Teachers must be trained in mapwork calculation techniques and GIS.

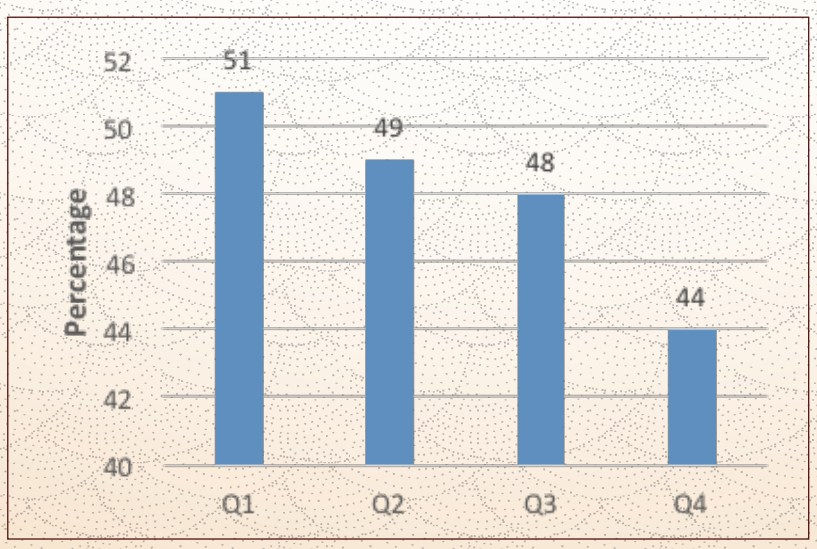
(f) All schools should have a variety of topographic maps and orthophoto maps available as invigilators are instructed to collect these resources at the end of the examination. Teachers should use these resources and examination papers for the purpose of practising in class. All NSC examination papers can be used for revision in CAPS as the content remains the same. It should be noted, however, that the mark allocation might differ if older question papers are used. These can be easily adapted to fit the CAPS format.

(g) Candidates seemed to struggle to correlate cross-sections in the question paper with the real features depicted on the topographic map or orthophoto map. The skill of seeing three-dimensionally is one that needs to be practised in the classroom regularly.

7.6 DIAGNOSTIC QUESTION ANALYSIS FOR PAPER 2

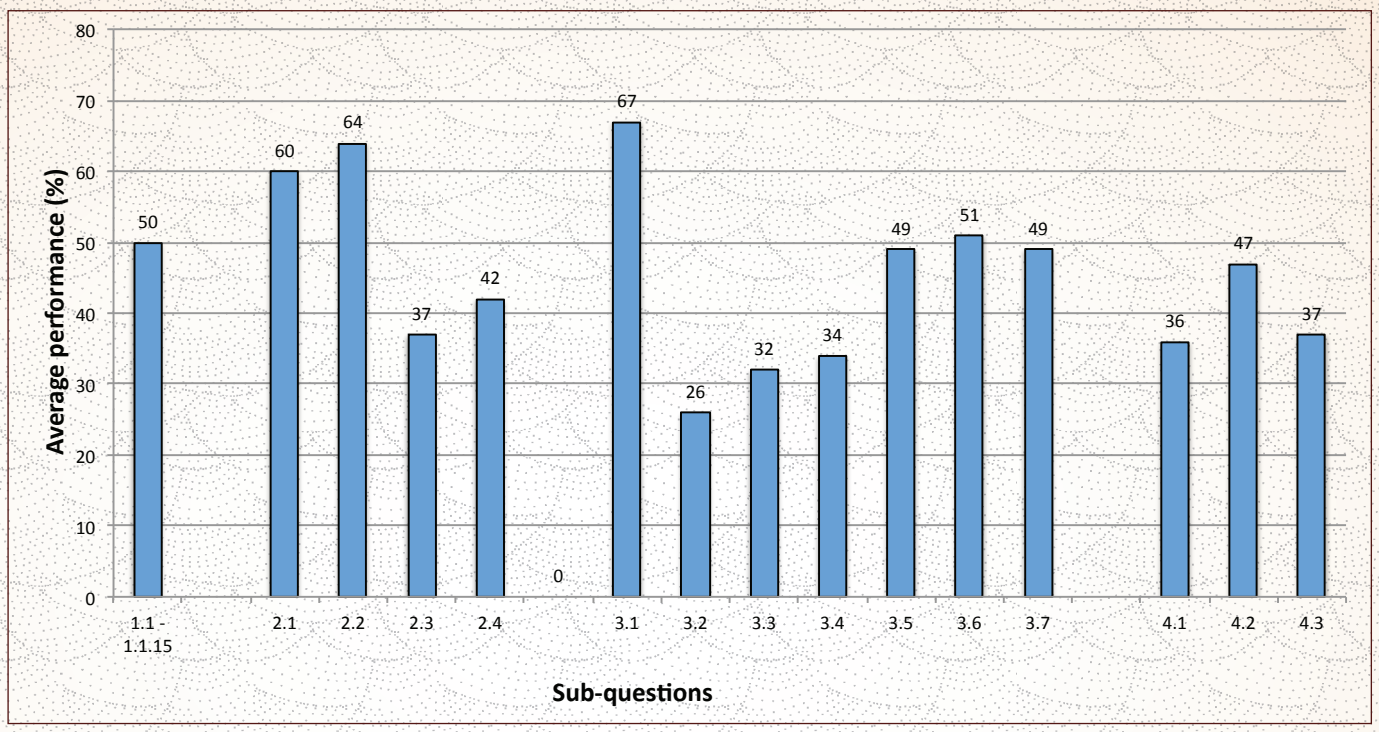
The following graph is based on data from a random sample of candidates. While this graph might not accurately reflect national averages, it is useful in assessing the relative degrees of challenge of each question as experienced by candidates.

Graph 7.6.1 Average marks per question as a percentage in Paper 2



Q1	Multiple Choice
Q2	Map Calculations and techniques
Q3	Application and Interpretation
Q4	Geographical Information Systems

Graph 7.6.2 Average marks per sub question as a percentage in Paper 2



7.7 ANALYSIS OF LEARNER-PERFORMANCE IN EACH QUESTION IN PAPER 2

QUESTION 1 MULTIPLE-CHOICE QUESTIONS

Common errors and misconceptions

(a) Candidates did not use the information on the topographic map to assist them in Q1.1. The route to East London is clearly indicated on the map.

(b) Some candidates were unfamiliar with the term hexagon and so, struggled to select the correct answer in Q1.3

(c) Q1.8 was a middle-order question where the candidates had to use their theoretical knowledge. Few candidates could answer this question.

(d) Candidates had to apply their climatological knowledge aspect to answer Q1.10, a middle-order question where few answered correctly.

(e) Q1.11 tested the candidates' knowledge of how winds are named and the role of a windbreak. Many candidates struggled with this question.

(f) In order to answer Q1.12, candidates had to be familiar with the conventional signs on the map key. The symbol for industrial buildings would need to be recognised from the key and matched to the area indicated on the topographic map.

(g) Candidates had to calculate the distance themselves in order to select the most correct distance in Q1.14. Many candidates could not do this calculation.

(h) Some candidates struggled to locate the correct position of the Queenstown map on the grid given in Q1.15. This is a commonly asked question although it was asked differently this time, leading to few correct answers.

Suggestions for improvement

(a) Teachers should emphasise the use of conventional signs, and learners should study the key of the map before attempting to answer questions. Exposure to more tasks on the conventional signs should assist learners.

(b) Learners should not only know the different types of landforms and slopes; they should also be able to identify them on the map and in the surrounding environment. Slopes and landforms should be taught using simple hand-drawn contour maps.

(c) Teachers must use topographic maps to show learners how the different types of stream flow are indicated on the map.

(d) Teachers must ensure that learners know how to determine the position of a particular map on a grid using the given map number and co-ordinates as references.

(e) Learners must know that, in order to identify a human-made and/or natural feature on an orthophoto map, the same feature must be located on the topographic map first. It is, therefore, important that the orthophoto map and the topographic map be correctly orientated. Once this has been done, learners must find similar-looking features on both the orthophoto map and the topographic map as points of orientation. Learners must be reminded that the distances between features on the orthophoto map will be much greater than the distances between the same two features on the topographic map, as the scales of the two maps differ.

(f) Learners must understand that human-made features tend to have a more regular shape than a natural feature.

QUESTION 2 MAP CALCULATIONS AND TECHNIQUES

Common errors and misconceptions

(a) Candidates continued to struggle with calculations and they neglected to show the different steps they followed. Candidates were credited for each correct step shown. The practice of providing many of the formulae for the different calculations seemed to have assisted the candidates.

(b) All calculations and final answers must have included the required units or no marks were awarded for that step: e.g. metres (distance), m^2 (Area), West of true North (magnetic declination).

(c) Candidates could not calculate the area of feature 4 accurately on the orthophoto map. Many measured and then used the topographic map scale instead of the orthophoto map scale (Q2.1). Candidates also swapped the length and breadth: they could not identify which side of feature 4 was the length and which side was the breadth.

(d) Q2.2.1, which is the calculation of the magnetic declination, has shown an improvement. Providing the steps to guide candidates in the calculation seems to have been successful.

(e) In Q2.2.2, candidates had to a give reason why it was important to correct the magnetic declination on a magnetic compass when hiking. This application of information proved difficult.

(f) Calculating the average gradient between points 5 and 6 on the orthophoto map was problematic for some candidates as they used the incorrect map scale. Substituting into the formula showed improvement, except for the incorrect scale being used.

(g) Q2.3.2 was asked in a different way this time. Instead of asking the candidate to determine from their answer whether it was a steep or gentle slope, they had to explain why the slope was steep. Many candidates could not answer this slightly higher-order question.

(h) Q2.3.3 drew on the candidates' knowledge of how to overcome large topographic features, mountains, when building a road. This proved challenging for many of them. This typically high-order question forced the candidates to think for themselves. The introductory paragraph was lengthy and this might have proved difficult for non-mother tongue candidates to grasp the gist of the question.

(i) Candidates were unsettled by the two cross-sections in Q2.4.1 as many could not match the particular cross-section with the area between points 7 to 8 on the orthophoto map.

(j) Q2.4.2 was another high-order question which required the candidates to explain why they had selected the particular cross-section in Q2.4.1. They had to distinguish between the different slope gradients on the two sides of the feature. This proved challenging for most candidates.

Suggestions for improvement

(a) Teachers must reinforce the inclusion of the particular unit required for each calculation. Learners must get into the habit of indicating the unit when doing a calculation in order to achieve maximum marks. Marks are lost for not including the unit.

(b) It is appropriate to explain the calculation of magnetic declination once again. Although an improvement was noted, it is important that the learners become used to showing all their calculations in order to achieve maximum marks:

- Follow the steps in the example given below as this will allow candidates to score full marks in the final examination paper. The method below is set out in a logical fashion, following a specific sequence in order for candidates to answer in an organised way. This will assist in the marking process.
- Refer to Q2.2: Calculate the magnetic declination of topographical map 3126DD QUEENSTOWN for 2015. Show ALL calculations. Marks will be awarded for calculations.
- Show ALL calculations/steps followed. The desired answer is:

Date of map:	2002	Find printed below the map.
Magnetic declination 2002:	24°16'W	Find printed below the map.
Mean annual change:	11'W	Find printed below the map.
Difference in years:	13	2015–2002 (The current date will always be the year you are in).
Total annual change:	96'W/1°36'W	Mean annual change (11'W) x difference in years (13) = 143'W. Change 143'W to degrees and minutes i.e. 2°23'W.
Magnetic declination 2015:	*26°39'W*	Magnetic declination 2002 (24°16'W) + total annual change (2°23'W).
Always indicate West (W), as marks may be awarded for this.		

- Teachers should do similar exercises on as many different maps as possible to get a variety of answers. Using only one map will not give learners enough exercises, as the majority of readings will be the same.

(c) The following exercise could be undertaken to overcome challenges relating to the calculation of area which continues to be problematic for learners. Follow the steps in the example given below as this will allow learners to score full marks in the final examination paper.

- Refer to Q2.1: Calculate the area of land covered by feature 4 on the orthophoto map in m². Show all calculations. Marks will be awarded for calculations.
- Determine the length (long side) and breadth (short side) of the demarcated red area on the topographic map in km.
- The formula given below can be applied to all maps with different scales. By using a universal formula, errors made by teachers and learners alike should be reduced.
- The formula to calculate area is: *Area = length x breadth*.
- Show ALL calculations/steps followed. The desired answer is:

$$\text{Length} = \frac{\text{map distance (cm) x map scale denominator}}{(1\ 000\ 000)}$$

$$= \frac{1.7 \text{ cm} \times 10\ 000}{1\ 000\ 000}$$

$$= \frac{17\ 000}{1\ 000\ 000}$$

$$= 170 \text{ m}$$

$$\text{Breadth} = \frac{\text{map distance (cm) x map scale denominator}}{(1\ 000\ 000)}$$

$$= \frac{1.4 \text{ cm} \times 10\ 000}{1\ 000\ 000}$$

$$= \frac{14\ 000}{1\ 000\ 000}$$

$$= 140 \text{ m}$$

Area = Length x Breadth

= 170 m x 140 m

= 23800 m²

- Always remember to add the unit, i.e. m², to your final answer.

(d) All calculations should have been taught in Grade 10 and Grade 11 already and must be practised regularly.

(e) Learners must familiarise themselves with all the different formulae and calculations. The following calculations must be mastered: distance, gradient, vertical exaggeration, and magnetic bearing including magnetic declination, co-ordinates, grid position and area.

(f) Ensure that all the above different types of calculations are covered and that learners know how to follow the steps when doing calculations, as each step is awarded marks.

(g) Building models of landscape features by using contour lines will allow learners to see the correlation between contour lines, landforms and slopes immediately and to be able to correlate three-dimensional features with what they see on the topographic map or orthophoto map.

(f) Learners must be shown how to identify landforms and slope types on topographic and orthophoto maps. This should be included in regular practice tests and exams.

QUESTION 3 APPLICATION AND INTERPRETATION

Common errors and misconceptions

(a) Candidates generally found Q3.1.1 confusing.

(b) Candidates were confused by the word 'state' in Q3.1.2 as to what was required in the question.

(c) Q3.2 was problematic for the candidates as the question was stated in the introductory paragraph. Many candidates did not read through the text and so did not know what the question was.

(d) Candidates struggled to explain how the katabatic air flow in the valley in Q3.3 could lead to the formation of a frost pocket in winter. Many candidates referred to the wind but did not state that the air must cool down to below 0°C for frost to form.

(e) They struggled to identify the direction of the flow of a river in Q3.4.1.

(f) In Q3.4.2, candidates had to select one of three cross-profiles that represented the line O-P on the topographic map and state a reason for their choice. This was a higher-order question that required reasoning skills. Candidates struggled to match the cross-profile with what they saw on the topographic map. The skill of determining the steepness of slope by observing the contour line patterns was lacking.

(g) Q3.5 is a standard, regularly-asked question and was well answered. Some candidates, however, lacked the terminology to describe the street pattern in land-use zone 1 which could be radial/radial concentric/spiderweb or cobweb. Many candidates referred to bicycle wheel spokes instead. Some candidates mistakenly looked at where the 1 was situated on the topographic map instead of where it was pointing and, therefore, gave incorrect answers.

(h) Candidates were unsure where to locate the name of the N6 as it passed through the hexagon. Many candidates merely said it was a national route instead of closely examining the topographic map where the name Cathcart road was clearly written.

(i) Q3.6.2 asked for the economic advantage of the N6 for Queenstown and not the economic advantage of the N6 itself. Many candidates gave incorrect answers as a result of misreading the question.

(j) Q3.7.2 proved difficult for the candidates as it was a particularly high-order question where they had to explain how infrastructure promotes farming in a particular area. This meant that the candidate had to relate two different aspects from the topographic map, namely infrastructure and farming. The skill of explaining such a relationship requires constant practice.

(k) Many candidates did not use their theoretical knowledge when answering mapwork questions.

Suggestions for improvement

(a) Interpretation of different orthophoto maps, and the skills used to interpret these maps should be practised regularly.

(b) To find evidence for the flow direction of a river, learners should be guided as to how to extract information from a topographic map. This demands that learners should have a thorough background of contour lines, value of contour lines, the way the tributaries join the mainstream and the position of a dam wall in relation to the dam itself.

(c) Micro-climatic factors must be taught in correlation with mapwork as this type of question is regularly asked in the mapwork paper.

(d) Geographical concepts should be used regularly and correctly in class to improve learners' understanding thereof.

(e) Continual integration of content knowledge with mapwork must be introduced as early as Grades 10 and 11.

(f) Teachers must give regular exercises to improve map reading and interpretation skills.

(g) Teachers should expose learners to previous examination papers where similar questions and questions of the correct difficulty levels are provided.

(h) Exercises to identify long and cross-profiles of a river on topographic maps must be practised in class when those concepts are taught theoretically.

(i) Practical opportunities to reinforce the skill of identifying different types of settlements, street patterns and land-use zones on topographic maps must be provided.

QUESTION 4 GEOGRAPHICAL INFORMATION SYSTEMS (GIS)

Common errors and misconceptions

(a) Candidates struggled to explain in Q4.1.1 how data can be collected for an environmental impact study. The term environmental impact study was problematic to some candidates.

(b) Q4.1.2 was a follow-on question which meant if the candidate could not answer Q4.1.1, they would not be able to attempt Q4.1.2 either. Although soil erosion is a topic covered in an earlier grade, it can be tested in the mapwork paper in a more general way. In this instance, soil erosion was used as an example to test whether the candidate understood the GIS concepts of data collection and management.

(c) Some candidates did not know the definition of attribute data.

(d) For the first time a sketch map was introduced in the GIS section. This was new and unexpected and some candidates were unsure of how to answer Q4.3.2. This question tested the candidates' ability to transfer attribute data from the topographic map and position it correctly on the sketch map, using co-ordinates to guide them. This was a fairly challenging question, but within the scope of GIS.

(e) Q4.3.3 required the candidates to give the spatial position of the hiking trail indicated by point X on the sketch map. The answer could be by way of co-ordinate points or by using a direction in relation to another feature on the same sketch. Candidates struggled with this question as it tested their application of GIS concepts.

Suggestions for improvement

(a) Learners must be conversant in GIS terminology. Definitions are often asked as part of GIS.

(b) Teachers should encourage learners to make a glossary of GIS terms.

(c) A sketch map could very well be asked again as an example of a paper GIS. Teachers should cover this method of testing in class exercises and tests.

(d) GIS concepts must be taught in context. While it is important to know the concepts and be able to define them when required to, learners must be able to apply the concepts in practical life situations. Teachers must, therefore, be aware of the fact that GIS will not consist solely of theory and definitions but can be practically applied to the map examined.

(e) Teachers are advised to create scenarios to challenge learners to apply their understanding of concepts and to apply GIS knowledge across the various topics of the subject (integration) as follows:

- Learners could be required to apply GIS in flood prevention (buffering);
- Learners must be able to apply GIS in choosing a site for the development of a settlement or planned shopping centre (data layering);
- Learners must be able to create a new map from different types and sizes of maps (data integration);
- Learners must know that GIS can contribute to solving social and environmental challenges; and
- Learners must be aware that GIS can be used to manage various issues, for example, disasters and crime.

(f) A paper GIS can be examined by way of a sketch map on which learners need to be able to fill in various required attribute data from the topographic map.

(g) Teachers must integrate GIS knowledge across the various topics of the subject. Learners could be asked to apply GIS concepts to Climate and Weather, Geomorphology, Settlement Geography and the Economic Geography of South Africa. This will help learners to see that GIS can contribute to solving social and environmental challenges.

(h) There should be reference to previous question papers to get an idea as to how GIS questions are set. Teaching approaches should be adapted accordingly.

(i) Teachers should devote ample time to planning GIS lessons. The curriculum currently requires learners to know and apply the GIS concepts. In developing lessons, teachers should make it a priority to communicate the material in a meaningful way that takes cognisance of learners' personal experience.

CHAPTER 8

HISTORY

The following should be read in conjunction with the History question paper of November 2015 Examination.

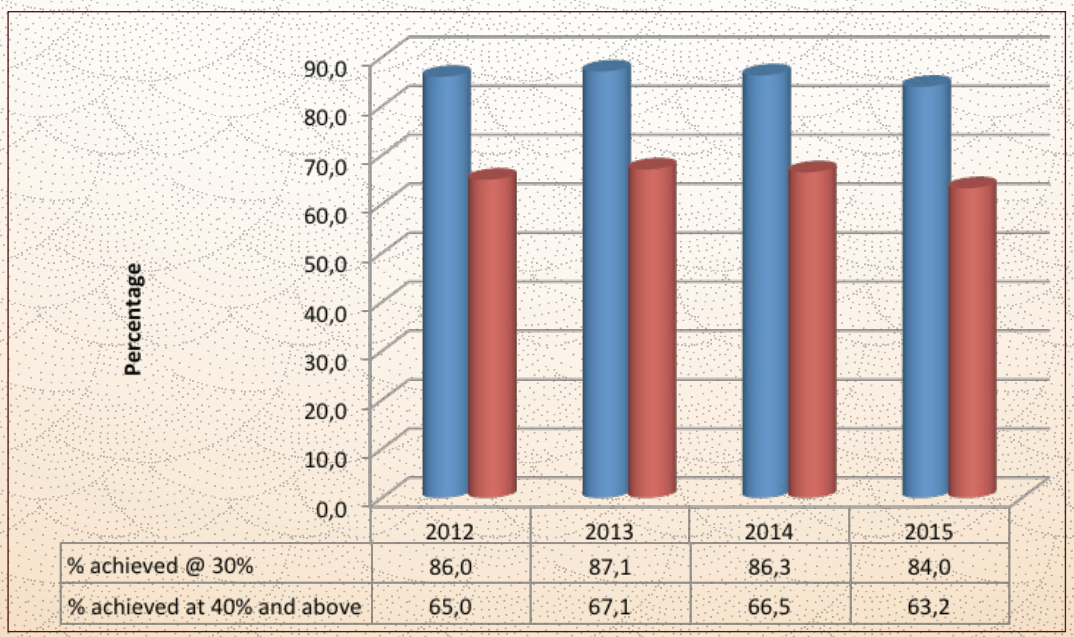
8.1 PERFORMANCE TRENDS (2012 – 2015)

The number of candidates increased by 38 712 in comparison to that of 2014. The general performance of candidates declined this year as indicated by 84.0% of candidates achieving 30% and above, with 63.2% achieving 40% and above.

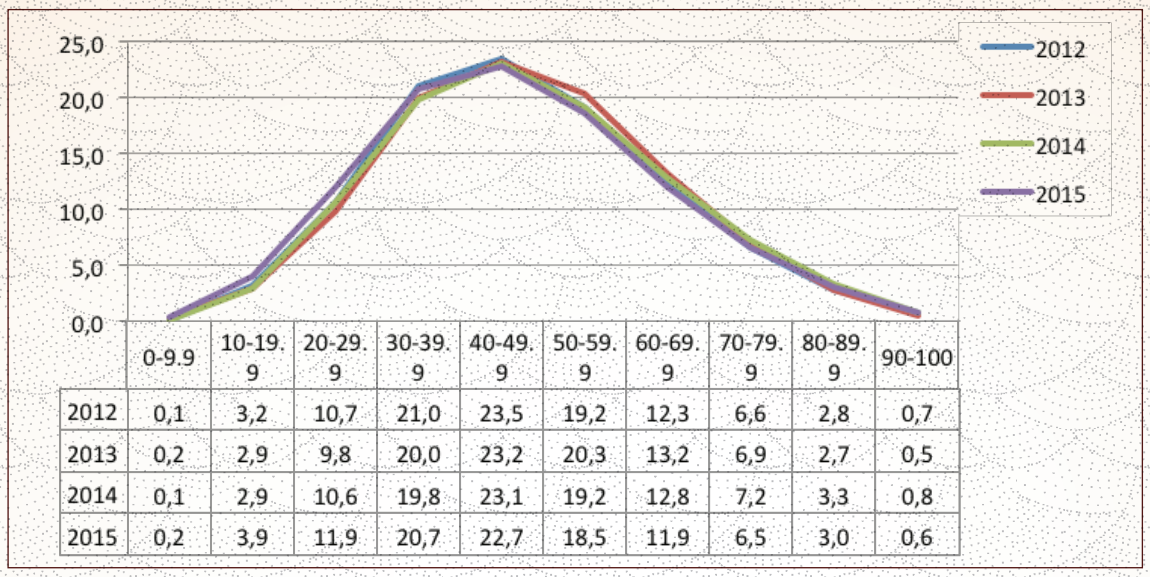
Table 8.1.1 Overall achievement rates in History

Year	No. wrote	No. achieved at 30% and above	% achieved at 30% and above	No. achieved at 40% and above	% achieved at 40% and above
2012	94 489	81 265	86.0	61 403	65.0
2013	109 046	94 982	87.1	73 136	67.1
2014	115 686	99 823	86.3	76 904	66.5
2015	154 398	129 643	84.0	97 646	63.2

Graph 8.1.1 Overall achievement rates in History



Graph 8.1.2 Performance distribution curves in History



	0-9.9	10-19.9	20-29.9	30-39.9	40-49.9	50-59.9	60-69.9	70-79.9	80-89.9	90-100
2012	0,1	3,2	10,7	21,0	23,5	19,2	12,3	6,6	2,8	0,7
2013	0,2	2,9	9,8	20,0	23,2	20,3	13,2	6,9	2,7	0,5
2014	0,1	2,9	10,6	19,8	23,1	19,2	12,8	7,2	3,3	0,8
2015	0,2	3,9	11,9	20,7	22,7	18,5	11,9	6,5	3,0	0,6

From the above graphs, it is evident that after consistent results in the previous three years, there has been a decline in the performance of candidates in 2015.

8.2 OVERVIEW OF LEARNER-PERFORMANCE IN PAPER 1

(a) Candidates' performance in this question paper ranged from poor to good. Lack of content knowledge was a common problem.

(b) Candidates were generally weak at writing paragraphs, in responding to questions on source-based material and in addressing questions involving comparisons, reliability, usefulness and validity. They also tended not to recognise visual clues as required by various questions.

(c) It was, however, evident that teachers had spent time teaching the skills of paragraph-writing, as the majority of candidates did attempt to write paragraphs and refer to the sources by referencing.

(d) The more successful candidates were able to interpret, analyse, evaluate and synthesise evidence from the given sources and use their own knowledge. They were also able to comment on the usefulness, reliability and bias of the sources.

(e) Most of the candidates answered two source-based questions and one essay.

(f) The most popular source-based questions were Q1 (The Cold War) and Q3 (The Civil Rights Movement).

(g) There was a general improvement in essay-writing this year as most candidates could complete a comprehensive essay. Weaker candidates, however, failed to provide properly structured essays with effective introductions and conclusions.

(h) The popular essay questions were Q4 (Case Study – Vietnam) and Q6 (The Black Power Movement).

(i) Many candidates appeared to understand the content of the essays but could neither provide a relevant introduction and conclusion, nor could they take a stance and defend it with a relevant line of argument.

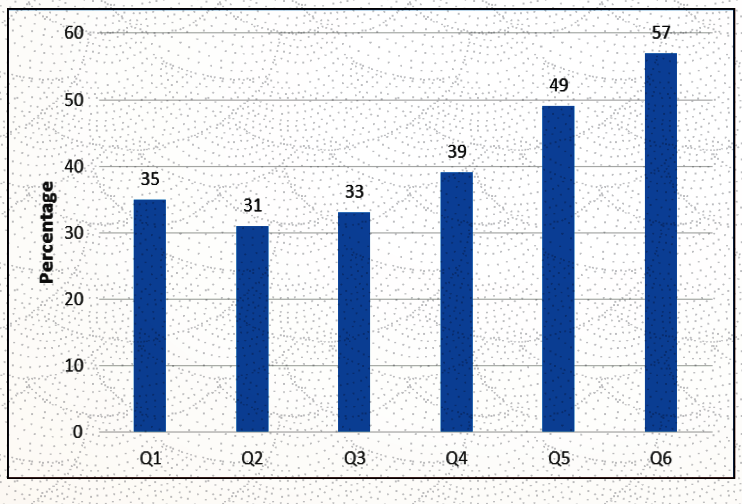
(j) Candidates who performed poorly, generally displayed a poor command and understanding of the English language.

8.3 DIAGNOSTIC QUESTION ANALYSIS FOR PAPER 1

The following graph is based on data from a random sample of candidates. While this graph might not accurately reflect national averages, it is useful in assessing the relative degrees of challenge of each question as experienced by candidates.

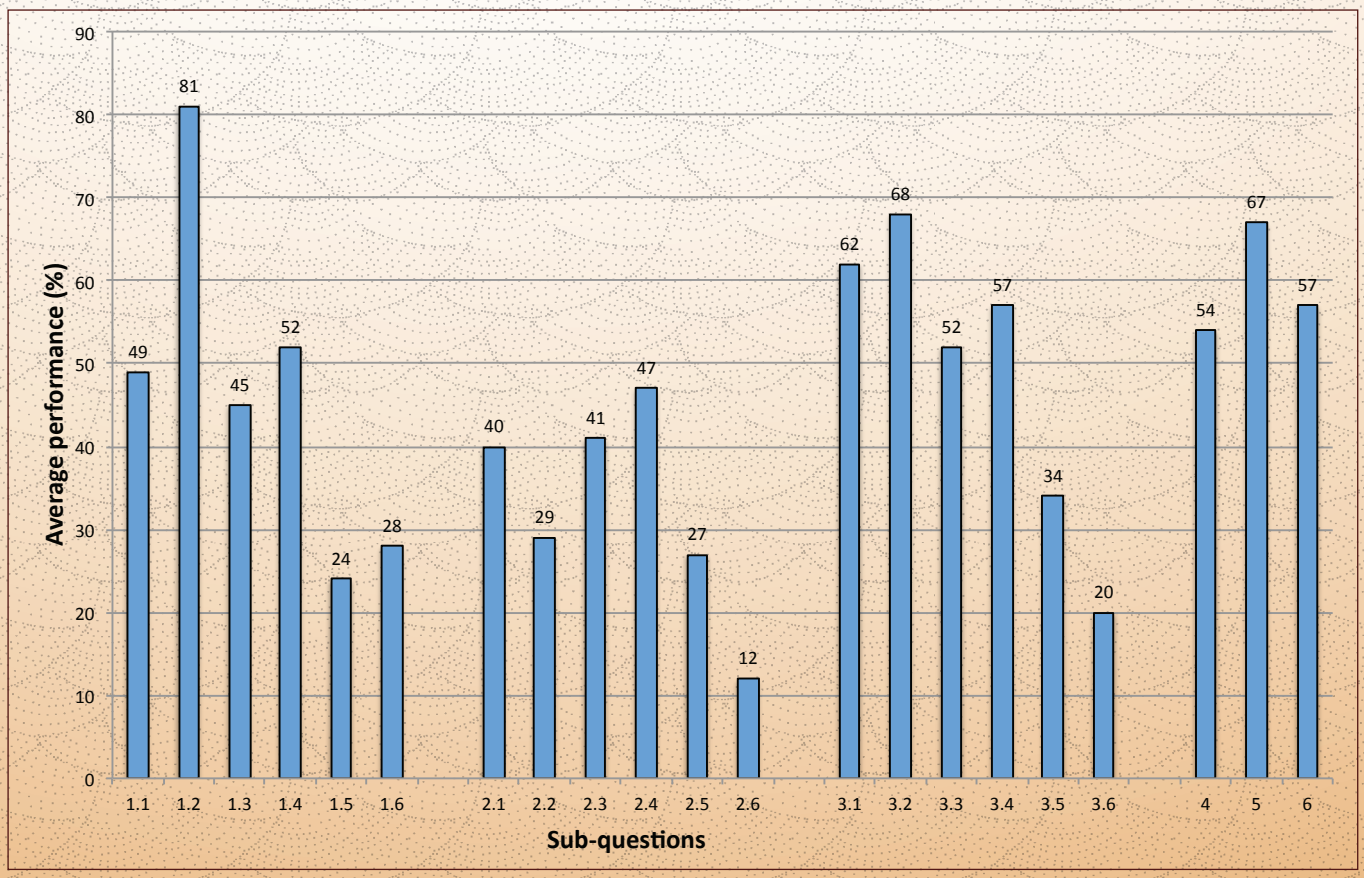
This graph indicates that the sample of candidates performed better in the essays than in the source-based questions. The sample of candidates performed best in Q1 of the source-based questions, and in Q6 of the essay questions. This graph indicates that candidates who answered two essays generally performed better than those answering two source-based questions.

Graph 8.3.1: Average marks per question expressed as a percentage: Paper 1



Q1	The Cold War: The Origins of the Cold War
Q2	Independent Africa: Case Study - Angola
Q3	Civil Society Protests from the 1950s to the 1970s: the Civil Rights Movement
Q4	Extension of the Cold War: Case Study - Vietnam
Q5	Independent Africa: Comparative Case Study – The Congo and Tanzania
Q6	Civil Society Protests from the 1950s to the 1970s: the Black Power Movement

Graph 8.3.2: Average marks per sub question expressed as a percentage: Paper 1



8.4 ANALYSIS OF LEARNER-PERFORMANCE IN EACH QUESTION IN PAPER 1

SECTION A: SOURCE-BASED QUESTIONS

QUESTION 1 THE COLD WAR: THE ORIGINS OF THE COLD WAR

This was a very popular question and was answered by many candidates. Generally, candidates' performances ranged from fair to good.

Common errors and misconceptions

(a) In Q1.1.2, many candidates could not explain the historical concept of communism. This concept is of utmost importance when dealing with the Cold War.

(b) In Q1.1.3, the majority of candidates could not interpret the statement 'crisis of communism' in relation to the situation in East Germany. Teachers are advised to rigorously reinforce understanding of concepts in particular contexts.

(c) In Q1.3.1, it was evident that some candidates did not address the question by using visual clues in stating the messages regarding the rights of people. The skills involved in reading a question carefully should be emphasised by teachers throughout the year.

(d) In Q1.3.2, some candidates had difficulty in detecting bias. It is evident that this skill continues to be a major challenge.

(e) In Q1.5, candidates were not able to draw a comparison between Sources 1A and 1D. Teachers are advised to stress the skill of comparison. Teachers should encourage learners to use statements such as 'Source 1D says … and 1B ... ' or 'Both sources … '.

(f) In Q1.6, candidates showed no competence in writing paragraphs and did not address the requirements of the question. The majority of candidates displayed poor content knowledge and did not focus on the topic. Some of them lacked the skills of extraction, interpretation, analysis and synthesis.

QUESTION 2 INDEPENDENT AFRICA: CASE STUDY – ANGOLA

This theme of Angola, especially the time frame covered, is a new introduction in the CAPS. Many candidates did not address this topic.

Common errors and misconceptions

(a) Q2.1.4 was poorly answered because the majority of candidates failed to understand what was meant by 'a turning point in the History of South Africa'. They extracted information from the source without actually answering the question. Most candidates could not link the history of South Africa with the Battle of Cuito Cuanavale. Candidates should be encouraged to include their own knowledge of the content in answering questions on interpretation.

(b) Q2.2.2 was poorly answered because the majority of candidates simply provided comments without indicating whether they agreed or disagreed with the comment. Learners should be encouraged to indicate their choice and then support it with relevant evidence.

(c) In Q2.2.3, candidates could not ascertain the validity of General Geldenhuys's claim that the SADF had won the war for Africa. Teachers are advised to provide learners with a variety of questions requiring assessment of validity of information provided.

(d) The majority of candidates did not take a stance in answering Q2.3.2 and could not explain the reliability of the statement. They also did not take a stance in answering Q2.4.2.

(e) In Q2.5, most candidates were unable to compare and identify the differences between sources 2C and 2D regarding the SADF's role in the Battle of Cuito Cuanavale.

(f) The paragraph in Q2.6 was poorly answered because candidates displayed poor content knowledge and did not focus on the requirements of the question.

QUESTION 3 CIVIL SOCIETY PROTESTS FROM THE 1950s TO THE 1970s: CIVIL RIGHTS MOVEMENT

This was a very popular theme and was answered by most candidates. This question was, however, answered only moderately well.

Common errors and misconceptions

(a) Many candidates struggled to define the concept of integration in Q3.2.1 and could not provide even a simple explanation of the concept. Some candidates, however, explained it very well in the context of school desegregation at Central High School, Little Rock.

(b) In Q3.4.2, candidates could not link the democratic principles with the views of Governor Faubus about the desegregation of Central High School in Little Rock. This was another example of candidates' apparent inability to read a question carefully in constructing their responses.

(c) Q3.4 was poorly answered because most candidates did not compare the two sources and apply their content knowledge.

(d) The paragraph-question in Q3.5 was generally well answered, although many candidates displayed poor content knowledge.

SECTION B: ESSAY QUESTIONS

QUESTION 4 EXTENSION OF THE COLD WAR: CASE STUDY – VIETNAM

This was a very popular essay. However, candidates gave too much background information, instead of answering the question by taking a line of argument and developing it with relevant evidence.

Common errors and misconceptions

(a) Some candidates gave unnecessarily detailed background information about Vietnam.

(b) The majority of candidates were unable to sustain their line of argument throughout the essay and tie up their arguments in their conclusion.

(c) The majority of candidates wrote a narrative essay on the United States of America containing communism in Vietnam without critically discussing the military strategies that both the United States of America and the Vietcong used in Vietnam during 1963 and 1973.

(d) Some candidates showed a lack of adequate content knowledge.

(e) Some candidates' essays were inappropriate to the context. For example, regarding the period 1965-1975, candidates focused on the period of the French colonial rule, civil war, and the USA's early involvement under Eisenhower and Kennedy. Some candidates concentrated only on the role of the media in the Vietnam War.

QUESTION 5 INDEPENDENT AFRICA: COMPARATIVE CASE STUDIES – THE CONGO AND TANZANIA

This question posed a challenge because candidates were expected to evaluate the differences between and similarities in leadership between Mobutu Sese Seko and Julius Nyerere in transforming the political and economic policies of their countries during the 1960s and 1970s. The question is of a higher-order level and requires interpretation and analysis for which most candidates lacked the required skills.

Common errors and misconceptions

(a) The question was moderately answered.

(b) Some candidates did not sustain their line of argument throughout the essay.

(c) Some candidates did reflect a balance between economic and political aspects in their responses. Too much emphasis was placed on the political aspects.

(d) Candidates were generally unable to evaluate differences and similarities effectively.

(e) Many candidates answered the question using irrelevant information. Although they were able to give information on how the two countries gained independence and on the leaders' biographical details, they were unable to explain the nature of the political and economic leadership of the countries.

QUESTION 6 CIVIL SOCIETY PROTESTS FROM THE 1950s TO THE 1970s: THE BLACK POWER MOVEMENT

This question was answered by most candidates. They seemed to have mastered this question/theme thoroughly. However, weaker candidates appeared not to have been exposed to it in class.

Common errors and misconceptions

(a) Many candidates found it difficult to construct a relevant introduction and conclusion.

(b) Some candidates did not adopt a stance or line of argument in explaining, for example, the extent to which Malcolm X and Stokely Charmichael were successful in instilling 'Black Pride' among African Americans in the 1960s.

(c) Some of the candidates focused on the emergence of Black Power only, without mentioning the two leaders. Other candidates dealt with the key role players and did not focus on the influences of these individuals on the emergence of the movement.

8.5 OVERVIEW OF LEARNER-PERFORMANCE IN PAPER 2

(a) Candidates' performances in this question paper generally ranged from fair to good.

(b) Source-based questions were satisfactorily answered; however, candidates were generally weak at answering the paragraph-type questions.

(c) The most popular questions seemed to be Questions 1, 3, 4 and 5.

(d) Some candidates had a thorough understanding of both content and the associated historical skills required to answer both the source-based questions and the essays, which enabled them to obtain full marks. These candidates excelled in answering source-based questions because they were able to interpret, analyse, evaluate and synthesise evidence from both sources and their own knowledge.

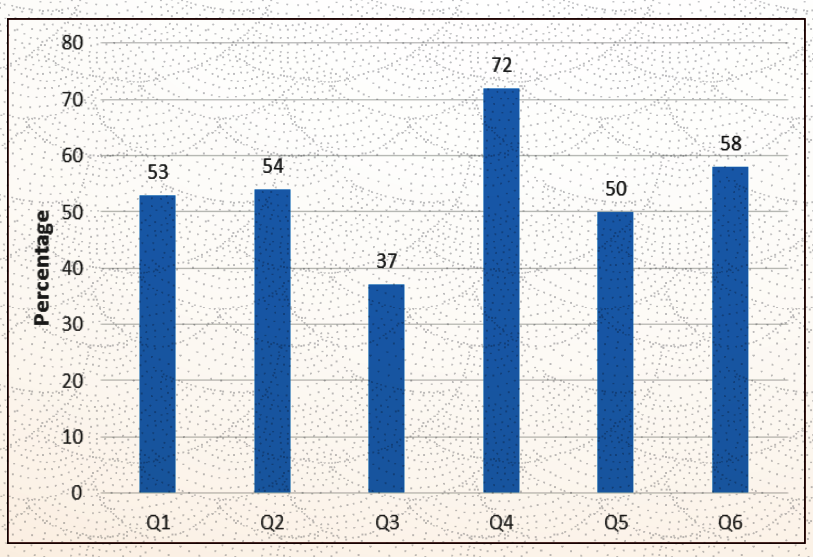
(e) Candidates who performed poorly, generally displayed a poor command and understanding of the English language.

(f) It is evident that some candidates had inadequate content knowledge and consequently could not answer the questions.

8.6 DIAGNOSTIC QUESTION ANALYSIS FOR PAPER 2

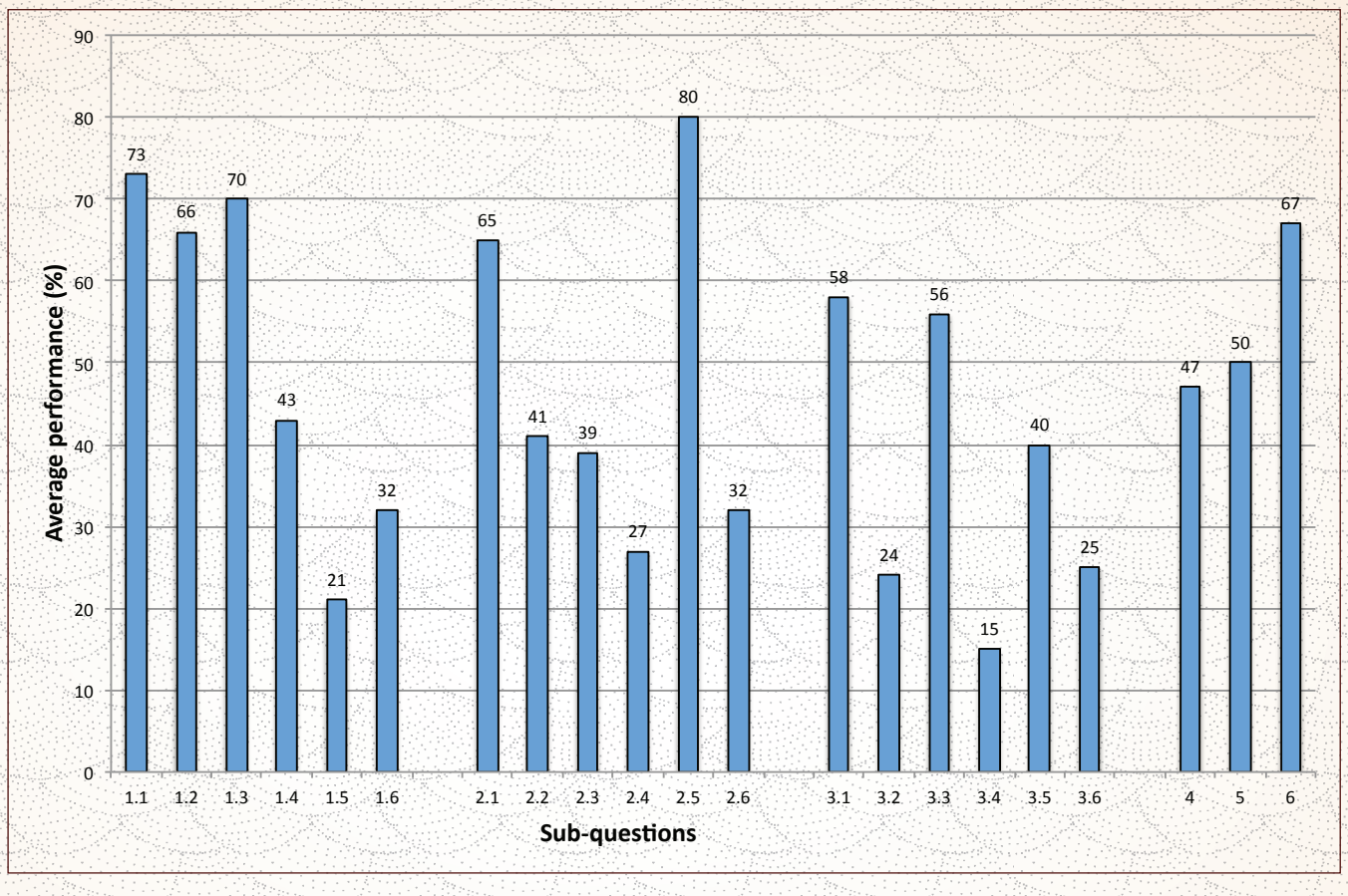
The following graph is based on data from a random sample of candidates. While this graph might not accurately reflect national averages, it is useful in assessing the relative degrees of challenge of each question as experienced by candidates. The graph shows that Q2 was the best-answered question from the sample of candidates, followed by Q1. The sample of candidates indicates that Q4 was best-answered of the essay questions.

Graph 8.6.1: Average marks per question expressed as a percentage: Paper 2



Q1	Civil Resistance, 1970s to 1980s: South Africa
Q2	The coming of democracy to South Africa and coming to terms with the past
Q3	The end of the Cold War and a New World Order, 1989 to the present
Q4	Civil Resistance, 1970s to 1980s: South Africa: The crisis of apartheid in the 1980s
Q5	The coming of democracy to South Africa and coming to terms with the past
Q6	The end of the Cold War and a New World Order: The events of 1989

Graph 8.6.2: Average marks per sub question expressed as a percentage: Paper 2



8.7 ANALYSIS OF LEARNER-PERFORMANCE IN EACH QUESTION IN PAPER 2

SECTION A: SOURCE-BASED QUESTIONS

QUESTION 1 CIVIL RESISTANCE, 1970s TO 1980s: SOUTH AFRICA

Most candidates answered this question. It was generally well-answered.

Common errors and misconceptions

(a) Q1.2.2 was poorly answered because candidates did not clearly understand the word 'contradiction'.

(b) Q1.4.3, on justification, was a challenge to many candidates, who lost marks because they did not clearly state their point of view. Teachers should encourage learners to commence their responses with: 'It was justified/not justified because'.

(c) In the comparison question (Q1.5), candidates could not adequately express the differences between the two sources.

(d) Many candidates performed badly in the paragraph question (Q1.6) because of their inability to address the specific requirements of the question. They focused on the manner in which the compulsory introduction of Afrikaans as a medium of instruction in black South African schools led to the Soweto uprising in 1976, rather than on the reasons for the introduction.

QUESTION 2 THE COMING OF DEMOCRACY TO SOUTH AFRICA AND COMING TO TERMS WITH THE PAST

This question was very popular and was generally well-answered. This theme occurred in the previous curriculum but is assessed differently under the CAPS. In the past, this was assessed as an essay question but is now assessed as a source-based question.

Common errors and misconceptions

(a) Candidates did not take a stance when addressing the concept of reliability in Q2.2.3.

(b) Q2.3.1 was poorly answered because candidates did not use visual clues as was required by the question. Candidates were required to state two ways in which Snyman was portrayed and to provide two clues; however, they used the issue of Snyman being portrayed as a liar in both responses.

(c) The comparison required in Q2.4 was a challenge to many candidates. They need to be trained by their teachers on comparison questions.

QUESTION 3 THE END OF THE COLD WAR AND A NEW WORLD ORDER, 1989 TO THE PRESENT

Very few candidates selected this topic. However, candidates who opted for this question generally did well.

Common errors and misconceptions

(a) In Q3.1.1, candidates did not identify the member states. This involved a straight-forward extraction from the information.

(b) Candidates could not explain the concepts of 'globalisation' and 'developing nations' in Q 3.2.2, thereby revealing a lack of content knowledge.

(c) In Q3.3.3, candidates could not substantiate why they were supporting Stiglitz's viewpoint on the establishment of the BRICS Development Bank.

(d) Candidates could not compare Sources 3B and 3C in Q3.4.

SECTION B: ESSAY QUESTIONS

QUESTION 4 CIVIL RESISTANCE, 1970s TO 1980s: SOUTH AFRICA: THE CRISIS OF APARTHEID IN THE 1980s

This question was satisfactorily answered, although most candidates gave an overall, general response.

Common errors and misconceptions

(a) Many candidates appeared to have knowledge of mass resistance in 1980. However, they did not link their knowledge to the question with a good introduction while sustaining their line of argument and tying it up in their conclusion.

(b) Candidates focused heavily on the issues of resistance to apartheid but tended to skimp on the issues relating to reform. Both issues are required in order to produce a high-scoring essay.

QUESTION 5 THE COMING OF DEMOCRACY TO SOUTH AFRICA AND COMING TO TERMS WITH THE PAST

This proved to be a very popular question and candidates performed satisfactorily.

Common errors and misconceptions

(a) Candidates displayed an inability to formulate an appropriate introduction. The introduction should spell out the line of argument which should be sustained throughout the essay.

(b) Candidates did not know whether to start by discussing De Klerk's coming to power or the period before that event.

(c) The question had an element of cause and effect that needed logical and chronological presentation. It also needed a response in which candidates answered the question and adhered to their line of argument. Candidates tended to fall short in that regard.

(d) It was evident that the majority of candidates had content knowledge, but lacked the skill of demonstrating the extent to which FW de Klerk's decision paved the way for a negotiated settlement that ultimately led to the establishment of a democratic South Africa in 1994.

QUESTION 6 THE END OF THE COLD WAR AND A NEW WORLD ORDER: THE EVENTS OF 1989

This question proved to be less popular, but it was fairly well-answered.

Common errors and misconceptions

(a) Candidates did not respond properly to the question as phrased in the question paper. Many went into unnecessary detail on the collapse of communism in the USSR, rather than focusing on the effects on the change for South Africa.

(b) Candidates provided excessive information on the results of glasnost and perestroika in the USSR.

(c) Candidates did not connect the fall of communism to why the USA decided to stop supporting the government of SA.

(d) The question also required them to give information on factors other than the fall of communism that led to the political changes in South Africa.

(e) Candidates failed to show that internal and external pressures also contributed to changes in South Africa.

Suggestions for improvement in both Paper 1 and Paper 2

(a) Teachers need to ensure that they follow the National Examination Guidelines during the teaching and assessment of the prescribed sections. The Examination Guidelines are designed to provide clarity on the scope that needs to be taught, studied and assessed. Learners need to be taught examination techniques.

(b) Skills in working with sources such as interpretation, analysis, usefulness, comparison and how to integrate information from both the sources and own knowledge are necessary and essential. Teachers need to emphasise this in class.

(c) Teachers are advised to visit the DBE website. It contains useful information on 'Working with Sources' and the SBA document.

(d) Teachers and learners should not rely on one textbook only, and they should be alert to new resource materials such as media articles or newspaper supplements. Radio or TV features can also be used productively.

(e) Teachers should focus on concepts and definitions at every available opportunity.

(f) Techniques used in the construction of a coherent, well-planned and structured essay need serious attention. Teachers should use the 'PEEL' approach to help learners write meaningful paragraphs in an essay. Learners should be taught the correct approach to essay writing, focusing on all the elements of a good essay (structure, content and skills).

(g) More exposure to the TRC is needed, especially on how to work with sources and the use of case studies. It is advisable for educators to visit the SAHO and the SAHA websites, which use case studies to highlight the workings of the TRC.

(h) It is necessary to have a thorough knowledge of the content focus areas. The planning, preparation and teaching of History must be rigorous.

(i) Learners should be exposed to a variety of sources and the related source-based skills such as reading, interpreting, analysing, evaluating, comparing, contrasting and ascertaining the limitations, usefulness and justification of such sources. Learners should be taught the relevant themes, using interactive/user-friendly teaching methodology and the relevant notes.

(j) Greater emphasis should be placed on the teaching of paragraph-writing skills. Candidates should be trained on how to write a coherent paragraph relevant to the question. They should be exposed to the holistic rubric used to assess the paragraph so that they would understand the means of assessment. Candidates should be encouraged to show from which source the information was taken.

(k) Candidates should be encouraged to read the question with understanding before they answer. Teachers are advised to go through the actual process of interpreting questions with their classes.

(l) User-friendly resource materials should be developed and used, especially for the new content areas such as Angola and case studies on the TRC.

(m) Assessment, both informal and formal, should be ongoing and must assess historical skills such as interpretation, analysis, evaluation and synthesis of evidence from the given sources. It is also advisable for the educator to go beyond the Programme of Assessment and give more assessment tasks.

(n) A detailed analysis of learners' results should be undertaken by teachers to identify common areas of concern/weaknesses. This should be done immediately after an assessment has been completed. Thereafter, appropriate remediation measures should be put in place to assist learners to develop the skills necessary for historical analysis.

(o) Past and exemplar examination question papers should be made available and learners should be required to work with them. This would assist in refining examiners' questioning techniques.

(p) There should be interaction with the latest resource materials and teaching trends in History: e.g. listening to matric radio programmes, reading newspaper supplements, etc. Schools that have produced outstanding results should network with those that have difficulties, i.e. the twinning of schools.

(q) Under-performing schools should be visited regularly by the curriculum advisers to give support and assist development.

(r) Adequate support should be given to teachers in the form of seminars; workshops and presentations, especially on challenging content, essay-writing as well as regular monitoring.

(s) Reference to past question papers to benchmark the setting of questions for tests and classwork should be encouraged.

(t) Cluster groups should practise the setting of test and examination question papers and have them moderated by curriculum advisers to ensure standardisation.

(u) Common controlled tests would lead to an improvement in the quality of teaching, learning and assessment. However, this should not be at the expense of innovation and development of material at individual schools which should address the needs of their specific learners.

(v) There should be rigorous monitoring of the History SBA programme with a view to improving quality assurance at all levels of the system.

(w) Teachers need more training in the use of the matrix and the rubric.

(x) Teachers need to teach in the medium of English, as learners are required to write the examination paper in English and they require adequate practice in the language of assessment. To this end, educators are encouraged to use writing frames for essay-writing.

CHAPTER 9

LIFE SCIENCES

The following report should be read in conjunction with the Life Sciences question papers of the November 2015 Examination.

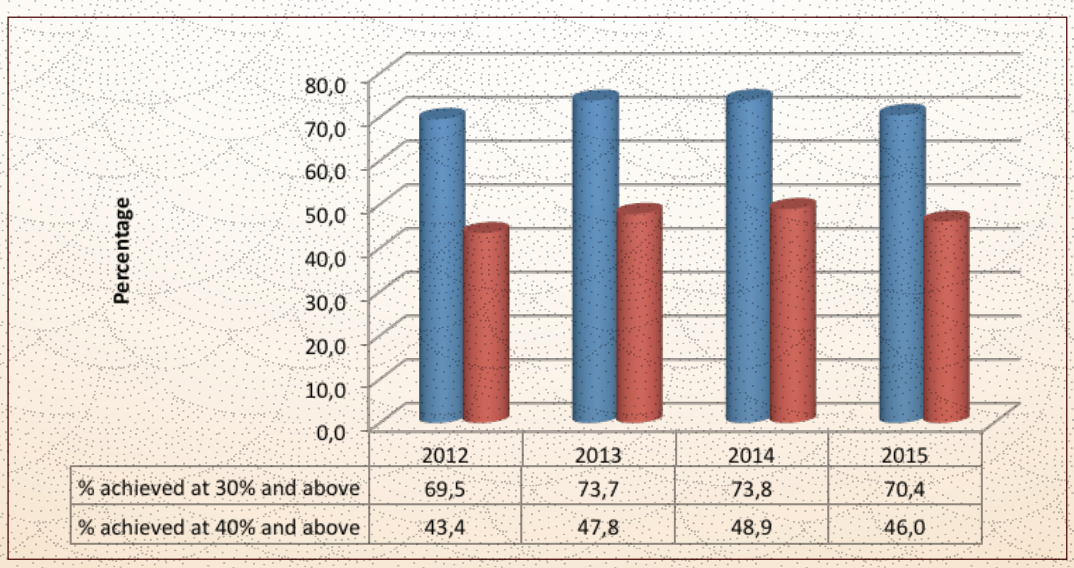
9.1 PERFORMANCE TRENDS (2012 – 2015)

The number of candidates increased by 63 777 in comparison to that of 2014. The general performance of candidates decreased this year as indicated by 70.4% of candidates achieving 30% and above, with 46.0% achieving 40% and above.

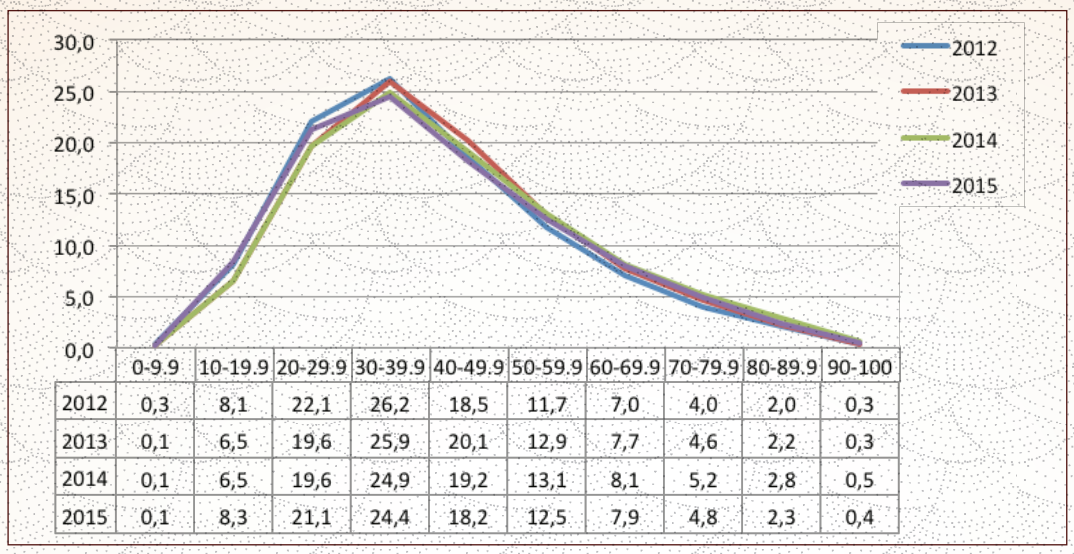
Table 9.1 Overall achievement rates in Life Sciences

Year	No. wrote	No. achieved at 30% and above	% achieved at 30% and above	No. achieved at 40% and above	% achieved at 40% and above
2012	278 412	193 593	69.5	120 734	43.4
2013	301 718	222 374	73.7	144 355	47.8
2014	284 298	209 783	73.8	139 109	48.9
2015	348 076	245 164	70.4	160 204	46.0

Graph 9.1.1 Overall achievement rates in Life Sciences



Graph 9.1.2 Performance Distribution Curves in Life Sciences



	0-9.9	10-19.9	20-29.9	30-39.9	40-49.9	50-59.9	60-69.9	70-79.9	80-89.9	90-100
2012	0,3	8,1	22,1	26,2	18,5	11,7	7,0	4,0	2,0	0,3
2013	0,1	6,5	19,6	25,9	20,1	12,9	7,7	4,6	2,2	0,3
2014	0,1	6,5	19,6	24,9	19,2	13,1	8,1	5,2	2,8	0,5
2015	0,1	8,3	21,1	24,4	18,2	12,5	7,9	4,8	2,3	0,4

From the above graphs, it is evident that after the improvement in the previous three years, there has been a disappointing decrease in the performance of candidates in 2015.

9.2 OVERVIEW OF LEARNER-PERFORMANCE IN PAPER 1

General comments

(a) Some candidates were not familiar with basic terminology in the different topics. This resulted in poor performances, even in the lower-order questions.

(b) Some candidates had problems distinguishing between action verbs such as state, suggest, describe, explain and discuss.

(c) Certain problem areas mentioned in previous reports e.g. investigations which form part of the work throughout the year remained a challenge to some candidates.

(d) Some parts of the work e.g. the functioning of the autonomic nervous system and homeostasis (control of the carbon dioxide levels), were poorly answered.

(e) Candidates' performance indicates that the questions on environmental studies which were taught in Grade 11 were not revised properly or covered again in Grade 12.

(f) Since textbooks do not always carry accurate information, teachers should always be guided by the CAPS document and Examination Guideline for the Life Sciences.

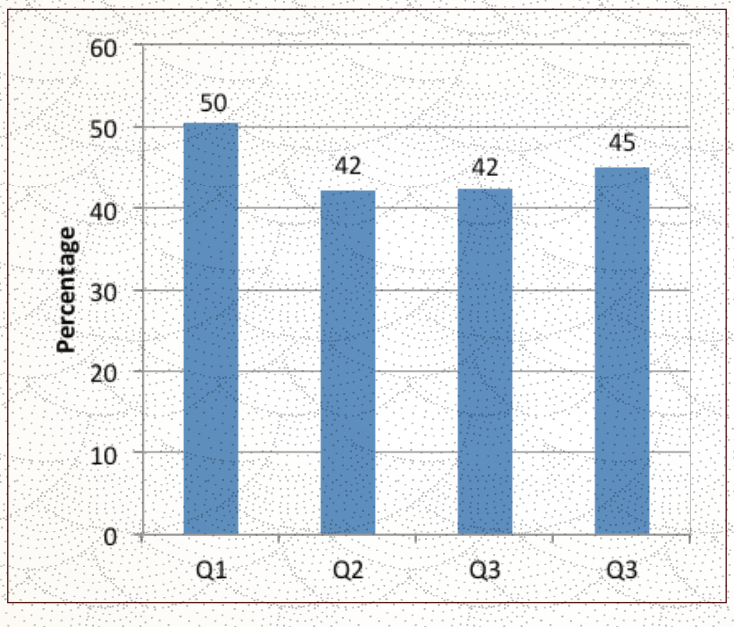
(g) Candidates generally performed better in Question 1 when compared to the marks they acquired in the rest of the paper.

(h) Although some candidates performed well and obtained high scores in the essay, many candidates could not identify the aspects that needed to be described in the question and wrote on everything, losing marks for the synthesis.

9.3 DIAGNOSTIC QUESTION ANALYSIS FOR PAPER 1

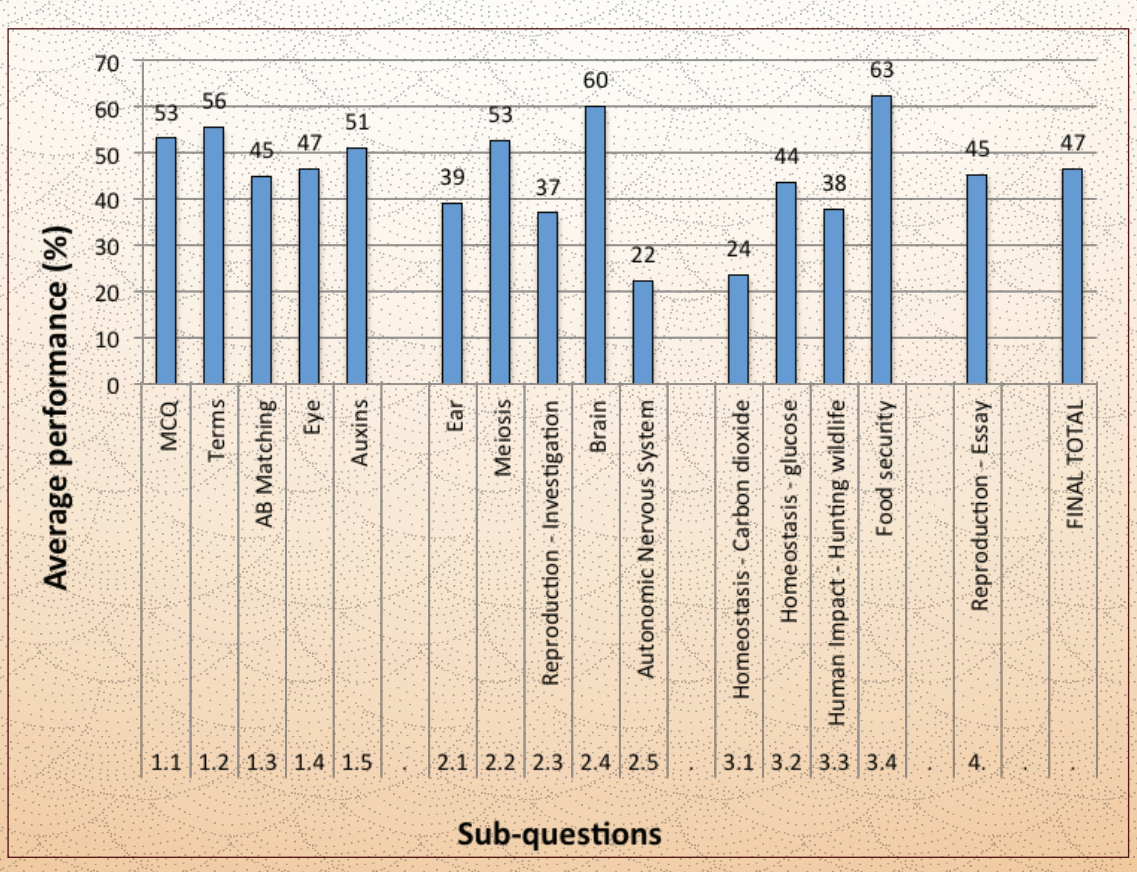
The following graph is based on data from a random sample of candidates. While this graph might not accurately reflect national averages, it is useful in assessing the relative degrees of challenge of each question as experienced by candidates.

Graph 9.3.1 Average marks per question expressed as a percentage: Paper 1



Q1	Multiple Choice, Terminology, Matching, Eye and Plant Hormones
Q2	Ear, Meiosis, Scientific investigation on Reproduction and the Nervous System
Q3	Homeostasis, Scientific investigation and Human Impact on the Environment
Q4	Human Reproduction

Graph 9.3.2: Average performance per sub-question: Paper 1



The worst performance by candidates was recorded in the sub-questions on the functioning of the ear, the investigation on reproduction, the functioning of the autonomic nervous system, homeostasis (carbon dioxide) and human impact.

9.4 ANALYSIS OF LEARNER-PERFORMANCE IN EACH QUESTION IN PAPER 1

QUESTION 1 MULTIPLE CHOICE, TERMINOLOGY, MATCHING, EYE AND PLANT HORMONES

Common errors and misconceptions

(a) Poor performance in Q1.1 showed that candidates lacked basic knowledge of terminology. Candidates lost marks since they were unable to:

- Correctly identify the functions of adrenalin.
- Differentiate between internal and external fertilisation.
- Differentiate between reliability and validity.
- Interpret the graph provided.

(b) In Q1.2, biological terms remained problematic for many candidates. Some candidates did not use the correct scientific names but used common names instead.

(c) In Q1.3, candidates did not follow the instructions when answers were given. For example, they wrote *A+B* or *A, B* and sometimes *A/B* instead of *both A and B*. In Q1.3.1, candidates were not able to differentiate between the characteristics of internal and external fertilisation.

(d) Many candidates lost marks in Q1.4 because they only wrote the letter or name instead of the LETTER and the NAME of the part represented. In Q1.4.1(a), many candidates lost marks as they provided the answer *ciliary body* instead of *ciliary muscle*.

(e) In Q1.5.1, candidates provided the answer *geotropism* instead of *phototropism* although the information in the drawing showed the stimulus above the plant hence alluding to light as a stimulus rather than gravity. Many candidates also lost marks in Q1.5.5, indicating a lack of knowledge about apical dominance.

Suggestions for improvement

(a) There needs to be a greater emphasis on the learning of appropriate terminology related to the various topics, together with the correct spelling of these terms. Teachers should use the following strategies to improve the teaching of terminology:

- Identify new terms in every lesson and write them on the board.
- Instruct learners to take down terms at the back of their notebooks, noting the correct spelling.
- Encourage learners to write down the meanings of these words, as ascertained by being attentive during the lesson or by finding the meaning in a dictionary or textbook.
- Break down the term where possible, giving the meanings of prefixes, suffixes and other components: for example, inter = between and therefore interphase refers to the phase *between* two successive divisions of the cell.
- Make learners aware of the meanings of new terms by using them in sentences.
- Include biological terms in all daily assessment tasks.
- Ensure that by the end of the year, all learners have a comprehensive glossary of all terms.

(b) Learners must follow the instructions as prescribed in Q1.3. Answers should be written as *A only* (not A), *B only* (not B), *both A and B* (not A + B; A,B; A and B or A/B). In future, learners will receive credit only if they follow the instructions. Teachers should enforce this in all assessment activities done at school.

(c) Learners should be given sufficient practice at understanding the instructions as contained in questions. Some questions prescribe that a LETTER is required, whereas at other times a LETTER and NAME may be required.

(d) Teachers should give learners multiple opportunities to label drawings and write in the functions next to the labels. Refer to the blank diagrams found in the *Mind the Gap* Study Guide. This can improve performance in questions based on diagrams such as the eye in Q1.4.

(e) Teachers should pay more attention and emphasis to the teaching of the action of auxins in geotropism, phototropism and apical dominance.

QUESTION 2 EAR, MEIOSIS, SCIENTIFIC INVESTIGATION ON REPRODUCTION AND THE NERVOUS SYSTEM

Common errors and misconceptions

(a) In Q2.1.2, many candidates were not able to describe the consequences of a blocked Eustachian tube. In many cases, they described *hearing* instead.

(b) In Q2.1.3, which required the role of the semi-circular canals in balance, many candidates lost marks because they:

- Included information about the sacculus and utriculus (maculae) rather than the semi-circular canals (cristae);
- Provided a function rather than an explanation; and
- Confused the cerebrum with the cerebellum as the recipient of the impulses.

(c) In Q2.2.2, candidates lost marks for writing *metaphase* when the required answer was *metaphase II*. As a reason for the identification for the phase, many candidates wrote that *chromatids* line up at the equator in a single row instead of the *chromosomes*.

Q2.2.4 was poorly answered because candidates were not able to deduce the appearance of the chromosomes at anaphase I from the given diagram of metaphase II. They lost marks for the following reasons:

- The chromosomes were not appropriately shaded;
- Incorrect number of chromosomes were shown;
- Chromosomes were shown aligned at the equator instead of moving apart; and
- Chromatids were shown moving apart rather than chromosomes.

(d) In Q2.3.1, many candidates provided steps that reflected 'conducting an investigation' rather than 'planning' an investigation. For example, they wrote 'record results in a table' rather than 'decide how to record the results'.

In Q2.3.2(a), candidates used the data in the table to *describe* the change in the follicle diameter instead of *explaining* the changes.

In Q2.3.2(b), some candidates did not understand the negative feedback mechanism between progesterone and FSH, and the consequent impact on the follicle sizes.

(e) In Q2.5, the poor performance indicates that most candidates lacked basic knowledge of the autonomic nervous system. Some confused it with a reflex arc and a reflex action.

Suggestions for improvement

(a) Teachers should guide learners on how to answer questions based on predicting the effect of a particular part (such as the Eustachian tube) that fails to function. A successful answer depends, in the first instance, on the learners' knowledge of the function of the particular structure. It can easily be deduced thereafter what would happen if that function was not performed.

(b) Teachers should emphasise the difference between the role of the cristae and maculae in maintaining balance. It would be useful to use annotated diagrams that contain information on each part of the ear that plays a role in balance, the receptors that they contain and the change that stimulates each type of receptor.

(c) Teachers should provide learners with multiple opportunities to label diagrams of different phases of meiosis. Blank diagrams provided in the *Mind the Gap* Study Guide can be used for this purpose. The name of the phase must indicate if it is a part of meiosis I or meiosis II. For example, metaphase 1 is a phase in meiosis I, whereas metaphase II is a part of meiosis II.

The events of the different phases of meiosis should be taught using annotated diagrams to clearly show what happens during each phase. The effects of crossing over should be followed through the different phases using the shading of chromosomes.

(d) Learners should be taught to differentiate between the planning and conducting phases of an investigation as well as ways of clearly expressing the steps involved in both phases. In Q 2.3.1, for example, the table below shows how answers on similar aspects will differ under planning and under conducting.

Planning	Conducting
Decide on the sample size	Use a sample of 50 women
Decide on the age-group of the participants	Use women in the investigation that are between the ages of 20 and 25
Decide on how to record the results	Record the results in a table
Decide on the duration of the investigation	Measure the follicles over 25 days

Note that the first column on 'planning' refers to aspects that need to be decided upon, while the second column on 'conducting' refers to decisions already taken after planning has occurred and is now part of the investigative method.

Further to the above, learners should be clearly shown how an answer to the question asking for a *description* of the changes in the follicle diameter would be different from a question requiring an *explanation* for the changes in the follicle diameter as required in Q 2.3.2(a). A description requires a statement of the changes in the follicle size over time whereas an explanation has to include a reason for the change in size. In this question, the reason relates to the absence of fertilisation after the ovum was released from the follicle during ovulation.

Teachers should also spend more time on teaching the negative feedback mechanism that exists between FSH and progesterone, as this information was required to formulate an answer to Q 2.3.2(b).

(e) Teachers should ensure that learners are aware of how the autonomic nervous system operates which is as follows:

- Every organ and gland is controlled by two sets of nerves;
- That act antagonistically to each other;
- To control involuntary events;
- Sympathetic nerves generally stimulates a response;
- Whereas the parasympathetic nerves generally inhibits a response.

QUESTION 3 HOMEOSTASIS, SCIENTIFIC INVESTIGATION AND HUMAN IMPACT ON THE ENVIRONMENT

Common errors and misconceptions

(a) Many candidates were not able to obtain full marks in Q 3.1. In many cases, it was evident that the negative feedback mechanism for controlling carbon dioxide concentration in the blood, was not studied.

(b) In Q3.2, many candidates were not able to interpret the graph on glucose levels. For Q3.2.4(b), many candidates incorrectly compared Thabiso's glucose level to that of Mo's rather than comparing it to the normal glucose level of an individual.

(c) In Q3.2.5, many candidates *described* the changes in the glucose level instead of *explaining* the changes in the glucose level for Mo during period X. As a result of this, they did not receive full credit.

(d) In Q3.3.3, many candidates just mentioned the words 'trade and consumption' from the text. They answered the question as if it required 'reasons for the killing of wildlife' and were, therefore, not credited. The question however, required reasons for an 'increase in the killing of wildlife'.

(e) In Q3.3.5, many candidates received partial credit since they gave a reason for the hunting/killing of the very old animals, but not for the weak animals.

(f) Most candidates received close to full credit for the drawing of the bar graph in Q3.4.5. Some candidates, however, still lost marks for the following:

- Drawing a histogram instead of a bar graph;
- Drawing a bar graph for all provinces instead of the three provinces specified;
- Unequal width of bars and spacing between the bars;
- Incorrect scale on the Y-axis; and
- A caption for the graph that does not include both variables.

Suggestions for improvement

(a) Teachers should ensure that learners have a good knowledge of the broad principles of a negative feedback mechanism first before going on to teach the specific mechanisms required, such as the control and/or restoration of the carbon dioxide concentration in the blood as required by Q3.1.

	Broad principles for a general negative feedback mechanism	**Specific mechanism for controlling CO_2 level in the blood when it increases above normal levels**
1	An imbalance is detected	Receptor cells in the carotid artery in the neck are stimulated by high levels of CO_2
2	A control centre is stimulated	The medulla oblongata in the brain is stimulated when it receives impulses from the receptor cells
3	Control centre responds by sending a message to target organ/s	Medulla oblongata sends impulses to the breathing muscles and heart muscles
4	The target organ responds	Breathing muscles contract more actively – increasing the rate and depth of breathing. The heart beats faster
5	It opposes/reverses the imbalance	More CO_2 is taken to and exhaled from the lungs
6	Balance is restored	The CO_2 level in the blood returns to normal

All other negative feedback mechanisms required by the syllabus can be taught within the framework of the six broad principles reflected in the above table. Teachers should consult the *Mind the Gap* Study Guide which contains a description of the other negative feedback mechanisms compiled against the 6broad principles.

(b) Teachers should emphasise to learners that if Person A has a glucose level that is higher than that of Person B, it does not mean that Person A is diabetic. Learners must make use of important information provided in the opening statement of a question. In Q 3.2.4, for example, the range for the normal glucose level was given as being between 80-120 mg/100cm^3. Learners should be taught that a person is considered diabetic only if his/her glucose level increases above 120 mg/100cm^3.

(c) Learners should be clearly shown how an answer to a question asking for a *description* of the changes in the glucose level would be different from a question requiring an *explanation* for the changes in the glucose level as required in Q3.2.5. A description requires a statement of changes in the glucose level whereas an explanation has to also include a reason for the change in the glucose level. In this question, the reason would relate to the action of insulin secreted by the pancreas when the glucose level rises above normal levels.

(d) Teachers should ensure that the section on Human Impact is properly taught and assessed in Grade 11 and should be thoroughly revised in Grade 12. Learners should have greater exposure to questions based on information from extracts as these will better prepare them to answer questions based on Human Impact on the environment.

(e) Teachers should differentiate between the reasons for killing *old animals* as against killing the *weak animals*. The common factor in both cases is that both the weak and the old animals have a low chance of survival and, therefore, are unlikely to reproduce, increase the population size and thus ensure the survival of its kind.

In the case of the old animals, they are *close to the end of the life span* whereas with the weak animals, they have *a short life span* since they may die even at a young age from disease or from predation.

(f) When learners are asked to draw a graph, teachers should provide them with the checklist that will be used to mark the graph. In this way, learners will become familiar with the different components of graph drawing for which they will receive credit. Further, learners should be able to clearly see where they have lost marks after the teacher marks a graph drawn by a learner. Teachers must ensure that learners are exposed to multiple opportunities to draw graphs of different kinds in the course of the year and in the earlier grades.

QUESTION 4 HUMAN REPRODUCTION

Common errors and misconceptions

(a) Many candidates did not interpret the essay question appropriately and, therefore, did not identify the three aspects required by the question, namely:

- The structural suitability of sperm;
- The process of fertilisation; and
- The development of the zygote until implantation.

As a result of the above, many candidates did not address one or more of the aspects required by the question and were, therefore, not awarded the synthesis mark for relevance.

(b) Candidates did not give complete answers for the structural suitability of the sperm cell. They often named the part of the sperm cell without indicating how it is suited for fertilisation.

(c) Some candidates had an inaccurate understanding of the events of fertilisation. They spoke of the sperm cell fusing with the ovum whereas it is only the nucleus of the sperm cell that enters the ovum and fuses with the nucleus of the ovum.

(d) Many candidates did not provide information on the development of the zygote in the correct sequence and, therefore, lost the synthesis mark for logical sequence.

(e) Many candidates provided information that was not required by the essay, for example, on copulation, hormonal control, spermatogenesis and oogenesis. These candidates, therefore, lost the synthesis mark for relevance.

Suggestions for improvement

(a) Teachers should offer more opportunities for learners to write answers in essay-form. Teachers should inform learners that the essay in Life Sciences does not require an introduction and a conclusion.

(b) Teachers should use as examples the current and past examination essay questions to deliberately teach learners the skill of interpreting the question to determine what is required. Key words in the question should be underlined.

(c) Learners should be advised that since two marks are generally allocated to each structural suitability, one mark is allocated to the part/structure and the second mark for the way it is suited to the function, for example, for the structural suitability of the sperm:

- The front of the head of the sperm cell contains an acrosome ✓
- which carries enzymes to dissolve a path into the ovum ✓
- The nucleus of the sperm ✓
- carries genetic material of the male into the ovum during fertilisation ✓

- The middle piece of the sperm contains mitochondria ✓
- which release energy so that sperms could swim ✓
- The presence of a long tail ✓
- enables sperm cells to swim towards the ovum ✓

(d) Teachers must make use of *Mind the Gap* Study Guide to explain to learners how mind maps may be used in the planning of an essay.

(e) Learners should be reminded that synthesis is made up of three parts: relevance, logical sequence and a comprehensive answer. The allocation of the synthesis marks should be explained to them and used from grades 10 to 12. The synthesis mark for the essay in Q4 was applied as follows:

Criterion	Relevance (R)	Logical sequence (L)	Comprehensive (C)
Generally	All information provided is relevant to the topic.	Ideas are arranged in a logical/cause-effect sequence.	All aspects required by the essay have been sufficiently addressed.
In this essay in Q4	Only information regarding the following is provided: - The structural suitability of the sperm cell - Events during fertilisation - Events after fertilisation until implantation There is no irrelevant information.	All structures are related to the respective functions of the sperm cell. The sequence of events in fertilisation and post fertilisation until implantation is in the correct order.	At least the following points should be included: - The structural suitability of the sperm cell (4/6) - Events during fertilisation (3/5) - Events after fertilisation until implantation (4/6)
Mark	1	1	1

(f) Teachers should use the current and past examination essay questions to deliberately teach learners the skill of interpreting the question to determine what is required. Key words in the question should be underlined.

(g) Subject advisors should workshop teachers on the application of the criteria for synthesis. This can be done by giving different teachers the same sample script to mark and to which synthesis marks are allocated. This should be followed by a discussion with reasons on whether the answer in the sample script should be awarded a mark for each aspect of synthesis.

9.5 OVERVIEW OF LEARNER-PERFORMANCE IN PAPER 2

General comments

(a) Essay writing has improved, but many candidates still lacked the skill of putting a good essay together.

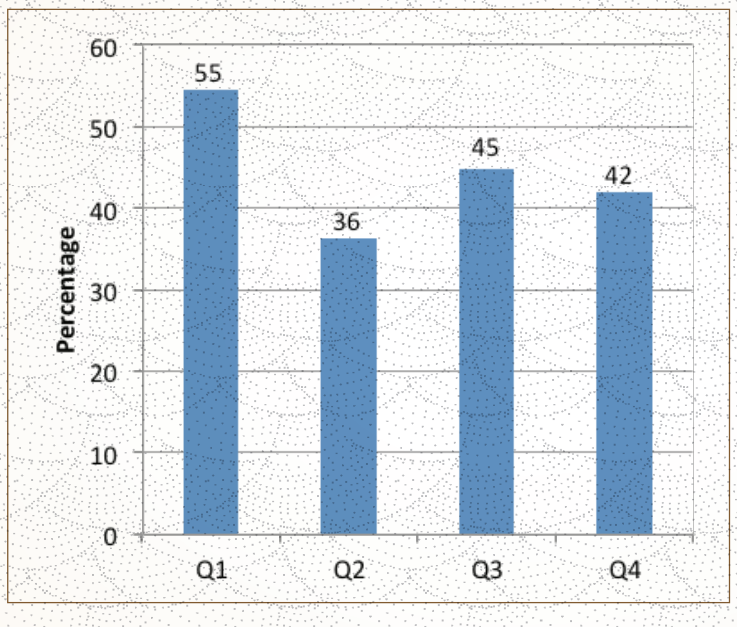
(b) Many candidates were not familiar with basic terminology in the different topics. This resulted in poor performance even in the lower-order questions.

(c) Poor performance was recorded in questions based on scientific investigations and hypothesis testing.

9.6 DIAGNOSTIC QUESTION ANALYSIS FOR PAPER 2

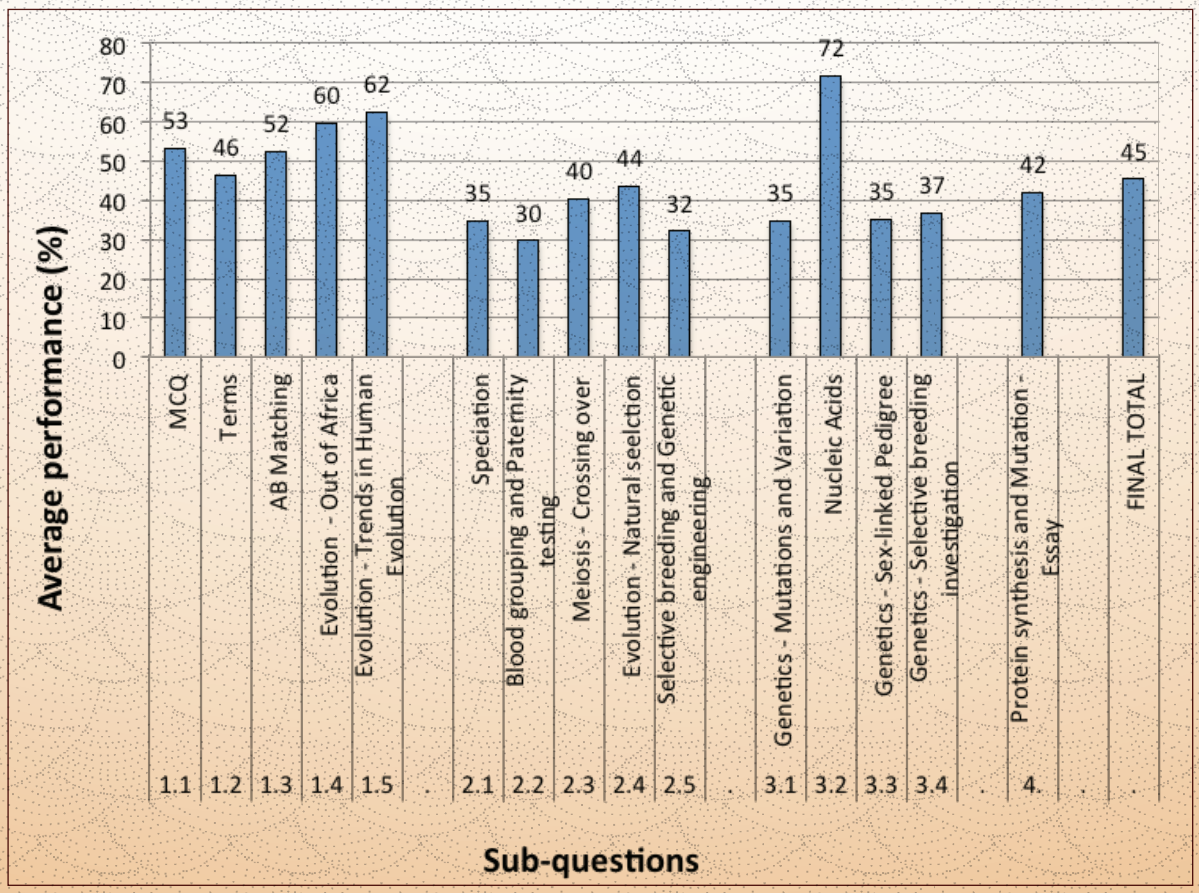
The following graph is based on data from a random sample of candidates. While this graph might not accurately reflect national averages, it is useful in assessing the relative degrees of challenge of each question as experienced by candidates.

Graph 9.6.1 Average marks per question expressed as a percentage: Paper 2



Q1	Multiple choice, Terminology, Matching and Evolution
Q2	Evolution, Meiosis and Genetics
Q3	Nucleic acids, Genetics, Scientific Investigation
Q4	Protein Synthesis

Graph 9.6.2 Average performance per sub-question: Paper 2



The worst performance by candidates was in Q2 on speciation, blood groups, paternity testing and selective breeding, and in Q3 on mutations and variations, sex-linked pedigree diagram and selective breeding.

9.7 ANALYSIS OF LEARNER-PERFORMANCE IN EACH QUESTION IN PAPER 2

QUESTION 1 MULTIPLE CHOICE, TERMINOLOGY, MATCHING AND DATA RESPONSE ON EVOLUTION

Common errors and misconceptions

(a) Performance in Q1.1 showed that candidates lacked basic knowledge of terminology. Performance was poor in Q1.1.2 (not able to differentiate between the *chromosome* and *chromatids*), Q1.1.3 (did not understand that components of nucleotides are the same for all species), Q1.1.4 (unable to perform the required calculation), Q.1.1.6 (unable to differentiate between *continuous* and *discontinuous* variation), Q1.1.7 (confused the terms hypothesis, aim and theory) and Q1.1.8/9 (did not show a clear understanding of a *dihybrid cross*).

(b) Q1.2 on biological terminology once again posed a great challenge to many candidates. This poor understanding of basic terminology and concepts has an adverse effect on their interpretation of and responses to questions. Terms such as *biogeography*, *centriole* and *phylogenetic tree* seemed not to have been known by many candidates. In addition, they confused the term *homozygous* for *homologous*.

(c) Learners must follow the instructions as prescribed in Q1.3. Answers should be written as A *only* (not A), B *only* (not B), both A and B (not A + B; A,B; A and B or A/B). In future, learners will receive credit only if they follow the instructions. Teachers should enforce this in all assessment activities done at school.

In Q1.3.4, candidates were not able to differentiate between the term genome and genotype. From the performance in Q1.3.1 it was clear that candidates were not exposed to the role of Franklin and Watson in the discovery of DNA.

(d) In Q1.4, candidates performed poorly since they were not able to use the clues provided in the map. In Q1.4.2, many candidates provided the scientific name for the organism rather that providing the common name for the fossil representing that particular species. For example, they provided the scientific name *Australopithecus africanus* rather that providing the common name of each fossil of this species such as Mrs Ples, Taung child or Littlefoot.

(e) In Q1.5.1(b), candidates provided the species name only (*sapiens*) instead of attaching it to the name of the genus (*Homo sapiens*).

Suggestions for improvement

(a) There needs to be a greater emphasis on the learning of appropriate terminology related to the various topics, together with the correct spelling of these terms. Teachers should use the following strategies to improve the teaching of terminology:

- Identify new terms in every lesson and write them on the board.
- Instruct learners to take down terms at the back of their notebooks, noting the correct spelling.
- Encourage learners to write down the meanings of these words, as ascertained by being attentive during the lesson or by finding the meaning in a dictionary or textbook.
- Break down the term where possible, giving the meanings of prefixes, suffixes and other components: for example, inter = between and therefore interphase refers to the phase *between* two successive divisions of the cell.
- Make learners aware of the meanings of new terms by using them in sentences.
- Include biological terms in all daily assessment tasks.
- Ensure that by the end of the year, all learners have a comprehensive glossary of all terms.

(b) Teachers should also highlight the differences between words that sound similar, e.g. *homologous*/*homozygous*, *biogeography*/*biodiversity* and *genome*/*genotype*.

(c) Learners must follow the instructions as prescribed in Q1.3. Answers should be written as *A only* (not A), *B only* (not B), *both A and B* (not A + B; A, B; A and B or A/B). In future, learners will not receive credit if they do not follow the instructions. Teachers should enforce this in all assessment activities.

(d) Teachers should give learners multiple opportunities to answer questions based on data provided. Guidance must be provided to learners on how to read/interpret the data given so as to use the clues provided in answering the questions set.

QUESTION 2 EVOLUTION, GENETICS, MEIOSIS AND NUCLEIC ACIDS

Common errors and misconceptions

(a) In Q2.1.2, most learners provided a general account on speciation without contextualising it to the specific example given in the question. For example, they failed to mention that the geographical barrier in this case was the sea.

(b) Performance in Q2.2.1 was poor since the candidates either included a comparison of the father and child but not the mother or included a description of DNA profiling instead of an analysis of blood groups in their account on paternity testing. Some candidates provided general information about blood groups without explaining how it can be used to determine paternity.

(c) In Q.2.2.2, candidates lost marks in the representation of a genetic cross since they used the incorrect notation to write down the genotypes for the various blood groups instead of using the alleles $\mathbf{I^A}$, $\mathbf{I^B}$ and **i** to compose the genotypes.

(d) In addition, some candidates lost marks since they did not use the correct format for representing a genetic cross. They either omitted the labels for P_1 and F_1/*meiosis* and *fertilisation* or they inserted the labels *meiosis* and *fertilisation* in the inappropriate places.

(e) In Q2.3.1, candidates provided the label *prophase* rather than *prophase 1*.

(f) In Q2.3.2, many candidates stated that the *chromosomes* overlap rather than the *chromatids* overlap. In addition, many learners provided a definition of crossing over rather than a description of the process and thus did not receive full credit.

(g) In Q2.3.3, many candidates stated the importance of crossing over in contributing to variation but since the question asked for an explanation, they lost 1 mark since they did not state that this variation is significant in generating new phenotypes that could manifest as either favourable or unfavourable characteristics.

(h) Many candidates were not able to draw and label the diagram required in Q2.3.4. Some candidates who attempted the drawing lost marks because they did not label the chromatid Y that was asked for in the question or did not indicate the position of the alleles after crossing over.

(i) Most candidates simply described the process of natural selection in Q2.4.2 without contextualising it to the specific example of the Bongo/antelope given in the question. They mentioned 'variation' without describing the variation as it applied to the Bongo/antelope in the question. In cases where the variation was described, many candidates did not identify the favourable and unfavourable characteristics arising from this variation. Many candidates also failed to identify the appropriate selection pressure that was at play in this specific example which in this case was the connection between the dense forest vegetation and the advantage of having horns that could be laid back, preventing the antelope from becoming entangled and thus susceptible to predation.

(j) In Q2.5.1, candidates more frequently provided differences instead of similarities. The answers provided by the candidates indicate that the concepts of *selective breeding* and *genetic engineering* are not well understood.

(k) Whereas Q 2.5.2 required an explanation (a statement linked to a reason), most candidates gave two or more statements not linked to a reason.

Suggestions for improvement

(a) Teachers should provide multiple opportunities for learners to answer questions based on an application of the concept of speciation. Particular guidance must be provided on how to contextualise the general account to the specific example stated in the question.

(b) The role of blood grouping is specified as a required aspect in the 2014 Exam Guideline Document for the Life Sciences. Advisors should workshop teachers on this aspect so that it is not neglected in the teaching and learning process.

(c) Subject advisors should ensure that the attention of the teachers is drawn to the correct allelic notation that should be used when writing genotypes for the various blood groups as prescribed in the 2014 Exam Guideline Document for the Life Sciences. The alleles $\mathbf{I^A}$, $\mathbf{I^B}$ and **i** must be used.

Teachers should ensure that all learners are familiar with the correct format that should be used when representing a genetic cross.

(d) Teachers should provide learners with multiple opportunities to label diagrams of different phases of meiosis. Blank diagrams provided in the *Mind the Gap* Study Guide can be used for this purpose. The name of the phase must indicate if it is a part of meiosis I or meiosis II. For example, prophase I is a phase in meiosis I, whereas prophase II is a part of meiosis II.

(e) In the process of crossing over and in meiosis in general, teachers must ensure that learners can differentiate between a *chromosome* and a *chromatid*. A chromosome consists of two chromatids joined by a centromere. During crossing over, it is the chromatids of two adjacent homologous chromosomes that overlap.

Further to the above, learners should be clearly shown how an answer to the question asking for a *definition* of crossing over would be different from a question requiring a *description* of the process of crossing over. In the description, all the steps involved in the process must be provided and in sequence.

(f) Teachers should deal with the importance in crossing over in contributing to variation in more detail so that this understanding could assist in an understanding of evolution through natural selection.

(g) Learners should be provided multiple opportunities to draw labelled diagrams. The diagrams drawn should also be appropriate to the specifications of the question.

(h) Teachers should provide multiple opportunities for learners to answer questions based on an application of the concept of natural selection. Particular guidance must be provided on how to contextualize the general account to the specific example stated in the question. In any example, the learner must be able to describe the variation and be able to differentiate between the characteristic that is favourable from that is unfavourable. In addition the selection pressure for natural selection should be identified for the specific example cited in the question.

The table that follows indicates how a general account (based on recall) can be adapted to answer an application question (as in Q2.4).

General Account on Natural Selection	Natural Selection in the Bongo/antelope
There is variation among the offspring	There is variation among the Bongo population
Some have desirable characteristics and some do not	Some have horns that can be laid on their backs while others cannot lay their horns down on their backs
Sometimes there is a change in the environmental conditions which acts a selection pressure	The antelope has to move through dense vegetation without becoming entangled to avoid being trapped and then caught by predators
Organisms with characteristics that make them less suited to the environment, die	Those with horns that cannot be laid on their backs become entangled and die
Organisms with characteristics which make them more suited to the environment, survive	Those with horns that can be laid on their backs do not become entangled and survive
The organisms that survive, reproduce	Those with horns that can be laid back will reproduce
They will pass on the desirable characteristic to their offspring	The gene for horns that can be laid on their backs will be passed on to the next generation
Over many generations, the proportion of individuals with the desirable characteristic, increases	Over many generations, the proportion of animals that are able to lay their horns on their backs, increases

(i) The concepts of selective breeding/artificial selection and genetic engineering should be dealt with in more detail with learners to effectively bring out the similarities and differences between them.

(j) Teachers should deliberately teach learners how to answer questions requiring an explanation. For example, if asked to explain two reasons why people may be against genetic engineering, each answer should consist of a statement followed by an elaboration/reason. An example is provided below where the elaboration is shown in italics.

- The long-term effects of genetic engineering on the environment are not known ✓ *so it could lead to health problems in the future* ✓
- It is morally wrong to engage in genetic engineering ✓
- *since it is interfering with nature* ✓

The ticks included in the above answers also indicate how the marks are distributed separately for the statement and the elaboration/reason.

QUESTION 3 NUCLEIC ACIDS, GENETICS, SCIENTIFIC INVESTIGATION

Common errors and misconceptions

(a) Poor performance in Q3.1 despite answers being accessible in the text provided, indicates that candidates experienced difficulty in comprehending and interpreting textual information.

(b) In Q3.2.1, some candidates did not receive credit for *functional differences* between DNA and RNA since the question specifically asked for *structural differences*.

(c) In Q3.3.2, in particular, many candidates were not able to arrive successfully at the percentage of the males that were affected. Most candidates used the fraction instead of when calculating the percentage. This indicates that they expressed the number of males that were affected as a proportion of all the individuals in the diagram (12) rather than just the number of males (7).

(d) Performance was poor in Q3.3.3. Some candidates wrote generally on sex-linked disorders without addressing the question in particular. Other candidates gave an answer that matched a related question in a past exam paper but which was not relevant to the question in this paper.

(e) In Q3.4.2, many candidates were not able to differentiate between the *dependent* and *independent variable*.

(f) Many candidates were not able to correctly determine the percentage increase in the weight of the chickens in Q3.4.3.

(g) In Q3.4.5, some candidates confused *reliability* with *validity* and, therefore, included as answers, factors that improve reliability.

Suggestions for improvement

(a) Teachers should provide multiple opportunities for learners to interpret textual and other information. Special attention should be given to strategies that would assist learners in identifying the key information in the text so that it could be used as clues in the answering of the questions.

(b) There are differences between DNA and RNA based on their location, their structure and their function. Learners should be taught how to distinguish among these and to be aware of what is required by the question.

(c) Teachers should teach learners the steps involved in determining percentages as it relates to a pedigree diagram. In Q3.2.2, for example, the following steps were required:

- Read the key provided and apply it to the given data;
- Count the number of males that are affected (3 in this example);
- Count the number of males in the pedigree diagram (7 in this example);
- Express this in a form of a fraction (in this example);
- Multiply by 100 to get a percentage as follows:

(d) Teachers should advise learners not to use answers directly from the memoranda of past exam papers as the requirement of the question might not be the same. It is therefore important to analyse the question and adapt the information that one has available to suit the question asked.

(e) Teachers should clearly differentiate among the three types of variables as follows:

Controlled/fixed variable – refers to the factors that should be kept constant so that the results of an investigation can be considered valid.

Independent variable – refers to the factor that is being investigated. This factor is usually manipulated by the investigator either at the start of or during the course of the investigation. The independent variable appears on the X-axis of a graph.

Dependent variable – refers to the effect of the independent variable. This effect is usually measured in some way and appears on the Y-axis of a graph.

(f) Teachers should teach learners the steps involved in determining percentage increase/decrease. In Q3.4.3, for example, the following steps apply:

- Determine the difference in the weight of the chickens between day 8 and day 45 (which is 2500-500 = 2000)
- Divide the difference by the original number on day 8 (which is 2000/500)
- Multiply by 100 to obtain a percentage as follows:

(g) Teachers need to teach learners to differentiate between *validity* and *reliability* in scientific investigations, because the principles of validity and reliability are fundamental cornerstones of the scientific method.

What is reliability?

- The idea behind reliability is that any significant results of an investigation must be more than a once-off finding and be repeatable.
- Other researchers must be able to perform exactly the same investigation, under the same conditions, and generate the same results.
- This would reinforce the findings of the investigation and ensure that the wider scientific community accepts the hypothesis.
- For questions that require learners to state how the reliability of the investigation could have been improved, the following answers may apply depending on the nature of the investigation:
  - Repeat the investigation;
  - Take many readings and use the average;
  - Select a sample randomly;
  - Increase the sample size; and
  - Increase the period of the investigation.

What is validity?

- Validity questions how the investigation was carried out. It is important to be sure that all the factors/ variables have been controlled/fixed except the variable/factor being tested.
- In questions that require learners to suggest some factors that might have decreased the validity of an investigation, learners should identify some factors/variables that were not fixed/controlled when carrying out the investigation.

QUESTION 4 PROTEIN SYNTHESIS

Common errors and misconceptions

(a) Although this question was generally well answered, candidates sometimes lost marks or did not receive credit because they:

- Wrote on DNA replication instead of protein synthesis thus losing the synthesis mark for relevance;
- Confused the events of transcription with that of translation thus losing the synthesis mark for logical sequence;
- Confused the role of mRNA and that of tRNA;
- Used the terms *codon* and *anticodon* with the wrong RNA molecule;
- Described various aspects of mutations without relating it to protein synthesis thus losing the synthesis mark for relevance;
- Provided information on genetic disorders caused by mutations which is not relevant to the question thus losing the synthesis mark for relevance; and
- Described protein synthesis but ommitted to describe the effect of mutations thus losing the synthesis mark for comprehensiveness.

Suggestions for improvement

(a) Teachers should offer more opportunities for learners to write answers in paragraph and essay formats. The logical sequence of an account on protein synthesis should have the steps in the process in the correct order, for example:

- Transcription should be described before translation;
- The role of the nucleic acids should appear in the order of their involvement i.e. DNA followed by mRNA and then tRNA; and
- The effect of mutations should be included after the process of protein synthesis has been described.

(b) The process of protein synthesis should be taught to learners using appropriate diagrams.

(c) Teachers must make use of the *Mind the Gap* Study Guide to assist learners in the use of mind maps in the planning of an essay.

(d) Learners should be reminded that *synthesis* is made up of three parts: relevance, logical presentation and a comprehensive answer. The allocation of marks for synthesis should be explained to them and used from Grades 10 to 12. The following mark allocation for synthesis applies to Q4 in this paper.

Criterion	Relevance (R)	Logical sequence (L)	Comprehensive (C)
Generally	All information provided is relevant to the question.	Ideas are arranged in a logical/cause-effect sequence.	All aspects required by the essay have been sufficiently addressed.
In this essay in Q4	Only information relevant to the description of protein synthesis and the effects of mutation on the process is given. There is no irrelevant information.	The description of protein synthesis and the effects of mutation on the process given are logical and sequential.	Essay includes at least: - **5** correct points in the description of transcription - **5** correct points in the description of translation - **2** correct points on the effects of mutation
Mark	1	1	1

(e) Teachers should use the current and past examination essay questions to deliberately teach learners the skill of interpreting the question to determine what is required. Key words in the question should be underlined.

(f) Subject advisors should workshop teachers on the application of the criteria for synthesis. This can be done by giving different teachers the same sample script to mark and to which synthesis marks are allocated. This should be followed by a discussion with reasons on whether the answer in the sample script should be awarded a mark for each aspect of synthesis.

CHAPTER 10

MATHEMATICAL LITERACY

The following should be read in conjunction with the Mathematical Literacy question paper of November 2015 Examination.

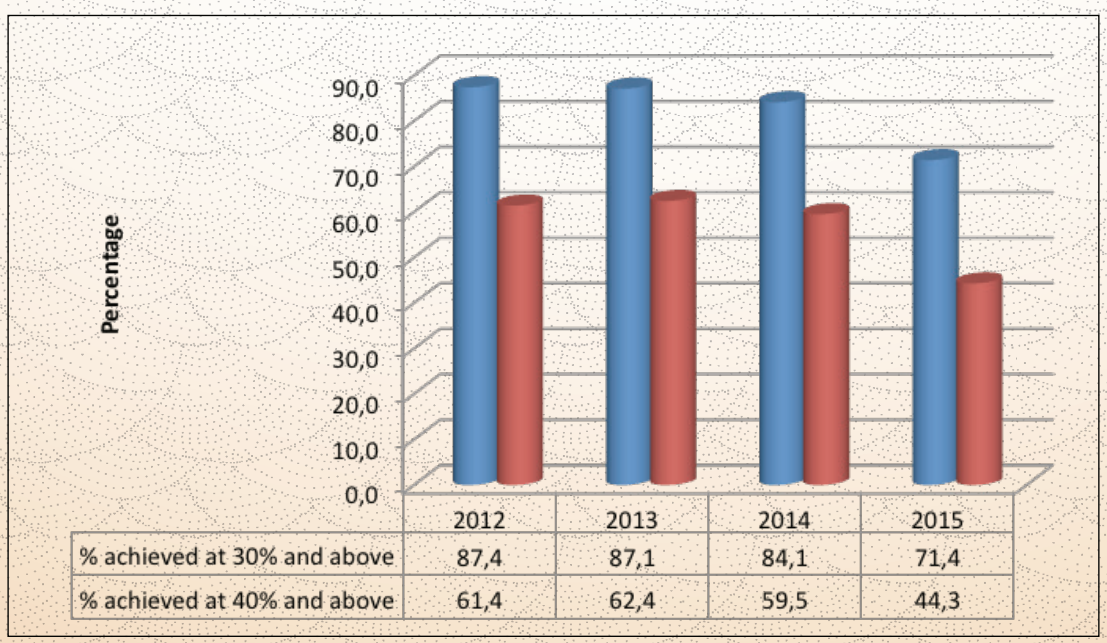
10.1 PERFORMANCE TRENDS (2012 – 2015)

The number of candidates increased by 76 791 in comparison to that of 2014. The general performance of candidates declined this year as indicated by 71.4% of candidates achieving 30% and above, with 44.3% achieving 40% and above.

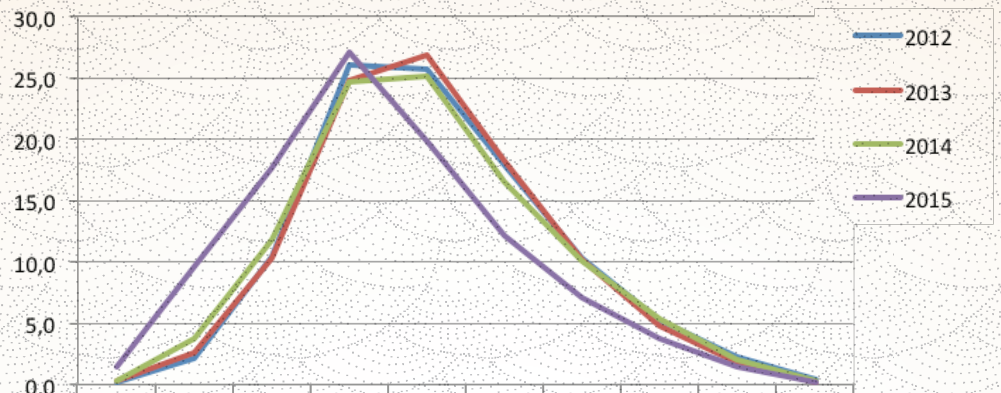
Table 10.1.1 Overall achievement rates in Mathematical Literacy

Year	No. wrote	No. achieved at 30% and above	% achieved at 30% and above	No. achieved at 40% and above	% achieved at 40% and above
2012	290 713	254 083	87.4	178 498	61.4
2013	324 097	282 270	87.1	202 291	62.4
2014	312 054	262 495	84.1	185 528	59.5
2015	388 845	277 593	71.4	172 214	44.3

Graph 10.1.1 Overall achievement rates in Mathematical Literacy



Graph 10.1.2 Performance distribution curves in Mathematical Literacy



	0-9.9	10-19.9	20-29.9	30-39.9	40-49.9	50-59.9	60-69.9	70-79.9	80-89.9	90-100
2012	0,1	2,1	10,4	26,0	25,6	17,8	10,2	5,2	2,2	0,3
2013	0,2	2,5	10,2	24,7	26,8	18,2	10,1	4,7	1,7	0,1
2014	0,3	3,8	11,8	24,7	25,2	16,5	10,0	5,4	2,1	0,3
2015	1,4	9,6	17,6	27,1	19,8	12,1	7,1	3,7	1,4	0,2

From the above graphs, it is evident that there has been a disappointing decline in the performance of candidates in the past two years.

10.2 OVERVIEW OF LEARNER-PERFORMANCE IN PAPER 1

General comments

(a) The introduction of the CAPS in 2014 has resulted in a change in the format of the Mathematical Literacy question paper. All questions were set in contexts based on real-life scenarios. Because of this change, the questions have lost familiarity and predictability. This has resulted in a deterioration in performance.

(b) In Paper 1, all contexts are familiar but Paper 2 has to have at least one unfamiliar context, as stipulated in the CAPS document. Subsequently, candidates' performance has declined.

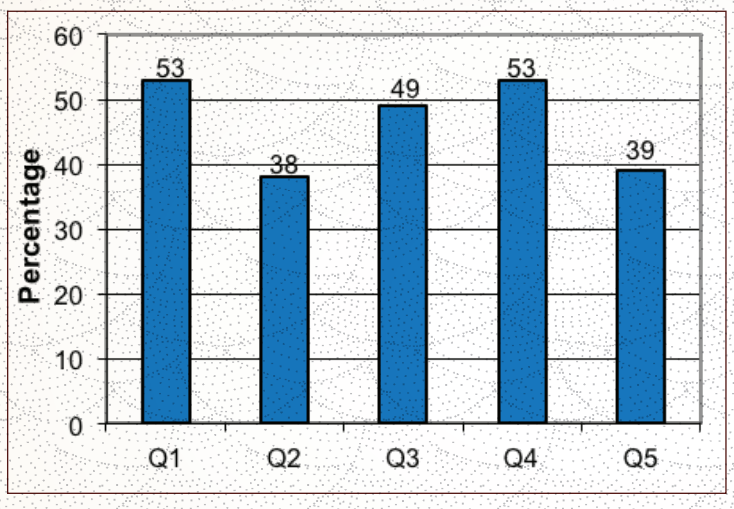
(c) One of the major problems across both papers is learners' poor command of the relevant terminology and definitions. Teachers are advised to use the following strategies to improve the teaching of terminology and definitions:

- Identify new terms in every lesson and write them on the board.
- Instruct learners to take down terms at the back of their notebooks, noting the correct spelling.
- Encourage learners to write down the meanings of these words, as ascertained by being attentive during the lesson or by finding the meaning in a dictionary or textbook.
- Make learners aware of the meanings of new terms by using them in sentences.
- Include Mathematical Literacy terms and definition in all daily assessment tasks.
- Ensure that by the end of the year, all learners have a comprehensive glossary of all terms.

10.3 DIAGNOSTIC QUESTION ANALYSIS FOR PAPER 1

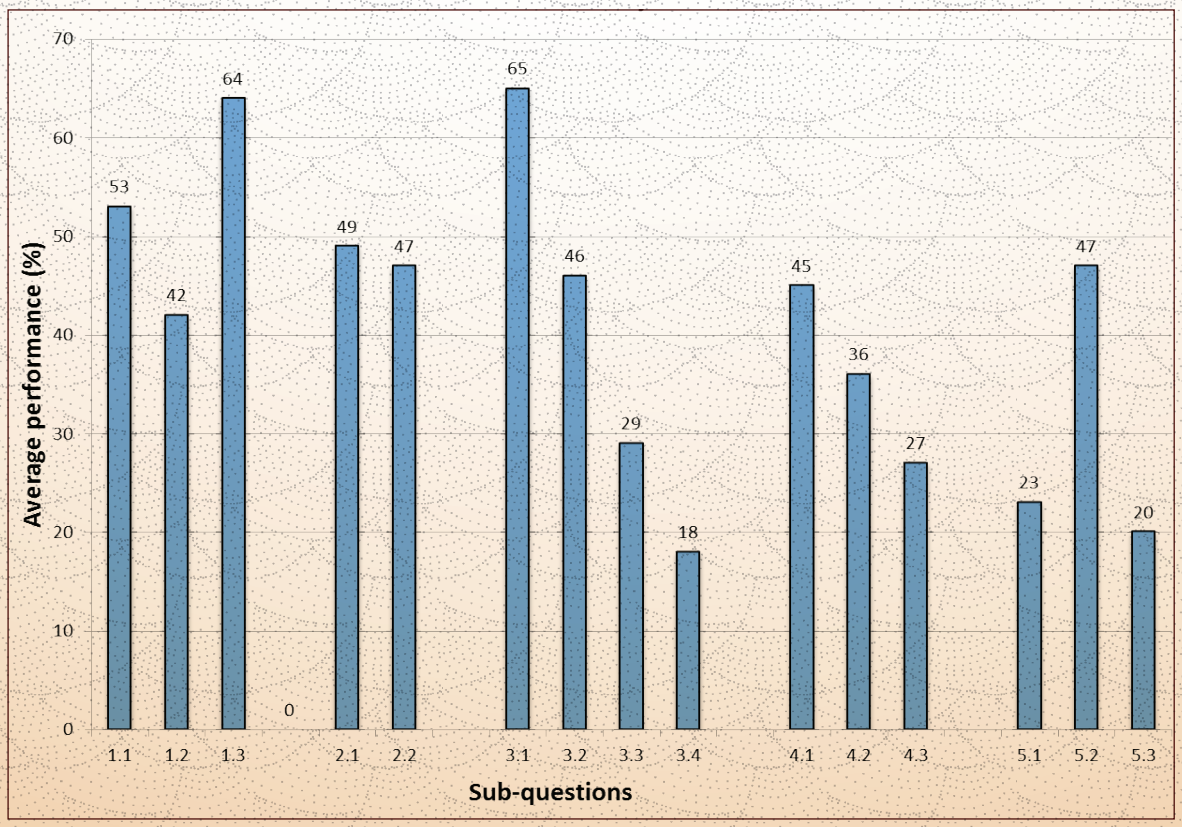
The following graph is based on data from a random sample of candidates. While this graph might not accurately reflect national averages, it is useful in assessing the relative degree of challenge of each question as experienced by candidates.

Graph 10.3.1 Average marks per question expressed as a percentage: Paper 1



Q1	Finance
Q2	Measurement
Q3	Maps and Plans
Q4	Data Handling
Q5	Tabled data; probability & percentage increase

Graph 10.3.2 Average performance per sub-question: Paper1



10.4 ANALYSIS OF LEARNER-PERFORMANCE IN EACH QUESTION IN PAPER 1

Candidates performed poorly in relation to previous years (NCS). This has been only the second year that level 3 questions have been set in Paper 1, thus candidates found Paper 1 in 2015 more challenging than its predecessors.

QUESTION 1 FINANCE (WEDDING BUDGET; CURRENCY CONVERSION; IRP5 ANALYSIS)

The performance of candidates in this question ranged from good to poor, with an average of 53%.

Common errors and misconceptions

(a) In Q1.1.1, candidates did not multiply by 2 for the couples.

(b) In Q1.1.2, candidates did not add the bride and the groom to the total number of guests (225 x 150). They did not understand that the couple had to be catered for.

(c) In Q1.1.3 and Q1.1.4, candidates did not know how to calculate the percentage.

(d) In Q1.1.5, candidates were unfamiliar with the Ghanaian Cede as currency. Candidates multiplied 30 000 by 0.32253 instead of dividing.

(e) In Q1.1.6, candidates only calculated the VAT of R188.86 and did not add it to the R1 349. The candidates could not differentiate between VAT inclusive and VAT exclusive.

(f) In Q1.2.1, some candidates interchanged the concepts of employer and employee.

(g) Candidates did not know the abbreviation UIF.

(h) In Q1.2.5, candidates could not determine average.

(i) Candidates answered only the first part of the question in Q1.2.8.

Suggestions for improvement

(a) Learners must be taught to read information with insight and sift through what is relevant in answering the question.

(b) Real-life, authentic financial documents must be used in classroom teaching rather than just teaching from a textbook which will only have one or two examples of financial documents.

(c) Extra exercises on all types of calculations involving percentages must be practised in the classroom, including 'VAT inclusive' calculations.

(d) In order to ensure that learners are familiar with Mathematical Literacy terminology, teachers are advised to study the CAPS document when planning lessons and setting SBA tasks.

(e) Teachers must develop a glossary of Mathematical Literacy terminology per topic for the learners.

(f) Learners should be trained to identify specific information relevant to each item reflected in financial documents or tables.

(g) Learners should be drilled on currency conversions of different world currencies, using currency tables from national newspapers.

QUESTION 2 MEASUREMENT (AREA; TIME; PACKAGING; VOLUME; CONVERSIONS)

The performance of candidates in this question was poor, with an average of 38%.

Common errors and misconceptions

(a) In Q2.1.1 and Q2.1.2, candidates only partially solved the problem. They calculated the area of the rectangle/ triangle and did not continue.

(b) In Q2.1.3, candidates calculated the number of minutes but could not convert to hours and minutes. Candidates could not do time calculations to arrive at a finishing time. They incorrectly converted 2,7h to 2h 7min instead of 2h 42min.

(c) Candidates could not conceptualise from 2D to 3D in Q2.2.

(d) In Q2.3.1, candidates could not convert in the metric system, calculate a radius from a diameter or substitute into a given formula.

(e) In Q2.3.2, candidates did not consider the given information that the jar was filled to 75% of its volume. They divided 75 by 100 and incorrectly used 0.75 as the substitution into the formula.

Suggestions for improvement

(a) It is imperative to revise basic computational skills at the beginning of each academic year.

(b) Re-enforcement of mathematical terms such as radius and diameter must be done in the classroom on a regular basis.

(c) Time measurement and the difference between formats should be thoroughly revised.

(d) To avoid making mistakes when changing the subject of the formula, learners should be taught to copy the formula as it is given. More activities on substitution should be given in the classroom to assist learners to obtain all of the substitution marks.

(e) The use of mathematical dictionaries as a classroom resource is valuable in the teaching of Mathematical Literacy terminology.

(f) Basic skills must be taught throughout the FET phase to ensure that learners obtain the marks for calculations in Mathematical Literacy.

(g) Refresher workshops for teachers on methodology regarding measurement topics should be conducted.

QUESTION 3 MAPS AND PLANS (LAYOUT OF A LECTURE ROOM; CYCLE ROUTE MAP)

The question was fairly well answered with an average of 49%.

Common errors and misconceptions

(a) In Q3.1.1, some candidates chose two exits: 2 and 3.

(b) In Q3.1.2, candidates gave the right answer but with the wrong reason.

(c) In Q3.1.3 (grid reference), candidates were unable to distinguish between rows and seat numbers.

(d) In Q3.1.6, some candidates wrote probability as a ratio, while others wrote it as a reciprocal.

(e) In Q3.2.2, some candidates added, multiplied or divided incorrect values which were randomly selected from the map.

(f) Candidates could not use reference points, e.g. 'right side of the starting point'.

Suggestions for improvement

(a) Learners must be exposed to more plans, maps and representations of the physical world, e.g. cinema hall, soccer stadium.

(b) Learners should be taught the meaning of a number scale and how to use it.

(c) Learners must be taught the differences between the left-hand side, the right-hand side and mirror images. These concepts must be explained and demonstrated in class.

(d) Teachers of Mathematical Literacy must develop learners' vocabulary as well as their mathematical skills.

QUESTION 4 DATA HANDLING

Candidates' performance in this question was fair but lower than in previous years, with an average of 53%.

Common errors and misconceptions

(a) In Q4.1.1, most of the candidates could not give the reason that some of the data are categorical.

(b) In Q4.1.2, candidates confused the concepts, 'mean', 'median' and 'mode' in calculations.

(c) In Q4.1.3, candidates identified 7 and 8 as the middles but did not complete the calculation to determine the median.

(d) In Q4.1.4, some candidates omitted one data value or used the wrong set of data.

(e) In Q4.1.6 (b), candidates did not know that a line graph can be drawn on an existing line and thus, plotted the points incorrectly.

(f) In Q4.1.7, candidates gave TWO answers.

(g) In Q4.2.1, candidates multiplied the values by 52% and did not subtract the values from the table. Some of them subtracted 52% from 100% to get 48% and did not continue with the other part of the question

(h) In Q4.2.2, candidates did not multiply by 100.

(i) In Q4.2.3, many candidates switched the digits around when writing down the large number.

Suggestions for improvement

(a) Learners must undertake measurements of central tendencies with more than one data set given.

(b) Learners must be taught the terminology of mode, mean and median so that they will not be confused by them in examination contexts.

(c) Learners must understand how to calculate the median of an even set of data.

(d) Use of the calculator must be emphasised and the number format for different calculators must be revised.

(e) Sketching of statistical graphs such as line graphs must be practised regularly. Learners who had been taught how to draw these graphs scored well in this question.

QUESTION 5 FINANCE AND PROBABILITY

Performance in this question was poor, with an average of 39%.

Common errors and misconceptions

(a) In Q5.1.1, candidates had a problem adding large numbers.

(b) In Q5.1.2, most candidates only added and subtracted, but did not do the division part. For example, they stopped at:

12 98 – (2 394 + 1 302 + 1 405 + 1 490 + 1 311 + 1 756) = 3 240

and left out: 3 240 / 2 = 1 620.

(c) In Q5.1.3, candidates omitted the '000 (thousands).

(d) In Q5.1.4, candidates wrote the ratio as a fraction or switched the values around.

(e) In Q5.1.6, candidates did not read the entire table.

(f) In Q5.2.1, candidates did not write 100% but gave the answer as 18/18 or 18%.

(g) In Q5.2.2, most candidates wrote the incorrect answer 4/18 and left it without simplifying it. Some expressed it as a percentage like 6/18 X 100 = 33,3% instead of 14/18 = 7/9.

(h) In Q5.3, some candidates added 5% and 5,9% and multiplied 4 705 306. In some cases, candidates did the following: 5% x 4 705 306 = 253 265 and immediately used this for the 2nd year without adding the initial amount.

Suggestions for improvement

(a) Learners need to be specifically trained in respect of reading information from tables, and using a calculator.

(b) Learners can engage in activities in classrooms where they reinforce the concept of range, using tabled data and working with large numbers such as thousands and millions.

(c) Learners should receive regular practice in compound and simple interest calculations with large numbers and without using the formula.

10.5 OVERVIEW OF LEARNER-PERFORMANCE IN PAPER 2

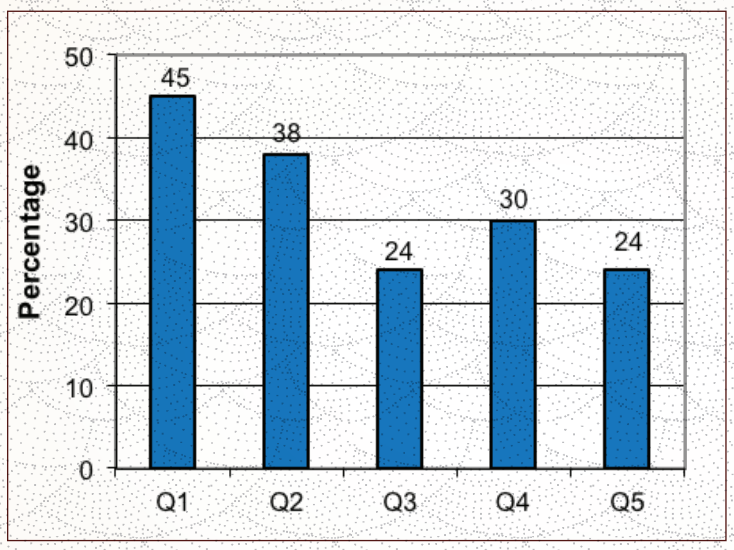
General comments

The general performance of candidates was weaker than that recorded in the past, because of the introduction in the CAPS of more demanding content. The introduction of real-life contexts as stipulated in the CAPS added a further dimension.

10.6 DIAGNOSTIC QUESTION ANALYSIS FOR PAPER 2

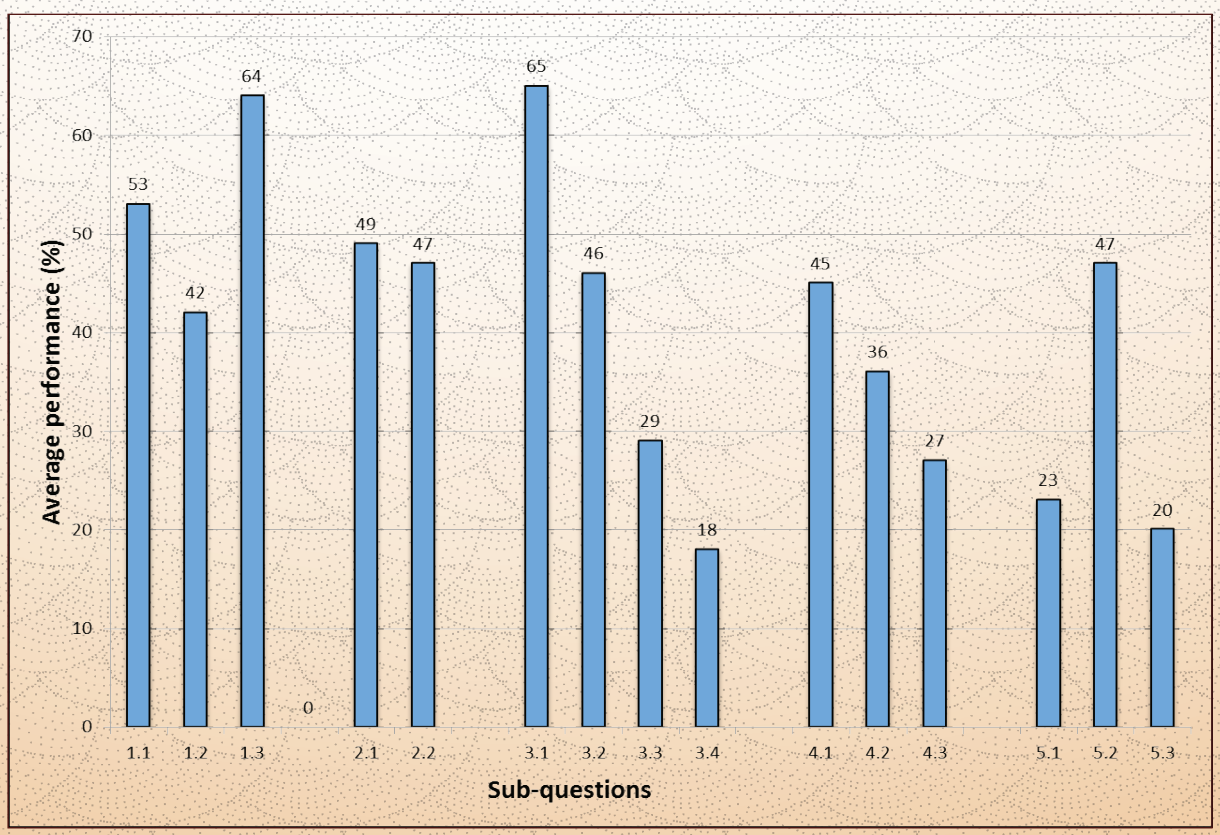
The following graph is based on data from a random sample of candidates. While this graph may not accurately reflect national averages, it is useful in assessing the relative degree of challenge of each question as experienced by candidates.

Graph 10.6.1 Average percentage performance per question for Paper 2



Q1	Salaries; probability; UIF and IRR
Q2	Weight loss; box-and-whisker interpretation; tabled data
Q3	Floor plan and wood paneling of a room
Q4	Cost of studying at UJ; travel maps
Q5	Tabled data and maps

Graph 10.6.2 Average performance per sub-question: Paper 2



10.7 ANALYSIS OF LEARNER-PERFORMANCE IN EACH QUESTION IN PAPER 2

QUESTION 1 SALARIES; PROBABILITY; UIF AND IRR

This question was the best answered question in Paper 2, but the average was only 45%. The main problem was a lack of understanding of the full requirements of the question.

Common errors and misconceptions

(a) In Q1.1.1, some candidates did not show calculations and did not use the formula given. Candidates multiplied by 4 instead of using the formula.

(b) In Q1.1.2, candidates tended to calculate 1% paid by the employee and forgot to add the employer's share. They also calculated the individual contribution instead of using the total employees. They multiplied the monthly salary/income of the handymen by 52 and divided it by 12 to get the monthly UIF contributions for the whole group. For example: R4 410.37 x 52 ÷ 12= R 19 111.60. They lost marks by not calculating totals.

(c) In Q1.1.3, many candidates could not calculate the mean salary and percentage differences and they also omitted the justification. Most candidates divided by the number of groups (4) instead of total number of the employees (306).

(d) In Q1.2.1, candidates used the value of 272 for total cleaners instead of the female portion. Most candidates did not round off the final answer to three decimal points as was stipulated in the question paper.

(e) In Q1.2.2, according to the ratio 1:3 for men:women, most candidates compared the higher number of females to the lower number of men. Some candidates wrongly interpreted the question and referred to the skills females acquire in household situations e.g. a female is better skilled when cleaning is involved. Some of the candidates rewrote the ratio given instead of explaining the probability term.

(f) In Q1.3.1, some candidates could not calculate the missing values. Most candidates managed to solve the problem by applying the reversed method.

(g) In Q1.3.2, the points were plotted incorrectly by some candidates and could not find the scales for the horizontal axis and the vertical axis. Some considered a line as a straight line and used a ruler to draw the graph.

Suggestions for improvement

(a) Learners should carefully read all the information given in a question until they understand it. This will help them to identify the relevant information.

(b) Learners need to be exposed to more CAPS-oriented question papers.

(c) Learners must be taught to apply their knowledge of concepts (e.g. mean, median) into different scenarios.

(d) Teachers should place more emphasis on calculations regarding percentages (e.g. increases, decreases and differences).

(e) Teachers should always remind their learners that probability is less than one. More practice on rounding off of basic concepts is necessary.

(f) Learners should be given more exercises where they are required to explain and motivate their answers in words.

(g) Practical exercises in plotting the values correctly are necessary for development purposes. Learners must be exposed to more options of each type of graph with complex scales.

QUESTION 2 WEIGHT LOSS; BOX-AND-WHISKER INTERPRETATION; TABLED DATA

On the whole, candidates' performance in this question was satisfactory. The average scored for this question was 38%.

Common errors and misconceptions

(a) In Q2.1.1, the meaning of the word 'randomly' posed a challenge to candidates in determining what the denominator should be. Many candidates did not get both the numerator and the denominator correct. Some candidates showed a lack of basic skills in calculating the percentage and converting a decimal fraction to a percentage.

(b) In Q2.1.2, most candidates just started to rearrange the data without converting it first. In some cases they used 6 or 9 values instead of the 12 values.

(c) In Q2.1.3, candidates substituted the wrong values in the wrong places. Some also took the wrong values instead of Quartile 1 and Quartile 3 due to the fact that their data was not correctly handled. Many candidates did not address the question which required a comment.

(d) In Q2.2.1, candidates did not know that there were 365 days in a year. Candidates calculated the amount of sugar using millilitres instead of grams. They multiplied the mass of one can by 12 months and then by 2 instead of 365. Some candidates were unable to convert teaspoons to grams using the conversion table.

(e) In Q2.2.2, candidates were unable to convert the ratio of 240ml to 500ml. In most cases, they knew the amount of calories which needed to be added and subtracted but due to the fact that they were unable to convert, they arrived at the wrong answer. Most of them subtracted the values, regardless of whether these were the correct or incorrect values. Some used incorrect units, i.e. ml instead of grams and calories.

Suggestions for improvement

(a) Basic skills such as the use and conversion of fractions need to be mastered in Grade 10 and 11. In Grade 12, it is embedded in the syllabus and it would be wise to give learners extra exercises based on basic skills topics so that they will be able to skilfully master them into the application topics such as probability.

(b) Learners' reading and interpreting skills need to be improved. They should be taught that missing values in a table should first be calculated before any data can be arranged. The concept of the median between middle values also needs to be emphasised, especially the computations required for an even set of data.

(c) Learners must be encouraged and taught to set out their calculations in a more understandable and clear manner.

(d) More exercises on the calculation of missing values in a table need to be provided to learners. Learners must be taught to rearrange data to enable calculation of quartiles. The concept of quartiles as well as inter-quartiles, in conjunction with box and whisker plots, needs to be mastered by learners. Reading values and data from a box and whisker plot, and interpreting the information and the arrangements of the boxes, are other skills that need further attention.

(e) Learners need to be exposed to the metric as well as the imperial measuring system as a whole. They need to convert between the two systems using a conversion table. Their basic knowledge of minutes, hours, days, years and centuries needs to be sharpened.

(f) Basic skills such as BODMAS and dealing with conversions need to be mastered by learners to enable them to deal with application topics.

QUESTION 3 FLOOR PLAN AND WOOD PANELLING OF A ROOM

This question was challenging for almost all the candidates. The average percentage performance in this question was 24%.

Common errors and misconceptions

(a) In Q3.1, candidates isolated the kitchen and the living room, excluding the passage. Many candidates explained their own house situations which indicates that they are not exposed to houses with a passage.

(b) In Q3.2, candidates displayed little understanding of the concept of direction and answered according to what they saw in the photograph. Many referred to the east and west sides of the house instead of the north and south sides.

(c) In Q3.3.1, candidates did not use the floor plan. They misinterpreted the question and gave the answer of 3.3 x 3.3 = 10,89 m².

(d) In Q3.3.2, candidates could not round off and convert back to m². Many calculated all the dimensions on the floor plan. Some candidates did not subtract the window, doors and passage. They included these areas in the calculation of the area to be panelled.

(e) In Q3.4, candidates once again could not convert between units. They did not use their answer from Q3.3.2 to calculate the number of panels needed or to calculate the labour cost. They calculated the R700 of VAT but did not add it to the R5 000.

Suggestions for improvement

(a) Learners must be exposed to different floor plans with unfamiliar house plans.

(b) Learners must be taught to use what is given to them and calculate backwards using the increase or decrease in percentage.

(c) Learners must be taught to convert to the same type of measurement. They are to be exposed to different kinds of floor plans where they have to calculate all the walls.

(d) Learners should be exposed to not just multi-step questions but also to multi-skilled questions (e.g. Q3.4). These require an integration of more than one outcome, e.g. VAT, surface area, volume and cost calculations in the same question.

(e) Teachers must provide learners with the opportunity to investigate the considerations involved in the construction of a house.

QUESTION 4 COST OF STUDYING AT UJ; TRAVEL MAPS

This question was challenging for almost all the candidates. The average percentage performance in this question was 29%.

Common errors and misconceptions

(a) In Q4.1.1, most candidates could not apply the concept of range, to identify the minimum and maximum price values for different university courses. Some did not understand the meaning of 'scale of fees'.

(b) In Q4.1.2, most candidates' answers were just a repetition of the actual question e.g. 'it is cheaper to stay in a double room than in a single room', without supplying relevant reasons. They also kept on explaining what a single and/or double room is, without mentioning the cost. Some interpreted double rooms as two rooms and as such did not identify the reason for two rooms being cheaper than one room.

(c) In Q4.1.3, most candidates did not add all the amounts, e.g. 28 470 + 2 000 = R30 470. They also added the deposit. Candidates struggled to understand that they must determine the minimum annual tuition fee and some used R35 260 instead of R28 470. Many candidates were confused by the phrase 'minimum annual tuition fee' in the last part of the question and focused only on the tuition fee instead of on both the tuition and accommodation fees. Some of them even added the minimum and maximum values.

(d) In Q4.1.4, candidates did not calculate 30% x 28 470. Most of them failed to calculate the monthly residence fee of R1 720,13. Some of them even divided by 12 instead of by 11.

(e) In Q4.2, most of the candidates included the APS of Afrikaans. The majority of the candidates added all the subjects and not just the best six. Some of them could not calculate the APS for Life Orientation by making use of the given information. It was clear that learners could not distinguish which table to use for which information.

(f) In Q4.3.1, most candidates used only the vertical distance between Windhoek and Pretoria (1 386km). They did not include the horizontal distances between Johannesburg and Pretoria (58km), as well as the distances between Okahandja and Windhoek and between Gaborone and Lobatse. Some candidates could not change the subject of the given formula.

(g) In Q4.3.2, most of the candidates failed to mention that this map was not drawn to scale. They rather gave reasons like 'it's because there are more towns on A1 than between Rustenburg and Sun City'; 'Botswana and SA are two different countries'; 'roads are not straight' or 'there is a mountain between Gaborone and Lobatse'.

(h) In Q4.3.3, most did not add the total cost in BWP correctly. They simply did not consider that the BWP 680 must be multiplied by 3. They also struggled to do the conversions from BWP to Rand and from Rand to NAD. Instead, they converted the BWP to NAD without converting it to Rand first. Candidates could not comprehend weaker and stronger currencies, and therefore, did not know when to multiply or divide.

Suggestions for improvement

(a) Analysing and interpreting tables seems to be a huge challenge for learners. Teachers need to find real-life sources in brochures, magazines and newspapers to expose learners to more examples of this type of question.

(b) Apart from textbooks, additional resources such as newspapers and magazines should be used.

(c) Learners must be exposed to questions that are related to strip charts where the calculation of horizontal distances are included.

(d) Teachers should give learners additional exercises on changing the subject of the formula.

(e) Learners must be exposed to multi-step calculations where more than two currencies are included and should practise multiple-step conversions with monetary amounts.

QUESTION 5 TABLED DATA AND MAPS

This question was challenging for almost all the candidates. The average percentage performance in this question was 24%.

Common errors and misconceptions

(a) In Q5.1.1, candidates performed calculations instead of giving reasons. They interpreted net migration in terms of finances (salaries). Some struggled to interpret China's net migration rate, and simply gave the definition of migration as explained in the question paper.

(b) In Q5.1.2, candidates explained and compared, instead of calculating the differences. Some omitted the words 'million' and 'billion'.

(c) In Q5.2.1, candidates did not read the graph properly. They mentioned Asia and North America as well.

(d) In Q5.2.2, candidates calculated the differences of the productions and then the consumptions of the two regions separately, instead of comparing them. Some did not understand the difference between production and consumption. Consequently, they cited the country with the highest production (Middle East) and the country with highest consumption (Asia) instead of the country with the highest difference.

(e) In Q5.2.3, candidates were not able identify the reasons for the high consumption of crude oil on the two continents, while some candidates thought that crude oil was a synonym for or a type of petrol.

(f) In Q5.3.1, candidates did not measure the distance on the scale and on the map. Candidates were unable to convert the kilometres into miles by dividing by the value of 1,609344.

(g) In Q5.3.2, candidates divided 30% by 100%, instead of dividing 100% by 30%.

(h) In Q5.3.3, some candidates gave environmental reasons when financial reasons were required.

Suggestions for improvement

(a) Teachers need to revise terminology regularly and should integrate similar terminology from other learning areas where appropriate.

(b) In reinforcing numerical concepts, teachers are advised to use large numbers in examples and, from time to time, to reflect the numbers in words and numerical form. This will encourage learners to engage with large numbers in a meaningful way and to gain proficiency in using large numbers that they will encounter in their everyday lives.

(c) Learners should study a variety of tables and graphs to identify similarities and differences. Graphs should be drawn on graph paper to ensure precision and accuracy.

(d) Teachers need to emphasise the teaching of scales and conversions.

(e) Learners must be encouraged to read newspapers and watch television news programmes to improve vocabulary and general knowledge.

CHAPTER 11

MATHEMATICS

The following should be read in conjunction with the Mathematics question papers of the November 2015 Examination.

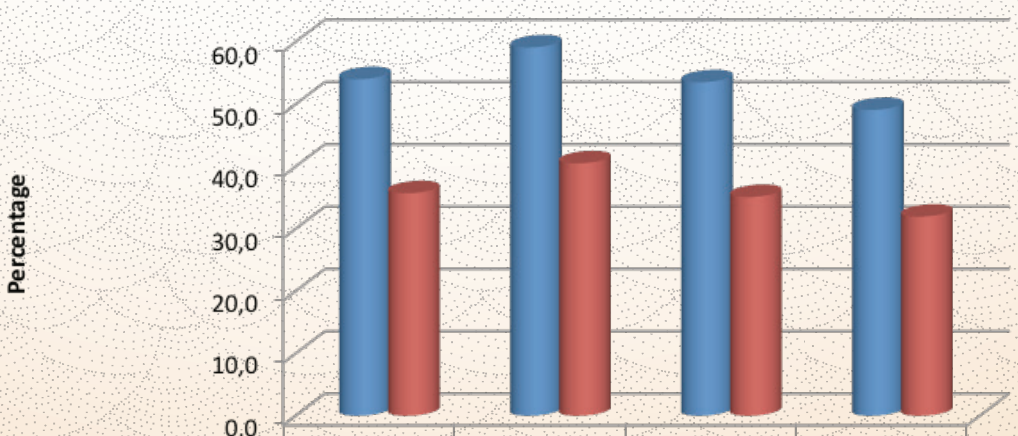
11.1 PERFORMANCE TRENDS (2012 – 2015)

The number of candidates increased by 38 445 in comparison to that of 2014. The general performance of candidates declined in 2015 as indicated by 49.1% of candidates achieving 30% and above, with 31.9% achieving 40% and above.

Table 11.1: Overall achievement rates in Mathematics

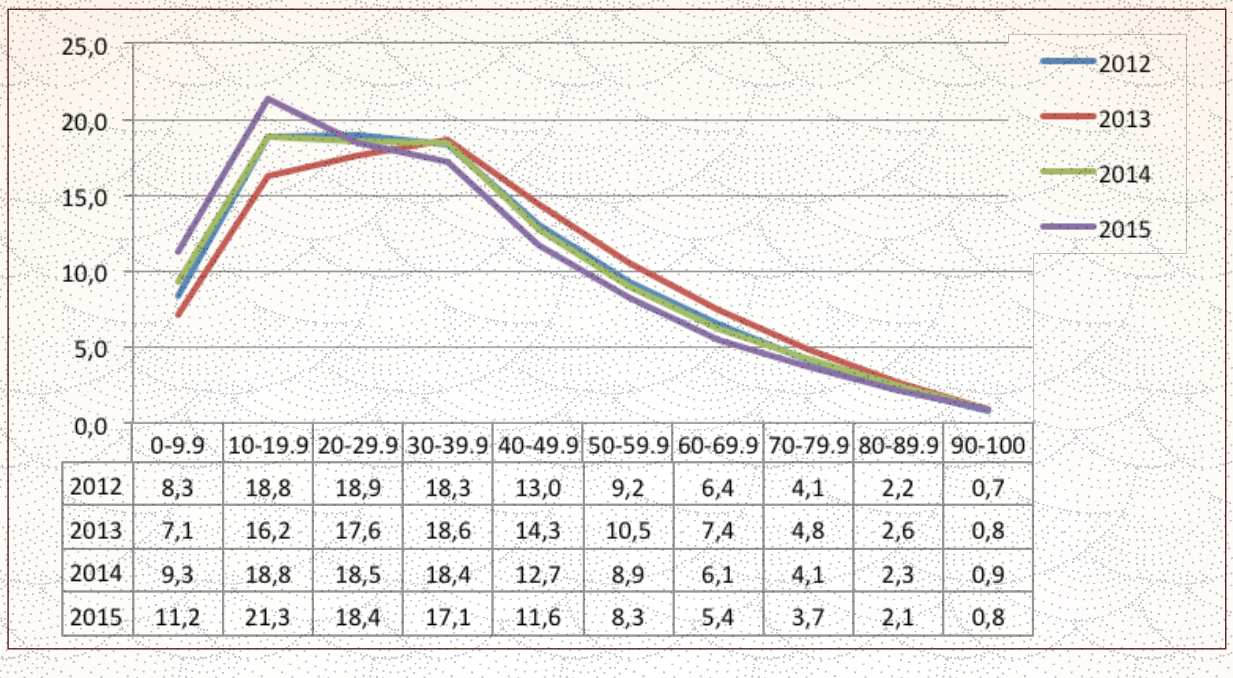
Year	No. wrote	No. achieved at 30% and above	% achieved at 30% and above	No. achieved at 40% and above	% achieved at 40% and above
2012	225 874	121 970	54.0	80 716	35.7
2013	241 509	142 666	59.1	97 790	40.5
2014	225 458	120 523	53.5	79 050	35.1
2015	263 903	129 481	49.1	84 297	31.9

Graph 11.1.1: Overall achievement rates in Mathematics



	2012	2013	2014	2015
% achieved at 30% and above	54,0	59,1	53,5	49,1
% achieved at 40% and above	35,7	40,5	35,1	31,9

Graph 11.1.2: Performance distribution curves in Mathematics



	0-9.9	10-19.9	20-29.9	30-39.9	40-49.9	50-59.9	60-69.9	70-79.9	80-89.9	90-100
2012	8,3	18,8	18,9	18,3	13,0	9,2	6,4	4,1	2,2	0,7
2013	7,1	16,2	17,6	18,6	14,3	10,5	7,4	4,8	2,6	0,8
2014	9,3	18,8	18,5	18,4	12,7	8,9	6,1	4,1	2,3	0,9
2015	11,2	21,3	18,4	17,1	11,6	8,3	5,4	3,7	2,1	0,8

From the above graphs, it is evident that after the improvement in 2013, there has been a disappointing decline in the performance of candidates in 2014 and 2015.

11.2 OVERVIEW OF LEARNER-PERFORMANCE IN PAPER 1

1. It was a fair and well-balanced paper. The weaker candidate had a fair chance to pass. It was more difficult to achieve distinctions, and it seems as if distinctions on this paper will be achieved only by those learners who have the ability to apply the mathematical knowledge.

2. The responses to the questions were better than in previous years. It was evident from the marking process that more candidates managed to pass and get some marks in the majority of the questions.

3. The algebraic skills of the candidates were poor. They struggled with Mathematics in Grades 11 and 12 because they could not do the basic mathematics of Grades 8, 9 and 10. If this problem can be rectified, candidates will perform much better in the Grade 12 examination. Solving inequalities is still an area of concern.

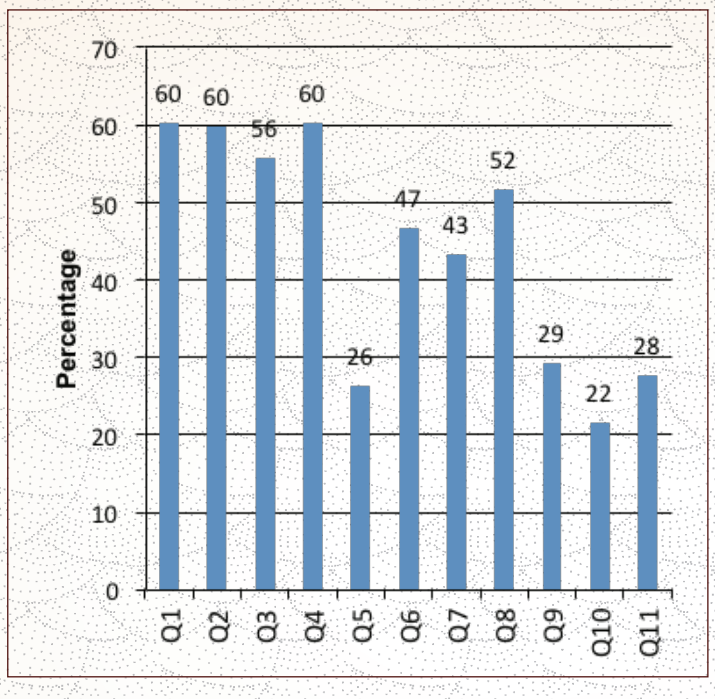
4. Problem-solving and non-routine, unseen questioning should be an integral part of classroom teaching.

5. The difference in style presented in Q5 presented a challenge to the weaker candidate.

11.3 DIAGNOSTIC QUESTION ANALYSIS FOR PAPER 1

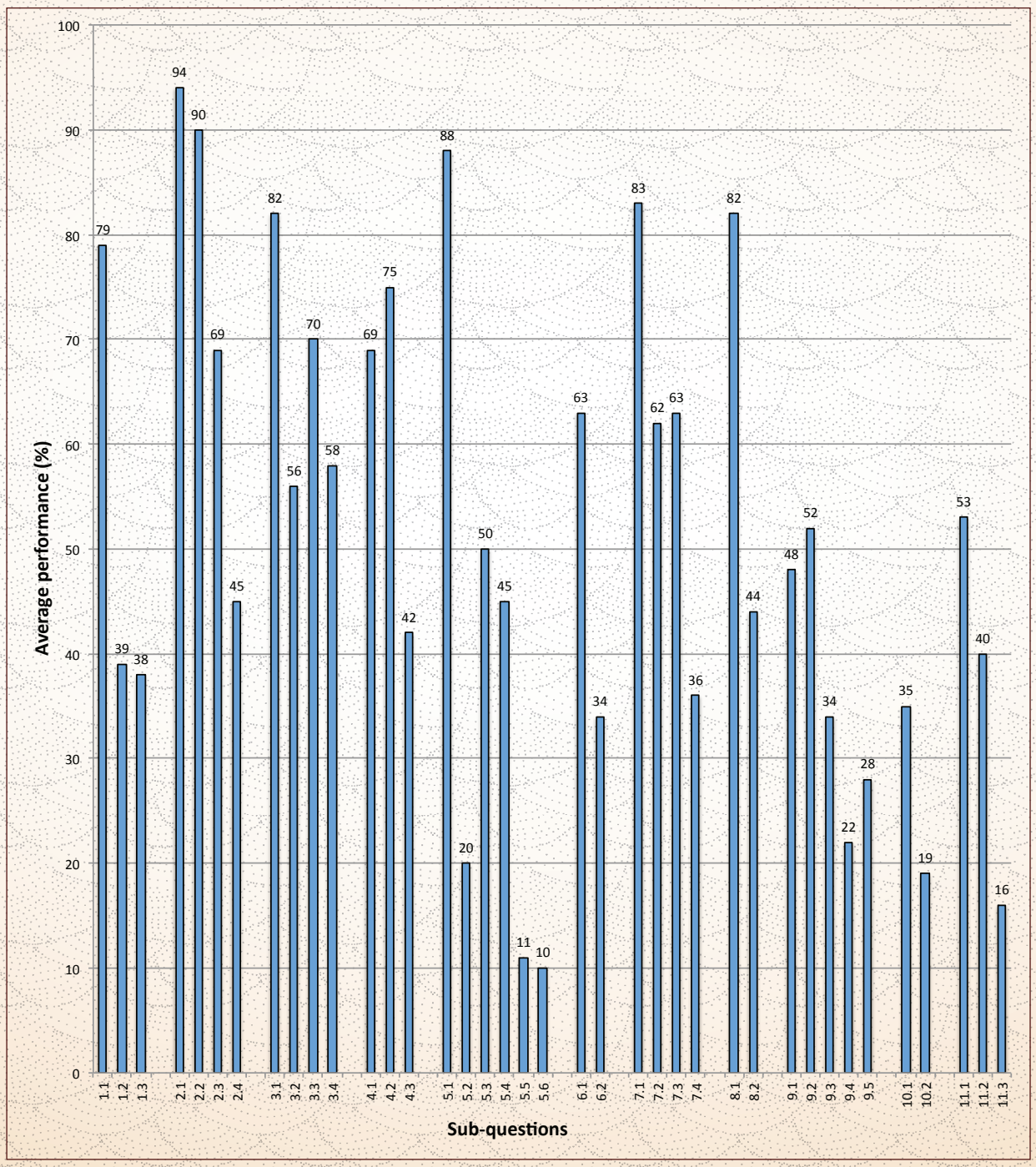
The following graph is based on data from a random sample of candidates. While this graph might not accurately reflect national averages, it is useful in assessing the relative degrees of challenge of each question as experienced by candidates.

Graph 11.3.1 Average percentage performance per question for Paper 1



Q1	Equations, Inequalities and Algebraic Manipulation
Q2	Number Patterns & Sequences
Q3	Number Patterns & Sequences
Q4	Functions and Graphs – Exponential Graphs
Q5	Functions and Graphs – Straight Line, Inverses and integration with Calculus
Q6	Functions and Graphs – Parabola and Hyperbola
Q7	Finance
Q8	Calculus – First principles and rules of differentiation
Q9	Calculus – Cubic function
Q10	Calculus – Applications in optimisation
Q11	Probability and Counting Principles

Graph 11.3.2 Average percentage performance per sub question for Paper 1



11.4 ANALYSIS OF LEARNER-PERFORMANCE IN EACH QUESTION IN PAPER 1

QUESTION 1 ALGEBRA

This question was generally well-answered, except for Q1.2 (simultaneous equation) and Q1.3 (nature of the roots).

Common errors and misconceptions

1. Writing down the quadratic formula incorrectly and incorrect substitution therein remained problematic among candidates.

2. In Q1.1.3, candidates did not divide by 2 and when raising to the power of $-\frac{3}{5}$ omitted to raise the 2 to the same power giving $2x^{-\frac{5}{3}} = 64$ as $2x^{-\frac{5}{3}\cdot-\frac{3}{5}} = 64^{-\frac{3}{5}}$.

   Alternatively, candidates simplified $2x^{-\frac{5}{3}} = 2^6$ as $x^{-\frac{5}{3}} = 6$.

3. In Q1.1.4, candidates omitted the middle term when squaring the binomial. The majority of the candidates did not exclude the invalid answer, implying that they did not look at the restrictions placed on such questions or test whether their answers satisfied the equation. Some candidates confused the concepts of square root and squaring.

4. Candidates had little understanding of an inequality and many treated the inequality as an equation which led to them writing answers that did not make sense. Candidates had little or no understanding of set builder or interval notation.

5. The inequality signs < and > meant very little to the candidates and they could not use them to describe domain, range and certain restricted values on graphs. Incorrect use of inequality signs is problematic, for example: $-7 < x > 1$.

6. The use of the words “and” and “or” were not understood.

7. There is a common lack of understanding of the nature of the roots of a quadratic equation.

Suggestions for improvement

1. Exponential laws should be fully revised and revisited throughout a learner’s high school career. More challenging examples on application of exponential laws should be practised regularly.

2. Teachers should teach factorisation intensively. Standard form means to make the RHS of the equation equal to 0.

3. Learners need to be taught to check the validity of their answers.

4. Teachers should teach inequalities intensively and properly. They should integrate the algebra with functions so that learners have a visual understanding of inequalities and s stress the meaning of the inequality signs in the teaching of both algebra and functions.

5. It may even help to have the learners “act out” the Cartesian plane in Grades 8 and 9. By doing this, they will gain a visual idea of where values on the plane are positive, negative or zero.

6. Revisit the rules to simplify basic fractions throughout their Grade 12 year.

7. The theory of nature of roots should be taught properly and should also be done in the context of the quadratic formula as well as integrated into functions. Learners should know how to find $\Delta = b^2 - 4ac$ and state the nature of roots of the given equation.

QUESTION 2 PATTERNS

The questions were generally well-answered.

Common errors and misconceptions

1. Many candidates could write the sequence as a general term, but then went on to manipulate the general term and made many algebraic errors by simplifying $10\left(\frac{1}{2}\right)^{n-1}$ to 5^{n-1}. Again, the problem lay in the poor simplification of exponents.

2. Candidates struggled to provide Mathematical explanations. Most candidates just wrote down the condition for convergence, $-1 < r < 1$, and did not link this to the common ratio that they had already calculated.

3. A large number of candidates struggled to work with the exponential laws to simplify the expression rising from $S_\infty - S_n$. Many just substituted a value for *n* to make the process simpler.

Suggestions for improvement

1. Learners should be able to distinguish clearly between geometric and arithmetic sequences.

2. Learners should also be encouraged to think creatively.

3. Teachers should regularly reiterate the condition for convergence.

4. Use the correct notation and mathematical language on a daily basis in the classroom. Encourage learners to speak mathematical language in the classroom.

QUESTION 3 PATTERNS

Q3.1 and Q3.3 were answered well but Q3.2 and Q3.4 were poorly answered.

Common errors and misconceptions

1. Candidates misunderstood the connection between a linear pattern and the notation given in the paper i.e. $T_n = bk + c$.

2. In Q3.2, many candidates answered this question using the general term or left their answer with $\sum_{k=1}^{n}(8n-11)$ which indicates they did not fully understand the notation.

3. Candidates struggled to understand Q3.4 and many did not see the connection between Q3.3 and Q3.4.

Suggestions for improvement

1. The definition and meaning of *n* in sequences and series should be emphasised.

2. The technicalities in sigma notation should be emphasised.

3. Attention needs to be paid to the basics in Mathematics: this includes being able to substitute correctly and use the calculator correctly.

4. Theory plays an integral part of sequences and series. Learners should be taught to distinguish between the formulae so that they may select the appropriate one to answer the question.

5. Challenge learners in teaching and assessments by using different types of problems, including sequences that have negative values, fractions and word type problems.

6. Expose learners to 'unseen' type questions where unfamiliar patterns are formed. Convince them that these are generally easy to solve.

QUESTION 4 FUNCTIONS (EXPONENTIAL)

This question was fairly well answered.

Common errors and misconceptions

1. Candidates identified the asymptote of –8, but commonly wrote the asymptote as $q = -8$ or horizontal asymptote = -8 or just -8. Candidates who mistook this function to be a hyperbola, gave both asymptotes.

2. Many candidates drew a graph having the incorrect shape. Although they indicated the asymptote, their graph would have intersected with the asymptote which made the asymptote invalid.

3. Candidates did not clearly indicate the required information on the graph as requested in the question.

4. Candidates often sketched parabolas, hyperbolas and even straight lines instead of the exponential graph. This indicates that they lacked the basic knowledge of identifying a function from its defining equation.

Suggestions for improvement

1. Learners should understand the difference between the equations of the various graphs.

2. Some important points for learners to remember when drawing a graph:

   (i) Intercepts on the axes must be labelled;

   (ii) The asymptote must be clearly indicated with a dashed line and the value where it intercepts the axis must be given;

   (iii) The mark for the shape is only allocated when the graph tends towards the asymptote and does not pass through it.

3. Algebraic manipulation and theory should be an integral part of every lesson.

4. Emphasise the drawing of graphs as well as the interpretation of functions.

5. The identification of the type of graph using the basic equation of the graph should be done on an ongoing basis. This should start in the earlier grades.

6. Transformations should be incorporated into functions, even though it is not a separate topic in the syllabus.

QUESTION 5 FUNCTIONS (LINEAR AND INVERSES)

This question was very poorly answered.

This question proved problematic for candidates for a number of different reasons. These include:

1. Many of them did not know what the restricted domain meant and how it impacted on the straight line graph.

2. The question integrated the inverse function of the straight line, then linked the straight line to the derivative of a function (the parabola) and further complicated it by asking about maximum gradient (an integration with calculus).

Common errors and misconceptions

1. A number of candidates made very careless errors, for example: $2x = 3 \therefore x = {}^{2}/_{3}$.

2. In Q5.2, the candidates did not make the link between the range of the function and the domain of the inverse. Most candidates just wrote down the given domain as the answer and completely ignored the range of the original function. Some candidates, possibly out of habit, wrote $x \in R$.

3. Candidates were unable to distinguish between the line segment and a line. Most of them merely redrew the original function.

4. Q5.4 was not well answered as most candidates struggled to determine the equation of the inverse of *h*. A number of candidates calculated the derivative instead of the inverse. A number of candidates also gave their answer as an inequality rather than a single point.

5. Candidates did not recall that the shortest distance between a line and a point is the perpendicular distance between them. They had no clue of this fact as OP was not drawn perpendicular to the straight line in the diagram. Most calculated P as the midpoint between Q and the *y*-intercept and then calculated the distance from this midpoint to the origin as OP. Where candidates were able to substitute into the distance formula correctly, they commonly and incorrectly stated that $OP = \sqrt{x^2 + y^2} = x + y$.

6. Candidates did not understand that a graph can be a derivative graph.

7. Candidates had little understanding of concavity. They did not understand that for a local minimum, a turning point first needed to be identified (referring to the first derivative) and then the concavity (referring to the second derivative) needed to be discussed.

8. Most candidates failed to interpret Q5.6.2 and this is why it was so poorly answered.

Suggestions for improvement

1. Teachers should emphasise the properties of functions and their inverses. More time should be spent on teaching inverses.

2. Teachers should expose their learners to functions that have restricted domains. This can easily be incorporated into the inverses section to show the effect of domain and range.

3. It is advisable that the inverse of a function be given in the form $y = \ldots$.

4. It is important for teachers to expose learners to questions with a high cognitive demand and questions that integrate topics throughout the year. Integration of topics must also be done in the teaching of the relevant sections and not at the end.

5. Teachers need support on concavity and how it affects a function when it changes and what the conditions are for a change in concavity. The theory of concavity is only appreciated for higher order polynomials.

QUESTION 6 FUNCTIONS (PARABOLA AND HYPERBOLA)

For the most part, this question was well answered, except for Q6.1.4 and Q6.2.

Common errors and misconceptions

1. Many candidates did not notice that the *x*-co-ordinate of the turning point gave the line of symmetry.
2. In Q6.1.4, they could not interpret the result after calculating the derivative of $g(x)$.
3. Candidates did not realise that the second derivative is a positive horizontal line, and that regardless of the value of *x*, the derivative stays positive.
4. Candidates had difficulty in determining the horizontal asymptote and shape when interpreting "increasing for all $x \in R,\ x \neq -2$.".

Suggestions for improvement

1. Teachers should spend enough time on graphs in Grade 11 to ensure that basic concepts are understood.
2. Transformations (specifically symmetry and reflection), although not a topic in CAPS, should be tested regularly in the graphs section.
3. The second derivative and the effect it has on concavity should be explained and interrogated.
4. Intervals for which functions increase and decrease should be assessed regularly.
5. Relate the work covered in Algebra to graphs. This should improve the learners' appreciation of the mechanical processes that they go through in Algebra.
6. Expose learners to a number of different ways that functions can be tested.
7. Advise learners to look at mark allocation as an indication on how much work needs to be done. Learners often write multiple pages for only 2 marks.

QUESTION 7 FINANCE

Q7.1 and Q7.3 were answered fairly well whereas Q7.2 and Q7.4 were poorly answered.

Common errors and misconceptions

1. The graphical form of the question was unfamiliar to all learners. The graphs were found to be misleading as many learners interpreted the graphs as straight lines.
2. In Q7.2, candidates did not realise that they needed to use the reducing-balance formula. They struggled to make *i* the subject of the formula.
3. In Q7.4, candidates were confused about calculating the sinking fund and *n*.

Suggestions for improvement

1. Spend time teaching learners to interrogate what they are doing. Finance should be taught with more insight. It is not merely the substitution of values into a formula.

2. Teach the correct use of calculators in order to prevent step-by-step answers which result in inaccurate final answers. It should be standard practice in the classroom for learners to round correctly to two decimal places in Financial Mathematics.

3. Basic algebraic rules such as multiplication and exponential laws should be taught properly in earlier grades and revised continuously in Grades 11 and 12.

4. Reinforce the calculation of the number of time periods; perhaps relate it to how one determines the number of terms in a series: top – bottom +1. In this question, learners would have been able to determine the correct *n* if calculated as 48 – 13 +1 = 36, as a payment was made in the 13th month as well.

5. Teachers should reinforce why and when to use the future or present value formula. Learners should do many examples in context in order to deepen their understanding of the different problems as well as the language associated with financial questions.

Teachers should use the correct language in class and in assessment tasks.

QUESTION 8 CALCULUS

Q8.1 was well answered but Q8.2.1 and Q8.2.2 were poorly answered.

Common errors and misconceptions

1. Although first principles were taught and reiterated in class, candidates still had a problem with notation in this question. The following errors kept re-occurring:

   (i) Algebraic errors such as incorrect expansion, adding unlike terms and changing of signs in multiplication;

   (ii) Incorrect use of the formula as well as notational mistakes;

2. Failure to replace x with $(x + h)$ into the -3x part of the equation; and

3. Omitting the factorisation part to derivative.

4. Candidates found difficulty in squaring the binomial containing a rational term in Q8.2.1. Many omitted the middle term. Other common errors were: $\left(x^2 - \frac{1}{x^2}\right) = x^4 + \frac{1}{x^4}$ or $\left(x^2 - \frac{1}{x^2}\right) = x^4 - 2x^{-4} + \frac{1}{x^4}$.

5. Candidates had great difficulty in factorising the difference of two cubes.

Suggestions for improvement

1. Teachers should stress the importance of correct notation when answering a first principles question. It seems as if learners handled this question better when they simplified $f(x+h) - f(x)$ or even the fraction $\frac{f(x+h) - f(x)}{h}$ first and then applied the limit as $h \to 0$ to the simplified fraction.

2. Basic algebraic manipulation in earlier grades should be taught properly and revised on an ongoing basis.

3. The drill and practise exercises for determining the derivative from first principles and applying the rules of differentiation are necessary. The original function must be in the differentiable form (that is, in terms where one can correctly identify the coefficient, variable and exponent) before the rules of differentiation can be applied.

4. The sum and difference of cubes should be revised.

5. Fractions and exponential laws should be emphasised when working with Calculus.

QUESTION 9 CALCULUS (GRAPHICAL APPLICATION)

This question was poorly answered.

Common errors and misconceptions

1. The fact that no sketch was given complicated the question for some candidates. They struggled to set up the two equations required to solve simultaneously. This meant that the derivative was not used to solve *a* and *b*. Candidates also arrived at $h'(x) = -3x^2 + 2ax$ or $h'(x) = 10$. Some used the given values of *a* and *b* to substitute into the equation. They were not awarded marks for this.

2. Incorrect algebraic manipulation was a problem in this question.

3. Candidates could not explain concavity. They only determined $f'(x)$ and $f''(x)$ and got to $x = \frac{1}{2}$ but did not explain their answers.

4. Candidates struggled to identify the gradient from the given line *g*. They also did not know what to do with the gradient even if they did identify it correctly in Q9.5.

Suggestions for improvement

1. Emphasise that if a question states, 'show or prove certain values', those values may not be used in determining the answer. Instead the learner has to perform calculations and arrive at the same values.

2. In teaching any function, teachers should expose learners to all aspects of the function. This includes sketching, interpretation of the equation and the graph, as well as finding the equation from given information and transformations. The teaching should also include concepts such as roots, points of intersection, intervals where graphs are relative to one another under a given condition, gradients and equations of tangents.

3. Learners should be taught to distinguish between the function and its gradient, that is the difference between the meanings of $f(x)$ and $f'(x)$.

4. Expose learners to higher-order thinking questions and interpretation of graphs. Initially, teachers should assist learners in understanding what is being asked, what it looks like on the picture and which *x*-values are relevant to the interval required in the solution.

5. Teachers must be aware that concavity of functions is explicitly mentioned in CAPS. It is important for teachers to discuss the concepts of concave up, concave down and the intervals for which these occur. The concavity should also be linked to the second derivative. If a function is concave up on an interval then $f''(x) > 0$ and if a function is concave down on an interval then $f''(x) < 0$.

6. In a cubic graph, the concavity always changes at the point of inflection. This, however, is not true for all functions, for example $f(x) = x^4$. It is, therefore, necessary that learners must demonstrate the difference in concavity on either side of the point of inflection (the change of sign in the second derivative).

QUESTION 10 CALCULUS (APPLICATION)

This question was poorly answered.

Common errors and misconceptions

1. Candidates used the Theorem of Pythagoras to determine *r*. Where trigonometry was used, candidates often did not answer the question by writing *r* in terms of *h*.

2. In Q10.2, it seemed as if the majority of the candidates did not understand what was asked in this question. Some used the incorrect formula or made an incorrect substitution for *r*. A number of them made the substitution of $h = 9$ before determining the derivative.

3. Some candidates were unable to simplify the formula for volume correctly and others were unable to determine the derivative correctly.

Suggestions for improvement

1. Learners should be exposed to the integration of topics across papers.

2. The section on measurement/mensuration is taught in Grade 10 and revision should take place in Grade 11 and Grade 12. Make use of models/teaching aids to assist teaching this section.

3. Learners are not expected to know the formulae for the volume and surface area of cones and spheres, but they should be able to select the correct formula from a given list.

4. Expose learners to examples where they have to differentiate with respect to variables other than *x*.

5. This section of Calculus is often taught towards the end of the year and therefore learners do not get enough opportunity to practise. Teachers should ensure that there is enough time for learners to understand the application fully.

QUESTION 11 PROBABILITY AND COUNTING PRINCIPLE

Q11.1, Q11.2.1 and Q11.2.2 were fairly well answered. Q11.2.3 and Q11.3 were poorly answered.

Common errors and misconceptions

1. Candidates confused independent and mutually exclusive events. Many used either the identity $P(A \text{ or } B) = P(A) + P(B) - P(A \text{ and } B)$ or used $P(A) + P(B)$ to prove that A and B were independent events, instead of showing that $P(A) \cdot P(B) = P(AB)$.

2. Candidates used incorrect notation, for example, $P(0{,}63)\ x\ P(0{,}2)$. This indicates a lack of understanding of probability.

3. Candidates were unable to distinguish between the scenarios where repetition is allowed and where it is not allowed.

4. Candidates knew that the vowels and consonants were fixed and were able to identify that the remaining letters could be arranged in 5! different ways but wrote it incorrectly. Common errors were 1 x 5! x 1 or 3! x 5! X 4! or 3 + 5! + 4.

5. In Q11.3, candidates were unable to determine the total number of observations in the sample space. Where they correctly determined $\frac{t}{t+2}$ and $\frac{2}{t+2}$ they struggled to form an equation using 52%. The algebraic manipulation was problematic.

Suggestions for improvement

1. The terminology needs to be explained in greater depth. The meaning of factorial (!) is to be clearly explained.

2. Teachers should demonstrate the fundamental counting principle by asking a few learners in the class to sit in a row and asking in how many different ways they can be arranged. This should give the learners a better understanding of the counting principle and will help learners distinguish between 7^7 and 7!.

3. Teacher should emphasise the difference between 'with replacement' and 'without replacement'.

4. This section is still new to a number of teachers and although there has been an improvement in the answering of this section, further support is still needed. Teachers should work through as many questions from textbooks and past examination papers as they can.

11.5 OVERVIEW OF LEARNER-PERFORMANCE IN PAPER 2

1. The paper was seen as fair and of a good standard. Many candidates attempted all the questions in the paper. There were some unseen and unfamiliar questions which challenged the top candidates. However, there were still enough marks for the weak to average candidate to achieve a pass.

2. Candidates performed well in certain questions but their performance in other questions was dismal. Many candidates could not link and relate the content they learnt in earlier grades. As a result, candidates were unable to answer questions that were asked differently to the way they were asked in the past.

3. The integration of topics proved to be a challenge to many candidates. It must be understood that Mathematics cannot be studied in compartments.

4. Some candidates were not familiar with terminology that is frequently used in Mathematics, namely 'bisect', 'hence', 'show that' and 'prove that'.

5. It is evident that many of the errors made by candidates in answering this paper haved their origins in a poor understanding of the basics and foundational competencies taught in the earlier grades. These include: the inability to make the relationship between angle of inclination and gradient; a lack of knowledge that a trigonometric ratio is equal to some numeric value; the inability to recall the formula for area of a triangle; the poor recall of reduction formulae and trigonometric identities; the inability to relate angles in a diagram and the inability to provide justification for statements.

6. The item-by-item analysis revealed that many candidates were mostly exposed to knowledge and routine type questions. Candidates showed confidence in dealing with work that they had seen previously. They struggled with concepts in the curriculum that required deeper conceptual understanding. Questions where candidates had to interpret information or provide justification, presented the most challenges.

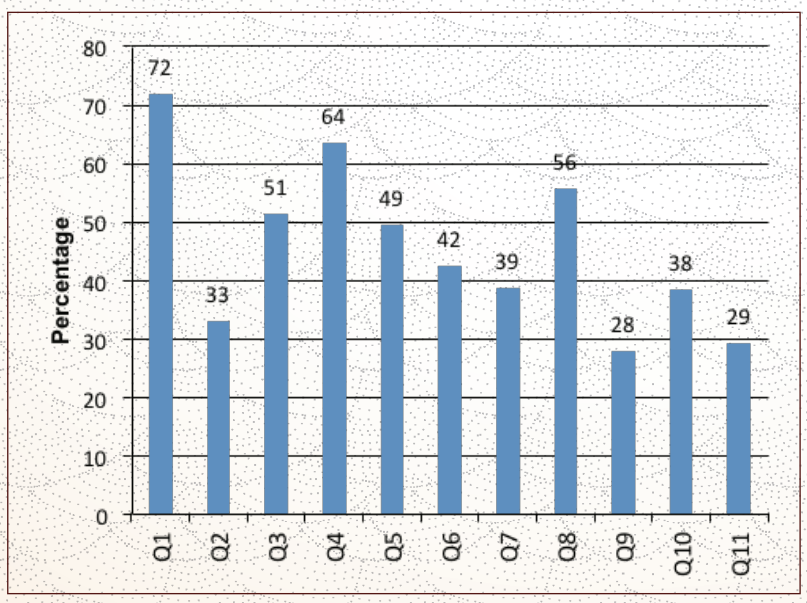
7. A number of candidates lacked the necessary insight to deal with questions based on compound angles, interpretative questions on trigonometric functions and complex questions in Euclidean Geometry. Many candidates did not answer Question 11 or they made a poor attempt at it.

8. In general, candidates needed to exercise caution with algebraic manipulation skills as overlooking certain basic principles or practices resulted in the unnecessary loss of marks. Although the calculator is an effective and necessary tool in Mathematics, learners appeared to believe that the calculator provided the answer to all their problems. Some candidates needed to realise that conceptual development and algebraic manipulation were often impeded as a result of the dependence on the calculator.

11.6 DIAGNOSTIC QUESTION ANALYSIS FOR PAPER 2

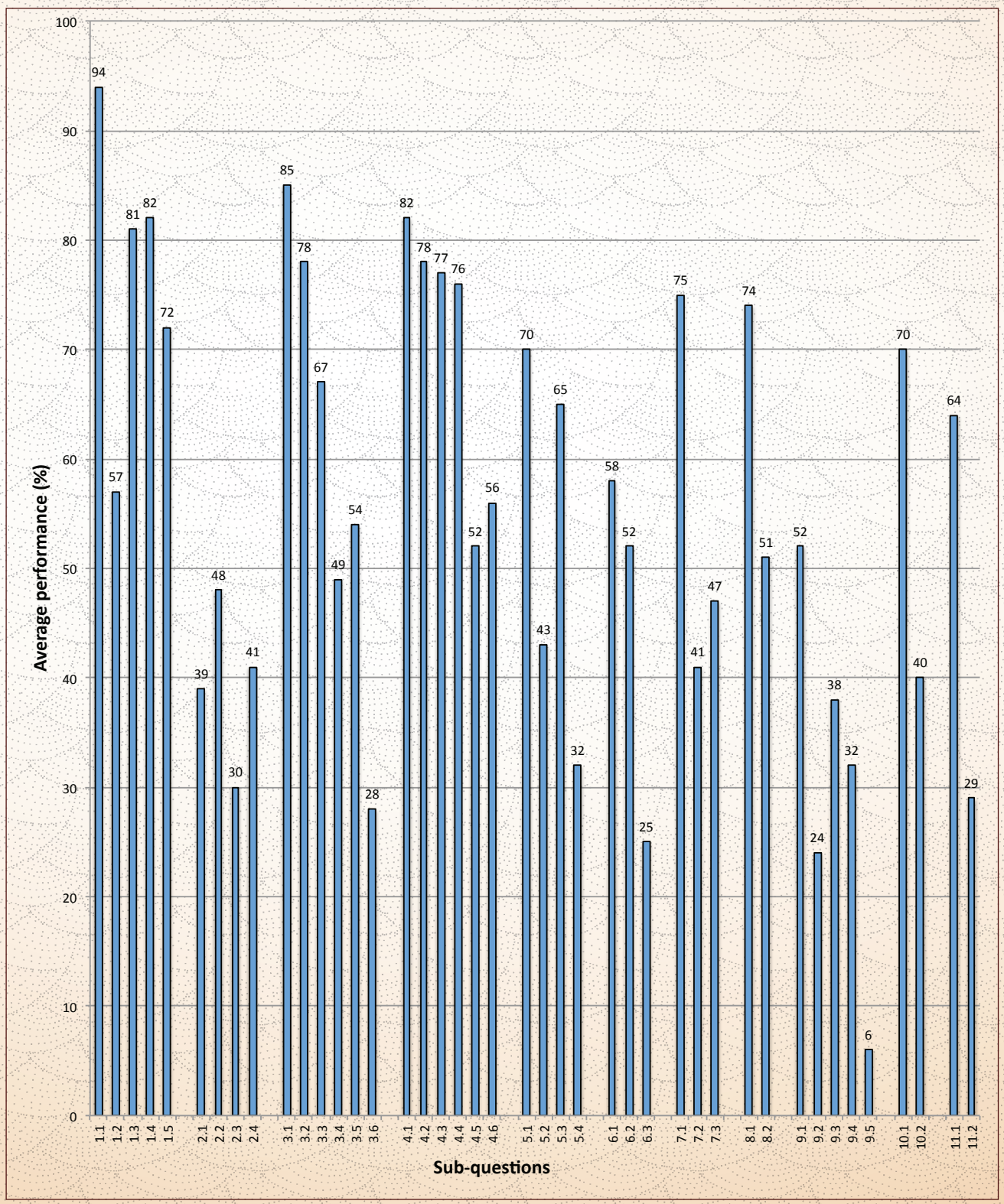
The following graph is based on data from a random sample of candidates. While this graph might not accurately reflect national averages, it is useful in assessing the relative degrees of challenge of each question as experienced by candidates.

Graph 11.6.1 Average percentage performance per question for Paper 2



Q1	Data Handling
Q2	Data Handling
Q3	Analytical Geometry
Q4	Analytical Geometry
Q5	Trigonometry
Q6	Trigonometry
Q7	Trigonometry
Q8	Euclidean Geometry
Q9	Euclidean Geometry
Q10	Euclidean Geometry
Q11	Euclidean Geometry

Graph 11.6.2 Average percentage performance per sub question for Paper 2



11.7 ANALYSIS OF LEARNER-PERFORMANCE IN EACH QUESTION IN PAPER 2

QUESTION 1 DATA HANDLING

Candidates performed reasonably well in this question.

Common errors and misconceptions

1. Many candidates were able to represent the information correctly on the scatterplot. However, many candidates were unable to draw an accurate least squares regression line. Instead, many candidates drew a line of best fit. Candidates were confused between a line of best fit and the least squares regression line.

2. Many candidates substituted 18 into the equation and then calculated the correct answer. This suggests that they knew what was required to answer the question. However, it is rather disappointing that many candidates did not round off this answer to the nearest 100 kJ, as required by the question.

3. Candidates did not realise that each point in the scatterplot represented two pieces of information. They only gave one component of the outlier: either the value of the fat content or the amount of energy. Very few candidates identified the outlier as a bi-variate point.

4. While it is encouraging to note that candidates were able to calculate the correlation coefficient and interpret the result, there wass still a large number of candidates who had no idea about this concept, how to calculate it and how to interpret the value. Some candidates rounded off the correlation coefficient from 0.95 to 1. They did not realise that by rounding their answers, it affected the strength of the relationship significantly.

5. Many candidates gave the trend of the data as the answer to Q1.5 instead of commenting on the correlation coefficient. Some only said that it was positive and omitted the key word “strong” from their answer. They were not awarded any marks for this.

Suggestions for improvement

1. Teachers should thoroughly explain the different concepts that learners will encounter in this topic. Poor understanding of these terms is a contributing factor to the learners’ confusion. The difference between trend and correlation should be explained.

2. Teachers and learners need to be aware that there is a marked difference between the line of best fit and the least squares regression line. The line of best fit is an intuitive line whereas the least squares regression line is defined by some equation. Therefore, the least squares regression line should be drawn accurately, in the same way as one would draw the graph of any other straight line.

3. The least squares regression line is defined for the given set of data. One should not extend this line beyond the given data as there is no indication of the behaviour of the variables outside the given data set. Likewise, it is not advisable to use the least squares equation to extrapolate an answer. Such an answer cannot be accepted with a high degree of accuracy.

4. Learners should be advised to read the entire question. It is unacceptable that they should lose marks because of not reading the entire question, as was the case in Q1.2.1 where the question required that the answer was rounded to the nearest 100 kJ.

5. When dealing with bi-variate data, each point in the data set comprises two pieces of information: when making reference to these points, they should be indicated as an ordered pair. It is insufficient to refer to a point by only one of the two characteristics.

6. Teachers should demonstrate the correct use of the calculator. Learners need to be made aware that the operation procedure varies from one brand of calculator to the next. It is in their interest to use the same brand regularly.

7. Statistical literacy is not only about procedures to calculate an answer or to draw a graphical representation. Interpreting data and drawing appropriate and valid conclusions are much needed in everyday life. Analysing results must be a vital component of teaching this topic.

QUESTION 2 DATA HANDLING

Performance in this question was very poor.

Common errors and misconceptions

1. This question was very poorly answered by most candidates. They simply had no idea of the frequency column indicating how many times each observation occurred. Consequently, they were unable to perform routine calculations.

2. Many candidates only focused on the sum of the values on the uppermost faces column. They performed the required calculations using these 11 values. In this case, they found the median to be 7, which coincidentally corresponded with the correct answer when all 30 values were taken into account. No marks were awarded to candidates who only used 11 values in calculating the median.

3. It is disappointing that some candidates were still unable to calculate the standard deviation correctly. Even more disconcerting is the fact that some candidates were still using the table method to calculate the standard deviation.

4. A fair number of candidates were able to correctly calculate the one standard deviation interval from the mean but did not indicate the number of observations that fell within this interval. Some candidates were able to use the incorrectly calculated values to answer Q2.4. This is an indication that teachers and learners are becoming familiar with the content in Statistics.

5. Some candidates calculated the lower limit of the interval as standard deviation-mean and got a negative answer. They did not know how to proceed thereafter. Other candidates used the median instead of the mean in their calculations. Some candidates rounded off the values of the mean and standard deviation and used these rounded values in calculating the one standard deviation interval.

Suggestions for improvement

1. The curriculum states that Data Handling must include ungrouped and grouped data sets. In this regard, teachers need to explain clearly the difference between ungrouped and grouped data.

2. Teachers must use correct statistical vocabulary and terminology. These concepts must be explained in detail before using them in order for learners to relate to them. Learners must be made aware of the difference between population standard deviation and sample standard deviation. Learners need to know that s_x represents population standard deviation and that s_x represents sample standard deviation. The contexts used in examinations represent populations and, therefore, the population standard deviation should be calculated.

3. As a statistician, it is one's objective to present data in an effective and efficient manner. It is advisable to expose learners to the various ways in which data can be represented. Sometimes a set of ungrouped data may contain a number of observations that appear multiple times. This long set of data can be more efficiently displayed in a frequency table. Learners need to be able to translate a frequency table into tangible information.

4. Data Handling should be seen as more than just doing procedural calculations. Due attention must be paid to analysis and interpretation type questions. In this way, an appreciation for Data Handling will be instilled in learners.

QUESTION 3 ANALYTICAL GEOMETRY

Usually candidates perform fairly well in Analytical Geometry. However, the integration of Euclidean Geometry made this question more challenging than in the past.

Common errors and misconceptions

1. Candidates were unable to relate the inclination with the gradient of the line. Instead of calculating the gradient of PQ, some calculated the gradient of NQ as the co-ordinates of N and Q were given. Some calculated the gradient in terms of *a* and *b* and then proceeded to make unnecessary simplifications that resulted in the incorrect answer. For example, $m_{PQ} = \frac{b+3}{a+2} = \frac{3b}{2q} = \frac{3}{2}$.

2. Candidates' lack of knowledge of the Midpoint Theorem resulted in the inability to answer Q3.2 and Q3.3.

3. In Q3.2, candidates who were unable to calculate the gradient of PQ simply guessed the gradient of MN. Some candidates did not provide a reason for the lines PQ and MN being parallel, while others did not write the equation in the required form.

4. In Q3.3, many candidates attempted to calculate the co-ordinates of M. Some assumed that PQRS was a rhombus and then tried to use the fact that the diagonals bisected each other perpendicularly.

5. The incorrect sequencing of Q3.4 and Q3.5 resulted in many candidates not answering the remaining questions.

6. A disturbing practice that is emerging, is that candidates were merely writing down the co-ordinates of points without showing any calculations as to how they were arrived at. They did this in response to writing down the co-ordinates of S and P. It is widely believed that these candidates were using a ruler and some scale to determine such co-ordinates. Candidates were not awarded any marks for such practice.

7. Where candidates made the assumption that PQRS was a parallelogram, they were unable to relate the properties of a parallelogram in answering Q3.5 and Q3.6. In Q3.5, they found some other point to be the midpoint of QS, instead of using N to be the midpoint of QS. In Q3.6, without doing any calculations, they merely wrote down the co-ordinates of R and then used the midpoint formula. Many did not realise that they had to establish two equations and then solve them simultaneously.

Suggestions for improvement

1. The diagrams are drawn fairly accurately so that they do not mislead the learners. Learners must be told that they may not use measurement as a means to calculate answers.

2. Learners need to realise that when making a statement, they are in fact making a claim. Such claims must be justified. Therefore, learners must provide reasons for statements in Analytical Geometry.

3. The different topics in Mathematics can be integrated. Learners must be able to establish the connection between Euclidean Geometry and Analytical Geometry. Learners must also be able to perform algebraic manipulations within Analytical Geometry but must be mindful of the results. In this regard, learners must check the validity of their answers.

4. The answers to some questions might seem trivial and learners are tempted to write down the answer only. However, there is high-powered reasoning behind this so-called trivial solution. Learners should show that they understand the high-powered reasoning in their answers and not because it happens to be so. Learners must show all their workings, especially where the answer requires more than one step of working.

QUESTION 4 ANALYTICAL GEOMETRY

Candidates' performance in this question was reasonable.

Common errors and misconceptions

1. While many candidates were able to answer Q4.1 correctly, some substituted (5 ; 2) for *x* and *y* in the equation of the circle instead of substituting for *a* and *b*. Some candidates made the assumption that the radius is 5 units from the co-ordinates of the centre. Others substituted the value of *r* ($\sqrt{4}$) instead of r^2 into the equation of the circle.

2. Many candidates did not realise that the S was on the *y*-axis. Some of those who realised that S was on the *y*-axis, did not select the correct value of *y*. They accepted that the *y*-co-ordinate of S could be positive.

3. Many candidates found it challenging to determine the equation of the tangent to the circle in Q4.3. They were unable to recall that the tangent is perpendicular to the radius at the point of contact. Some candidates swopped the *x* and *y* co-ordinates in the gradient formula. Consequently, a large number of candidates were unable to calculate the inclination of the tangent in Q4.4.

4. The integration of Euclidean Geometry made Q4.5 very challenging. Many of the candidates who recognised the tangent-chord relationship between the angles, failed to provide a reason for their statement. Some candidates assumed that PBSR was a cyclic quadrilateral and used the opposite angles of the cyclic quadrilateral property to calculate the value of θ.

5. Many candidates struggled to establish the base and height of ΔPQS and hence were unable to calculate the area of ΔPQS. Those who attempted to use the area formula: Area = ½ absinC, had difficulty calculating the value of the angle to be used. It is disappointing to note that some candidates used the cosine ratio instead of the sine ratio in the area formula.

Suggestions for improvement

1. Teachers should emphasise that points that lie on the *x*-axis have a *y*-co-ordinate of 0 and points that lie on the *y*-axis have an *x*-co-ordinate of 0.

2. Teachers need to revise the concept of perpendicular lines and gradients, in particular that the tangent is perpendicular to the radius at the point of contact.

3. The concept of angle of inclination should be clearly explained as the angle formed between the line and the *x*-axis in the positive direction, i.e. the positive direction of the *x*-axis, is one of the arms of the angle of inclination.

4. Learners should develop competence in applying the formula $\tan\theta = m$ in both ways. That is, they should be able to calculate the gradient given the angle of inclination as well as calculate the angle of inclination when given the gradient.

5. Learners must be taught to refrain from assuming facts that are not given.

6. Teachers must not overlook the integration of Euclidean Geometry in Analytical Geometry. The integration should not only be confined to triangles and quadrilaterals but also extend to circles.

7. In class, learners should be encouraged to explain their strategy briefly when answering higher-order questions. Other learners should be asked to point out errors in the explanation and to provide alternate approaches. This collaborative learning strategy should develop the creative thinking skills that are required in solving unseen problems.

QUESTION 5 TRIGONOMETRY

This question was answered fairly well by many candidates.

Common errors and misconceptions

1. Errors in Q5.1 and Q5.2 resulted from the incorrect selection and application of reduction formulae. Candidates made errors with the signs in the reduced form of the ratios, for example $-\tan 23° = \frac{-\sin 23°}{-\cos 23°}$. Candidates had difficulty when dealing with negative angles. Many candidates carelessly simplified $\left(\sqrt{k}\right)^2$ as k^2. This led to the unnecessary loss of marks. Some candidates used a calculator in Q5.1, ignoring the instruction.

2. The vast majority of the candidates failed to identify that the denominator in Q5.2 was an expansion of the compound angle sin(A + B). Many candidates chose to expand the denominator. This resulted in tedious manipulations with very few arriving at the correct simplified expression. Candidates did not show all the steps when working with the reduction formulae and were penalised. Some candidates arrived at $-8\sin x\cos x$ but failed to write this in terms of one trigonometric ratio.

3. Many candidates made correct substitutions but did not use brackets. This led to incorrect simplification thereafter, and resulted in an incorrect answer, for example $\cos 2x \sin x = 2\cos^2 x - 1.\sin x = 2\cos^2 x - \sin x$.

4. Some candidates were able to determine the general solution correctly, but a number of others had difficulty in answering this question. Some candidates took $\cos 2x$ to be $\cos^2 x$ and others took $\cos 2x$ to be $2\cos x$. A fair number of candidates simplified $\cos 2x - 7\cos x - 3 = 0$ by taking out cos x as a common factor and resulted in $\cos x(2-7) - 3 = 0$. Some candidates divided throughout by cos x. This led to a breakdown.

5. Many candidates found Q5.4 to be challenging as they were unable to write sin 3θ in terms of θ. Candidates often wrote: $\sin 3q = 3\sin q\cos q$ or: $\sin 3q = \sin q + \sin 2q$. Some candidates used a calculator when answering this question. This was against the instruction and they were not awarded any marks.

Suggestions for improvement

1. Learners need to understand that knowledge of theory is integral in answering questions in trigonometry. There is no short-cut to this process. They need to learn the reduction formulae and know which formula to use in the given situation.

2. Teachers should not only focus on the expansions of the compound angles. They should also expect learners to identify the compound angle from the given expansion.

3. Learners must be advised to show all steps when working with reduction formulae. Marks are not awarded to candidates who make errors with the signs.
For example: $4\cos(-x)\cos(90° + x) = 4(\cos x)(-\sin x) = -4\cos x \sin x$.
However, a candidate may perform the following simplification mentally and arrive at the correct answer as shown: $4\cos(-x)\cos(90° + x) = 4(-\cos x)(\sin x) = -4\cos x \sin x$.

4. Learners must adhere to instructions. When the question states 'without using a calculator', it is expected that they should not use a calculator.

5. Learners should be advised to draw a sketch to assist in answering questions where they are not allowed to use a calculator.

QUESTION 6 TRIGONOMETRY

This question was poorly answered.

Common errors and misconceptions

1. Candidates found the interpretation of trigonometric graphs to be very challenging. A number of candidates were unable to identify which was the sine function and which was the cosine function in the sketch.

2. It is evident that candidates were not aware of the transformations that are applied to the basic trigonometric functions and how these transformations impact on the equation of a trigonometric function.

3. Many candidates were able to correctly identify the critical values for the required interval but used the incorrect notation. They included the endpoints when the question required determining the interval for which $f(x) > g(x)$.

4. Many candidates could not describe the transformation in Q6.3. Some candidates stated that graph *g* had to shift 2 units to the left instead of shifting 60° to the left.

Suggestions for improvement

1. It is common practice for learners to use calculators to sketch graphs. Hence, they do not pay attention to certain critical features of these graphs. This makes the task of determining an equation of a given graph very difficult.

2. While the point-by-point approach is a valid way to introduce trigonometric graphs, the focus of attention should be on the critical features and characteristics of these graphs. Learners only need to plot the critical points when drawing sketch graphs.

3. When discussing the transformation of trigonometric graphs, learners must be alerted to how the critical features and characteristics of the basic graph change for each transformation. In this way they will be able to visualise the effect of *a*, *p* and *k* on the basic function.

QUESTION 7 TRIGONOMETRY

Generally, candidates' performance in this question was fair.

Common errors and misconceptions

1. Candidates had difficulty in seeing the different planes in the sketch.

2. The inclusion of Euclidean Geometry concepts in other sections of work posed a huge challenge for some candidates. Some used the sum of angles in a triangle correctly and arrived at $C\hat{A}D = 180° - 2\theta$ but then further simplified the answer to $C\hat{A}D = 90° - \theta$. They failed to realise that $C\hat{A}D$ was not one of the base angles in the triangle.

3. Some candidates were unaware of when to use the sine or cosine formula to solve a triangle. It is disappointing that some candidates omitted the coefficient of 2 in the cosine formula. Some were unable to select the appropriate trigonometric ratio in a right-angled triangle.

4. Candidates demonstrated poor algebraic manipulation skills. They were unable to make cos θ the subject of the formula in Q7.2.

5. Many candidates struggled to calculate the height of the block of wood because they could not relate the angles and sides in the different triangles. Some stated that $\sin\frac{1}{2}\theta = \frac{AB}{AC}$ but could not proceed any further. They could not relate ½ θ with θ. Some assumed that BC was 2 units.

Suggestions for improvement

1. Teachers should discuss the minimum requirements for each triangle rule to be used. It is advisable that these should be discussed in conjunction with a sketch.

2. Teachers need to develop strategies to be used when solving right-angled triangles and triangles that are not right-angled.

3. Teachers should use models to show the different planes in a 3-D shape. This helps learners with identifying the different triangles and placing the sides and angles in perspective.

4. Initially expose learners to numeric questions on solving 3-D problems. This makes it easier for learners to develop strategies on how to solve such questions. Once learners have gained confidence with numeric-type questions, they should be exposed to non-numeric and higher-order questions.

QUESTION 8 EUCLIDEAN GEOMETRY

Many candidates answered this question fairly well.

Common errors and misconceptions

1. In Q8.1.1, some candidates stated that the angle at the centre was half the angle at the circumference.

2. Many candidates were able to prove the theorem in Q8.1.2. Those who were unable to prove the theorem, failed to recognise that the angles at the centre of the circle formed a revolution. Some candidates made unnecessary constructions to answer Q8.1.2. They attempted to prove that the angle at the centre of the circle is twice the angle subtended by the same chord at the circumference.

3. Many candidates were able to make the correct statements in Q8.2 but were unable to provide the correct reasons. In particular, many were unable to provide the correct reason for AB || EF.

4. Another concern in Q8.2 was that a number of candidates made correct statements about the relationship between angles that were irrelevant to the question. Some candidates named angles incorrectly, for example $\hat{D}$ instead of $\hat{D}_2$. Others assumed that DC was perpendicular to BF. Some candidates assumed that BAEF was a cyclic quadrilateral.

Suggestions for improvement

1. Learners should be encouraged to scrutinise the given information and the diagram for clues about which theorems could be used in answering the question.

2. Teachers must cover the basic work thoroughly. An explanation of the theorem should be accompanied by showing the relationship in a diagram. Teachers should use the exploratory method for teaching Euclidean Geometry. In this way, learners should be able to remember the facts learnt more effectively.

3. Teachers need to insist that learners name the angles correctly.

4. Learners should be taught that all statements must be accompanied by reasons. Teachers and learners must refer to the Examination Guidelines for a list of acceptable reasons to be used in Euclidean Geometry. Teachers should insist that learners use the correct shortened forms of reasons in class.

QUESTION 9 EUCLIDEAN GEOMETRY

This question was poorly answered by the majority of the candidates.

Common errors and misconceptions

1. Candidates were challenged by the number of times that the converse of theorems were used in answering this question. They were also unable to use the correct reasons for these converses.

2. A number of candidates could not make the associations among $\hat{A}_3$, $\hat{C}$ and $\hat{K}_3$. Some stated that $\hat{B}_2 = \hat{K}_3$ and provided the reason tan-chord theorem. These candidates failed to identify the angle in the alternate segment correctly. A number assumed that AKBT is a cyclic quadrilateral. This resulted in a complete breakdown in this question.

3. In Q9.2, many candidates used the reason chord subtending equal angles instead of line subtending equal angles.

4. Some candidates did not know the meaning of 'bisects'. Candidates who made incorrect assumptions in Q9.1 and Q9.2, provided incorrect reasoning in Q9.3. This again led to a breakdown.

5. Many candidates were unable to link $\hat{A}_3$ and $\hat{K}_2$ and, therefore, could not prove that AT was a tangent. Those who were able to see the link between these angles, failed to provide the correct reason for AT to be a tangent.

6. Many candidates were unfamiliar with the term "concyclic".

Suggestions for improvement

1. In the classroom, teachers and learners should use terminology that is expected of them in the examination. For example, instead of saying a line cuts another in half, they should say that the one line bisects the other. If learners hear these words more often, they will get to know their meaning.

2. Learners should be forced to use acceptable reasons in Euclidean Geometry. Teachers should explain the difference between a theorem and its converse.

3. When required to prove that AKBT is a cyclic quadrilateral, it implies that you need to show that a circle passes through the points A, K, B and T. Therefore, you cannot use any words that refer to a circle when referring to points A, K, B and T.

4. Teachers should allow learners to present their solutions in the classroom situation. Other learners should be asked to point out errors and to provide alternative solutions to the same question. This kind of discussion should encourage problem-solving skills.

5. Learners need to be told that success in answering Euclidean Geometry comes from regular practice, starting off with the easy and progressing to the difficult. There is no short-cut to this process.

QUESTION 10 EUCLIDEAN GEOMETRY

Performance in this question was fair.

Common errors and misconceptions

1. Many candidates were able to calculate the length of DC correctly but failed to give a reason why ΔBDC was right-angled. Others failed to realise that DC was not the hypotenuse and stated that $DC^2 = 17^2 + 8^2$. This was an incorrect application of the Theorem of Pythagoras.

2. It is disappointing that candidates still confused a ratio with the length of sides. Many took BE to be 3 units and EC to be 1 unit. They used these incorrect lengths in their calculations in Q10.2.1 and Q10.2.3. Candidates used $\frac{CE}{CB} = \frac{1}{3}$ instead of $\frac{CE}{CB} = \frac{1}{4}$ in their calculations.

3. Candidates were unable to identify equal pairs of angles in the diagram and hence unable to prove that ΔBAC ||| ΔFEC. Candidates who chose to work backwards from the question, were unable to provide reasons for why a pair of angles was equal, for example $\hat{F} = \hat{B} = 90°$. These candidates were not awarded any marks for simply stating that a pair of angles was equal. Some candidates made statements that were not relevant to the answer, while others confused similarity and congruence.

4. Many candidates did not link Q10.2.2 and Q10.2.3 and, therefore, found it difficult to answer Q10.2.3.

5. In Q10.2.4, candidates did not realise that AC was the diameter of the circle in question. Many used BC as the diameter.

Suggestions for improvement

1. More time needs to be spent on the teaching of Euclidean Geometry in all grades. Time must be spent on teaching the theory, recognising the theorems in a simple diagram and deconstructing a complex diagram to identify theorems.

2. Learners need to be told that there is no short-cut to mastering the skills to answering questions in Euclidean Geometry. This requires continuous and deliberate practice.

3. Learners need to be made aware that writing correct but irrelevant statements will not earn them any marks in an examination.

QUESTION 11 EUCLIDEAN GEOMETRY

This question was very poorly answered.

Common errors and misconceptions

1. Many candidates were able to prove that the two triangles were similar by showing that pairs of sides were in the same proportion. They thought that this question was based on ratio and proportion by assuming that KM || QR and MN || PQ. Some assumed that ΔKPM ||| ΔRNM and only stated that $\frac{KP}{RN} = \frac{KM}{RM} = \frac{PM}{NM}$. These candidates were not awarded any marks.

2. Candidates assumed that MN || PQ and used the proportionality intercept theorem to calculate the length of NQ.

Suggestions for improvement

1. Teachers need to explain both the conditions under which two triangles are similar.

2. Learners must refrain from making assumptions. If they make a statement about the relationship between sides or angles, then they must prove such a statement as true before they can use it.

CHAPTER 12

PHYSICAL SCIENCES

The following should be read in conjunction with the Physical Sciences question paper of November 2015 Examination.

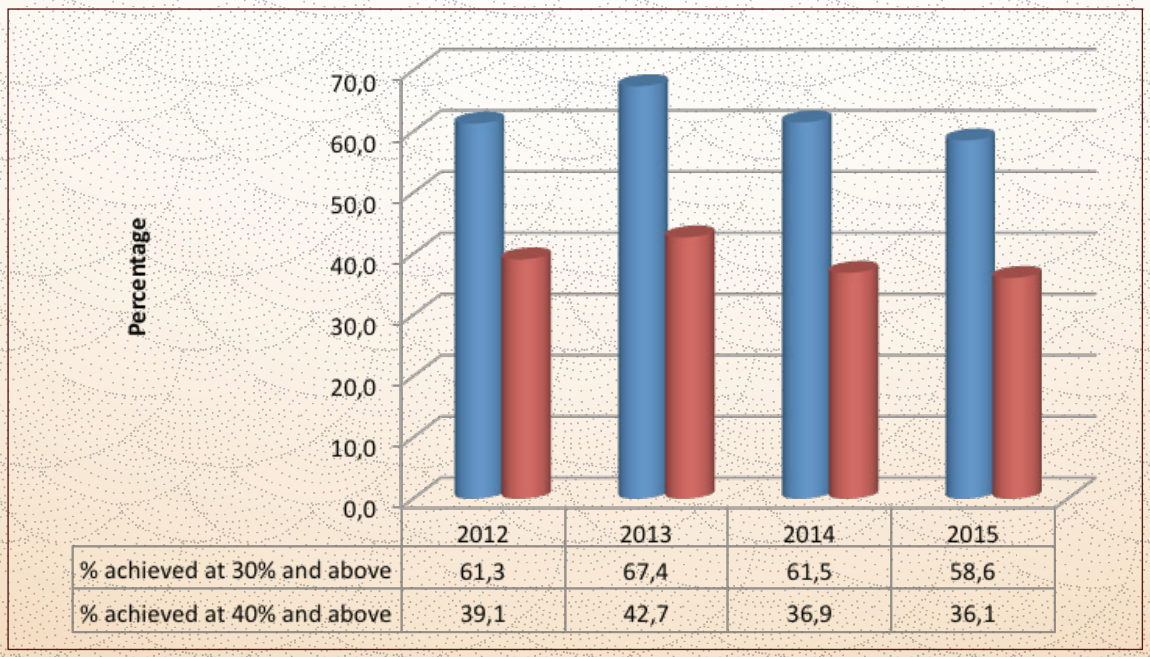
12.1 PERFORMANCE TRENDS (2012 – 2015)

The number of candidates increased by 25 192 in comparison to that of 2014. The general performance of candidates declined this year as indicated by 58.6% of candidates achieving 30% and above, with 36.1% achieving 40% and above.

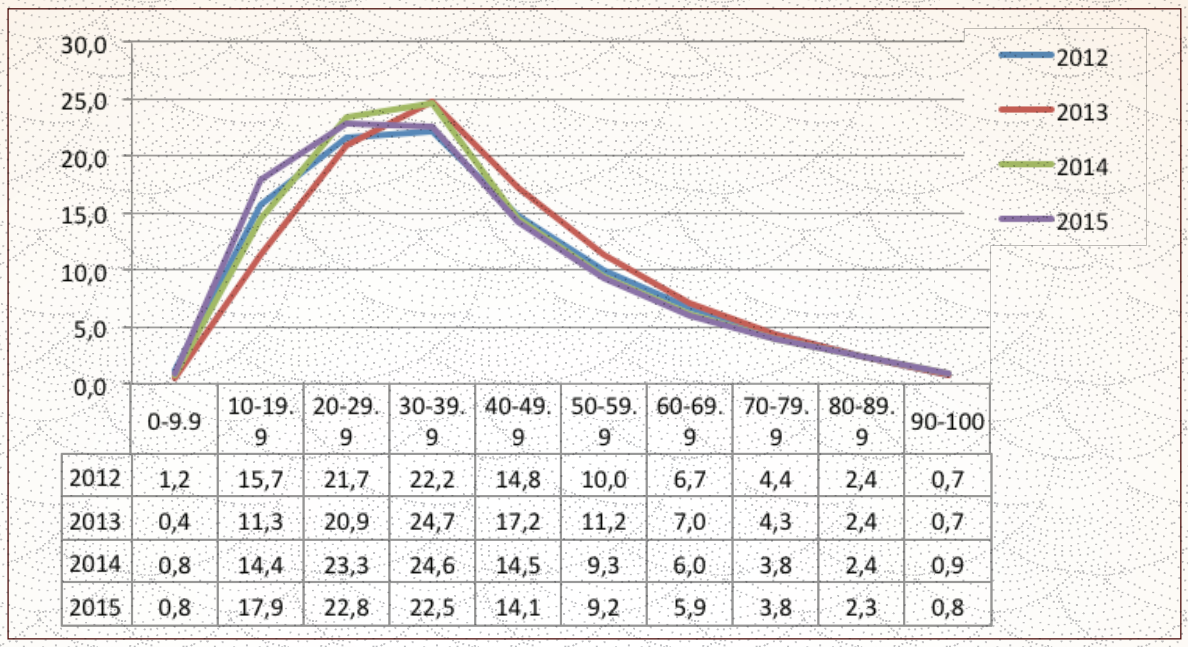
Table 12.1.1 Overall achievement rates in Physical Sciences

Year	No. wrote	No. achieved at 30% and above	% achieved at 30% and above	No. achieved at 40% and above	% achieved at 40% and above
2012	179 194	109 918	61.3	70 076	39.1
2013	184 383	124 206	67.4	78 677	42.7
2014	167 997	103 348	61.5	62 032	36.9
2015	193 189	113 121	58.6	69 699	36.1

Graph 12.1.1 Overall achievement rates in Physical Sciences



Graph 12.1.2 Performance distribution curves in Physical Sciences



	0-9.9	10-19.9	20-29.9	30-39.9	40-49.9	50-59.9	60-69.9	70-79.9	80-89.9	90-100
2012	1,2	15,7	21,7	22,2	14,8	10,0	6,7	4,4	2,4	0,7
2013	0,4	11,3	20,9	24,7	17,2	11,2	7,0	4,3	2,4	0,7
2014	0,8	14,4	23,3	24,6	14,5	9,3	6,0	3,8	2,4	0,9
2015	0,8	17,9	22,8	22,5	14,1	9,2	5,9	3,8	2,3	0,8

From the above graphs, it is evident that after the improvement in 2013, there has been a disappointing decline in the performance of candidates in the past two years.

12.2 OVERVIEW OF LEARNER-PERFORMANCE IN PAPER 1

General Comments

(a) Questions on Newton's Laws of Motion, Work, Energy and Power, Doppler Effect and Electrodynamics (Q2, Q5, Q6 and Q10) were generally well answered.

(b) Candidates did not perform well in Questions 4 (Momentum and Impulse), 8 (Electric Field), 9 (Electric Circuits) and performed very poorly in Q11 (Photo Electric Effect).

(c) Grade 11 work was poorly understood.

Suggestion for improvements

(a) Teachers are advised to make greater use of short informal assessment tasks in order to reinforce basic concepts and principles, e.g. short speed tests (± 10 minutes). This can be used to good effect in content relating to definitions and laws listed in the examination guideline.

(b) The drawing of free-body diagrams is central to solving problems involving forces acting on objects and as such, teachers should ensure that learners are required to draw free-body diagrams for such problems in classwork, homework and tests.

(c) Each learner should be provided with a graph book. Problem solving exercises that involve graphs should be done in a variety of topics and the graph book/paper should also be utilised for some of these problems. However, learners should also be given the opportunity to sketch graphs without the use of graph paper. The scale of graphs, gradient, ordered-pairs and *x* and *y*-intercepts need to be emphasised within problem-solving in science contexts.

(d) Teachers should emphasise the use of the relevant formula provided on the formula sheet, correct substitution and providing the answer with the correct unit and direction if required.

(e) Learners should be given a variety of problem-solving activities that involve mathematical knowledge pertaining to simultaneous equations, quadratic equations, binomials, factorisation, trigonometry and graphs in classwork, homework, tests and examinations.

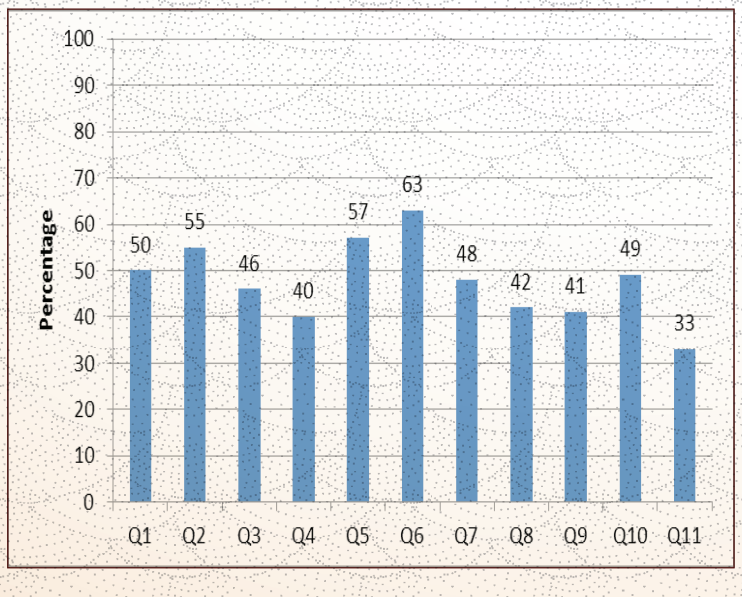
(f) Problem-solving activities where different knowledge areas are integrated should be given to learners.

(g) Grade 11 work should be included in classwork, homework and tests in Grade 12.

12.3 DIAGNOSTIC QUESTION ANALYSIS FOR PAPER 1

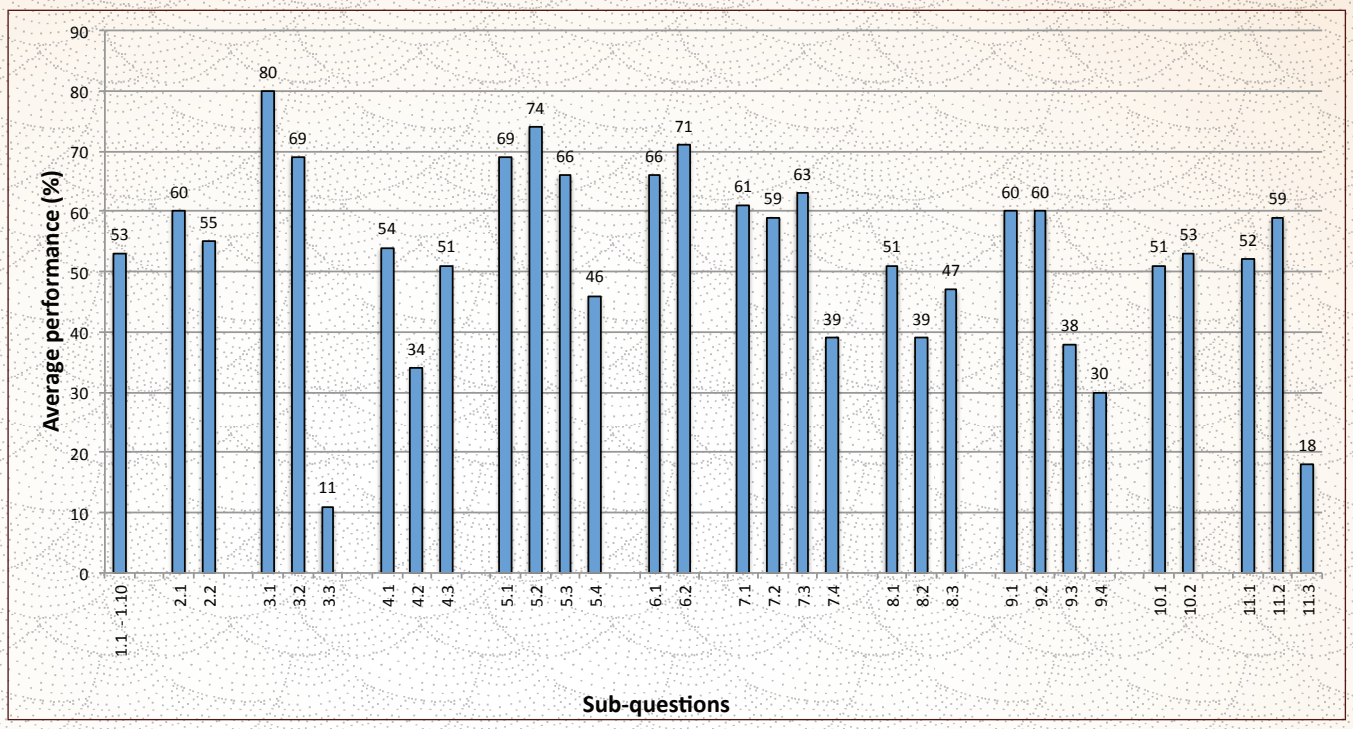
The following graph is based on data from a random sample of candidates. While this graph might not accurately reflect national averages, it is useful in assessing the relative degrees of challenge of each question as experienced by candidates.

Graph 12.3.1 Average marks per question expressed as a percentage for Paper 1



Q1	Multiple choice questions - all topics
Q2	Newton's Laws of Motion
Q3	Vertical projectile motion
Q4	Momentum
Q5	Work, energy and power
Q6	Doppler effect
Q7	Electrostatics (Coulomb's Law)
Q8	Electrostatics (Electric Fields)
Q9	Electric circuits
Q10	Motors, generators and alternating current
Q11	Photo-electric effect

Graph 12.3.2 Average marks per sub question expressed as a percentage for Paper 1

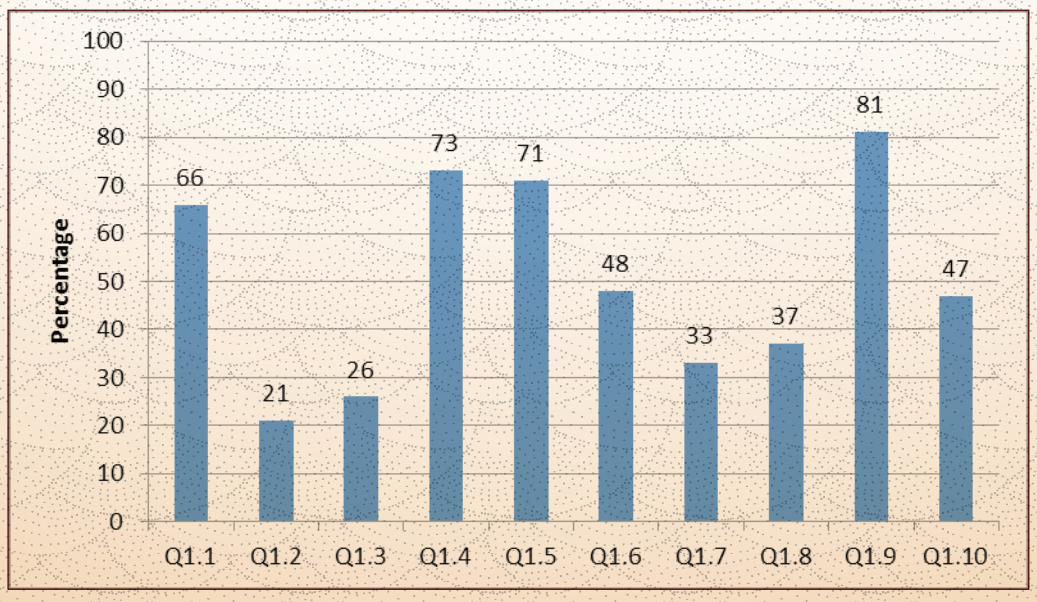


12.4 ANALYSIS OF LEARNER-PERFORMANCE IN EACH QUESTION IN PAPER 1

QUESTION 1 MULTIPLE CHOICE

The average percentage per sub-question obtained from the sample used in 12.3 is shown below.

Graph 12.4.1 Average percentage per sub-question: Multiple Choice: Paper 1



This question was fairly well answered. However, Q1.2, Q1.3, Q1.7 and Q1.8 were poorly answered.

Common errors and misconceptions

(a) Q1.2: The application of Newton's Second Law in the vertical plane was not well understood.

(b) Q1.3: The interpretation of the relationship between variables (E_k vs v) on a graph was poorly understood.

(c) Q1.7: Many candidates had difficulty applying Newton III to forces exerted on charges.

(d) Q1.8: Candidates did not understand the effect of adding or removing resistors in series and parallel in an electric circuit. They should have been able to predict the changes to current and potential difference with or without necessarily doing calculations.

Suggestions for improvement

(a) Teachers must use multiple choice questions in every assessment activity. They must also use daily drilling exercises to develop skills in answering this type of question.

(b) Teachers should give learners practice in answering Multiple Choice Questions (MCQs), as some require "working out the answer".

(c) During the revision of multiple choice questions, learners must be given an opportunity to explain the choices they made so that misconceptions can be identified and corrected.

(d) Greater emphasis should be placed on interpretation of graphs including interpreting the shapes of graphs. The concept of change needs to be honed into, especially how one physical quantity changes with respect to another in different situations.

(e) Relationship between variables should be emphasised.

QUESTION 2 NEWTON'S LAWS OF MOTION

The question was fairly well answered, with some sub-questions answered better than others. Many candidates failed to identify all the forces and its direction acting on each mass. The skill of solving equations simultaneously was severely lacking.

Common errors and misconceptions

(a) In Q2.1.4, candidates used the systems approach to do calculations which was not acceptable.

(b) Many candidates were unable to determine the need for utilising simultaneous equations to solve a problem. Candidates failed to formulate and solve simultaneous equations.

(c) Many candidates could not correctly identify the forces acting on the masses because they could not isolate them.

Suggestions for improvement

(a) The simultaneous equation/two-system method using free body diagrams has to be taught at schools. Subject advisors have to assist teachers in this regard.

(b) Learners should be given a variety of problem-solving exercises based on different knowledge areas in Physics where some require simultaneous equations to solve them and others do not. In this way, they will be given the opportunity to utilize simultaneous equations to solve problems and more importantly, will be able to know when to do so.

(c) Emphasise the sketching of labelled free body diagrams.

QUESTION 3 VERTICAL PROJECTILE MOTION

Q3.1 and Q3.2 were very well answered. Q3.3 was very poorly answered.

Common errors and misconceptions

(a) Candidates failed to comprehend the motion of the two objects with respect to each other.

(b) Many candidates failed to formulate appropriate equations for the motion of each object.

(c) The concepts of Δt (duration) and t (time) confused many candidates..

(d) Many candidates displayed very poor problem-solving skills.

(e) Many showed poor understanding of position, displacement and height.

(f) They could not apply the concept of a frame of reference to motion.

Suggestions for improvement

(a) Since Q3.3 was a higher-order question, learners need to be exposed to more examples of the level 4-type questions.

(b) Teachers must follow the correct methodology for solving problems on vertical projectile motion. Learners should be taught to indicate their chosen sign convention at the beginning of the problem. Learners should be advised to determine and show the frame of reference of motion before they start with the question.

(c) The concepts of position, displacement and height need to be emphasised by giving learners problem-solving exercises that involve these concepts.

(d) The concepts of Δt and t need to be explained clearly.

(e) Teachers must use selected questions from previous national and provincial question papers on projectile motion during teaching and revision.

(f) Learners should be provided with more practical tasks in translating graphs to diagrams and diagrams to graphs so that they can gain an understanding of objects moving in the vertical plane. Pay more attention to graph sketching/skills. Most sections in Physics lend itself to problems that involve graphs. Teachers must expose learners to such problems in all knowledge areas of Physics.

(g) Learners must be exposed to questions that require the use of simultaneous equations to get to the answer.

QUESTION 4 MOMENTUM

This question was poorly answered.

Common errors and misconceptions

(a) Candidates failed to identify this as a momentum problem. They could not identify initial and final velocities. The concept of recoil was poorly answered or not understood.

(b) The concept of impulse was poorly applied to this question.

(c) Some candidates failed to convert grams to kilograms.

(d) The concept of "magnitude" of a vector was not well understood.

(e) Candidates omitted the subscript in $F_{net}\ \Delta t = \Delta p$.

Suggestions for improvement

(a) Learners should be exposed to different contexts of momentum-type problems.

(b) Learners must clearly identify initial and final velocities.

(c) Ensure that learners understand what the subscript "net" in $F_{net}\ \Delta t = \Delta p$ means.

QUESTION 5 WORK, ENERGY AND POWER

This question was generally well answered with the exception of Q5.4.

Common errors and misconceptions

(a) Candidates did not understand the meaning of "energy principles" which was needed to solve this problem.

(b) Candidates were not aware that mechanical energy is only conserved when there is no friction.

(c) Candidates did not understand the concepts of conservative and non-conservative forces. Some candidates were unable to identify conservative and non-conservative forces.

(d) Some candidates confused the formula $W = F\Delta x\cos\Theta$ with $W_{net} = \Delta K$.

(e) Some candidates do not understand the angle Θ in $F\Delta x\cos\Theta$, $mg\cos\Theta$ and $mg\sin\Theta$.

(f) Common errors in the free body diagram were missing labels, missing arrows, arrows not starting at the point, additional forces and incorrect plane.

(g) Many candidates omitted or used wrong subscripts when labelling the forces in the free body diagrams: (F_A / F_f / F_N / F_g) and in formulae: (W_{nc} / W_{net} / etc.).

(h) Many candidates omitted $F_{g//}$ when using the formula for W_{nc} or W_{net}.

(i) Some candidates confused W_{net} and F_{net}.

(j) Candidates' poor knowledge of trigonometry often resulted in the incorrect calculation of work done by the force $F_{g//}$.

(k) Many got the angle in the formula $W = F\ \Delta x\ \cos\Theta$ incorrect.

Suggestions for improvement

(a) Teach the use of free body/force diagrams whenever dealing with work or forces.

(b) Teachers should provide learners with different types of questions on conservative and non-conservative forces, work, energy theorem, and conservation of mechanical energy.

(c) Show learners that W_{net} = **ΔEk** and $W_{nc} = \Delta K + \Delta U$ can both be used to solve the same problem.

(d) Teachers should explain how to determine the angle Θ in FΔxcosΘ, mgcosΘ and mgsinΘ. Teachers should also point out that the angle Θ does not necessarily have the same value in each of these expressions.

(e) Teachers should expose learners to more problem-solving exercises at cognitive levels 3 and 4 of this section, and including horizontal, vertical and inclined planes.

(f) The trigonometry of the inclined plane as it relates to Fg and N and their components must be emphasised.

(g) A comparison of related laws and principles must be made to emphasise the conditions where they can or cannot be applied.

(h) Learners must be exposed to a variety of questions and approaches for answering the questions, including an integration of different concepts and knowledge areas in one question.

(i) Grade 11 work must be taught thoroughly in Grade 11 and revised in Grade 12.

QUESTION 6 DOPPLER EFFECT

Many candidates performed very well in this question.

Common errors and misconceptions

(a) Candidates failed to identify the frequency of the source (f_s) from the table.

(b) They did not write the correct formula from the data sheet.

(c) Mathematical manipulation of the doppler effect formula was poor.

Suggestions for improvement

(a) Learners need to understand clearly the meaning of each symbol in the Doppler equation.

(b) Learners should be exposed to more problems requiring analysis of data from a table or graph.

QUESTION 7 ELECTROSTATICS (COULOMB'S LAW)

Q7.4 was poorly answered.

Common errors and misconceptions

(a) In Q7.1, candidates were able to calculate the number of electrons but were confused by the negative sign.

(b) Candidates could not identify and label all the forces acting on the sphere P.

(c) Candidates failed to realise that sphere P was in equilibrium and, therefore, could not solve the problem.

(d) They failed to integrate concepts learnt under Newton's Laws with electrostatics.

Suggestions for improvement

(a) The concept of equilibrium from Grade 11 needs to be revised.

(b) More examples involving equilibrium situations should be practised.

(c) Expose learners to problem-solving activities that integrate electrostatics with Newton's Laws, momentum, etc.

QUESTION 8: ELECTROSTATICS (ELECTRIC FIELDS)

This question was answered satisfactorily.

Common errors and misconceptions

(a) Candidates used incorrect equations, such as $F = \frac{kQ}{r^2}$.

(b) Candidates had difficulty in identifying the direction of the net field.

(c) Many did not understand the vector nature of electric fields.

Suggestions for improvement

(a) The direction of the force in relation to the direction of the electric field must be emphasised in teaching this section.

(b) Electrostatics should be revised thoroughly in Grade 12 by including it in homework, classwork and tests.

(c) Since examples of this type appeared in past papers, learners need to use past papers as revision.

QUESTION 9: ELECTRIC CIRCUITS

This question was answered poorly.

Common errors and misconceptions

(a) Candidates failed to simplify this circuit.

(b) Candidates failed to use the information given (power of 12 W) to solve the problem.

(c) They did not realise that in Q9.4 they had to calculate the emf.

(d) Incorrect use and manipulation of the parallel resistors formula. Candidates did not use the data sheet to extract the correct formulae for their calculations. They used $R = \frac{1}{R_1} + \frac{1}{R_2}$ instead of $\frac{1}{R} = \frac{1}{R_1} + \frac{1}{R_2}$.

(e) Mathematical manipulation was also very poor.

(f) Many candidates wrote that resistance was directly proportional to potential difference and inversely proportional to current. This was a misconception.

(g) Wrong units were used or were omitted.

(h) Substitutions were done incorrectly because of an inability to apply Ohm's Law correctly.

(i) Candidates could not differentiate between emf and potential difference.

Suggestions for improvement

(a) Learners must practice calculations involving multiple resistors in series and parallel within the same parallel branch and in different branches within the same circuit.

(b) The concept of power of components in electric circuits should be emphasised.

(c) Learners should be exposed to the concept of electrical work done in components in electric circuits.

(d) Expose learners to problem-solving activities where they need to apply Ohm's Law to different parts of a circuit.

(e) It is absolutely critical that learners conduct the experiments stated in CAPS in order to understand electric circuits.

QUESTION 10 ELECTRODYNAMICS

This question was generally well-answered.

Common errors and misconceptions

(a) Candidates failed to interpret Faraday's Law of electromagnetic induction.

(b) In the equations for AC calculations, candidates left out subscripts and hence were penalised.

(c) Candidates failed to realise that they had to calculate power and not energy.

Suggestions for improvement

(a) The principle of electromagnetic induction should be practically demonstrated in schools.

(b) Correct methods must be used to teach learners the difference between AC and DC circuits.

(c) The importance of using subscripts in AC circuits should be emphasised.

(d) Teachers should also ensure that learners conduct practical work on this section.

QUESTION 11 PHOTO-ELECTRIC EFFECT

This question was not well-answered.

Common errors and misconceptions

(a) Candidates failed to draw a line of best fit after plotting some points on the graph paper.

(b) Candidates could not use the graph to determine the threshold frequency and Planck's constant.

(c) Candidates could not relate the gradient to hc.

Suggestions for improvement

(a) Learners need more exposure in this section to questions based on data in tables and graphs.

(b) More practice is needed in analysing variables in different forms e.g. E_k vs $\frac{1}{\lambda}$.

(c) Learners must be exposed to more problems where they have to draw/plot graphs.

(d) Learners must be exposed to multiple-concept questions on photoelectric effect.

(e) Teachers must use practical work/simulations to explain the experimental laws of the photoelectric effect.

(f) Learners need to understand the meaning of every symbol in the equation $E = hf_0 + K_{max}$. Teachers should ensure that learners understand this formula and not simply memorise it.

12.5 OVERVIEW OF LEARNER-PERFORMANCE IN PAPER 2

General Comments

(a) The Rasch Analysis indicated that candidates performed poorly in the following questions: Q2.1.2; Q3.2.2; Q4.2.2; Q4.4; Q8.3.2; Q9.2 and Q10.1.3. These were all 1 mark questions and were either A or B type questions. Candidates needed to place emphasis understanding basic knowledge.

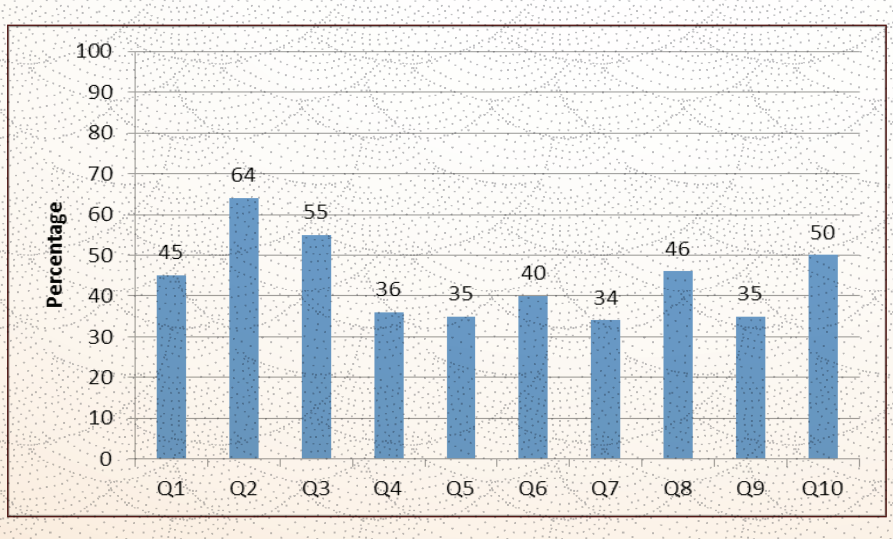
(b) The questions on organic chemistry (Q2, Q3) were generally well-answered.

(c) Candidates lacked the skills required to use the Table of Standard Reduction Potentials (Q1.10, Q8.4 & Q9.4) to identify oxidising and reducing agents, and to predict or explain whether a reaction will take place.

12.6 DIAGNOSTIC QUESTION ANALYSIS FOR PAPER 2

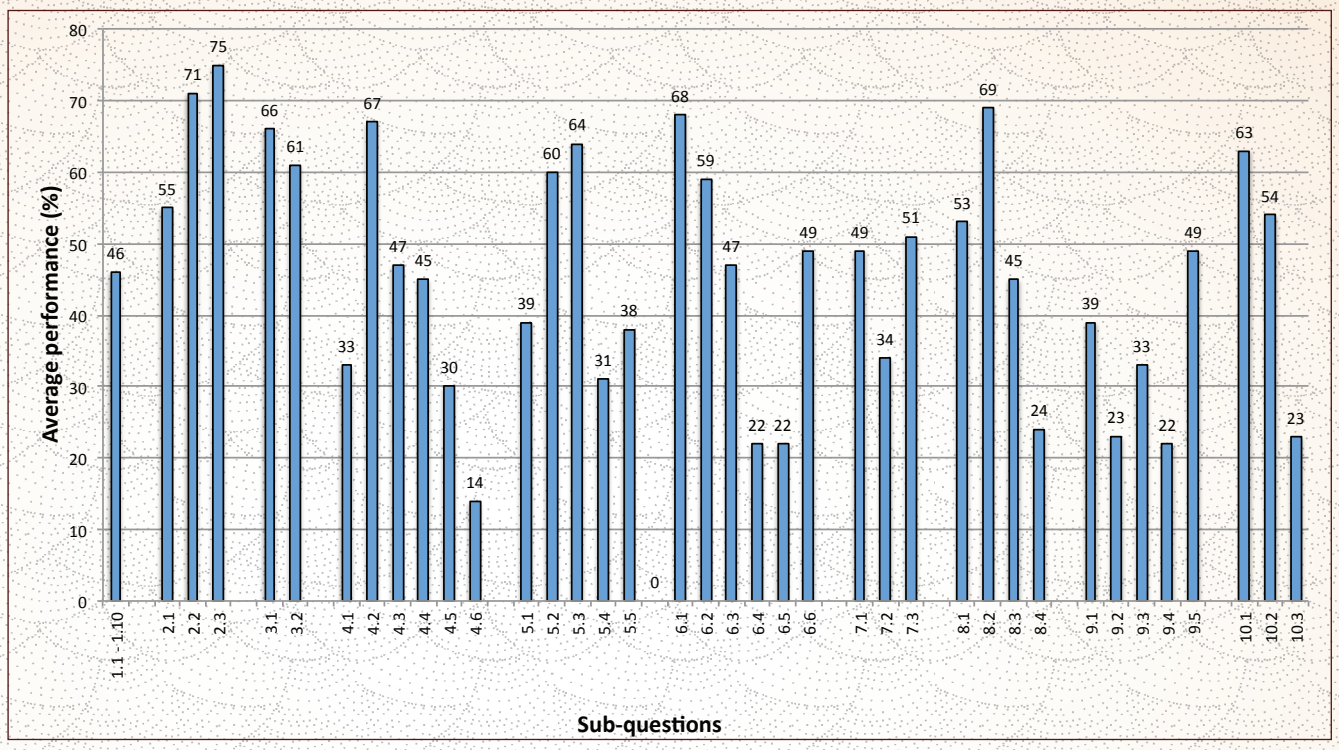
The following graph is based on data from a random sample of candidates. While this graph might not accurately reflect national averages, it is useful in assessing the relative degrees of challenge of each question as experienced by candidates.

Graph 12.6.1 Average marks per question expressed as a percentage: Paper 2



Q1	Multiple choice questions; all topics
Q2	Organic nomenclature
Q3	Organic reactions
Q4	Physical properties of organic compounds & stoichiometry
Q5	Reaction rate & stoichiometry
Q6	Chemical equilibrium
Q7	Acids and bases & stoichiometry
Q8	Galvanic cells
Q9	Electrolytic cells
Q10	Fertilisers

Graph 12.6.2 Average marks per sub question expressed as a percentage: Paper 2

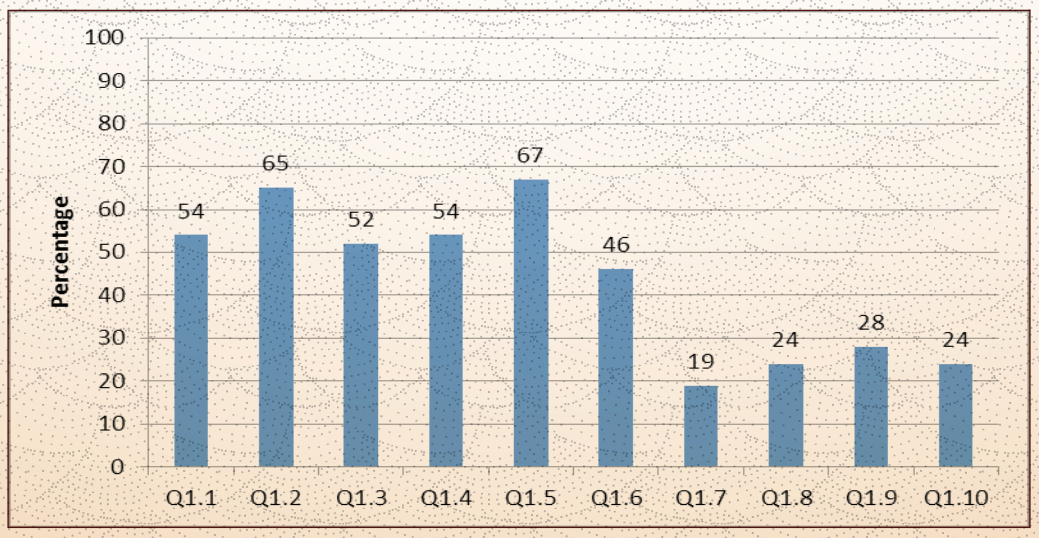


12.7 ANALYSIS OF LEARNER-PERFORMANCE IN EACH QUESTION IN PAPER 2

QUESTION 1: MULTIPLE CHOICE QUESTIONS

The average percentage per sub-question obtained from the sample is shown below.

Graph 12.7.1 Average percentage per sub-question: Multiple Choice: Paper 2



Q1.1 to Q1.6 were well-answered. Q1.7 to Q1.10 were poorly answered. Q1.7 and Q1.8 were most challenging to learners.

Common errors and misconceptions

(a) Q1.6: Candidates linked hydrolysis to water and chose *A* (water) as answer.

(b) Q1.7: Most candidates did not know that an empirical formula showed the smallest ratio of elements in a compound. This question required knowledge of content studied in Grade 11.

(c) Q1.8: Candidates did not see that addition of NaOH reduced the H^+ concentration and consequently favours the forward reaction. Candidates were not able to integrate Le Chatelier's principle applied to other parts of the curriculum.

(d) Q1.9: Candidates seemed to be unaware of the rules that applied to the writing of cell notation when reactants are liquids or gases.

(e) This question showed that candidates lacked a clear understanding of the use of the redox potential table.

Suggestions for improvement

(a) Ensure that learners fully understand how to use the Table of Standard Reduction Potentials to determine an oxidising agent or a reducing agent in a given reaction.

(b) Ensure learners know the different types of intermolecular forces and when each is applicable. The table below summarises the types of intermolecular forces found in the different types of organic compounds.

Homologous series	Alkanes; Alkenes; Alkynes	Aldehydes; Ketones; Haloalkanes	Alcohols; Carboxylic acids
Type of intermolecular forces	London forces	London forces Dipole-dipole forces	London forces Dipole-dipole forces Hydrogen bonding

(c) Ensure that learners know how to write the cell notation for different types of cells.

When writing cell notation, the following convention should be used:

- The $H_2|H^+$ half-cell is treated just like any other half-cell.
- Cell terminals (electrodes) are written on the outside of the cell notation.
- For active electrodes, the following sequence should be followed:

  reducing agent | oxidised species || oxidising agent | reduced species
- For inert electrodes (usually Pt or C) the following sequence should be followed:

  Pt | reducing agent | oxidised species || oxidising agent | reduced species | Pt

  Example: Pt | $C\ell^-(aq)$ |$C\ell_2(g)$ || $F_2(g)$ | $F^-(aq)$ | Pt
- A single vertical line (|) indicates a phase separation and is placed between two species of different phase.
- A double vertical line (||) represents the salt bridge.
- A comma is used between two species of the same phase, e.g. $A\ell$ | $A\ell^{3+}$ || Co^{3+}, Co^{2+} | Pt

(d) Educators need to ensure that the multiple-choice questions are tested on a regular basis and that these type of questions are used in class tests, standardised tests and examinations. They must develop a bank of these types of questions that they can use on a regular basis.

QUESTION 2 NOMENCLATURE OF ORGANIC COMPOUNDS

The question was generally well-answered.

Common errors and misconceptions

(a) The structural formula of the functional group of aldehydes (Q2.1.2) posed a challenge to most learners.

(b) Candidates could not write the IUPAC name (Q2.1.4) of the alkyne.

Suggestions for improvement

(a) The different types of structural isomers should be emphasised. Learners must be made aware that positional, chain and functional isomers are all different types of structural isomers.

(b) Hyphens and numbers are not used in the stem of the IUPAC names of alkanes. Numbers are only used to indicate the position of alkyl groups on the parent chain of an alkane.

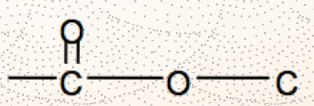
(c) Ensure that learners know the difference between the structural formula of a compound and that of a functional group. When drawing the structural formula of a compound, all bonds must be shown and all H atoms must be added. When drawing the structural formula of a functional group, all bonds must be shown, but no H atoms should be included.

QUESTION 3 REACTIONS OF ORGANIC COMPOUNDS

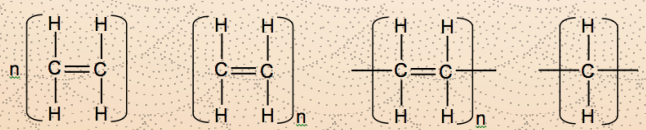
This question was generally well-answered.

Common errors and misconceptions

(a) The structural formula of the functional group of esters (Q3.1.2) posed a challenge to most learners. Common errors were:

- Omitting the bonds on the C atom, e.g. 
- Giving the structural formula of a specific ester without indicating which part was the functional group.
- Excluding the bonds around the C atoms when encircling the functional group of a specific ester.
- Adding more C atoms on both sides of the C atom attached to the two O atoms.

(b) Most candidates thought that when drawing the structural formula of the monomer (Q3.2.1), it should be placed in brackets. Examples of such answers are shown below:



Suggestions for improvement

(a) Learners should be made aware of the structural formulae of functional groups given in the examination guidelines. They should be taught to only use these functional groups and not their own inventions.

(b) Learners should be made aware of the use of correct scientific knowledge. For example, the word subtraction might be used in class to explain what happens during an elimination reaction, but is not the correct scientific name for the reaction type.

(c) When asked for the type of organic reaction, learners must choose from elimination, substitution or addition reaction.

(d) Educators should give learners additional worksheets to practise on more complex structures where they are asked to draw structural formulae, condensed formulae and naming compounds with more than one functional group present on the structure.

(e) Educators must emphasise the conditions under which all organic chemical reactions take place.

QUESTION 4 PHYSICAL PROPERTIES OF ORGANIC COMPOUNDS

This question was answered satisfactorily.

Common errors and misconceptions

(a) The definition of a functional group (Q4.1) was poorly stated.

(b) When explaining the difference in vapour pressure of butane and propan-2-one (Q4.3), many candidates did not specify the type of intermolecular forces i.e. *London forces between molecules of alkanes and dipole – dipole forces between molecules of ketones*. They only referred to Van der Waals' forces.

(c) Many candidates did not give full explanations. They mentioned that Ethanoic acid had two sites for hydrogen bonding and propan-1-ol only one, but then failed to link this to the strength of the IMFs

(d) Candidates incorrectly used the word breaking 'bonds' instead of overcoming IMFS

(e) Q4.6 was poorly answered. Many candidates failed to identify the limiting reagent and apply stoichiometry to organic reactions.

Suggestions for improvement

(a) Ensure that learners know basic definitions through frequent questioning as well as informal tests.

(b) Expose learners to different stoichiometric calculations during their Grade 12 year to ensure that they stay familiar with such calculations.

QUESTION 5 REACTION RATE

This question was poorly answered. Candidates found the question challenging.

Common errors and misconceptions

(a) Q5.1 was poorly answered. Candidates failed to realise that reaction rate in this case was the change in volume per unit time and, therefore, an apparatus to measure volume and time was required.

(b) Candidates lacked basic skills to interpret graphs.

(c) Candidates could not draw graphs that represented the data in the table (Q5.4).

(d) The stoichiometric calculation (Q5.5.1) was a challenge to most of them.

(e) In Q5.5, many failed to realise that the diprotic acid used up more zinc than the same number of mole of the monoprotic acid.

Suggestions for improvement

(a) Interpretation of data and identification of variables need to be addressed in class. Learners must be exposed to more exercises which require practical skills, starting from Grade 10.

(b) To assist learners to answer questions which require explanations, more such exercises must be given to learners.

(c) Stoichiometry should be integrated with all topics taught in Grade 12.

QUESTION 6 CHEMICAL EQUILIBRIUM

This question was poorly answered.

Common errors and misconceptions

(a) Candidates could not express themselves clearly when using Le Chatelier's principle in the explanation required to answer Q6.3.2.

(b) A common error was stating that the *equilibrium will shift to the left* instead of the *equilibrium position will shift to the left.*

(c) Q6.4 was poorly answered. Candidates failed to link the gradient of the graphs at time t_1 to rate of reaction or change in concentration in the same time to rate.

(d) Many candidates failed to interpret the graph (Q6.5) correctly to determine whether the forward reaction was exothermic or endothermic. They failed to look at the yield at higher temperature.

(e) Candidates also had difficulty in drawing the correct Boltzmann distribution curve in Q6.6.

Suggestions for improvement

(a) Teachers should place more emphasis on explanations requiring Le Chatelier's principle. Learners should be exposed to more exercises to practise such explanations.

(b) When explaining in terms of Le Chatelier's principle, learners should be taught to use the following steps:

- Identify the disturbance.
- State that the system will act to oppose this disturbance.
- State which reaction (forward or reverse) will be favoured when opposing the disturbance.
- State the effect on e.g. what happens to the number of moles of products, etc.

QUESTION 7 ACIDS AND BASES

This question was poorly answered

Common errors and misconceptions

(a) The large majority of candidates failed to identify the process as hydrolysis, even though ammonium chloride is a standard text book example. (Q7.1.1).

(b) Many candidates did not know that $NH_4C\ell$ reacts with water to form an acidic solution (Q7.1.2).

(c) Common errors in Q7.2.2. were:

- Using an incorrect formula, e.g. $n = \frac{c}{V}$ or $n = \frac{m}{M}$ or $n = \frac{V}{V_m}$
- Using the number of moles in 25 cm^3 to calculate the mass of $NH_4C\ell$.
- Candidates did not remember that the number of moles had to be multiplied by 4 to obtain the number of moles in 100 cm^3.

(d) The pH calculation (Q7.3) was also poorly answered. Common errors were:

- Using an incorrect formula e.g. pH = -log[NaOH] or pH = -log[OH^-]
- Substituting [OH^-] = 0,5 into pH = -log[H^+]

Suggestions for improvement

(a) Learners should be taught to label formulae when doing multi-step calculations, e.g. when calculating the number of moles of $HC\ell$, the formula should be as follows:
$n(HC\ell) = cV$

(b) Educators should expose learners to this kind of more complex problem.

(c) More focus should be placed on hydrolysis in order for learners to be able to identify whether salt is acidic, basic or neutral.

QUESTION 8 GALVANIC CELLS

Q8.3.2 and Q8.4 were answered very poorly.

Common errors and misconceptions

(a) A large number of candidates did not know the answer to Q8.1. This is inexcusable since it is basic knowledge.

(b) Many learners used a double arrow when writing the half-reaction (Q8.3.1)

(c) Candidates were familiar with using an inert electrode (Pt) for gases, but not for solutions. Hence, they could not answer Q8.3.2, a question based on solutions.

(d) In Q8.4, candidates struggled to explain their argument. A full explanation was required. It was, therefore, not enough to state that they were arranged according to the order in table 4. It had to be shown that R_2 is chlorine, and then the order on the table had had to be linked to oxidising ability.

(e) Some misconceptions about redox clearly showed up in this question and also in Q9.4. They were:

- Many candidates did not understand the difference between an oxidising and reducing agent. They would say: "Cu is a stronger OA than Zn^{2+}", or Cu had a stronger oxidising ability than Zn.
- Many candidates were under the impression that a strong RA was a weak OA. That is, "Zn is a strong RA and is therefore a weak OA", or "Cu^{2+} is a stronger OA than Zn".

Suggestions for improvement

(a) Electrochemistry is not difficult when properly understood. Teachers should allow enough time for this section. It is advisable that learners are already exposed to the table while doing Grade 11 redox.

(b) Learners should be given enough exercises in using the table, both using RAs and OAs, to explain why a reaction will take place or will not take place. This provides a good opportunity to teach learners how to explain themselves.

QUESTION 9 ELECTROLYTIC CELLS

The question was poorly answered.

Common errors and misconceptions

(a) The definition of *electrolysis* was poorly answered (Q9.1). Most candidates did not know that electrolysis is a *process* and used words such as *solution, substance* and *electrodes* instead.

(b) Many answered Q9.2 with the focus on *current* instead of *direct current*. These candidates stated that *electricity is needed for the process to take place* and did not mention that *direct current is needed to ensure that the polarity of the electrodes remain the same.*

(c) Many candidates used a double arrow when writing the half-reaction (Q9.3)

(d) The use of the Table of Standard Reduction Potentials (Q9.4) was poorly understood. A misconception that occurred often is that a substance that is *a weak oxidising agent* is also *a strong reducing agent*.

(e) Although poorly answered, the calculation (Q9.5) was the best answered sub-question in Question 9. Common errors were:

- Using the molar mass of Co (59 g·mol^{-1}) instead of the molar mass of Cu (63,5 g·mol^{-1});
- Assuming that electrode B is pure copper and consequently used 63,5 g·mol^{-1} as the molar mass for electrode B i.e. $n = \frac{m}{M} = \frac{2}{63,5} = 0,03\,mol$ instead of $2,85 \times 10^{-2} = \frac{m}{63,5} = 1,81\,g$.

Suggestions for improvement

(a) Each learner should have a Table of Reduction Potentials pasted into his/her workbook. The table should be thoroughly explained to learners to ensure that they understand how to retrieve information from the table. Also explain the difference between Table 4A and Table 4B – learners should be encouraged to use only one of the two tables to prevent confusion.

(b) Ensure that learners grasp the meaning of the terms reducing agent, oxidising agent, reduction and oxidation

QUESTION 10 FERTILISERS

This question was well answered.

Common errors and misconceptions

(a) Most candidates did not know that air is the source of the nitrogen used in the Haber process (Q10.1.3).

(b) Most candidates could not or else, did not know how to apply their knowledge of rate and equilibrium to the Haber process (Q10.2.2 & Q10.2.3).

(c) The percentage calculation (Q10.3) was poorly answered. Many did not attempt the calculation. Many candidates used the ratio of the elements in ammonium nitrate i.e. N : H : O = 2 : 4 : 3 and then calculated the mass of nitrogen in the bag as $\frac{2}{9} \times 50$

(d) Other common errors were:

- Using the incorrect molar mass for ammonium nitrate.
- Incorrect use of ratios.
- Incorrect conversions from kg to g.

Suggestions for improvement

- More attention should be paid to fertilisers as a topic. Learners should be encouraged to study the topic as they can obtain marks easily if they know their work.

CHAPTER 13

CONCLUSION

The 2015 Diagnostic Report provides valuable information to bring about a higher quality of responses presented by candidates in the NSC Examination. Making the best use of available data and findings in this report by education managers and practioners is critical for improving the quality of basic education and for the department to support constructive remediation in identified areas.

The Diagnostic Report needs to become the centre piece of teaching and learning in all Grade 12 classrooms.

The DBE has developed an Improvement Framework which must be used in conjunction with the subject reports, and is attached to the 2015 Diagnostic Report.

Provincial Education Departments are encouraged to monitor districts and schools to ensure that the reports reach the schools, and that they are effectively utilised.

The DBE will, on the other hand, monitor trends in improvement more closely in the coming year and is expectant of improved learner-responses in 2016.

FET IMPROVEMENT FRAMEWORK 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME FRAMES
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	
ACCOUNTING	10	**BASIC CONCEPTS AND ACCOUNTING EQUATION** Understood the different types of assets, liabilities, income and expenses. Calculations: •Could not calculate depreciation especially on diminished balance method. Stock valuation and validation: •Could not calculate the value of closing stock at the end of the financial period using the weighted average method. Memorising and understanding basic formats: Balance sheet and notes: Could not: •Prepare notes on retained income and share capital. •Feed information on the balance sheet. •Identify relevant financial indicators, ratios and the trends. •Understand the basic concepts of equity, assets and liabilities, and the sub-categorisation into current and non-current items. Ratios: Concepts of profitability, liquidity, solvency, return, and gearing/risk were not properly understood.	•Self-Study Guides for Grade 10 to 12. •Increase in sales, and all other calculations as well as accounting concepts to be reprinted and distributed to provinces. •All the Study Guides are already uploaded on Thutong for easy access by subject advisors and teachers. •Mediation of Study Guides during subject advisors' training workshops. •Co-ordinators and cluster leaders in problem areas. •Print Study Guides which were not printed and reprint those which were printed and send them to schools. •Monitor and support training and implementation of the challenging content.	•Mediate the Study Guides to district officials. •Cascade training to district officials. •Download from Thutong, print and distribute Study Guides to schools. •Monitor and support training in the districts.	•Mediate the Study Guides for teachers. •Train teachers on how to use the Study Guides. •Support, guide and monitor performance in the challenging content. •Conduct demonstration lessons in the challenging content area.	The teacher should: Teach basic concepts and the accounting equation: •The most vital concepts are those contained in the expanded accounting equation: Assets + Expenses + Drawings = Capital + Income + Liabilities. •The process of conceptualising and understanding the above goes much further than simply the rote-learning of teachers. •It is also necessary for learners to appreciate the difference between different types of assets, different types of liabilities and different types of activities, i.e. current and non-current assets; current and non-current liabilities, and operating, financing and investing activities. This will enable them to prepare and interpret the different financial statements more effectively. •Teach learners both methods of calculating depreciation. Teach them cost price and diminishing balance method. •Revise all stock valuation methods and stock validation. •Teachers should ensure that the basic formats of financial statements and ledger accounts are fully understood by learners. •Format of the balance sheet and all other financial statements should be taught thoroughly. •Teach all the basic concepts required to understand balance sheets and notes concepts. •Teach all the basic concepts of ratios. •Introduce ratios as from Grade 10, as per CAPS/annual teaching plan.	•Accounting Grades 11 and 12 Study Guides. •GAAP Study Guide DBE Self-Study Guide on content and concepts. •Mind the Gap. •Textbooks. •Calculator.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
	11	**BASIC CONCEPTS AND ACCOUNTING EQUATION** Understand the different types of assets, liabilities, income and expenses. Calculations: •Could not calculate depreciation especially on diminished balance method. Asset disposal: Memorising and understanding basic formats: Balance sheet and notes Learners could not: •Prepare notes on retained income and share capital. •Feed information on the balance sheet. Identify relevant financial indicators, ratios and the trends. Ratios: Concepts of profitability, liquidity, solvency, return and gearing/risk were not properly understood.	Self-Study Guides for Grade 10 to 12 •Increase in sales, and all other calculations as well as Accounting concepts to be reprinted and distributed to provinces. •All the Study Guides are already uploaded on Thutong for easy access by subject advisors and teachers. •Mediation of Study Guides during subject advisors' training workshops. •Co-ordinators and cluster leaders in problem areas. •Print Study Guides which were not printed and reprint those which were printed and send them to schools. •Monitor and support training and implementation of the challenging content.	•Mediate the Study Guides to district officials. •Cascade training to district officials. •Download from Thutong, print and distribute Study Guides to schools. •Monitor and support training in the districts.	•Mediate the Study Guides for teachers. •Train teachers on how to use the Study Guides. •Support, guide and monitor performance in the challenging content. •Conduct demonstration lessons in the challenging content area.	•The teacher should: •Teach basic concepts and the Accounting equation: •The most vital concepts are those contained in the expanded Accounting equation: Assets + Expenses + Drawings = Capital + Income + Liabilities. •The process of conceptualising and understanding the above goes much further than simply the rote-learning of •It is also necessary for learners to appreciate the difference between different types of assets, different types of liabilities and different types of activities, i.e. current and non-current assets; current and non-current liabilities, and operating, financing and investing activities. This will enable them to prepare and interpret the different financial statements more effectively. •Teach all ledger accounts. •Teach learners both methods of calculating depreciation. Teach them cost prise and diminishing balance method. •Revise all stock valuation methods and stock validation. •Teachers should ensure that the basic formats of financial statements and ledger accounts are fully understood by learners. •Format of the balance sheet and all other financial statements should be taught thoroughly. •Teach all the basic concepts required to understand balance sheets and notes concepts. •Teach all the basic concepts of ratios. •Introduce ratios as from Grade 10, as per CAPS/ annual teaching plan.	•Accounting Grades 11 and 12 Study Guides. •GAAP Study Guide DBE Self-Study Guide on content and concepts. •Mind the Gap. •Textbooks. •Calculator.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Analysis and interpretation: Enhancing learners' skills of accurately interpreting specific sub-questions and using information that is relevant.	•Monitor and support training and implementation of the challenging content.	•Monitor and support training in the districts.	•Support, guide and monitor performance in the challenging content. •Conduct demonstration lessons in the challenging content area.	•When using past examination questions or papers as revision, teachers are advised to actually read and interpret the requirements with their classes and to teach learners how to use their prior knowledge of the topic in efficiently identifying the information that is relevant to each sub-question. •Accounting examination papers necessarily contain all the financial information relevant to each question. Tables are often used to reduce the amount of verbal reading. •Learners must understand that there is a logical manner in which this information is set out in the most user-friendly format possible using sub-headings and tables. •Examples are also provided in this report to address this on-going problem.	•Accounting Grade 11 and 12 Study Guides. •GAAP Study Guide DBE Self-Study Guide on content and concepts. •Mind the Gap. •Textbooks. •Calculator.	Jan-Sep 2016
		Time management:	•Monitor and support training and implementation of the challenging content.	•Monitor and support training in the districts.	•Support, guide and monitor performance in the challenging content. •Conduct demonstration lessons in the challenging content area.	•Learners must be trained in the art of managing their time and to adhere to the suggested time allocations provided in the paper. •The mark allocation and the spaces provided in the answer book are also good indicators of the amount of information needed.	•Accounting Grade 11 and 12 Study Guides. •GAAP Study Guide DBE Self-Study Guide on content and concepts. •Mind the Gap. •Textbooks. •Calculator.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Financial indicators, comments, evidence and explanations.	•Monitor and support training and implementation of the challenging content.	•Monitor and support training in the districts.	•Support, guide and monitor performance in the challenging content. •Conduct demonstration lessons in the challenging content area.	•Teachers need to train learners to express themselves clearly and succinctly where comments or explanations are required. •In Accounting, the use of bullet points and short, concise sentences is acceptable. •Language proficiency and learners' ability to express themselves clearly and precisely should no longer be seen as an obstacle in presenting correct responses. •However, learners must not assume that a partial, simple or single-word response will be sufficient if an explanation is required. •They should also be made aware that they will often be required to quote figures or other evidence from the information provided, and that this cannot be omitted if full marks are to be awarded on a specific sub-question.	•Accounting Grade 11 and 12 Study Guides. •GAAP Study Guide DBE Self-Study Guide on content and concepts. •Mind the Gap. •Textbooks. •Calculator.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
	12	**BASIC CONCEPTS AND ACCOUNTING EQUATION** •Understood the different types of assets, liabilities, income and expenses. Calculations: •Could not calculate depreciation especially on diminished balance method. •Unable to successfully deal with certain calculations. •Accounting examination papers contain a number of arithmetical calculations. Many candidates did not understand the logic of the calculations required e.g. positive/negative signs, rands/cents, percentages and ratios. •Memorising and understanding basic formats. •Balance sheet and notes. •Could not: •Prepare notes on retained income and share capital. •Feed information on the balance sheet. •Identify relevant financial indicators, ratios and the trends. Ratios: Concepts of profitability, liquidity, solvency, return, and gearing/risk were not properly understood.	•Self-Study Guides for Grade 10 to 12. •Increase in sales, and all other calculations as well as Accounting concepts to be reprinted and distributed to provinces. •All the Study Guides are already uploaded on Thutong for easy access by subject advisors and teachers. •Mediation of Study Guides during subject advisors' training workshops. •Co-ordinators and cluster leaders in problem areas. •Print Study Guides which were not printed and reprint those which were printed and send them to schools. •Monitor and support training and implementation of the challenging content.	•Mediate the Study Guides to district officials. •Cascade training to district officials. •Download from Thutong, print and distribute Study Guides to schools. •Monitor and support training in the districts.	•Mediate the Study Guides for teachers. •Train teachers on how to use the Study Guides. •Support, guide and monitor performance in the challenging content. •Conduct demonstration lessons in the challenging content area.	The teacher should: •Teach basic concepts and the Accounting equation: •The most vital concepts are those contained in the expanded Accounting equation: Assets + Expenses + Drawings = Capital + Income + Liabilities. •The process of conceptualising and understanding the above goes much further than simply the rote-learning of teachers. •It is also necessary for learners to appreciate the difference between different types of assets, different types of liabilities and different types of activities, i.e. current and non-current assets; current and non-current liabilities, and operating, financing and investing activities. •This will enable them to prepare and interpret the different financial statements more effectively. •Teach learners both methods of calculating depreciation. Teach them cost prise and diminishing balance method. •Revise all stock valuation methods and stock validation. •Teachers should ensure that the basic formats of financial statements and ledger accounts are fully understood by learners. •Format of the balance sheet and all other financial statements should be taught thoroughly. •Teach all the basic concepts required to understand balance sheets and notes concepts. •Teach all the basic concepts of ratios. Introduce ratios as from Grade10, as per CAPS/ annual teaching plan.	•Accounting Grade 11 and 12 Study Guides. •GAAP Study Guide DBE Self-Study Guide on content and concepts. •Mind the Gap. •Textbooks. •Calculator.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Internal control and ethical issues.	•Monitor and support training and implementation of the challenging content.	•Monitor and support training in the districts.	•Support, guide and monitor performance in the challenging content. •Conduct demonstration lessons in the challenging content area.	•Teachers should teach not only the logic and the process of each Accounting process in the curriculum, but also the internal control measures and ethical considerations that are relevant to each process. •These aspects must be integrated into the teaching of the relevant topics. •Furthermore, as these issues are integrated in different topics in examination questions, integration in the teaching of the different topics should result in more effective understanding of these issues.	•Accounting Grade 11 and 12 Study Guides. •GAAP Study Guide DBE Self-Study Guide on content and concepts. •Mind the Gap. •Textbooks. •Calculator.	Jan-Sep 2016
		Analysis and interpretation: Enhancing learners' skills of accurately interpreting specific sub-questions and using information that is relevant.	•Monitor and support training and implementation of the challenging content.	•Monitor and support training in the districts.	•Support, guide and monitor performance in the challenging content. •Conduct demonstration lessons in the challenging content area.	•When using past examination questions or papers as revision, teachers are advised to actually read and interpret the requirements with their classes and to teach learners how to use their prior knowledge of the topic in efficiently identifying the information that is relevant to each sub-question. •Accounting examination papers necessarily contain all the financial information relevant to each question. •Tables are often used to reduce the amount of verbal reading. •Learners must understand that there is a logical manner in which this information is set out in the most user-friendly format possible using sub-headings and tables. •Examples are also provided in this report to address this on-going problem.	•Accounting Grade 11 and 12 Study Guides. •GAAP Study Guide DBE Self-Study Guide on content and concepts. •Mind the Gap. •Textbooks. •Calculator.	Jan-Sep 2016
		Time management:	•Monitor and support training and implementation of the challenging content.	•Monitor and support training in the districts.	•Support, guide and monitor performance in the challenging content. •Conduct demonstration lessons in the challenging content area.	•Learners must be trained in the art of managing their time and to adhere to the suggested time allocations provided in the paper. •The mark allocation and the spaces provided in the answer book are also good indicators of the amount of information needed.	•Accounting Grade 11 and 12 Study Guides. •GAAP Study Guide DBE Self-Study Guide on content and concepts. •Mind the Gap. •Textbooks. •Calculator.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Financial indicators, comments, evidence and explanations.	•Monitor and support training and implementation of the challenging content.	•Monitor and support training in the districts.	•Support, guide and monitor performance in the challenging content. •Conduct demonstration lessons in the challenging content area.	•Teachers need to train learners to express themselves clearly and succinctly where comments or explanations are required. •In Accounting, the use of bullet points and short, concise sentences is acceptable. •Language proficiency and learners' ability to express themselves clearly and precisely should no longer be seen as an obstacle in presenting correct responses. •However, learners must not assume that a partial, simple or single-word response will be sufficient if an explanation is required. •They should also be made aware that they will often be required to quote figures or other evidence from the information provided, and that this cannot be omitted if full marks are to be awarded on a specific sub-question.	•Accounting Grade 11 and 12 Study Guides. •GAAP Study Guide. DBE Self-Study Guide on content and concepts. •Mind the Gap. •Textbooks. •Calculator.	Jan-Sep 2016
		Buying back of shares.	•Monitor and support training and implementation of the challenging content.	•Monitor and support training in the districts.	•Support, guide and monitor performance in the challenging content. •Conduct demonstration lessons in the challenging content area.	•It is necessary for teachers to adapt parts of certain questions so that they can be used for revision purposes. •Questions that include par value of shares and share premium must be altered and adapted. •To comply with the CAPS, teachers should ensure that learners have sufficient practice with questions involving repurchase (buy-back) of shares, and cash budgets and projected income statements in the context of companies (i.e. not simply in the context of sole traders).	•Accounting Grade 11 and 12 Study Guides. •GAAP Study Guide •DBE Self-Study Guide on content and concepts. •Mind the Gap. •Textbooks. •Calculator.	Jan-Sep 2016
		Cash flow statement.	•Monitor and support training and implementation of the challenging content.	•Monitor and support training in the districts.	•Support, guide and monitor performance in the challenging content. •Conduct demonstration lessons in the challenging content area.	•The cash flow statement should be taught by focusing on specific aspects in isolation in order to develop learners' confidence in identifying appropriate figures and practicing the correct use of brackets to indicate outflows. •Some of these figures are relatively easy to calculate, e.g. the difference between loans at the beginning and end of the year will indicate the value of the cash outflow (in brackets) or the cash inflow (without brackets).	•Accounting Grade 11 and 12 Study Guides. •GAAP Study Guide. •DBE Self-Study Guide on content and concepts. •Mind the Gap. •Textbooks. •Calculator.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
AGRICULTURAL SCIENCES	10	Lacked biological and agricultural terminology and content like defining weathering of rocks.	•Collate and distribute material on biological terminology and concepts. •Distribute SBA tasks which enhance, define and explain biological terminology. •Provide support in cluster meetings.	•Print and distribute resources to districts. •Mediate national vocabulary list to all subject advisors. •Monitor and support subject advisors in mediating the vocabulary list to teachers.	•Facilitate workshops to mediate vocabulary list to teachers. •Provide onsite support to teachers in the mediation of the vocabulary list. •Monitor and support the conducting of SBA tasks at schools. •Provide support and share information to Professional Learning Communities.	•Provide learners with notes and material on biological and agricultural terminology and concepts. •Teach learners different methods of acquiring and applying biological and agricultural terminology and concepts. •Share information with colleagues at cluster meetings and in the Professional Learning Communities. •Design and administer SBA tasks that reinforce biological/agricultural terminology and concepts.	•Vocabulary list. •Textbooks. •Additional notes. •SBA tasks. •Past examination papers.	Jan-Sep 2016
		Learners were unable to answer higher-order questions relating to different marketing strategies in farm management and the economic value of ruminants versus non-ruminants.	•Collate and distribute past examination papers. •Collate and distribute material on biological relationships.	•Distribute past papers to subject advisors. •Distribute additional notes and material to teachers and subject advisors. •Monitor and support the administering of SBA tasks.	•Provide and mediate past examination papers to teachers. •Provide additional worksheets to teachers to assist them in the teaching and learning of difficult biological/ agricultural concepts and relationships.	•Teach learners different market strategies and the advantages and disadvantages of each type and their impact on the farming enterprise. •Share worksheets and other material in cluster meetings and Professional Learning Communities.	•Past examination papers. •Textbooks.	Jan-Sep 2016
		Failed to interpret graphs, diagrams and case studies on different production enterprises.	•Collate and distribute past examination papers. •Monitor curriculum coverage and support. •Monitor conducting of SBA tasks.	•Distribute past papers to subject advisors. •Distribute additional notes and material to teachers and subject advisors. •Monitor and support the administering of SBA tasks.	•Provide teachers with past examination papers. •Mediate SBA tasks and past papers to teachers. •Provide onsite support to teachers in the conducting of SBA tasks. •Support and mentor teachers in curriculum coverage. •Share concepts and SBA tasks at cluster meetings.	•Teach learners how to interpret graphs and diagrams relating to case studies on different production enterprises. •Provide learners with worksheets involving interpreting graphs and diagrams. Share worksheets and other relevant material in cluster meetings	•Past examination papers •Textbooks •Self-Study Guides	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Unable to undertake calculations like calculating bulk density of soil.	•Collate and distribute past examination papers. •Monitor curriculum coverage and support. •Monitor conducting of SBA tasks on calculations.	•Distribute past papers to subject advisors. •Distribute additional notes and material on calculations to teachers and subject advisors.	•Provide teachers with past examination papers. •Mediate SBA tasks and past papers to teachers. •Provide onsite support to teachers in the conducting of SBA tasks. •Support and mentor teachers in curriculum coverage. •Share concepts and SBA tasks at cluster meetings.	•Teach learners how to undertake calculations like calculating the bulk density of soil. •Provide worksheets on calculations. •Provide exemplar tasks on calculations.	•Past examination papers with memos. •Exemplar SBA tasks.	Jan-Sep 2016
	11	Lacked biological and agricultural terminology and content like defining alkanes and acids.	•Collate and distribute material on biological terminology and concepts. •Distribute SBA tasks which enhance, define and explain biological terminology. •Provide support in cluster meetings.	•Print and distribute resources to districts. •Mediate national vocabulary list to all subject advisors. •Monitor and support subject advisors in mediating the vocabulary list to teachers.	•Facilitate workshops to mediate vocabulary list to teachers. •Provide onsite support to teachers in the mediation of the vocabulary list. •Monitor and support the conducting of SBA tasks at schools. •Provide support and share information to Professional Learning Communities.	•Provide learners with notes and material on biological and agricultural terminology and concepts. •Teach learners different methods of acquiring and applying agricultural and biological terminology and concepts. •Share information with colleagues at cluster meetings and in Professional Learning Communities. •Design and administer SBA tasks that reinforce biological /agricultural terminology and concepts.	•Vocabulary list. •Textbooks. •Additional notes. •SBA tasks. •Past examination papers.	Jan-Sep 2016
		Inability to answer higher-order questions, like ascertaining the economic value of various irrigation systems and schemes.	•Collate and distribute past examination papers. •Collate and distribute material on biological relationships.	•Distribute past papers to subject advisors. •Distribute additional notes and material to teachers and subject advisors. •Monitor and support the administering of SBA tasks.	•Provide and mediate past examination papers to teachers. •Provide additional worksheets to teachers to assist them in the teaching and learning of difficult biological and agricultural concepts and relationships.	•Teaching learners how to ascertain the economic value of various irrigation systems and schemes and how each differ from each other. •Share worksheets and other material in cluster meetings and Professional Learning Communities.	•Past examination papers. •Textbooks.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Failed to interpret graphs, diagrams and case studies like analysing the graphic representation of factors affecting photosynthesis and its impact on plant nutrition.	•Collate and distribute past examination papers. •Monitor curriculum coverage and support. •Monitor conducting of SBA tasks.	•Distribute past papers to subject advisors. •Distribute additional notes and material to teachers and subject advisors. •Monitor and support the administering of SBA tasks.	•Provide teachers with past examination papers. •Mediate SBA tasks and past papers to teachers. •Provide onsite support to teachers in the conducting of SBA tasks. •Support and mentor teachers in curriculum coverage. •Share concepts and SBA tasks at cluster meetings	•Teach learners how to interpret graphs and case studies like analysing the graphic representation of factors affecting photosynthesis and its impact on plant nutrition. •Provide learners with worksheets involving interpreting graphs and diagrams. •Share worksheets and other relevant material in cluster meetings	•Past examination papers. •Textbooks. •Self-Study Guides.	Jan-Sep 2016
		Unable to undertake calculations like calculating feed flow programme using a single Pearson square method.	•Collate and distribute past examination papers. •Monitor curriculum coverage and support. •Monitor conducting of SBA tasks on calculations.	•Distribute past papers to subject advisors. •Distribute additional notes and material on calculations to teachers and subject advisors.	•Provide teachers with past examination papers. •Mediate SBA tasks and past papers to teachers. •Provide onsite support to teachers in the conducting of SBA tasks. •Support and mentor teachers in curriculum coverage. •Share concepts and SBA tasks at cluster meetings.	•Teach learners how to undertake calculations like calculating feed flow programme using a single Pearson square method. •Provide worksheets on calculations. •Provide exemplar tasks on calculations.	•Past examination papers with memos. •Exemplar SBA tasks.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
	12	Lacked biological and agricultural terminology and content like defining homozygous versus homologous chromosomes.	•Collate and distribute material on biological terminology and concepts. •Distribute SBA tasks which enhance, define and explain biological terminology. •Provide support in cluster meetings.	•Print and distribute resources to districts. •Mediate national vocabulary list to all subject advisors. •Monitor and support subject advisors in mediating the vocabulary list to teachers.	•Facilitate workshops to mediate vocabulary list to teachers. •Provide onsite support to teachers in the mediation of the vocabulary list. •Monitor and support the conducting of SBA tasks at schools. •Provide support and share information to Professional Learning Communities.	•Provide learners with notes and material on biological and agricultural terminology and concepts. •Teach learners different methods of acquiring and applying agricultural and biological terminology and concepts. •Share information with colleagues at cluster meetings and in Professional Learning Communities. •Design and administer SBA tasks that reinforce biological /agricultural terminology and concepts.	•Vocabulary list. •Textbooks. •Additional notes. •SBA tasks. •Past examination papers.	Jan-Sep 2016
		Unable to answer higher-order questions relating to niche marketing, farm gate marketing and the advantages of each system as well as assessing viability of a production enterprise.	•Collate and distribute past examination papers. •Collate and distribute material on biological relationships.	•Distribute past papers to subject advisors. •Distribute additional notes and material to teachers and subject advisors. •Monitor and support the administering of SBA tasks.	•Provide and mediate past examination papers to teachers. •Provide additional worksheets to teachers to assist them in the teaching and learning of difficult biological and agricultural concepts and relationships.	•Teach learners how to ascertain the economic value of various marketing systems in the agricultural sector and how each differ from each other. •Share worksheets and other material in cluster meetings and Professional Learning Communities.	•Past examination papers. •Textbooks. •Self-Study Guides.	Jan-Sep 2016
		Learners failed to interpret graphs, diagrams and case studies relating to role of reproductive hormones on the oestrus cycle.	•Collate and distribute past examination papers. •Monitor curriculum coverage and support. •Monitor conducting of SBA tasks.	•Distribute past papers to subject advisors. •Distribute additional notes and material to teachers and subject advisors. •Monitor and support the administering of SBA tasks.	•Provide teachers with past examination papers. •Mediate SBA tasks and past papers to teachers. •Provide onsite support to teachers in the conducting of SBA tasks. •Support and mentor teachers in curriculum coverage. •Share concepts and SBA tasks at cluster meetings.	•Teach learners how to interpret graphs diagrams and case studies relating to role of reproductive hormones on the oestrus cycle. •provide learners with worksheets involving interpreting graphs and diagrams. •Share worksheets and other relevant material in cluster meetings.	•Past examination papers. •Textbooks. •Self-Study Guides.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME FRAMES
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	
		Learners were unable to undertake calculations such as calculating the digestibility coefficient of feed for sheep.	•Collate and distribute past examination papers. •Monitor curriculum coverage and support. •Monitor conducting of SBA tasks on calculations.	•Distribute past papers to subject advisors. •Distribute additional notes and material on calculations to teachers and subject advisors.	•Provide teachers with past examination papers. •Mediate SBA tasks and past papers to teachers. •Provide onsite support to teachers in the conducting of SBA tasks. •Support and mentor teachers in curriculum coverage. •Share concepts and SBA tasks at cluster meetings.	•Teach learners how to undertake calculations like calculating the digestibility coefficient of feed for sheep. •Provide worksheets on calculations. •Provide exemplar tasks on calculations.	•Past examination papers with memos. •Exemplar SBA tasks.	Jan-Sep 2016
BUSINESS STUDIES	**10**	Types of financing, sources of financing and types of capital. Forms ownership, e.g. personal liability company and state- owned company. Companies : •Different types of shares. •Definition of concepts e.g. debentures, dividends, simple and compound interest. Management and leadership in the micro environment. Presentation of information: Verbal and non-verbal presentation of a variety of business information.	•Develop revision materials and organise workshops to train the provincial Co-ordinators. •Develop revision materials and organise workshops to train the provincial Co-ordinators. •Develop revision materials and organise workshops to train the provincial co-ordinators. •Develop revision materials and organise workshops to train the provincial Co-ordinators. •Develop revision materials and organise workshops to train the provincial Co-ordinators.	•Workshop the district officials on these concepts.	•Workshop teachers and monitor teaching and implementation of the recommendations.	•An emphasis should be made on definitions, characteristics, disadvantages and differences between the forms of ownership •Companies: •Different types of shares. •Definition of concepts e.g. prospectus, debentures, dividends, simple and compound interest. •Teachers should teach learners to differentiate between management and leadership and teach the different leadership styles. •Learners must know how to give accurate and concise verbal and non-verbal presentations including graphs, diagrams charts, slides, etc. •Definition of different audio visual aid. •Design and layout of a presentation using the different visual aids. (Page 19 CAPS)	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016
		Creative thinking and problem solving.	•Workshop the district officials on these concepts.	•Workshop teachers and monitor teaching and implementation of the recommendations.	•Creative thinking and problem solving.	•Ways in which people need to work together to accomplish business objectives and discuss factors that can influence these relationships.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Social responsibility.	•Develop revision materials and organise workshops to train the provincial co-ordinators.	•Workshop the district officials on these concepts.	•Workshop teachers and monitor teaching and implementation of the recommendations.	•Emphasis should be put on ways in which a business can contribute responsibly towards its immediate community. •This should include initiatives taken by businesses in addressing the current socio economic issues.	•DBE Self-Study Guides. • Textbooks. •Previous question papers.	Jan-Sep 2016
		Relationship and team performance.	•Develop revision materials and organise workshops to train the provincial co-ordinators.	•Workshop the district officials on these concepts.	•Workshop teachers and monitor teaching and implementation of the recommendations.	•Learners must know the criteria for successful and collaborative team performance in a business context and assessment of a team against these criteria.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016
		Business function.	•Develop revision materials and organise workshops to train the provincial co-ordinators.	•Workshop the district officials on these concepts.	•Workshop teachers and monitor teaching and implementation of the recommendations.	•All business functions must be thoroughly covered as per CAPS requirements.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	
		Legislation.	•Develop revision materials and organise workshops to train the provincial co-ordinators.	•Workshop the district officials on these concepts.	•Workshop teachers and monitor teaching and implementation of the recommendations.	•Emphasis should be made on the following Acts: •National Credit Act 34 of 2005, Consumer Protection Act 68 of 2008 and be familiar with other Acts that may affect the implementation of business contracts.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	
		Action verbs: Instructions such as differentiate, evaluate, interpret and analyse were problematic to many learners.	•Compile document to explain these action verbs, what learners need to look for and answer for each in subject specific context.	•Officials to print and mediate the document.	•The district officials to distribute and monitor the implementation of the document.	•Take note of the verbs when assessing learners: •Ensure that learners are familiar and understand the verbs that are used in the Business Studies. •Teachers should use English when teaching in class. •Avoid code switching.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016
		Language still a problem to learners: It was still difficult for majority of learners to express their opinions.	•Develop Business Studies language dictionary.	•Mediate and send it to districts.	•Distribute to schools and mediate to both teachers and learners.	•Teachers should use English when teaching in class. •Avoid code switching.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME FRAMES
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	
		Application of Knowledge: Candidates could not apply knowledge obtained in a different situation.	•Create a booklet of different exemplar case studies and send them to provinces for mediation and distribution.	•Mediate the documents, send and monitor the usage by districts.	•Send to schools and monitor the usage by schools. •Teachers should give learners more essay type questions. •Teachers should familiarise themselves with the marking of essay type questions.	•The use of case studies should form part of teaching and learning. •Scaffold questions, e.g. start with lower order questions and move to middle and higher-order questions.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016
	11	Investment securities: Unit trust. Shares. RSA retail bonds. More emphasis was placed on the teaching of common types of investments e.g. savings account, fixed deposits, notice deposits, etc.	•Develop revision materials and organise workshops to train the provincial co-ordinators.	•Workshop the district officials on these concepts.	•Workshop teachers and monitor teaching and implementation of the recommendations.	•Teaching and learning should be extended to the lesser known types of investments, e.g. RSA retail bonds, unit trust, ordinary shares, preference shares, etc. •Learners must not only explain the investment type but also be able to evaluate each investment type.(refer to exam guideline page 12).	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016
		Forms ownership e.g. personal liability company and state-owned company.	•Develop revision materials and organise workshops to train the provincial co-ordinators.	•Workshop the district officials on these concepts.	•Workshop teachers and monitor teaching and implementation of the recommendations.	•Teaching and learning is focused on the identification and characteristics of the various forms of ownership. •Learners must be able to understand, provide reasons for the formation, comparative study and state success and or failure of each type of ownership.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016
		Business strategies: Challenges. Strategies. Industrial tools. While learners were able to identify challenges from case studies, scenarios they failed to link the strategies to the identified challenges. Teaching and learning was confined to explanations of the various industrial tools e.g. PESTLE, SWOT analysis, Portes five forces.	•Develop case studies, scenarios and create opportunities for learners to identify challenges, devise strategies to overcome these challenges and evaluate their strategies. •A table approach consisting of the following headings is recommended: challenge, environment, degree of control, strategy and evaluation of the strategy.	•Provinces to develop case studies, scenarios and create opportunities for learners to identify challenges, devise strategies to overcome these challenges and evaluate their strategies. •A table approach consisting of the following headings is recommended: challenge, environment, degree of control, strategy and evaluation of the strategy.	•Districts to develop case studies, scenarios and create opportunities for learners to identify challenges, devise strategies to overcome these challenges and evaluate their strategies. •A table approach consisting of the following headings is recommended: challenge, environment, degree of control, strategy and evaluation of the strategy.	•Develop case studies, scenarios and create opportunities for learners to identify challenges, devise strategies to overcome these challenges and evaluate their strategies. •A table approach consisting of the following headings is recommended: challenge, environment, degree of control, strategy and evaluation of the strategy.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Right and responsibilities •Human Rights. •Social Rights. •Economic Rights. •Compliance.	•Develop a document listing these rights where applicable suitable examples should be given.	•Train district officials on a document listing these rights where applicable suitable examples should be given.	•Train teachers on a document listing these rights where applicable suitable examples should be given.	•Learners are unable to identify and distinguish between these rights; hence all answers were skewed towards human rights. •Learners were unable to state how consumers, employees, business and individuals can comply with these rights.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016
		Management and leadership in the micro environment. Leadership styles. Leadership theory. Teaching and learning were confined to the explanation of the leadership theory and styles only.	•Develop a document detailing the following of each leadership style/ theory: •Advantages/characteristics/ reasons/positives/ disadvantages/negatives and evaluation. Appropriate scenarios should be used.	•Train district officials on a document detailing the following of each leadership style/theory: •Advantages/ characteristics/reasons/ positives/disadvantages/ negatives and evaluation. Appropriate scenarios should be used.	•Train ton a document detailing the following of each leadership style/theory: •Advantages/ characteristics/reasons/ positives/disadvantages/ negatives and evaluation. Appropriate scenarios should be used.	Teachers should teach learners to differentiate between management and leadership and teach the different leadership styles and theory.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016
		Presentation of information: •Verbal and non-verbal presentation of a variety of business information. •Learners could not differentiate between types and examples of visual aids as well as the evaluation on the effectiveness of each type.	•Develop revision materials and organise workshops to train the provincial co-ordinators.	•Workshop the district officials on these concepts.	•Workshop teachers and monitor teaching and implementation of the recommendations.	•Learners must know how to give accurate and concise verbal and non-verbal presentations including graphs, diagrams charts, slides, etc. •Definition of different audio visual aid. •Design and layout of a presentation using the different visual aids. (Page 19 CAPS)	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016
		Creative thinking and problem solving.	•Develop revision materials and organise workshops to train the provincial co-ordinators.	•Workshop the district officials on these concepts.	•Workshop teachers and monitor teaching and implementation of the recommendations.	•Ways in which people need to work together to accomplish business objectives and discuss factors that can influence these relationships.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016
		Social responsibility.	•Develop revision materials and organise workshops to train the provincial co-ordinators.	•Workshop the district officials on these concepts.	•Workshop teachers and monitor teaching and implementation of the recommendations.	•Emphasis should be put on ways in a business can contribute responsibly towards its immediate community. •This should include initiatives taken by businesses in addressing the current socio economic issues.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016
		Relationship and team performance.	•Develop revision material and organise workshops to train the provincial co-ordinators.	•Workshop the district officials on these concepts.	•Workshop teachers and monitor teaching and implementation of the recommendations.	•Learners must know the criteria for successful and collaborative team performance in a business context and assessment of a team against these criteria.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Business function.	•Develop revision materials and organise workshops to train the provincial co-ordinators.	•Workshop the district officials on these concepts.	•Workshop teachers and monitor teaching and implementation of the recommendations.	•All business functions must be thoroughly covered as per CAPS requirements.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016
		Legislation.	•Develop revision materials and organise workshops to train the provincial co-ordinators.	•Workshop the district officials on these concepts.	•Workshop teachers and monitor teaching and implementation of the recommendations.	Emphasis should be made on the following Acts: •National Credit Act 34 of 2005, Consumer Protection Act 68 of 2008 and be familiar with other acts that may affect the implementation of business contracts.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016
		Action verbs: Instructions such as differentiate, evaluate, interpret and analyse were problematic to many learners.	•Compile document to explain these action verbs, what learners need to look for and answer for each in subject specific context.	•PEDs to print and mediate the document.	•District officials distribute and monitor the implementation of the document.	•Take note of the verbs when assessing learners. •Ensure that learners are familiar and understand the verbs that are used in the Business Studies. •Teachers should use English when teaching in class and avoid code switching.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016
		Language was still a problem to learners. It was still difficult for majority of learners to express their opinions because of lack of language.	•Develop Business Studies language dictionary.	•Mediate and send it to districts.	•Distribute to schools and mediate to both teachers and learners.	•Teachers should use English when teaching in class. •Avoid code switching.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016
		Application of Knowledge: Candidates could not apply knowledge obtained in a different situation.	•Create a booklet of different exemplar case studies and send them to provinces for mediation and distribution.	•Mediate the documents, send and monitor the usage by districts.	•Send to schools and monitor the usage by schools. •Teachers should give learners more essay type questions. •Teachers should familiarise themselves with the marking of essay type questions.	•The use of case studies should form part of teaching and learning. •Scaffold questions, e.g. start with lower order questions and move to middle and higher-order questions.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016
	12	Investment securities: Unit trust. Shares. RSA retail bonds. More emphasis is placed on the teaching of common types of investments e.g. savings account, fixed deposits, notice deposits, etc.	•Develop revision materials and organise workshops to train the provincial co-ordinators.	•Workshop the district officials on these concepts.	•Workshop teachers and monitor teaching and implementation of the recommendations.	•Teaching and learning should be extended to the lesser known types of investments, e.g. RSA retail bonds, unit trust, ordinary shares, preference shares, etc. learners must not only explain the investment type but also be able to evaluate each investment type. (Refer to Exam Guideline page 12)	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Forms ownership, e.g. personal liability company and state-owned company.	•Develop revision materials and organise workshops to train the provincial co-ordinators.	•Workshop the district officials on these concepts.	•Workshop teachers and monitor teaching and implementation of the recommendations.	•Teaching and learning is focused on the identification and characteristics of the various forms of ownership. •Learners must be able to understand, provide reasons for the formation, comparative study and state success and or failure of each type of ownership.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016
		Business strategies: Challenges. Strategies. Industrial tools. •While learners were able to identify challenges from case studies, scenarios they failed to link the strategies to the identified challenges. •Teaching and learning were confined to explanations of the various industrial tools e.g. PESTLE, SWOT analysis, Portes five forces.	•Develop case studies, scenarios and create opportunities for learners to identify challenges, devise strategies to overcome these challenges and evaluate their strategies. •A table approach consisting of the following headings is recommended: challenge, environment, degree of control, strategy and evaluation of the strategy.	•Provinces to develop case studies, scenarios and create opportunities for learners to identify challenges, devise strategies to overcome these challenges and evaluate their strategies. •A table approach consisting of the following headings is recommended: challenge, environment, degree of control, strategy and evaluation of the strategy.	•Districts to develop case studies, scenarios and create opportunities for learners to identify challenges, devise strategies to overcome these challenges and evaluate their strategies. •A table approach consisting of the following headings is recommended: challenge, environment, degree of control, strategy and evaluation of the strategy.	•Develop case studies, scenarios and create opportunities for learners to identify challenges, devise strategies to overcome these challenges and evaluate their strategies. •A table approach consisting of the following headings is recommended: challenge, environment, degree of control, strategy and evaluation of the strategy.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016
		Right and responsibilities: •Human Rights. •Social Rights. •Economic Rights. •Compliance.	•Develop a document listing these rights where applicable suitable examples should be given.	•Train district officials on a document listing these rights where applicable suitable examples should be given.	•Train teachers on a document listing these rights where applicable suitable examples should be given.	•Learners were unable to identify and distinguish between these rights; hence all answers were skewed towards human rights. •Learners were unable to state how consumers, employees, business, individuals can comply with these rights.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016
		Management and leadership in the micro environment. Leadership styles. Leadership theory. Teaching and learning was confined to the explanation of the leadership theory and styles only.	•Develop a document detailing the following of each leadership style/theory: •Advantages/characteristics/reasons/positives/disadvantages/negatives and evaluation. Appropriate scenarios should be used.	•Train district officials on a document detailing the following of each leadership style/theory: •Advantages/characteristics/reasons/positives/disadvantages/negatives and evaluation. Appropriate scenarios should be used	•Train teachers on a document detailing the following of each leadership style/theory: •Advantages/characteristics/reasons/positives/disadvantages/negatives and evaluation. Appropriate scenarios should be used.	•Teachers should teach learners to differentiate between management and leadership and teach the different leadership styles and theory.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Presentation of information: •Verbal and non-verbal presentation of a variety of business information. •Learners could not differentiate between types and examples of visual aids as well as the evaluation on the effectiveness of each type.	•Develop revision materials and organise workshops to train the provincial co-ordinators.	•Workshop the district officials on these concepts.	•Workshop teachers and monitor teaching and implementation of the recommendations.	•Learners must know how to give accurate and concise verbal and non-verbal presentations including graphs, diagrams charts, slides, etc. •Definition of different audio visual aid. •Design and layout of a presentation using the different visual aids. (Page 19 CAPS)	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016
		Creative thinking and problem solving.	•Develop revision materials and organise workshops to train the provincial co-ordinators.	•Workshop the district officials on these concepts.	•Workshop teachers and monitor teaching and implementation of the recommendations.	•Find ways in which people need to work together to accomplish business objectives and discuss factors that can influence these relationships.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016
		Social responsibility.	•Develop revision materials and organise workshops to train the provincial co-ordinators.	•Workshop the district officials on these concepts.	•Workshop teachers and monitor teaching and implementation of the recommendations.	•Emphasis should be put on ways in which a business can contribute responsibly towards its immediate community. •This should include initiatives taken by businesses in addressing the current socio-economic issues.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016
		Relationship and team performance.	•Develop revision materials and organise workshops to train the provincial Co-ordinators.	•Workshop the district officials on these concepts.	•Workshop teachers and monitor teaching and implementation of the recommendations.	•Learners must know the criteria for successful and collaborative team performance in a business context and assessment of a team against these criteria.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016
		Business function.	•Develop revision materials and organise workshops to train the provincial co-ordinators.	•Workshop the district officials on these concepts.	•Workshop teachers and monitor teaching and implementation of the recommendations.	•All business functions must be thoroughly covered as per CAPS requirements.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016
		Legislation.	•Develop revision materials and organise workshops to train the provincial co-ordinators.	•Workshop the district officials on these concepts.	•Workshop teachers and monitor teaching and implementation of the recommendations.	•Emphasis should be made on the following Acts: -National Credit Act 34 of 2005, Consumer Protection Act 68 of 2008 and be familiar with other acts that may affect the implementation of business contracts	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME FRAMES
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	
		Action verbs: Instructions such as differentiate, evaluate, interpret and analyse were problematic to many learners.	•Compile document to explain these action verbs, what learners need to look for and answer for each in subject specific context.	•PEDs to print and mediate the document.	•The district officials distribute and monitor the implementation of the document.	•Take note of the verbs when assessing learners. •Ensure that learners are familiar and understand the verbs that are used in the Business Studies. •Teachers should use English when teaching in class. •Avoid code switching.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016
		Language is still a problem to learners. It was still difficult for majority of learners to express their opinions because of lack of language.	•Develop Business Studies language dictionary.	•Mediate and send it to districts.	•Distribute to schools and mediate to both teachers and learners.	•Teachers should use English when teaching in class and avoid code switching.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016
		Application of Knowledge: Candidates could not apply knowledge obtained in a different situation.	•The use of case studies should form part of teaching and learning. •Scaffold questions e.g. start with lower order questions and move to middle and higher-order questions.	•Create a booklet of different exemplar case studies and send them to provinces for mediation and distribution.	•Mediate the documents, send and monitor the usage by districts.	•The use of case studies should form part of teaching and learning. •Scaffold questions e.g. start with lower order questions and move to middle and higher-order questions.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016
CIVIL TECHNOLOGY	10	• Lack of content knowledge and concepts.	•Provide notes on Construction, Safety & Materials, Advanced Construction & Equipment, Civil Services, Quantities, Materials & Joining and Applied Mechanics. •E-copies of Exemplar Question Papers.	•Provide CAPS-aligned textbooks. •Distribute e-copies of Question Papers Booklet. •Mediate to district officials. •Monitor and support training in the districts. •Distribute materials to all schools and mediate during workshops. •Mediate appropriate methodologies.	•Print notes and distribute e–copies of Exemplar Question Papers Booklet to schools. •Distribute to schools. •Monitor and support use in schools. •Mediate appropriate. methodologies.	•Teach content and concepts on Construction, Safety & Materials, Advanced Construction & Equipment, Civil Services. •Quantities, Materials & Joining and Applied Mechanics. •Support, guide and monitor performance in the challenging content. •Theory should be integrated into practical lessons in the civil technology workshop.	•Textbooks. •Previous Question Papers from DBE website.	Jan-Sep 2016
		•Failure to interpret Construction, Safety & Materials, Advanced Construction & Equipment, Civil Services, Quantities, Materials & Joining and Applied Mechanics.	•Distribute e-copies of Construction, Safety & Materials, Advanced Construction & Equipment, Civil Services, – Quantities, Materials & Joining and Applied Mechanics.	•Distribute e-copies of Construction, Safety & Materials, Advanced Construction & Equipment, Civil Services, – Quantities, Materials & Joining and Applied Mechanics.	•Distribute e-copies of notes on Construction, Safety & Materials, Advanced Construction & Equipment, Civil Services, Quantities, Materials & Joining and Applied Mechanics.	•Gather a variety of sources from textbooks internet & engineering magazines.	•Distribute. •Mediate. •Monitor.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		•Failure to calculate quantities, materials centroids and beams in applied mechanics.	•Distribute e-copies of previous question papers.	•Distribute e–copies of previous question papers.	•Distribute e–copies previous question papers.	•Teachers should use real life situations and practicals during teaching and assessment. Excursions to construction sites during the year will help learners to understand Construction, Safety & Materials, Advanced Construction & Equipment, Civil Services, – Quantities, Materials & Joining and Applied Mechanics.		Jan-Sep 2016
		•Failure to draw and analyse steel reinforcement in advanced construction. E.g. columns and beams.	•Distribute e–copies of DBE question papers on Construction, Safety & Materials, Advanced Construction & Equipment, Civil Services, Quantities, Materials & Joining and Applied Mechanics.	•Distribute e–copies of DBE question papers on reinforcement of Construction, Safety & Materials, Advanced Construction & Equipment, Civil Services, Quantities, Materials & Joining and Applied Mechanics	•Distribute e–copies of DBE question papers to schools on Construction, Safety & Materials, Advanced Construction & Equipment, Civil Services, Quantities, Materials & Joining and Applied Mechanics.	Excursions to construction sites by schools will improve the understanding of these sections as they are more practical.	Distribute e–copies of DBE question papers on Construction, Safety & Materials, Advanced Construction & Equipment, Civil Services, Quantities, Materials & Joining and Applied Mechanics.	Jan-Sep 2016
	11	•Lack of concepts and content knowledge.	•Distribute e–copies of DBE question papers and notes on these topics and concepts.	•Distribute e–copies of DBE question papers on these topics and concepts. •Set different questions on these topics.	•Distribute e–copies of DBE question papers on these topics and concepts to schools. •Set e-copies of different questions on these topics.	•Teach content and concepts on tools and different materials used in the construction industry.	•Distribute booklets and notes on these topics and concepts. •Set different questions on these topics.	Jan-Sep 2016
		•Failure to differentiate materials in the building industry and their uses	•Print booklets on materials in the building industry and their uses.	•Distribute booklets on materials in the building industry and their uses.	•Distribute e-copy booklets on materials in the building industry and their uses.	•Gather a variety of sources from textbooks & internet for materials in the building industry and their uses.	• Distribute, mediate & monitor booklets on materials in the building industry and their uses.	Jan-Sep 2016
		•Failure to differentiate tools and equipment used in the building industry.	•Distribute charts of tools and equipment used in the building industry using recapitalisation funds.	•Distribute charts of tools and equipment used in the building industry using recapitalisation funds.	•Distribute e-copies of charts of tools and equipmen used in the building industry using recapitalisation funds.	•Teachers should use these tools and equipment used in the building industry for teaching and classroom assessment.	•Distribute charts of tools and equipment used in the building industry using recapitalisation funds.	Jan-Sep 2016
		•Failure to write draw sections on Graphic Communication.	•Print booklets of sections on Graphic Communication.	•Distribute booklets of sections on Graphic Communication.	•Distribute e-copies of booklets of sections on Graphic Communication.	•Reinforce sections on Graphic Communication. •Teachers should teach various components of sections on Graphic Communication.	•Distribute booklets of sections on Graphic Communication.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
	12	•Lack of content knowledge on themes dealing with Construction, Safety & Materials, Advanced Construction & Equipment, Civil Services, Quantities, Materials & Joining and Applied Mechanics.	•Distribute the charts of different Construction, Safety & Materials, Advanced Construction & Equipment, Civil Services, Quantities, Materials & Joining and Applied Mechanics.	•Purchase & distribute approved charts of different Construction, Safety & Materials, Advanced Construction & Equipment, Civil Services, Quantities, Materials & Joining and Applied Mechanics.	•Monitor & distribute e-copies of charts of Construction, Safety & Materials, Advanced Construction & Equipment, Civil Services, Quantities, Materials & Joining and Applied Mechanics.	•Teachers should teach content and concepts of Construction, Safety & Materials, Advanced Construction & Equipment, Civil Services, Quantities, Materials & Joining and Applied Mechanics.	•Monitor & distribute charts of Construction, Safety & Materials, Advanced Construction & Equipment, Civil Services, Quantities, Materials & Joining and Applied Mechanics.	Jan-Sep 2016
		•Lack of concepts and content knowledge.	•Print Construction, Safety & Materials, Advanced Construction & Equipment, Civil Services, Quantities, Materials & Joining and Applied Mechanics booklet.	•Print Construction, Safety & Materials, Advanced Construction & Equipment, Civil Services, Quantities, Materials & Joining and Applied Mechanics booklets.	•Distribute e-copies of Construction, Safety & Materials, Advanced Construction & Equipment, Civil Services, Quantities, Materials & Joining and Applied Mechanics booklets to schools.	•Gather a variety of sources from textbooks & internet for Construction, Safety & Materials, Advanced Construction & Equipment, Civil Services, Quantities, Materials & Joining and Applied Mechanics booklets.		Jan-Sep 2016
		•Failure to interpret Construction, Safety & Materials, Advanced Construction & Equipment, Civil Services, Quantities, Materials & Joining and Applied Mechanics.	•Distribute e-copies of Construction, Safety & Materials, Advanced Construction & Equipment, Civil Services, Quantities, Materials & Joining and Applied Mechanics.	•Distribute e-copies of Construction, Safety & Materials, Advanced Construction & Equipment, Civil Services, Quantities, Materials & Joining and Applied Mechanics.	•Distribute e-copies of Construction, Safety & Materials, Advanced Construction & Equipment, Civil Services, Quantities, Materials & Joining and Applied Mechanics to schools.	•Gather a variety of sources from textbooks internet & engineering magazines.	•Distribute. •Mediate. •Monitor.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
COMPUTER APPLICATIONS TECHNOLOGY	10	General: Poor understanding of action verbs: Learners were unable to respond to the action verbs used in the question. Poor response to higher-order questions: •Learners were unable to make links and to apply knowledge, e.g. to answer case studies, make recommendations, etc. – lack of higher-order thinking skills. •Learners were not exposed to variety of question types, i.e. they struggled to answer questions from 'all angles'. •Learners were not exposed to higher-order thinking questions.	•Teach and explain the meanings of key words in questions. •Use exemplar questions and question papers as a teaching tool to expose learners to the different types of questions and how to respond appropriately. •Ensure that class activities and homework include work/ questions on all cognitive and difficulty levels. •Teach learners how to solve problems, strategies and different approaches, ways and solutions. •Compare different solutions to problems.	•Compile document to explain common key words.	•Exemplar questions and expected responses. •Mediate support strategies.	•Distribute, exemplar questions and expected responses. •Mediate and monitor the use and impact of support strategies.	•Textbooks. •Previous papers.	February 2016 and ongoing
		Theory content: •Learners lacked basic knowledge and understanding of theory concepts. •Learners did not see 'connections' between different theory content/ topics. •As a result, learners were not able to integrate knowledge, to answer higher-order questions or apply answers to scenario/ case study.	•Teachers must teach theory. •Basic concepts and terminology must continuously be reinforced and revised to improve learners' basic understanding of a topic. •Highlight/demonstrate connections between topics/ content. •Ensure that learners receive homework on a daily basis. •Theory homework should be given at the end of each theory lesson. •Homework should include higher-order questions and integration of content.	•Teaching methodologies to teach theory.	•Mediate to district officials and distribute to schools: •Self-marking quizzes covering basic knowledge/ terminology •Case studies/scenario-based questions to develop understanding and higher-order thinking skills. •Monitor and support use of resources in schools. •Monitor and support training in the districts.	•Identify and address gaps in teacher content knowledge. •Mediate support strategies. •Support, guide and monitor performance in the challenging content. •Mediate appropriate methodologies. •Conduct demonstration lessons in the challenging content area.	•Textbooks. •Self-marking quizzes. •Case studies/scenario-based questions. •Examples of teaching methodologies.	March 2016 and ongoing

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Practical content Spreadsheet: •Spreadsheets were used for calculations and learners struggled with mathematical concepts. •Learners did not understand the purpose of a specific function or when to use which function, e.g. COUNT vs. SUM. •Poor mathematical skills. •Learners did not understand the purpose of graphs. •They could not interpret graphs and draw conclusions. Word processing: •Learners were unable to answer problem solving questions on the word processing content	•Teach understanding of functions and formulae. •Explain differences between functions such as SUM and COUNT. •Practical homework should be given on a daily basis. Learners need to practice and reinforce the skills learnt at school. •Provide theory questions on spreadsheet which learners must complete at home (especially where learners do not have computers at home), e.g. completing a spreadsheet manually by writing down the functions/formulae for a specific exercise which they can test on the computer the following day. •Expose learners to a variety of question types. •Expose learners to problem solving questions.	•Problem solving questions	•Distribute and mediate to district officials and distribute to schools: •Basic knowledge/drilling questions/self-marking quizzes. •Questions that integrate knowledge and skills. •Monitor and support use of improvement plan in schools. •Monitor and support training in the districts. •Monitor impact.	•Identify and address gaps in teacher content knowledge. •Mediate support strategies. •Support, guide and monitor performance in the challenging content. •Mediate appropriate methodologies. •Conduct demonstration lessons in the challenging content area.	•Textbooks. •Previous papers. •Self-marking quizzes.	May 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Information Management: •Teachers neglected teaching of IM content. •Learners lacked basic knowledge and understanding of IM content. •Learners lacked reading skills. •Learners lacked writing skills. •Learners could not interpret data and information. •Learners could not summarise information. •Learners could not analyse data. •Learners could not write a report. •Learners did not realise the link between these and what they learn in Home Language or in Mathematics/Maths Literacy.	•Teach IM content prior to exposing learners to the PAT. •Ensure that learners do a lot of prior reading on the PAT topic. •Teach learners to identify relevant content from sources. •Teach learners to summarise content in their own words. •Teach learners how to analyse data, what to look for. •Teach learners how to write a report.	Guidelines on: •How to summarise, etc. •Report format.	•Distribute to schools. •Monitor and support use in schools. •Monitor and support training in the districts. •Monitor impact.	•Identify and address gaps in teacher content knowledge. •Mediate support strategies. •Support, guide and monitor performance in the challenging content. •Mediate appropriate methodologies. •Conduct demonstration lessons in the challenging content area.	•Textbooks. •Home Language writing guide.	June 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
	11	General Poor understanding of action verbs: Learners were unable to respond to the action verbs used in the question. Poor response to higher-order questions: •Learners were unable to make links and to apply knowledge, e.g. to answer case studies, make recommendations, etc. – they lacked higher-order thinking skills. •Learners were not exposed to variety of question types, i.e. they struggled to answer questions from 'all angles'. •Learners were not exposed to higher-order thinking questions •Learners 'forgot' Grade 10 content and skills.	•Teach and explain the meanings of key words in questions •Use exemplar questions and question papers as a teaching tool to expose learners to the different types of questions and how to respond appropriately •Ensure that class activities and homework include work/ questions on all cognitive and difficulty levels. •Teach learners how to solve problems – strategies and different ways/solutions. •Compare different solutions to problems. •Revise Grade 10 content and skills cumulatively.	•Compile document to explain common key words.	•Exemplar questions and expected responses. •Mediate support strategies.	•Distribute, exemplar questions and expected responses. •Mediate and monitor the use and impact of support strategies.	•Textbooks. •Previous papers.	February 2016 and ongoing

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Theory content •Learners lacked basic knowledge and understanding of theory concepts. •Learners did not see 'connections' between different theory content/ topics. •Learners struggled with the following: •Correct use of terminology •Network/Internet concepts. •As a result, learners were not able to integrate knowledge to answer higher-order questions. •Grade 10 content and skills were not revised and consolidated.	•Teachers must teach theory. •Basic concepts and terminology must continuously be reinforced and revised to improve learners' basic understanding of a topic. •Highlight/demonstrate connections between topics/ content. •Theory concepts must be demonstrated practically as far as possible, e.g. show learners a blog and a wiki so that they understand the difference or download YouTube videos on theory concepts to show to learners. •Ensure that learners receive homework on a daily basis - Theory homework should be given at the end of each theory lesson, e.g. provide an article on new technology with questions they need to answer at home. •Homework should include higher-order questions and integration of content. •Revise Grade 10 content and skills cumulatively.	•Teaching methodologies to teach theory	•Mediate to district officials and distribute to schools: •Self-marking quizzes covering basic knowledge/ terminology •Case studies/scenario-based questions to develop understanding and higher-order thinking skills. •Monitor and support use of resources in schools. •Monitor and support training in the districts.	•Identify and address gaps in teacher content knowledge. •Mediate support strategies •Support, guide and monitor performance in the challenging content. •Mediate appropriate methodologies. •Conduct demonstration lessons in the challenging content area.	•Textbooks. •Self-marking quizzes. •Case studies/scenario-based questions. •Examples of teaching methodologies	March 2016 and ongoing

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Practical content: Spreadsheet: •Spreadsheets were used for calculations and learners struggled with mathematical concepts. •Learners did not understand the purpose of a specific function or when to use which function, e.g. COUNT vs. SUM. •Poor mathematical skills •Learners did not understand the purpose of graphs. •Could not interpret graphs and draw conclusions. •'Forgot' Grade 10 content and skills. Database: •Learners lacked logical thinking skills to formulate queries. •Database content generally not taught well – teacher knowledge was a problem. •Learners did not understand the query, i.e. which information needs to be extracted – reading comprehension . Word processing: •Learners struggled with the following: •Sections/section breaks. •Referencing functions. •Advanced table functions. •Manipulating graphics. •They 'forgot' Grade 10 content and skills. Integration of packages and skills: •Learners lacked decision making and problem solving skills. •They 'forgot' Grade 10 content and skills.	•Teach understanding of functions and formulae. •Explain differences between functions such as SUM and COUNT. •Practical homework should be given on a daily basis. Learners need to practice and reinforce the skills learnt at school. •Provide theory questions on spreadsheet which learners must complete at home (especially where learners do not have computers at home), e.g. completing a spreadsheet manually by writing down the functions/formulae for a specific exercise which they can test on the computer the following day. •Revise Grade 10 word processing skills, especially those that are not repeated in Grade 11, e.g. table skills, manipulation of graphics – classwork/homework should include new skills learnt as well as skills learnt previously. •Teach learners the theory underlying the practical skills, e.g. difference between editing and formatting, difference between text, paragraph and page formatting. •A good understanding of page formatting is necessary to understand breaks (section breaks, column breaks, etc.). •Expose learners to a variety of question types. •Expose learners to problem solving questions. •Revise Grade 10 content and skills cumulatively.	•Exemplar problem solving questions.	Distribute and mediate to district officials and distribute to schools: •Basic knowledge/ drilling questions/self-marking quizzes. •Questions that integrate knowledge and skills. •Monitor and support use of improvement plan in schools. •Monitor and support training in the districts. •Monitor impact.	•Identify and address gaps in teacher content knowledge. •Mediate support strategies. •Support, guide and monitor performance in the challenging content. •Mediate appropriate methodologies. •Conduct demonstration lessons in the challenging content area.	•Textbooks. •Previous papers. •Self-marking quizzes.	May 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
	12	General: Poor understanding of action verbs: Learners could not respond to the action verbs used in the question. Poor response to higher-order questions: •Learners were unable to make links and to apply knowledge, e.g. to answer case studies, make recommendations, etc. – they lacked higher-order thinking skills. •Learners were not exposed to variety of question types, i.e. they struggled to answer questions from 'all angles'. •Learners were not exposed to higher-order thinking questions. •Grade 10 and Grade 11 content and skills were not revised and consolidated. •Learners 'forgot' Grade 10 and Grade 11 content and skills.	•Teach and explain the meanings of key words in questions. •Use exemplar questions and question papers as a teaching tool to expose learners to the different types of questions and how to respond appropriately. •Expose learners to a variety of question types. •Ensure that class activities and homework include work/ questions on all cognitive and difficulty levels. •Teach learners how to solve problems. •Revise Grade 10 and Grade 11 content and skills cumulatively.	•Compile document to explain common key words.	•Exemplar questions and expected responses. •Mediate support strategies.	•Distribute, exemplar questions and expected responses. •Mediate and monitor the use and impact of support strategies.	•Textbooks. •Previous papers.	February 2016 and ongoing

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Theory content: •Learners lacked basic knowledge and understanding of theory concepts. •Learners did not see 'connections' between different theory content/ topics. •As a result, learners were not able to integrate knowledge to answer higher-order questions. •Learners 'forgot' Grade 10 and Grade 11 content.	•Teachers must teach theory. •Basic concepts and terminology must continuously be reinforced and revised to improve learners' basic understanding of a topic. •Highlight/demonstrate connections between topics/ content. •Theory concepts must be demonstrated practically as far as possible, e.g. show learners a blog and a wiki so that they understand the difference or download YouTube videos on theory concepts to show to learners. •Ensure that learners receive homework on a daily basis. •Theory homework should be given at the end of each theory lesson, e.g. provide an article on new technology with questions they need to answer at home. •Homework should include higher-order questions and integration of content. •Revise Grade 10 and Grade 11 content and skills cumulatively.	•Teaching methodologies to teach theory.	•Mediate to district officials and distribute to schools: •Self-marking quizzes covering basic knowledge/terminology •Case studies/scenario-based questions to develop understanding and higher-order thinking skills. •Monitor and support use of resources in schools. •Monitor and support training in the districts.	•Identify and address gaps in teacher content knowledge •Mediate support strategies •Support, guide and monitor performance in the challenging content. •Mediate appropriate methodologies. •Conduct demonstration lessons in the challenging content area.	•Textbooks •Self-marking quizzes •Case studies / scenario-based questions •Examples of teaching methodologies	March 2016 and ongoing

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Practical content: Spreadsheet: •Spreadsheets were used for calculations and learners struggled with mathematical concepts. •Learners did not understand the purpose of a specific function or when to use which function, e.g. COUNTIF vs. SUMIF. •Poor mathematical skills. •Learners did not understand the purpose of graphs. •They could not interpret graphs and draw conclusions. •Learners struggled with date and time functions and calculations. •Learners struggled with complex/composed functions/formulae. •Learners 'forgot' Grade 10 and Grade 11 content. Database: •Database content generally not taught well – teacher knowledge was a problem •Learners 'forgot' Grade 10 and Grade 11 content.	•Teach understanding of functions and formulae. •Explain differences between functions such as SUM and COUNT. •Practical homework should be given on a daily basis. Learners need to practice and reinforce the skills learnt at school. •Provide theory questions on spreadsheet which learners must complete at home (especially where learners do not have computers at home), e.g. completing a spreadsheet manually by writing down the functions/formulae for a specific exercise which they can test on the computer the following day. •Revise Grade 10 and 11 word processing skills, especially those that are not repeated in Grade 12, e.g. table skills, manipulation of graphics – classwork/homework should include new skills learnt as well as skills learnt previously – cumulative revision should be done at all times.	•Exemplar problem solving questions.	•Distribute and mediate to district officials and distribute to schools: •Basic knowledge/ drilling questions / self-marking quizzes. •Questions that integrate knowledge and skills. •Monitor and support use of improvement plan in schools. •Monitor and support training in the districts. •Monitor impact.	•Identify and address gaps in teacher content knowledge. •Mediate support strategies •Support, guide and monitor performance in the challenging content. •Mediate appropriate methodologies. •Conduct demonstration lessons in the challenging content area.	•Textbooks. •Previous papers. •Self-marking quizzes.	May 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Queries: •Learners lacked logical thinking skills to formulate queries. •Learners did not understand the query, i.e. which information needs to be extracted – reading comprehension. •Learners 'forgot' Grade 10 and Grade 11 content. Calculations in queries and reports: •Learners struggled with calculations – same as for spreadsheet. •Learners 'forgot' Grade 10 and Grade 11 content. Word processing: •Learners struggled with the following: •Sections/section breaks. •Referencing functions. •Advanced table functions. •Manipulating graphics. •Linking and embedding objects. •Advanced file manipulation. •Learners 'forgot' Grade 10 and Grade 11 content.	•Teach learners the theory underlying the practical skills, e.g. difference between editing and formatting, difference between text, paragraph and page formatting. •Teach learners to 'break-up' complex functions/formulae and to develop 'building blocks' for complex functions. •A good understanding of page formatting is necessary to understand breaks (section breaks, column breaks, etc.). •Expose learners to questions that integrate content/ packages and skills. •Expose learners to problem solving questions. •Revise Grade 10 content and skills cumulatively.					May 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
CONSUMER STUDIES	10	Learners lacked basic foundational knowledge: •Terminology books must become part of learners' resources from Grade 10. •Differences and similarities between terms must be pointed out to learners. •Learners struggled to answer basic knowledge questions; they are unfamiliar with terminology and concepts.	•Develop Self-Study Guides on The Consumer, Food and Nutrition and Housing. •Compile and distribute a basic terminology/concept list on The Consumer, Food and Nutrition and Housing per topic.	•Monitor the implementation of terminology lists/books. •Mediate the Study Guides to district officials. •Distribute Study Guides to schools. •Monitor and support training in the districts.	•Identify and address gaps in teacher content knowledge. •Mediate the Study Guides for teachers. •Support, guide and monitor performance in challenging content. •Monitor learner-performance in the identified content areas. •Train teachers on the use of concept -maps to facilitate understanding of the concept.	•Teachers must teach basic concepts and terminology to ensure learners understand the concepts. •Basic concepts and terminology must continuously be reinforced and revised to improve learners' basic understanding a topic. •Introduce regular short terminology tests. •Use appropriate subject lexicon during teaching. •Introduce a terminology book/section on every topic.	•Self-Study Guides. •Terminology lists/ books. •Textbooks.	Jan-Oct 2016
	11	Learners lacked basic foundational knowledge: •Learners struggled to answer basic knowledge questions; they were unfamiliar with terminology and concepts. •Differences and similarities between terms must be pointed out to learners.	•Develop Self-Study Guides for Grade on The Consumer, Food and Nutrition and Housing. •Compile and distribute a basic terminology/concept list on The Consumer, Food and Nutrition and Housing per topic.	•Mediate the Study Guides to district officials. •Distribute Study Guides to schools. •Monitor and support training in the districts.	•Identify and address gaps in teacher content knowledge •Mediate the Study Guides for teachers. •Support, guide and monitor performance in the challenging content. •Conduct demonstration lessons in the challenging content area.	•Teachers must teach basic concepts and terminology before teaching the topic. •Basic concepts and terminology must continuously be reinforced and revised to improve learners' basic understanding a topic. •Introduce regular short terminology tests. •Use appropriate subject lexicon during teaching.	•Self-Study Guides. •Textbooks.	Jan-Oct 2016
		Poor response to higher-order questions e.g. evaluate.	•Workshop provincial officials during subject committee on the expected responses required from learners. •Develop guide outlining expected responses to higher-order questions by examiners.	•Distribute and mediate guide to Subject Advisors •Monitor teacher training and implementation at school level.	•Distribute and mediate guide to Teachers. •Apply guidelines in context.	•Teach learners how to respond to higher-order questions. •Set sample questions for informal and formal subjects.	•Textbooks. •Guide book.	Jan-Oct 2016
		Below-average paragraph writing skills.	•Recirculate Booklet 1 and 2 manuals (e-copies) to improve paragraph writing skills.	•Distribute and mediate guide to Subject Advisors. •Monitor teacher training and implementation at school level.	•Demonstrate and train advisors on EAC focussing on paragraph writing.	•Demonstrate and train teachers on EAC focussing on paragraph writing.	•EAC framework. •Textbooks.	Jan-Oct 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
	12	Learners lacked basic foundational knowledge.	•Develop Self-Study Guides for Grade 12 on The Consumer, Housing and Interior and Food and Nutrition topics.	•Mediate the Study Guides to district officials. •Distribute Study Guides to schools.	•Identify and address gaps in teacher content knowledge. •Mediate the Study Guides for teachers.	•Teachers must teach basic concepts and terminology before teaching the topic. •Basic concepts and terminology must continuously be reinforced and revised.	•Self-Study Guides. •Textbooks.	Jan-Oct 2016
		Poor understanding of action verbs: •Learners could not sufficiently respond to the action verbs used in the question. •When required to explain or describe, most of them wrote incomplete phrases.	•Workshop provincial officials during subject committee on the expected responses required from learners. •Compile guide outlining common action verbs and the expected responses.	•Provincial officials to print and mediate the document.	•The district officials distribute, mediate and monitor the utilisation of the document.	•Learners should be taught the meanings of action verbs. •Use previous question papers as a teaching tool and informal assessment tool to expose learners to the different types of questions being asked and how to respond appropriately.	•Textbooks. •Past question papers.	Jan-Oct 2016
		Poor response to higher-order questions: •Learners lacked sound reasoning ability and were unable to express themselves clearly. •They struggled to evaluate and if they did, many could not explain the reason for their opinion. •They also could not substantiate their choice, indicating limited or no understanding of a topic.	•Develop guide outlining expected responses to higher-order questions	•Offer training to district officials on the use of past question papers. •Distribute and mediate the use of the Consumer Studies exemplification guide.	•Ensure all schools have copies of past question papers. •Offer training to teachers on the use of past question papers.	•Teach learners how to respond to evaluation questions. Set questions requiring various cognitive abilities as part of teaching and informal assessment. •Teach learners how to substantiate answers, this will ensure that learners are exposed to the way content can be tested and the type of questions that can be asked. •Practice the skill of responding to higher-order questions in class.	•Use previous question papers as a teaching tool and informal assessment. •Use exemplification guide as a teaching tool.	Jan-Oct 2016
		Learners misinterpreted questions: •Learners struggled to identify the gist of questions leading to incorrect responses.	•Develop and distribute examples of how to identify the crux of a question from the 2014 NSC Consumer Studies examination paper.	•Provincial officials to print and mediate the document.	•District officials to distribute and mediate the document.	•Teach learners the skills of analysing a question to determine the focus of the question.	•Past question papers.	Jan-Oct 2016
		Lack of basic visual literacy: •Struggled to interpret and respond to pictures and other visual stimuli.	•Develop and distribute basic guide on visual literacy and how to use and respond to visual stimuli.	•Provincial officials to print and mediate the document.	•District officials to distribute and mediate the document.	•Teach visual literacy skills. •Expose learners to several examples. •Practice regularly in class to reinforce skill. •Expose learners to various forms of visual stimuli and how to respond appropriately.	•2014 Exemplification guide.	Jan-Oct 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME FRAMES
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	
		Comprehension: Learners were unable to interpret texts, answer questions using own words and to infer meaning, i.e. implied/literal/figurative.	•Use EAC framework to develop a guideline on responding to comprehension tests.	•Provide information and offer training to advisors.	•District officials to distribute and mediate the document.	•Teach comprehension skills. •Set regular comprehension exercises or tests.	•Textbooks. •Newspaper/magazine/ internet articles.	Jan-Oct 2016
		Recipe costing Calculations: Learners struggled to perform calculations relating to costing.	•Distribute lessons on calculations to provinces.	•Print and distribute lessons to districts •Offer methodology training to advisors on how to teach the topic.	•Offer content training to teachers. •Distribute Self-Study Guide to schools. •Offer methodology training to teachers on how to teach the topic.	•Develop short (10 minute) informal monthly tests on costing to keep skills current. Learners lack basic theoretical knowledge about calculations relating to meal costing. •Lack of arithmetical skills. •Learners to be given regular calculation exercises to practice.	•Past question papers. •Textbook.	Jan-Oct 2016
		Paragraph responses: •Learners showed a lack of in-depth knowledge. They were not able to provide enough detail to earn full marks. •Many learners struggled to express themselves in paragraph format.	•Offer training on paragraph writing using exemplars. Provincial officials train district officials on language across curriculum.	•Provincial officials to train teachers on the application of language across curriculum.	Teachers must teach paragraph writing skills to learners. Expose learners to the various types of paragraphs. Infuse EAC into all topics and focus on developing and strengthening the 4 language pillars.	•Set exemplar paragraph questions on various topics. Mediate EAC processes. •Provide examples of how to infuse EAC into Consumer Studies lessons.	•Textbook. •EAC booklet.	Jan-Oct 2016
DANCE STUDIES	12-Oct	Poor understanding of basic Subject terminology: •Learners could not respond to the terminology required in the question. Poor response to higher-order questions: •Learners were unable to make links and to apply knowledge: lack of higher-order thinking skills. •Learners were not exposed to variety of question types, i.e. they struggled to answer questions. •Learners were not exposed to higher-order thinking questions.	•Teach and explain the basic subject terminology in questions. •Use exemplar questions and question papers as a teaching tool to expose learners to the different types of questions and how to respond appropriately. •Ensure that class activities, homework and projects include work/questions on all cognitive and difficulty levels. •Teach learners how to solve problems.	•Compile document to explain basic subject terminology. •Exemplar questions and expected responses.	•Mediate support strategies.	•Distribute, mediate and monitor the use and impact of support strategies.	•Textbooks and previous papers.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
DESIGN	12-Oct	Theory content: •Learners lacked basic knowledge and understanding of theory concepts. •Learners did not see 'connections' between different theory content/ topics. •As a result, learners were not able to integrate knowledge to answer higher-order questions.	•Teachers must teach theory. •Basic concepts and terminology must continuously be reinforced and revised to improve learners' basic understanding of a topic •Highlight/demonstrate connections between topics/ content. •Ensure that learners receive homework on a regular basis - Theory homework should be given at the end of each theory lesson. •Homework should include higher-order questions and integration of content.	•Case studies/scenario-based questions to develop understanding and higher-order thinking skills.	•Mediate to district officials. •Distribute to schools. •Monitor and support use in schools. •Monitor and support training in the districts.	•Identify and address gaps in teacher content knowledge. •Mediate support strategies. •Support, guide and monitor performance in the challenging content. •Mediate appropriate methodologies. •Conduct demonstration lessons in the challenging content area.	•Textbooks, Scenario-based questions, and Examples of teaching methodologies.	February 2016 and ongoing
DRAMATIC ARTS	12-Oct	•Lack of content knowledge and concepts on prescribed plays. •Failure to answer High Order Questions. •Failure to comprehend real-life theatrical situations, such as theatre (buildings).	•Teach prescribed plays. •Teach learners how to answer High-Order questions. •Excursions to theatres by schools will improve on the understanding of these concepts as they are more practical.	•Provide notes prescribed plays. •Distribute CDs of Exemplar Question Papers. •Distribute CDs of Exemplar Question Papers. •Print DBE question papers on reinforcement of beams and columns.	•Provide prescribed textbooks. •Distribute CDs of Exemplar Question Paper Booklet. •Distribute CDs of Exemplar Question Paper Booklet. •Distribute DBE question papers on real-life theatrical situations.	•Print notes and distribute CDs of Exemplar Question Paper Booklet. •Print notes and distribute CDs of Exemplar Question Paper. •Distribute DBE question papers on real-life theatrical situations.	•Textbooks. •Previous Question Papers. •Distribute. •Mediate. •Monitor. •Distribute Print material on different kinds of theatres.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
ECONOMICS	10	Language ability: •Candidates struggled to reason and debate issues. •Learners could not understand the action verbs. Candidates could not: •Differentiate between monopoly and monopolistic competition. •Apply knowledge to real life situation. •Did not understand market failure and could not link the content to the question. •Majority of candidates referred to the causes of market failure. •Calculations from the information provided in the graphs are still a challenge to most of the candidates. Could not link: •The immobility of the factors of production to market failure, instead they discussed the factors of production.	•Compile document to explain these action verbs, what learners need to look for an answer for each in subject specific context.	•Provincial officials to print and mediate the document.	•District officials to distribute and monitor the implementation of the document.	•Learners could not debate issue due to language barriers. •Learners not taught the meanings of action verbs that are used in Economics. •Teachers must expose learners to data response questions. •Learners should be guided in terms of expressing their opinions. Many of them express their opinions out of context.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Basic concepts: •Learners were unable to explain the essential basic concepts and terminology applicable to Economics. •The interpretation and analysis of statistical information still remained a problem. Candidates lacked content knowledge and application. Unable to provide: Detailed discussion on how industries contribute to land and water pollution.	•Self-Study Guides for Grade 10 to 12 containing Economic concepts, principles and dynamic markets. •The Self-Study Guides are already loaded on Thutong, but they need to be printed and distributed to provinces. •Mediating the Study Guide during subject advisor workshop.	•Print more Self-Study Guides and distribute to districts and schools. •Monitor utilisation of materials developed.	•Distribute materials to all the schools and mediate during workshops. •Monitor utilisation of materials developed.	•Lack of the teaching of Economics concepts when starting a new topic. •Incorporate recent Economic events in teaching and assessment. •Reference can be made to the quarterly bulletin of the SARB, SSA and newspapers. •Subject advisors should conduct training on the above mentioned challenges to help teachers.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016
		Paragraph responses: Showed a lack of in-depth knowledge. Candidates were not able to provide enough detail to earn full marks.	•Provincial officials should be guided on how to use the action verbs to draw the word charts, vocabulary trees and how English can be used in Economics; what learners need to look for an answer for each in subject specific context.	•Provincial officials to train district officials on language across curriculum.	•District officials to train teachers on language across curriculum.	•Schools only assess learners on short and objective questions. •Learners see paragraph questions for the first time in the examination.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016
		Graphs: •Incorrect drawing and labelling of curves.	•Self-Study Guides for Grade 10 to 12 containing Economic concepts, principles and dynamic markets need to be printed and distributed. •The DBE will monitor the use of the Self-Study Guides and Mind the Gap.	•Provincial co-ordinators mediate and monitor the distribution of the use of Study Guides.	•Subject advisors to mediate and monitor the use of Study Guides.	•Lack of practice of different graphs and supply of detailed information as part of each graph.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016
		Calculations: •Used the wrong formula to do the calculations. •Data response items were misunderstood or misinterpreted. •Candidates could not 'see' the data to be used in the calculations, even though they were clearly indicated in the graph.	•Extracts a module on Self-Study Guide and distribute to provinces. •Mediate the guide and monitor progress. •Include application of calculations in case studies.	•Provinces will print and distribute the module to districts. •Provinces will monitor the distribution of the guide.	•Districts will monitor the implementation of the guide.	•Lack of arithmetical skills. •Learners not given regular calculation exercises to practice.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
	11	Language ability: •Candidates struggled to reason and debate issues. •Learners could not understand the action verbs. Candidates could not: •Differentiate between monopoly and monopolistic competition. •Apply knowledge to real life situation. •Did not understand market failure and could not link the content to the question. •Majority of candidates referred to the causes of market failure. •Calculations from the information provided in the graphs were still a challenge to most of the candidates. Could not link: The immobility of the factors of production to market failure, instead they discussed the factors of production.	•Compile document to explain these action verbs, what learners need to look for an answer for each in subject specific context.	•Provincial officials to print and mediate the document.	•The district officials distribute and monitor the implementation of the document.	•Learners could not debate issue due to language barriers. •Learners not taught the meanings of action verbs that are used in Economics. •Teachers must expose learners to data response questions. •Learners should be guided in terms of expressing their opinions. Many of them express their opinions out of context.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Basic concepts: •Learners were unable to explain the essential basic concepts and terminology applicable to Economics. •The interpretation and analysis of statistical information still remained a problem. •Candidates lacked content knowledge and application. Unable to provide: Detailed discussion on how industries contribute to land and water pollution.	•Self-Study Guides for Grade 10 to 12 containing Economic concepts, principles and dynamic markets. •The Self-Study Guide is already loaded on Thutong, but it needs to be printed and distributed to provinces. •Mediating the Study Guide during subject advisor workshop.	•Print more Self-Study Guides and distribute to districts and schools. •Monitor utilisation of materials developed.	•Distribute materials to all the schools and mediate during workshops. •Monitor utilisation of materials developed.	•Lack of the teaching of Economics concepts when starting a new topic. •Incorporate recent Economic events in teaching and assessment. Reference can be made to the quarterly bulletin of the SARB and SSA and newspapers. •Subject advisors should conduct training on the above mentioned challenges to help teachers.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016
		Paragraph responses: •Showed a lack of in-depth knowledge. Candidates were not able to provide enough detail to earn full marks.	•Provincial officials should be guided on how to use the action verbs to draw the words charts, vocabulary trees and how English can be used in Economics. •Learners need to look for an answer for each in subject specific context.	•Provincial officials to train district officials on language across curriculum.	•District officials to train teachers on language across curriculum.	•Schools only assess learner on short and objective questions. •Learners see paragraph questions for the first time in the examination.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016
		Graphs: •Incorrect drawing and labelling of curves.	•Self-Study Guides for Grade 10 to 12 containing Economic concepts, principles and dynamic markets need to be printed and distributed. •The DBE will monitor the use of the Self-Study Guide and Mind the Gap.	•Provincial co-ordinators mediate and monitor the distribution of the use of Study Guides.	•Subject advisors to mediate and monitor the use of Study Guides.	•Lack of practice of different graphs and supply of detailed information as part of each graph.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016
		Calculations: •Used the wrong formula to do the calculations. •Data response items were misunderstood or misinterpreted. •Candidates could not 'see' the data to be used in the calculations, even though they were clearly indicated in the graph.	•Extracts a module on Self-Study Guide and distribute to provinces. •Mediate the guide and monitor progress. •Include application of calculations in case studies.	•Provinces will print and distribute the module to districts. •Provinces will monitor the distribution of the guide.	•Districts will monitor the implementation of the guide.	•Lack of arithmetical skills. •Learners not given regular calculation exercises to practice.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
	12	Data response questions: •Candidates should have been advised that data provided in data response questions should be read two to three times before they attempted to answer any questions. •Candidates explained the concept quotas instead of explaining the effect quotas will have on imports. •Candidates were not familiar with examples of taxes on products, although all data requested by the various questions were based on recall. Candidates could not convert GDP to GNP and calculations were poorly done. •Candidates struggled to explain the different kinds of tariffs as methods of import substitution. •Candidates should have been exposed to current economic issues and be guided in their answers. •Candidates should have been exposed to advanced paragraph type questions and be guided on how to answer questions. Candidates could not interpret cartoons correctly and failed to explain the message depicted in the cartoon. •Candidates were unable to describe topics in sufficient detail to earn marks and gave generic information with no relevance to the success rate of the government's fiscal policy in ensuring a desirable redistribution of income.	•Compile document to explain these action verbs, what learners need to look for an answer for each in subject specific context.	•Provincial officials to print and mediate the document.	•The district officials to distribute and monitor the implementation of the document.	•Learners could not debate issue due to language barriers. •Learners not taught the meanings of action verbs that are used in Economics. •Teachers must expose learners to data response questions. •Learners should be guided in terms of expressing their opinions. Many of them express their opinions out of context. •The use of contemporary issues in daily teaching might enhance learner knowledge and analytical skills. •Candidates should be guided on interpretation of cartoons, establish their relationship and establish their actions. •Economics in the classroom should be linked to real life situations.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		• Candidates confused devaluation and appreciation of a currency. • Some candidates confused devaluation, revaluation, appreciation and depreciation. • Some only defined the concepts and forgot to answer the question. • A detailed study of terms of trade and the Laffer curve is strongly advised, the focus should be on components, calculations and the conversions of figures as well as detailed interpretation of the graphs. • Too much confusion exists between the demand curve, supply curve, Lorenz curve, Phillips curve and Laffer curve. Language ability: • Candidates struggled to reason and debate issues. • Learners could not understand the action verbs. • Candidates could not differentiate between monopoly and monopolistic competition. • Apply knowledge to real life situation. • Did not understand market failure and could not link the content to the question. • Majority of candidates referred to the causes of market failure.						

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME FRAMES
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	
		•Calculations from the information provided in the graphs are still a challenge to most of the candidates. Could not link: •The immobility of the factors of production to market failure, instead they discussed the factors of production.						
		Basic concepts: •Learners were unable to explain the essential basic concepts and terminology applicable to Economics. •The interpretation and analysis of statistical information still remains a problem. Candidates lack content knowledge and application. Unable to provide: •Detailed discussion on how industries contribute to land and water pollution.	•Self-Study Guides for Grade 10 to 12 containing Economic concepts, principles and dynamic markets. •The Self-Study Guide is already loaded on Thutong, but it needs to be printed and distributed to provinces. •Mediating the Study Guide during subject advisor workshop.	•Print more Self-Study Guides and distribute to districts and schools. •Monitor utilisation of materials developed.	•Distribute materials to all the schools and mediate during workshops. •Monitor utilisation of materials developed.	•Lack of the teaching of Economics concepts when starting a new topic. •Incorporate recent Economic events in teaching and assessment. Reference can be made to the Quarterly bulletin of the SARB and SSA and newspapers. •Subject advisors should conduct training on the above mentioned challenges to help teachers.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016
		Paragraph responses: •Showed a lack of in-depth knowledge. Candidates were not able to provide enough detail to earn full marks.	•Provincial officials should be guided on how to use the action verbs to draw the words charts, vocabulary trees and how English can be used in Economics. •Learners need to look for an answer for each in subject specific context.	•Provincial officials to train district officials on language across curriculum.	•District officials to train teachers on language across curriculum.	•Schools only assess learners on short and objective questions. •Learners see paragraph questions for the first time in the examination.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016
		Graphs: •Incorrect drawing and labelling of curves.	•Self-Study Guides for Grade 10 to 12 containing Economic concepts, principles and dynamic markets need to be printed and distributed. •The DBE will monitor the use of the Self-Study Guide and Mind the Gap.	•Provincial co-ordinators mediate and monitor the distribution of the use of Study Guides.	•Subject advisors to mediate and monitor the use of Study Guides.	•Lack of practice of different graphs and supply of detailed information as part of each graph.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Calculations: •Used the wrong formula to do the calculations. •Data response items were misunderstood or misinterpreted. •Candidates could not 'see' the data to be used in the calculations, even though they were clearly indicated in the graph.	•Extracts a module on Self-Study Guide and distribute to provinces. •Mediate the guide and monitor progress. •Include application of calculations in case studies	•Provinces will print and distribute the module to districts. •Provinces will monitor the distribution of the guide.	•Districts will monitor the implementation of the guide.	•Lack of arithmetical skills. •Learners not given regular calculation exercises to practice.	•DBE Self-Study Guides. •Textbooks. •Previous question papers.	Jan-Sep 2016
ELECTRICAL TECHNOLOGY	10	•Lack of basic concepts and content knowledge of Occupational health and safety act, Three-Phase AC Generation, Three-Phase Transformers, Three-Phase Motors and Starters, RLC and LOGIC.	•Provide content notes on Occupational health and safety act, Three-Phase AC Generation, Three-Phase Transformers ,Three-Phase Motors and Starters, RLC and LOGIC. •Mediate. •Monitor.	•Provide content notes on Occupational health and safety act, Three-Phase AC Generation, Three-Phase Transformers, Three-Phase Motors and Starters, RLC and LOGIC.	•Provide e-copies of content notes Occupational health and safety act, Three-Phase AC Generation, Three-Phase Transformers, Three-Phase Motors and Starters, RLC and LOGIC. •Distribute e-copies of previous question papers.	•Teacher should teach Occupational health and safety act, Three-Phase AC Generation, Three-Phase Transformers, Three-Phase Motors and Starters, RLC and LOGIC. •Theory should be integrated practical lessons in the Electrical technology workshop.	•Distribute. •Mediate. •Monitor.	Jan-Sep 2016
		•Failure to interpret the distribution systems with both Occupational health and safety act, Three-Phase AC Generation, Three-Phase Transformers, Three-Phase Motors and Starters, RLC and LOGIC.	•Distribute DBE Question Paper Exemplar. •Booklet on the distribution systems with both Occupational Health and Safety Act, Three-Phase AC Generation, Three-Phase Transformers, Three-Phase Motors and Starters, RLC and LOGIC.	•Distribute DBE Question Paper Exemplar. •Booklet on the distribution systems with both Occupational Health and Safety Act, Three-Phase AC Generation, Three-Phase Transformers, Three-Phase Motors and Starters, RLC and LOGIC.	•Distribute e-copies of DBE Question Paper Exemplar. •Booklet on the Occupational health and safety act, Three-Phase AC Generation, Three-Phase Transformers, Three-Phase Motors and Starters, RLC and LOGIC.	•Teachers should do more than just teach the distribution systems with either generation or motors.	•Distribute DBE Question Paper Exemplar. •Booklet on Occupational health and safety act, Three-Phase AC Generation, Three-Phase Transformers, Three-Phase Motors and Starters, RLC and LOGIC.	
		•Lack of basic concepts and content knowledge to use of the correct formulae, and the applicable SI units.	•Provide calculations on use of the correct formulae, and the applicable SI units. •Monitor content coverage.	•Print and distribute to teachers. •Provide booklets on calculations on the use of the correct formulae, and the applicable SI units. •Monitor content coverage.	•Print and distribute. •Provide training to teachers. •Monitor.	•Teacher should teach basic concepts and content on use of the correct formulae, and the applicable SI units.	•Booklets. •Previous question papers.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		•Lack of understanding of concepts and processes of Three-Phase AC Generation, Three-Phase Transformers, Three-Phase Motors and Starters, RLC and LOGIC.	•Provide models of transformer if the load was increased.	•Print and distribute. •Organise workshops with skills training centres.	•Print and distribute •Offer specialist training to teachers through Skills centres.	•Teachers should teach basic concepts of transformer if the load is increased.	•Print and distribute. •Offer •Specialist training to teachers through skills centres.	
	11	•Lack of basic concepts and content knowledge on Occupational Health and Safety Act, Three-Phase AC Generation, Three-Phase Transformers, Three-Phase Motors and Starters, RLC and LOGIC. •Lack of basic concepts and content knowledge skills on the control circuit of a sequence starter.	•Provide drawings and models on Three-Phase AC Generation, Three-Phase Transformers, Three-Phase Motors and Starters, RLC and LOGIC. •Monitor content coverage •Provide Question Paper Exemplar Booklet.	•Print and distribute to teachers. •Provide booklets of terminal block of an induction motor. •Monitor content coverage. •Distribute Question Paper Exemplar Booklet.	•Print and distribute. •Provide training to teachers. •Monitor. •Distribute e-copies of Question Paper Exemplar Booklet.	•Teachers should teach basic concepts and content on difference between the terminal block of an induction motor and when to draw the coils of an induction motor. •Gather sources from the internet on concepts and content knowledge skills on sections.	•Booklets. •Previous question papers. •Internet resource & Engineering articles on various topics should be used.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
	12	•Lack of basic concepts and content knowledge. •Lack of basic concepts and content knowledge of Occupational Health and Safety Act, Three-Phase AC Generation, Three-Phase Transformers, Three-Phase Motors and Starters, RLC and LOGIC. •Calculations on the capacitance that will result in resonance. •Derive the equivalent ladder logic diagram of the circuit. •Lack of understanding of concepts and processes on the amplification or the phase shift. •Lack of understanding of concepts and processes to draw the output of the Schmitt trigger op amp.	•Distribute models. •Provide notes on content on star-delta starter and a forward reverse starter. •Monitor content coverage. •Provide e-copies of content notes on Occupational Health and Safety Act, Three-Phase AC Generation, Three-Phase Transformers, Three-Phase Motors and Starters, RLC and LOGIC. •Provide e-copies of exemplar on rules for scales and how to do simple calculations. •Monitor teacher training. •Distribute e-copies of question papers on deriving the equivalent ladder logic diagram of the circuit. •Provide skills centres with module containing examples of the amplification or the phase shift. •Provide skills centres with module containing examples of how to draw the output of the Schmitt trigger op amp.	•Print and distribute to teachers. •Provide workbooks. •Monitor content coverage. •Provide e-copies of content notes on Occupational Health and Safety Act, Three-Phase AC Generation, Three-Phase Transformers, Three-Phase Motors and Starters, RLC and LOGIC. •Monitor. •Access exemplar on rules for scales and how to do simple calculations from Thutong and print for distribution •Train teachers. •Monitor implementation. •Distribute e-copies of question papers on deriving the equivalent ladder logic diagram of the circuit. •Print and distribute. •Organise workshops with skills centres to train teachers on the amplification or the phase shift. •Print and distribute. •Organise workshops with skills centres to train teachers on how to draw the output of the Schmitt trigger op amp.	•Textbooks. •Internet sources. •Previous question papers. •Monitor. •Provide e-copies of content notes on Occupational Health and Safety Act, Three-Phase AC Generation, Three-Phase Transformers, Three-Phase Motors and Starters, RLC and LOGIC. •Distribute e-copies of previous question papers. •Distribute e-copies of booklets for calculations on the capacitance that will result in resonance. •Distribute e-copies of question papers on deriving the equivalent ladder logic diagram of the circuit. •Print and distribute. •Offer specialist training to teachers through skills training centres. •Print and distribute. •Offer specialist training to teachers through skills training centres.	•Teacher should teach basic concepts and content on star-delta starter and a forward reverse starter. •Theory should be integrated practical lessons in the civil technology workshop. •Teacher should teach basic calculation of the power factor. •Teachers to teach calculations on the capacitance that will result in resonance. •Teach basic concepts and content knowledge, to derive the equivalent ladder logic diagram of the circuit •Teachers must teach basic concepts and processes on the amplification or the phase shift. •Teachers must teach basic concepts and processes on to draw the output of the Schmitt trigger op amp.	•Provide training to teachers. •Monitor. •Mediate. •Print and distribute question papers on deriving the equivalent ladder logic diagram of the circuit. •Offer specialist training to teachers through Skills training centres.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
ENGINEERING GRAPHICS AND DESIGN (EGD)	10	•Lack of basic concepts and content knowledge of SANS 10143 and Perspective Drawing.	•Provide content notes on SANS 10143 and Perspective Drawing.	•Provide content notes on SANS 10143 and Perspective Drawing. •Mediate. •Monitor.	•Provide e-copies of SANS 10143 and Perspective Drawing. Distribute e- copy of previous question papers.	•Teachers should teach basic drawing principles according to SANS 10143 and Perspective Drawing.	•Distribute. •Mediate. •Monitor.	Jan-Sep 2016
		•Failure to interpret Perspective Drawing.	•Distribute DBE Question Paper Exemplar Perspective Drawing.	•Distribute DBE Question Paper Exemplar Booklet on Perspective Drawing.	•Distribute e-copies of DBE Question Paper Exemplar Booklet on Perspective Drawing.	•Teachers should do more than just teach the theory, and show learners real life situations (Perspective Drawing).	•Distribute DBE Question Paper Exemplar Booklet on Perspective Drawing.	Jan-Sep 2016
		•Skills such as drawing, measuring, calculation, interpenetration, to Perspective Drawings.	•Provide teaching models of Perspective Drawing. •Provide teaching models of Perspective Drawings.	•Distribute DBE Study Guides and booklets on Perspective Drawing.	•Distribute e-copies of DBE Study Guides and booklets on Perspective Drawing.	•Teach basic and advanced drawing, measuring, calculation, Perspective Drawing. •Teach learners how to draw Perspective Drawing. •Apply teaching strategies to teach Perspective Drawing.	•Textbooks. •Previous question papers and teaching models.	Jan-Sep 2016
		•Lack of understanding of concepts Perspective Drawings.	•Provide models of Perspective Drawings.	•Print and distribute. •Organise workshops with South African institute of Architects and South African Institutes of Civil Engineers.	•Print and distribute •Offer specialist training to teachers through skills centres.	•Teachers should teach basic concepts such as Perspective Drawing.	•Print and distribute. •Offer specialist training to teachers through skills centres.	Jan-Sep 2016
	11	•Lack of basic concepts and content knowledge on Perspective Drawings.	•Provide drawings on Perspective Drawings. •Monitor content coverage.	•Print and distribute to teachers. •Provide booklets of Perspective Drawings. •Monitor content coverage.	•Print and distribute. •Provide training to teachers. •Monitor.	•Teacher should teach basic concepts and content on Perspective Drawings.	•Booklets. •Previous question papers.	Jan-Sep 2016
		•Lack of basic concepts and content knowledge on Perspective Drawings.	•Provide Question Paper Exemplar Booklet.	•Distribute Question Paper Exemplar Booklet.	•Distribute Question Paper Exemplar Booklet.	•Gather sources from the internet on concepts and content knowledge skills on Perspective Drawings.	•Internet resource & engineering articles on various topics should be used.	Jan-Sep 2016
		•Skills such as drawing, measuring, calculation, Perspective Drawings.	•Reprint DBE Study Guides.	•Distribute DBE Study Guides.	•Distribute e- copies of DBE Study Guides.	•Use skills such as drawing, measuring, calculation, Perspective Drawings.	•Distribute Study Guides.	Jan-Sep 2016
		•Lack of understanding of concepts and processes on lengthening the sides towards the Picture Plane, then work vertically to the Ground Line and then across to the alternate Vanishing Point.	•Provide support through DBE training workshops on lengthening the sides towards the Picture Plane, then work vertically to the Ground Line and then across to the alternate Vanishing Point.	•Print and distribute. •Organise workshops with Skills Training Centres on lengthening the sides towards the Picture Plane, then work vertically to the Ground Line and then across to the alternate Vanishing Point.	•Print and distribute. •Offer specialist training to teachers through Skills Centres and South African Institute of Architects	•Teachers should teach basic concepts on lengthening the sides towards the Picture Plane, then work vertically to the Ground Line and then across to the alternate Vanishing Point.	•Print and distribute. •Offer specialist training to teachers through skills centres and South African Institute of Architects.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
	12	•Lack of basic concepts and content knowledge.	•Distribute models. •Provide notes on content on Perspective Drawings. •Monitor content coverage.	•Print and distribute to teachers. •Provide workbooks. •Monitor content coverage.	•Textbooks. •Internet sources. •Previous question papers. •Monitor.	•Teacher should teach basic concepts and content on Perspective Drawings.	•Print and distribute. •Provide training to teachers. •Monitor.	Jan-Sep 2016
		•Lack of basic concepts and content SANS 10143 and Perspective Drawing.	•Provide content notes on SANS 10143 and Perspective Drawing.	•Provide content notes on SANS 10143 and Perspective Drawing. •Mediate. •Monitor.	•Distribute e-copies of SANS 10143 and Perspective Drawing and previous question papers.	•Teacher should teach basic drawing principles according to SANS10143.	•Distribute. •Mediate. •Monitor.	Jan-Sep 2016
		•Rules for scales and how to do simple calculations and how to apply Perspective Drawings to real life situations.	•Provide exemplar on rules for scales and how to do simple calculations and how to apply Perspective Drawings to real life situations. •Monitor teacher training.	•Access exemplar on rules for scales and how to do simple calculations and how to apply Perspective Drawings to real life situations from Thutong and print for distribution. •Train teachers. •Monitor implementation.	•Distribute e-copies of rules for scales and how to do simple calculations and how to apply Perspective Drawings to real life situations.	•Teachers to teach rules for scales and how to do simple calculations and how to apply Perspective Drawings to real life situations.	•Distribute to schools. •Teacher training. •Monitor.	Jan-Sep 2016
		•Lack of basic concepts and content knowledge on simple calculations and how to apply Perspective Drawings.	•Distribute e-copies of charts of simple calculations and how to apply Perspective Drawings.	•Distribute e-copies of charts of simple calculations and how to apply Perspective Drawings.	•Distribute e-copies of charts of simple calculations and how to apply Perspective Drawings.	•Teach basic concepts and content knowledge on simple calculations and how to apply Perspective Drawings.	•Print and distribute charts of simple calculations and how to apply Perspective Drawings.	Jan-Sep 2016
		•Lack of understanding of concepts and processes on how to do simple calculations and how to apply Perspective Drawings.	•Provide skills centres with module containing simple calculations and how to apply Perspective Drawings.	•Print and distribute. •Organise workshops with skills centres to train teachers on how to do simple calculations and how to apply Perspective Drawings	•Print and distribute •Offer specialist training to teachers through Skills training centers.	•Teachers must teach basic concepts and processes on how to draw Perspective Drawings.	•Print and distribute •Offer specialist training to teachers through Skills training centers.	Jan-Sep 2016
		•Lack of understanding of concepts and processes simple calculations and how to apply Perspective Drawings	•Provide skills centres with module containing examples of how to do simple calculations and how to apply Perspective Drawings.	•Print and distribute. •Organise workshops with skills centres to train teachers on how to do simple calculations and how to apply Perspective Drawings.	•Print and distribute •Offer Specialist training to teachers through Skills training centers.	•Teachers must teach basic concepts and processes on simple calculations and how to apply Perspective Drawings.	•Print and distribute •Offer specialist training to teachers through Skills training centers.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME FRAMES
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	
GEOGRAPHY	10	Lack of basic concepts and content knowledge.	•Provide content notes on geography learning space. •Monitor Curriculum Coverage; especially in underperforming provinces & generate reports.	•Distribute content notes on geography learning space. •Provide textbooks and other relevant material. •Provincial co-ordinators to monitor curriculum coverage; especially in underperforming districts & generate reports.	•Distribute content notes on geography learning space. Provide Textbooks •Distribute previous question papers. •Subject advisors to monitor content coverage, especially in underperforming schools & generate reports.	•Use DBE content notes on geography learning space. •Teachers should teach basic geography concepts regarding the atmosphere, geomorphology, population and water resources. •HODs to monitor Content Coverage by teachers & generate reports.	•Textbooks. •Power Point notes on climatology and geomorphology. •Previous question papers to be used for revision.	Jan-Sep 2016
		•Learners failed to interpret cartoons, graphs, sketches and photos.	•Distribute DBE Question Paper Exemplar Booklet.	•Distribute DBE Question Paper Exemplar Booklet.	•Distribute DBE Question Paper Exemplar Booklet.	•Teachers should use various sources from textbooks, internet and print media.	•Internet resources. •DBE Question Paper Exemplar Booklet.	Jan-Sep 2016
		Map work: •Skills such as drawing, measuring, calculation, interpretation and analysis.	•Provide DBE Mapwork Self-Study Guide.	•Distribute DBE Mapwork Self-Study Guide.	•Distribute DBE Mapwork Self-Study Guide.	•Teach basic and advanced map reading skills to learners. •Teach learners how to orientate different maps. •Apply teaching strategies to teach map work.	•Textbooks •Previous question papers	Jan-Sep 2016
		Geography Information System (GIS): •Lack of understanding of concepts and processes.	•Provide Department of Rural Development and Land Reform Guide and DBE Guide.	•Print and distribute. •Organise workshops with Department of Rural Development and Land Reform.	•Print and distribute. •Offer specialist GIS training to teachers through Department of Rural Development and Land Reform.	•Teachers should teach basic concepts such as spatial object, line, point, node, scale, etc.	•Textbooks. •Previous question papers. •Guide from Department of Rural Development and Land Reform .	Jan-Sep 2016
	11	•Lack of basic concepts and content knowledge.	•Provide notes on geography learning space. •Monitor curriculum coverage, especially in underperforming provinces & generate reports.	•Print and distribute to teachers. •Provide textbooks. •Monitor curriculum coverage, especially in underperforming districts & generate reports.	•Print and distribute. •Provide training to teachers. •Monitor curriculum coverage, especially in underperforming schools & generate reports.	•Teachers should teach basic concepts and content on the global circulation, weather and climate, rocks and land forms, slopes, mass movements and development. •Monitor Curriculum Coverage & generate reports.	•Textbooks. •Internet sources. •Previous question papers.	Jan-Sep 2016
		•Learners failed to interpret cartoons, graphs, sketches and photos.	•Provide Question Paper Exemplar Booklet.	•Distribute Question Paper Exemplar Booklet.	•Distribute Question Paper Exemplar Booklet.	•Gather sources from the internet and newspapers to integrate in classroom teaching to help with analysis.	•Internet resource. •Newspaper articles on various topics should be used.	Jan-Sep 2016
		•Map work: Skills such as drawing, measuring, calculation, interpretation and analysis.	•Reprint DBE Mapwork Self-Study Guide and Mind the Gap.	•Distribute DBE Mapwork Self-Study Guide and Mind the Gap.	•Distribute DBE Mapwork Self-Study Guide and Mind the Gap.	•Use 1:50 000 topo maps and Orthophotos and Aerial photographs to teach this section.	•DBE Mapwork Self-Study Guide. • Mind the Gap.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME FRAMES
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	
		Geography Information System (GIS): •Lack of understanding of concepts and processes.	•Provide Department of Rural Development and Land Reform Guide and DBE Guide.	•Print and distribute GIS guides. •Organise workshop with Department of Rural Development and Land Reform.	•Print and distribute GIS guides. •Specialist GIS training to teachers through Department of Rural Development and Land Reform.	•Teachers should teach basic concepts such as spatial data, attribute data, line, point, node, scale, etc.	•GIS guide from Department of Rural Development and Land Reform.	Jan-Sep 2016
	12	•Lack of basic concepts and content knowledge.	•Distribute DBE question & answer guide. •Distribute Mind the Gap. •Provide notes on geography learning space. •Monitor curriculum coverage, especially in underperforming provinces & generate reports.	•Distribute DBE question & answer guide. •Print and distribute Mind the Gap. •Provide textbooks. •Monitor curriculum coverage, especially in underperforming districts & generate reports.	•Distribute DBE question & answer guide. •Print and distribute Mind the Gap. •Textbooks. •Internet sources. •Previous question papers. •Monitor curriculum coverage, especially in underperforming schools & generate reports.	•Distribute DBE question & answer guide. •Print and distribute Mind the Gap. •Provide textbooks. •Teacher should teach basic concepts and content on climate and weather, geomorphology, settlement and economic geography. •HODs to monitor content coverage & generate reports.	•DBE Question & answer guide. •Mind the Gap.	Jan-Sep 2016
		•Failure to interpret cartoons, graphs, sketches and photos.	•Distribute DBE Question Paper Exemplar Booklet.	•Distribute DBE question paper exemplar booklet.	•Distribute DBE question paper exemplar booklet.	•Use DBE Question Paper Exemplar Booklet.	•Internet sources & newspapers for cartoons, graphs, sketches and photos.	Jan-Sep 2016
		•Paragraph writing improved but basic content lacks.	•Provide DBE exemplar booklet on paragraph writing and paste on geography learning space. •Monitor teacher training.	•Distribute DBE Paragraph Exemplar Booklet •Train subject advisors on paragraph writing. •Monitor implementation.	•Distribute DBE Paragraph Exemplar Booklet •Train teachers on paragraph writing •Use paragraph questions from previous question papers.	•Teach paragraph writing in class. •Use case studies on geographical phenomena and guide learners to write paragraphs.	•DBE exemplar booklet on paragraph Writing.	Jan-Sep 2016
		Map work: •Skills such as drawing, measuring, calculation, interpretation and analysis	•Distribute Mapwork Self-Study Guide. •Distribute Mind the Gap Study Guide.	•Print and distribute Self-Study Guides and Mind the Gap.	•Print and distribute Self-Study Guides and Mind the Gap.	•Integrate Mapwork with theory. •Teach basic and advance map reading skills to learners. •Teach learners how to orientate different maps. •Apply teaching strategies to teach map work.	•DBE Self-Study Guide. •Mind the Gap.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Geography Information system (GIS): •Lack of understanding of concepts and processes.	•Provide Department of Rural Development and Land Reform Guide and DBE Guide.	•Print and distribute. •Organise workshops with Department of Rural Development and Land Reform.	•Print and distribute. •Offer specialist GIS training to teachers through Department of Rural Development and Land Reform.	•Teachers must teach basic concepts such as spatial object, line, point, node, scale, remote sensing, resolution, vector & raster data, data manipulation, data integration, buffering, querying.	•Guide from Department of Rural Development and Land Reform. •Mind the Gap.	Jan-Sep 2016
HISTORY	10	•Lack of content knowledge and concepts.	•Distribute DBE Self-Study Guide containing notes, questions and answers. •Distribute CDs of Exemplar Question Paper Booklet. •Monitor content coverage, especially in underperforming districts & generate reports.	•Distribute DBE Self-Study Guide containing notes, questions and answers. •Provide CAPS aligned textbooks. •Distribute CDs of Exemplar Question Paper Booklet. •Monitor content coverage; especially in underperforming districts & generate reports.	•Distribute DBE Self-Study Guide containing notes, questions and answers. •Provide CAPS aligned textbooks •Distribute CDs of Exemplar Question Paper Booklet •Monitor Content Coverage; especially in underperforming schools & generate reports.	•Use DBE Self-Study Guide containing notes, questions and answers. •Teach content and concepts on the major empires of China, Songhai and European societies; colonization of Africa by Europe; French Revolution; Transformations in southern Africa (1750); Colonial expansion after 1750; and The SA War and Union. •HODs to monitor Content Coverage & generate reports.	•Textbooks. •DBE Self-Study Guide containing notes, questions and answers. •Previous question papers.	Jan-Sep 2016
		•Learners' inability to interpret, compare and contrast historical sources.	•Distribute DBE Self-Study Guide on how teach historical sources & skills.	•Distribute the Self-Study Guides.	•Distribute Self-Study Guide on historical sources and skills.	•Use a variety of sources to teach reading and interpretation of visual and textual sources.	•Use internet, textbooks & other history books to gather a variety of sources e.g. cartoons, speeches, photographs, tables graphs, maps, etc.	Jan-Sep 2016
		•Learners' inability to grasp words such as 'limitations', 'bias', 'similarities' and 'differences'.	•Distribute previous question papers.	•Distribute previous question papers.	•Distribute previous question papers.	•Teachers should use these words during teaching and assessment.		Jan-Sep 2016
		•Learners' inability to write a paragraph and a coherent and well-balanced essay by developing and sustaining a line of argument.	•Distribute DBE guide on exemplar essays.	•Distribute DBE guide on exemplar essays. •Conduct workshops for subject advisors to focus on writing an introduction, body & conclusion; and focus on how to develop and follow a line of argument.	•Distribute DBE guide on exemplar essays. •Conduct workshops on essay writing for teachers to focus on writing an introduction, body & conclusion; and focus on how to develop and follow a line of argument.	•Reinforce paragraph writing and summary writing. •Teacher should teach learners how to write an introduction, body and conclusion. •Help learners on how to develop and follow a line of argument.	•Distribute DBE guide on exemplar essays.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
	11	•Lack of concepts and content knowledge.	•Distribute DBE Self-Study Guide on these topics and concepts. •Monitor content coverage, especially in underperforming provinces & generate reports.	•Distribute DBE Self-Study Guide on these topics and concepts. •Provide textbooks. •Monitor content coverage, especially in underperforming districts & generate reports.	•Distribute DBE Self-Study Guide on these topics and concepts. •Provide textbooks. •Monitor content coverage; especially in underperforming schools & generate reports.	•Teach content and concepts on Communism in Russia; Capitalism. •Nationalism, Pseudo-Scientific ideas of race; and Apartheid South Africa. •HODs to monitor content coverage & generate reports.	•Distribute DBE Self-Study Guide on these topics and concepts. •Provide textbooks.	Jan-Sep 2016
		•Learners' inability to interpret, compare and contrast historical sources.	•Distribute DBE Self-Study Guide on historical sources & skills.	•Distribute DBE Self-Study Guide on Historical sources & skills	•Distribute DBE Self-Study Guide on historical sources & skills.	•Use a variety of sources from textbooks & internet for reading and interpretation in the classroom e.g. cartoons, speeches, photographs, tables graphs, maps, etc.	•DBE Self-Study Guide on historical sources & skills. •Internet sources that are properly contextualised e.g. cartoons, speeches, photographs, tables graphs, maps, etc.	Jan-Sep 2016
		•Learners' inability to grasp words such as 'limitations', 'bias', 'similarities' and 'differences'.	•Distribute DBE Question Paper Exemplar Booklet containing previous question papers from various provinces.	•Distribute DBE Question Paper Exemplar Booklet containing previous question papers from various provinces.	•Distribute DBE Question Paper Exemplar Booklet containing previous question papers from various provinces.	•Teachers should use these words during daily teaching and classroom assessment.	•DBE Question Paper Exemplar Booklet containing previous question papers from various provinces.	Jan-Sep 2016
		•Learners' inability to write a paragraph and a coherent and well-balanced essay by developing and sustaining a line of argument.	•Distribute DBE guide on exemplar essays.	•Distribute DBE guide on exemplar essays.	•Distribute DBE guide on exemplar essays.	•Reinforce paragraph writing and summary writing. •Teacher should teach learners how to write an introduction, body and conclusion.	•Distribute DBE guides on exemplar essays.	Jan-Sep 2016
	12	•Lack of content knowledge, especially on themes dealing with Independent Africa, the Cold War, the impact of the Cold War on Angola, US Civil Rights Movement, Civil Resistance in South Africa, TRC, & Globalisation.	•Distribute telematics notes on topics identified. •Monitor curriculum coverage; especially in underperforming provinces & generate reports.	•Distribute telematics notes to districts. •Monitor curriculum coverage, especially in underperforming districts & generate reports.	•Distribute telematics to schools. •Monitor curriculum coverage, especially in underperforming schools & generate reports	•Use telematics notes to do focus teaching on content and concepts. •Monitor curriculum coverage & generate reports.	•History telematics content notes. •CD on Little Rock, Civil Rights Movements.	Jan-Sep 2016
		•Learners' inability to interpret, compare and contrast historical sources.	•Distribute Self-Study Guide on historical sources & skills.	•Distribute the Self-Study Guide.	•Distribute the Self-Study Guide.	•Gather a variety of sources from textbooks & internet for reading and interpretation in the classroom, e.g. cartoons, speeches, photographs, tables graphs, maps, etc.	•DBE Self-Study Guide on working with historical sources. •Internet sources that are properly contextualised.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		•Learners' inability to grasp words such as 'limitations', 'bias', 'similarities' and 'differences'.	•Distribute DBE Question Paper Exemplar Booklet containing previous question papers from various provinces.	•Distribute DBE Question Paper xemplar Booklet containing previous question papers from various provinces.	•Distribute DBE Question Paper Exemplar Booklet containing previous question papers from various provinces.	•Teacher to use these words during teaching and assessment.	•DBE previous question papers for revision.	Jan-Sep 2016
		•Learners' inability to write a paragraph and a coherent and well-balanced essay by developing and sustaining a line of argument.	•Print DBE exemplar guide on History essays (2013).	•Distribute the DBE guides.	•Distribute the DBE guides.	•Teachers should teach learners how to write an introduction, body and conclusion. •Teachers should teach content for essays: Vietnam & USA in the Cold War, The comparative case studies of Congo and Tanzania after independence, Black Power Movement, The crisis of apartheid in the 1980s, the GNU in the 1990s, and Gorbachev's reforms in the Soviet Union. Teachers should help learners on how to develop and sustain a line of argument in an essay.	•DBE exemplar booklet on essays and paragraphs.	Jan-Sep 2016
HOSPITALITY STUDIES	**10**	Learners lack basic foundational knowledge and subject terminology: •Learners lack deep understanding of concepts and are unable to explain basic subject terminology.	•Develop terminology guide on these topics: menu planning, sectors and careers and Food and beverage service.	•Mediate the guides to district officials. •Distribute Study Guides to schools. •Monitor and support training in the districts.	•Identify and address gaps in teacher content knowledge. •Mediate the Study Guides for teachers. •Support, guide and monitor performance in the challenging content. •Conduct demonstration lessons in the challenging content areas.	•Compile a list of subject terminology for each chapter/topic. •Display it in your classroom. Refer back to it during practical. •Write regular small terminology tests to keep terms current and drill in subject terms, informal and formal assessment. •Teachers must teach basic concepts and terminology before teaching the topic and constantly test understanding. •Teachers must use the appropriate subject terminology during teaching to expose learners to the meaning of the concepts.	•Terminology guide. •Textbooks.	Jan – Oct 2016
		Poor understanding of action verbs: •Learners could not respond to the action verbs used in the question.	•Develop guide outlining expected responses to higher-order questions.	•Distribute and mediate guide to Subject Advisors. •Monitor teacher training and implementation at school level.	•Distribute and mediate guide to Teachers. •Apply guidelines in context.	•Teach learners how to respond to higher-order questions. •Set sample questions for informal and formal tests	•Textbooks. •Guide book.	Jan–Oct 2016
		Lack of basic comprehension skills: •Learners were unable to interpret texts, answer questions using own words and to infer meaning, i.e. implied/literal/figurative.	•Develop and distribute basic guide on visual literacy and how to use and respond to visual stimuli.	•Provincial officials to print and mediate the document.	•District officials to distribute and mediate the document.	•Practice regularly in class to reinforce skills. •Expose learners to various forms of visual stimuli and how to respond appropriately.	•Past question papers. •EAC application guide.	Jan–Oct 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
	11	Learners lack basic foundational knowledge: •Learners struggled to answer basic knowledge questions; they were unfamiliar with terminology and concepts.	•Develop terminology guide on the following topics: Sectors and careers, kitchen and restaurant operations and food and beverage service.	•Mediate the guides to district officials. •Distribute Study Guides to schools. •Monitor and support training in the districts.	•Identify and address gaps in teacher content knowledge. •Mediate the Study Guides for teachers. •Support, guide and monitor performance in the challenging content. •Conduct demonstration lessons in the challenging content areas.	•Compile a list of subject terminology for each chapter/topic. •Display it in your classroom. Refer back to it during practicals. •Write regular small terminology tests to keep terms current and drill in subject terms, informal and formal assessment.	•Mediate the guides to district officials. •Distribute Study Guides to schools. •Monitor and support training in the districts.	Jan–Oct 2016
		Poor understanding of action verbs: •Learners could not respond to the action verbs used in the question.	•Compile document to explain common action verbs and the expected responses.	•Provincial officials to print and mediate the document.	•The district officials distribute, mediate and monitor the utilisation of the document.	•Ensure all formal and informal assessment comply quality and validity criteria. •Learners to be taught the meaning of action verbs. •Use previous question papers as a teaching tool and informal assessment tool to expose learners to the different types of questions being asked and how to respond appropriately.	•Textbooks. •Previous question papers.	Jan–Oct 2016
		Poor response to higher-order questions: •Lack of sound reasoning ability and are unable to express themselves clearly.	•Develop guide outlining expected responses to higher-order questions.	•Distribute and mediate guide to Subject Advisors •Monitor teacher training and implementation at school level.	•Distribute and mediate guide to Teachers. •Apply guidelines in context.	•Teach learners how to respond to higher-order questions. •Set sample questions for informal and formal subjects.	•Textbooks. •Guidelines.	Jan–Oct 2016
	12	The basic knowledge from grades 10 and 11 and 12 of learners is limited: •Learners lacked deep understanding of concepts and were unable to explain basic terminology. •Learners struggled to answer basic knowledge questions; they were unfamiliar with terminology and concepts.	•Develop terminology guide on these topics: sectors and careers, kitchen and restaurant operations and food and beverage service. • Compile and distribute a basic and concept terminology list per topic.	•Mediate the Study Guides to district officials. •Distribute Study Guides to schools. •Monitor and support training in the districts.	•Identify and address gaps in teacher content knowledge. •Mediate the Study Guides for teachers. •Support, guide and monitor performance in the challenging content. •Conduct demonstration lessons in the challenging content areas.	•Compile a list of subject terminology for each chapter/topic. •Display it in your classroom. Refer back to it during practicals. •Write regular small terminology tests to keep terms current and drill in subject terms, informal and formal assessment. •Teachers must teach basic concepts and terminology before teaching the topic and constantly test understanding. •Basic concepts and terminology must continuously be reinforced and revised to improve learner's basic understanding of each topic. •Teachers must use the appropriate subject terminology during teaching to expose learners to the meaning of the concepts.	•Textbooks. •Terminology lists.	Jan–Oct 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Poor understanding of action verbs: •Learners could not respond to the action verbs used in the question.	•Compile document to explain common action verbs and the expected responses.	•Provincial officials to print and mediate the document	•The district officials distribute, mediate and monitor the utilisation of the document.	•Learners must be taught the meanings of action verbs. •Use previous question papers as a teaching tool and informal assessment tool to expose learners to the different types of questions being asked and how to respond appropriately.	•Textbooks. •Past question papers.	Jan–Oct 2016
		Poor response to higher-order questions: •Learners lacked sound reasoning ability and were unable to express themselves clearly. •Learners struggled evaluate and if they did, most of them could not explain the reason for their opinion or make a deduction. •They could not substantiate their choice, indicating limited or no understanding of a topic.	•Use previous question papers as a teaching tool and informal assessment.	•Offer training to district officials on the use of past question papers.	•Ensure all schools have copies of past question papers. •Offer training to teachers on the use of past question papers.	•Teach learners how to respond to evaluation questions. Set questions requiring various cognitive abilities as part of teaching and informal assessment. •Teach learners how to substantiate answers, this will ensure that learners are exposed to the way content can be tested and the type of questions that can be asked. •Practice the skill of responding to higher-order questions in class.	•Textbooks. •Terminology lists. •Past question papers.	Jan–Oct 2016
		Learners misread/ misinterpret questions: •Learners struggled to identify the gist of questions leading to incorrect responses.	•Develop and distribute examples of how to identify the crux of a question from the 2014 NSC Hospitality Studies examination paper.	•Provincial officials to print and mediate the document.	•District officials to distribute and mediate the document.	•Teach learners the skills of analysing a question to determine the focus of the question.	•2014 Examination guide.	Jan–Oct 2016
		Lack of basic comprehension skills: •Learners were unable to interpret texts, answer questions using own words and to infer meaning, i.e. implied/literal/figurative.	•Develop and distribute basic guide on visual literacy and how to use and respond to visual stimuli.	•Provincial officials to print and mediate the document.	•District officials to distribute and mediate the document.	•Practice regularly in class to reinforce skills. •Expose learners to various forms of visual stimuli and how to respond appropriately.	•Past question papers. •EAC application guide.	Jan-Oct 2016
		Menu and Recipe Calculations: •Learners struggled to perform calculations relating to costing.	•Distribute lessons on calculations to provinces.	•Print and distribute lessons to districts. •Offer methodology training to advisors on how to teach the topic.	•Offer content training to teachers •Distribute Self-Study Guide to schools. •Offer methodology training to teachers on how to teach the topic.	•Develop short (10 minute) informal monthly tests on costing to keep skills current. Learners lack basic theoretical knowledge about calculations relating to menu and meal costing. •Lack of arithmetical skills. •Learners are not given regular calculation exercises to practice.	•Past question papers. •Textbook.	Jan-Oct 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Paragraph responses: •Learners showed a lack of in-depth knowledge. They were not able to provide enough detail to earn full marks. •Most of them struggled to express themselves in paragraph format.	•Set exemplar paragraph questions on various topics. Mediate EAC processes. •Provide examples of how to infuse EAC into Hospitality Studies lessons.	•Offer training on paragraph writing using exemplars. Provincial officials train district officials on language across curriculum.	•Provincial officials train teachers on the application of language across curriculum.	•Teachers must teach paragraph writing skills to learners. Expose learners to the various types of paragraphs. Infuse EAC into all topics and focus on developing and strengthening the 4 language pillars	•Textbook. •EAC booklet.	Jan-Oct 2016
INFORMATION TECHNOLOGY	10	General Poor understanding of action verbs: •Learners could not respond to the action verbs used in the question. Poor response to higher-order questions: •Learners were unable to make links and to apply knowledge, e.g. to answer case studies, make recommendations, etc. – they lacked higher-order thinking skills. •Learners were not exposed to variety of question types, i.e. they struggled to answer questions from 'all angles'. •Learners were not exposed to higher-order thinking questions.	•Teach and explain the meanings of key words in questions. •Use exemplar questions and question papers as a teaching tool to expose learners to the different types of questions and how to respond appropriately. •Ensure that class activities and homework include work/ questions on all cognitive and difficulty levels •Teach learners how to solve problems.	•Compile document to explain common key words.	•Exemplar questions and expected responses. •Mediate support strategies.	•Distribute, mediate and monitor the use and impact of support strategies.	•Textbooks. •Past question papers.	February 2016 and ongoing

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Theory content: •Learners lacked basic knowledge and understanding of theory concepts. •Learners did not see 'connections' between different theory content/ topics. •As a result, learners were not able to integrate knowledge to answer higher-order questions.	•Teachers must teach theory. •Basic concepts and terminology must continuously be reinforced and revised to improve learners' basic understanding of a topic. •Highlight/demonstrate connections between topics/ content. •Ensure that learners receive homework on a daily basis. •Theory homework should be given at the end of each theory lesson. •Homework should include higher-order questions and integration of content.	•Teaching methodologies to teach theory.	•Mediate to district officials and distribute to schools: -Self-marking quizzes covering basic knowledge -Case studies/scenario-based questions to develop understanding and higher-order thinking skills. •Monitor and support use in schools. •Monitor and support training in the districts.	•Identify and address gaps in teacher content knowledge. •Mediate support strategies. •Support, guide and monitor performance in the challenging content. •Mediate appropriate methodologies. •Conduct demonstration lessons in the challenging content area.	•Textbooks. •Self-marking quizzes. •Case studies/scenario-based questions. •Examples of teaching methodologies.	March 2016 and ongoing

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Practical work: General: Poor response to higher-order questions, especially open-ended problem solving question: •Struggled to apply and integrate programming constructs. •Struggled to devise algorithm for problem. •Lacked planning and designing a solution. •Did not fully understand the algorithms taught. Content specific: •Struggled to understand scope of a variable. •Initialised variables. •Variable types. •Traced logical programming errors.	•Place more emphasis on planning: Planning a solution and program design need a lot of emphasis as learners struggle with open-ended questions. •Ensure that class activities and homework include work/ questions on all cognitive and difficulty levels. •Complete trace tables for algorithms. •Troubleshoot algorithms/ programs using trace tables and watch facilities. •Ensure that learners understand and are able to apply the algorithms mentioned as part of the IT content. •Provide short, basic problems that require skills such as pattern recognition, etc. and let learners develop the solution algorithm •Exercises where learners have to predict output, rewrite solutions in a more efficient way and complete trace tables to teach these principles. •Practical homework should be given on a daily basis. Learners need to practice and reinforce the skills learnt at school.	•Example questions using a variety of question types, cognitive and difficulty levels, including examples of open-ended problem solving questions.	•Distribute to schools. •Monitor and support use of improvement plans in schools. •Monitor and support training in the districts. •Monitor impact.	•Identify and address gaps in teacher content knowledge. •Mediate support strategies. •Support, guide and monitor performance in the challenging content. •Mediate appropriate methodologies. •Conduct demonstration lessons in the challenging content area.	•Textbooks •Previous papers.	May 2016 and Ongoing

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
			•Provide theory exercises on the programming contents which they can complete at home (especially where learners do not have computers at home), e.g. devising an algorithm for a specific problem. Plan a solution for a specific problem using software design tools, completing a trace table for a given solution, etc. which they can use to code/test the solution for the problem on the computer the following day. •Teach the concept of data types. •Teach problem solving.					
	11	General: Poor understanding of action verbs: •Learners could not respond to the action verbs used in the question. Poor response to higher-order questions: •Learners were unable to make links and to apply knowledge, e.g. to answer case studies, make recommendations, etc. – they lacked higher-order thinking skills. •Learners were not exposed to variety of question types, i.e. they struggled to answer questions from 'all angles'. •Learners were not exposed to higher-order thinking questions.	•Teach and explain the meanings of key words in questions. •Use exemplar questions and question papers as a teaching tool to expose learners to the different types of questions and how to respond appropriately. •Ensure that class activities and homework include work/ questions on all cognitive and difficulty levels. •Teach learners how to solve problems.	•Compile document to explain common key words.	•Exemplar questions and expected responses. •Mediate support strategies.	•Distribute, mediate and monitor the use and impact of support strategies.	•Textbooks. •Past question papers.	February 2016 and ongoing

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Theory content: •Learners lacked basic knowledge and understanding of theory concepts. •Learners did not see 'connections' between different theory content/ topics. •As a result, learners were not able to integrate knowledge to answer higher-order questions. •Learners 'forgot' Grade 10 content.	•Teachers must teach theory. •Basic concepts and terminology must continuously be reinforced and revised to improve learners' basic understanding of a topic. •Highlight/demonstrate connections between topics/ content. •Ensure that learners receive homework on a daily basis •Theory homework should be given at the end of each theory lesson. •Homework should include higher-order questions and integration of content. •Revise Grade 10 content cumulatively.	•Teaching methodologies to teach theory.	•Mediate to district officials and distribute to schools: -Self-marking quizzes covering basic knowledge -Case studies/scenario-based questions to develop understanding and higher-order thinking skills. •Monitor and support use in schools. •Monitor and support training in the districts.	•Identify and address gaps in teacher content knowledge. •Mediate support strategies. •Support, guide and monitor performance in the challenging content. •Mediate appropriate methodologies. •Conduct demonstration lessons in the challenging content area.	•Textbooks. •Self-marking quizzes. •Case studies/scenario-based questions. •Examples of teaching methodologies.	March 2016 and ongoing

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Practical work: General: Poor response to higher-order questions, especially open-ended problem solving question: •Struggled to apply and integrate programming constructs. •Struggled to devise algorithm for problem. •Lacked planning and designing a solution. •Did not fully understand the algorithms taught. •Learners 'forgot' Grade 10 content and skills. Content specific: •Struggled to understand scope of a variable. •Initialised variables. •Struggled with parameter passing. •Dynamic instantiation of objects. •Traced logical programming errors.	•Place more emphasis on planning: Planning a solution and program design need a lot of emphasis as learners struggle with open-ended questions. •Ensure that class activities and homework include work/ questions on all cognitive and difficulty level. •Complete trace tables for algorithms. •Troubleshoot algorithms/ programs using trace tables and watch facilities. •Ensure that learners understand and are able to apply the algorithms mentioned as part of the IT content. •Provide short, basic problems that require skills such as pattern recognition, etc. and let learners develop the solution algorithm. •Exercises where learners have to predict output, rewrite solutions in a more efficient way and complete trace tables to teach these principles. •Practical homework should be given on a daily basis. Learners need to practice and reinforce the skills learnt at school.	•Example questions using a variety of question types, cognitive and difficulty levels, including examples of open-ended problem solving questions.	•Distribute to schools. •Monitor and support use in schools. •Monitor and support training in the districts. •Monitor impact.	•Identify and address gaps in teacher content knowledge. •Mediate support strategies. •Support, guide and monitor performance in the challenging content. •Mediate appropriate methodologies. •Conduct demonstration lessons in the challenging content area.	•Textbooks. •Previous papers.	May 2016 and ongoing

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
			•Provide theory exercises on the programming contents which they can complete at home (especially where learners do not have computers at home), e.g. devising an algorithm for a specific problem. Plan a solution for a specific problem using software design tools, completing a trace table for a given solution, etc. which they can use to code/test the solution for the problem on the computer the following day. •Teach problem solving. •Revise Grade 10 content and skills cumulatively.					

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			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
	12	General: Poor understanding of action verbs: •Learners could not respond to the action verbs used in the question. Poor response to higher-order questions: •Learners were unable to make links and to apply knowledge, e.g. to answer case studies, make recommendations, etc. •They lacked higher-order thinking skills. •Learners were not exposed to variety of question types, i.e. they struggled to answer questions from 'all angles'. •Learners were not exposed to higher-order thinking questions. •Learners 'forgot' Grade 10 and Grade 11 content and skills.	•Teach and explain the meanings of key words in questions. •Use exemplar questions and question papers as a teaching tool to expose learners to the different types of questions and how to respond appropriately. •Ensure that class activities and homework include work/ questions on all cognitive and difficulty levels. •Teach learners how to solve problems. •Revise Grades 10 and Grade 11 content and skills cumulatively.	•Compile document to explain common key words.	•Exemplar questions and expected responses. •Mediate support strategies.	•Distribute, mediate and monitor the use and impact of support strategies.	•Textbooks. •Past question papers.	February 2016 and ongoing

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Theory content: •Learners lacked basic knowledge and understanding of theory concepts. •Learners did not see 'connections' between different theory content/ topics. •As a result, learners were not able to integrate knowledge to answer higher-order questions. •Learners 'forgot' Grade 10 and Grade 11 content.	•Teachers must teach theory. •Basic concepts and terminology must continuously be reinforced and revised to improve learners' basic understanding of a topic. •Highlight/demonstrate connections between topics/ content. •Ensure that learners receive homework on a daily basis - Theory homework should be given at the end of each theory lesson. •Homework should include higher-order questions and integration of content. •Revise Grade 10 and Grade 11 content cumulatively.	•Teaching methodologies to teach theory.	•Mediate to district officials and distribute to schools: -Self-marking quizzes covering basic knowledge. -Case studies/scenario-based questions to develop understanding and higher-order thinking skills. •Monitor and support use in schools. •Monitor and support training in the districts.	•Identify and address gaps in teacher content knowledge. •Mediate support strategies •Support, guide and monitor performance in the challenging content. •Mediate appropriate methodologies. •Conduct demonstration lessons in the challenging content area.	Textbooks. •Self-marking quizzes. •Case studies/scenario-based questions. •Examples of teaching methodologies.	March 2016 and ongoing

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			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Practical work: General: Poor response to higher-order questions, especially open-ended problem solving question: •Struggled to apply and integrate programming constructs. •Struggled to devise algorithm for problem. •Lacked planning and designing a solution. •Did not fully understand the algorithms taught. •Learners struggled with modular programming. •Learners 'forgot' Grade 10 and Grade 11 content and skills. Content specific: •Data types. •Struggled to understand scope of a variable. •Initialised variables. •Struggled with use of parameters and parameter passing. •Struggled with modular programming.	•Place more emphasis on planning: Planning a solution and program design need a lot of emphasis as learners struggle with open-ended questions. •Ensure that class activities and homework include work/ questions on all cognitive and difficulty levels. •Complete trace tables for algorithms. •Troubleshoot algorithms/ programs using trace tables and watch facilities. •Ensure that learners understand and are able to to apply the algorithms mentioned as part of the IT content. •Provide short, basic problems that require skills such as pattern recognition, etc. and let learners develop the solution algorithm. •Exercises where learners have to predict output, rewrite solutions in a more efficient way and complete trace tables to teach these principles •Practice using classes, e.g. provide the class and let use the same class in various programs or more than one class in one main program.	•Example questions using a variety of question types, cognitive and difficulty levels, including examples of open-ended problem solving questions.	•Distribute to schools. •Monitor and support use in schools. •Monitor and support training in the districts. •Monitor impact.	•Identify and address gaps in teacher content knowledge. •Mediate support strategies •Support, guide and monitor performance in the challenging content. •Mediate appropriate methodologies. •Conduct demonstration lessons in the challenging content area.	•Textbooks. •Previous papers.	May 2016 and ongoing

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			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		• Many learners did not understand OOP. Learners should clearly understand the difference between terms such as accessors, mutators, auxiliary, etc. so that they are able to answer a question from 'any angle'. • Instantiation of objects. • Syntax of SQL and the use of Boolean operators. • Tracing logical programming errors.	• Practical homework should be given on a daily basis. Learners need to practice and reinforce the skills learnt at school. • Provide theory exercises on the programming contents which they can complete at home (especially where learners do not have computers at home), e.g. devising an algorithm for a specific problem, plan a solution for a specific problem using software design tools, completing a trace table for a given solution, etc. which they can use to code/test the solution for the problem on the computer the following day. • Teach problem solving. • Revise Grade 10 and grade 11 content and skills cumulatively.					

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			DBE	PED	DISTRICT	TEACHERS	RESOURCES	
ENGLISH FIRST ADDITIONAL LANGUAGE (EFAL)	**Paper 1**	Paper 1 Many candidates ignored instructions: •Instruction to confine to a specific paragraph as a base for their response. •Failure to adhere to quoting a 'single word'. •Failure to use own words and resorting to quoting from the passage. •Using own experience to respond to a text, instead of basing answers on the text. •Most candidates were not able to provide motivation/ justification of their choice and thus were not able to answer open-ended questions. •Some candidates were not able to provide suitable motivation for their choice when responding to open-ended questions. •Most candidates were not able to decode concepts like contradiction, compare, conflict, etc. •Some candidates struggled to interpret ploys authors use to draw the attention of the audience. •Some candidates were not able to read visual texts like graphs.	•Build a data bank of previous question papers with annotations addressing problem areas like instructions. •Collate appropriate learner responses with annotations on what was done right – interactive data bank. •Train subject advisors and co-ordinators on the use of the data banks. •Train subject advisors and co-ordinators in teaching summary features and teaching a summary. •Train subject advisors and co-ordinators on setting and answering questions at different cognitive levels. •Develop script lessons in teaching comprehension, summary writing, analysing visual texts and language across the curriculum, and make them available to schools. •Monitor use of the strategy for teaching EAC in schools. •Monitor training and support. •Print and send Study Guides for teaching summary features and teaching a summary, writing and grammar. •Develop script lessons on the interpretation and analysis of literature and avail them to schools.	•Print and distribute resources to districts. •Cascade DBE training to SAs in the province. •Version training to suit the needs of the province. •Duplicate and flight lessons for districts. •Set target performance in the paper. •Monitor training and support. •Print and distribute resources to districts. •Provide setworks. •Reprint and deliver Study Guide on literature to schools. •Train district officials in the use of the Study Guide. •Monitor training of teachers in the use of Study Guides. •Mediate script lessons to district officials. •Reprint and distribute Study Guides. •Cascade training to SAs. •Monitor training in districts.	•Avail training material and train teachers on how to prepare for Paper 1. •Use material from data bank to train teachers and conduct demonstration lessons. •Mediate script lessons to teachers and learners. •Support, guide and monitor teaching. •Avail training material and train teachers on how to prepare for Paper 1. •Use material from data bank to train teachers and conduct demonstration lessons. •Mediate script lessons to teachers and learners. •Support, guide and monitor teaching.	The language teacher should: •Use the language section of the previous question papers to develop learner response. •Keep a data bank of question papers which can be used to develop learner response. •Teach grammar explicitly and then lead learners to apply the knowledge through integration. •Expose learners to good grammar use by fellow learners in class as well as in texts read in class. •Teach critical language awareness focusing on language and power, including facts, opinions, bias, stereotyping, language and culture. •Teachers should teach features of literary texts such as characterisation, plot, sound devices. •Ensure that learners have textbooks and setworks. •Read the texts fully with the learners. •Teach the features of literature. •Teach learners the language of assessment. •Expose learners to different kinds of questions, at different cognitive levels. •Use previous examination question papers as practice tests. •Teach learners the structure of the question paper.	Paper 1 Comprehension •Different types of texts for reading comprehension compiled from past examination papers. •Previous years' examination papers & memoranda. •Gr 12: Examination Guidelines. •Circular E2 of 2012 and CAPS. Summary •Previous years' examination papers & memoranda. •Gr 12: Examination Guidelines, •Circular E2 of 2012 and CAPS. •Previous years' examination papers & memoranda. •Gr 12: Examination Guidelines, Circular E2 of 2012 and CAPS. •Critical language awareness. •Self-Study Guide. •The English across the Curriculum manual.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Summary • Some candidates still ignored the instructions not to write two facts per line and therefore, lost the mark for the second fact was correct, or if the first fact was wrong. • Although they were not penalised for doing so, some candidates: • Used the paragraph instead of the point form; and • Simply quoted facts and left out words to disguise this instead of rephrasing the relevant points in their own words. • Most candidates did not indicate the number of words at the end of the summary. • Some candidates could not differentiate between the main fact and the supporting detail.					• Self-Study Guide for literature. • Script lessons on literature analysis and interpretation. • Previous years' examination papers & memoranda. • Gr 12: Examination Guidelines and CAPS. • Circulars on setworks: • Circular E2 of 2012. • Circular S8 of 2012. • Circular S4 of 2011. • Circular S2 of 2010. • Circular S2 of 2009. • Circular S4 of 2008. • Circular S8 of 2007. • Circular S15 of 2014.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Analysing an advertisement: • Some candidates lost marks due to ignoring instructions, e.g. state one point when required to state two. • A number of candidates were still unable to deal with basic concepts such as 'target audience'. • Most candidates also struggled with the higher-order questions. • Most candidates could not link the use of pictures to the success of the advertisement. • Some candidates responded to the 'how' question.						Jan-Sep 2016

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			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Analysing a cartoon: • For many of the candidates, interpretation of visual clues was still a problem. • A handful of candidates did not know what visual techniques were. • Most candidates did not understand the difference between a frame-specific question and a question using a frame as a frame of reference, but required understanding of the text. • Most candidates did not understand the concepts of contradicting and comparing aspects, which were basic vocabulary for this genre. • Candidates found open-ended questions challenging as they had difficulty providing clear motivations for their observations and feelings.						Jan-Sep 2016

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		Language and Editing: • Most language aspects tested in 5.1, namely, concord, punctuation, spelling and confusable words, presented challenges to most candidates. • Candidates did not do well in most questions which used the metalanguage, e.g. 5.1.2, 5.1.3, 5.1.4, 5.2.3 and 5.2.4. • While there was a case for FAL candidates identifying instead of using parts of speech, they were still required to know them, which they did not do in 5.1.2(b). • While most of the candidates obtained at least 50% in 5.1.6, it remained a concern that the candidates would have obtained a mark or more for pronoun, verb(s) changes, and omitting quotation marks while the rewritten sentence could be entirely wrong. • While most candidates chose the correct option, they ignored the instruction to write the number and the letter and opted to write the answer in full. While they would not be penalised for this, they often spelt the word/answer wrongly.						Jan-Sep 2016

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	Paper 2	Paper 2 • The questions listed below featured in all the genres and questions and seemed to have presented the same challenges to some candidates: • Identifying and Discussing the theme: Some candidates were not able to respond properly to the questions, with the weaker candidates faring the worst. Some candidates failed to notice that this question is two-fold, identify the theme and then discuss the theme. • Stage Direction: Most candidates were not able to ascribe an activity and an emotion to the identified character, which suggested inadequate understanding of the text. • Character Traits: Some candidates were not able to display in-depth knowledge of characters in their texts.						Jan-Sep 2016

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			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		• Some candidates did not seem to have fully grasped the requirements of commonly used assessment terms such Why, How, Discuss and Explain. When candidates responded to these questions, they sought all the answers from the extracts. Furthermore, they tended to give one-word responses when they weare required to explain or discuss. • Open-ended questions still remained a challenge to some candidates. Many responses to this type of question showed that candidates were unable to make judgments regarding their understanding of the text. • Candidates were unable to identify the comparison and to explain what the comparison denoted in the questions where they were asked to explain the figure of speech contribution to the meaning of the sentence where it was placed						Jan-Sep 2016

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			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
	Paper3	Paper 3: Essays and Transactional writing •Non-adherence to instructions. •Wrong format of writing texts. •Left out crucial detail. •Exceeded the word limit. •Unable to use language effectively to express self. •Addressed wrong audience.' •Unable to follow instructions. •Failed to address the topic fully.	•Reprint and send Study Guides for teaching creative writing to schools. •Retrain subject advisors and cluster leaders on the use of Study Guides for teaching creative writing. •Retrain subject advisors and Cluster Leaders on the use of the rubrics. •Monitor training in provinces and districts.	•Photocopy the section on the format of transactional texts from the CAPS and the Self-Study Guide for writing and give to learners. •Monitor and support utilisation of Self-Study Guides, support given to learners during writing, and development of teachers in teaching writing. •Cascade training of teachers in the use of rubrics.	•Train teachers in using the Study Guide and the rubric. •Conduct demonstration lessons for teachers. •Support, guide and monitor implementation and teaching of creative writing. •Moderate the marking of creative writing pieces.	•Teach the format and features of creative writing texts. •Expose learners to good texts written by peers and from other sources. •Teach learners the language of assessment. •Teach learners how they are assessed. •Teach learners writing process and application thereof. •Teach learners about different transactional texts such as letters, obituaries. •Correctly written texts must be shared with learners so that they may learn from them	•Self-Study Guide for writing. •CAPS. •Previous examination papers & memoranda. •Gr 12: Examination Guidelines. •Circular E2 of 2012 and CAPS.	Jan-Sep 2016
LIFE ORIENTATION	12-Oct	•Learners obtained inflated marks for physical education •Teachers unable to calculate PET marks correctly •Teachers unable to use the PET grid or interpret the PET grid correctly.	•Email best practice lesson plans to all Districts.	•Email best practice lesson plans to all districts. Use best practice schools to hold workshops.	•Districts to hold PET workshops explain valuation of PET marks and use of grid at teacher meetings.	•Teachers should hold cluster workshops to improve PET. Teachers should twin with better resourced schools to improve PET.	•Physical Education kits.	Jan-Sep 2016
		•Learners lack essay/writing skills	•Will monitor progress and provide support.	•PDES to provide quarterly report on the number and quality of daily activities.	•Assist teachers with visual literacy activities, compile lesson plans on visual literacy, mediate activities from EAC booklet.	•Teachers are required to teach paragraph and short essay writing techniques as part of daily activities to improve writing skills.	•EAC Booklet	Jan-Sep 2016
		•Learners lack understanding of the cognitive demands of question especially higher-order questions. They lack application skills.	•Will monitor progress and provide support.	•PDES to report on the number of activities done to improve the cognitive demands of levels 4-5	•Districts to monitor and send reports on the quality of Daily Activities to improve the cognitive demands of levels 4-5 questions	•Teachers are required to set daily activities and use past year exam papers improve learners understanding of cognitive demands questions of higher-order questions	•Past year June papers	Jan-Sep 2016
		•Learners struggle with visual literacy / interpretation of cartoons	•Email past year exam papers and past June papers to all provinces.	•Coordinate monitor and distribute information to districts	•Print, email and distribute. Papers •Schools.	•Teachers need to mediate activities from past year papers and show evidence of activities with cartoons in their Daily activities	•Textbooks •Internet; Journals; newspapers; books and past year papers	Jan-Sep 2016

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			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		•Many learners lack content knowledge.	•Monitor and support and email content material to all provinces	•PDES to coordinate topics and email information to districts	•Compile, edit and email to PDES, Print, and email and distribute.	•The following topics were poorly understood: •Labour laws; •Equity and redress; •Human Rights; •Mission Statement	•Textbooks •Internet; Journals; newspapers; books	Jan-Sep 2016
		•Learners lack content and are unable to unpack concepts.	•Monitor and support and email to all provinces place on website •Provide diagnostic reports for the CAT examination	•Distribute reports.	•Monitor content coverage for Grade 12s provide reports. •Mediate examination guidelines. •Hold road shows on the diagnostic reports.	•Teachers need to teach the content. Show evidence content coverage in Daily activities. Show evidence of exam question being covered as part of Daily activities. •Teacher should address gaps in content knowledge.	•Exemplar papers	Jan-Sep 2016
LIFE SCIENCES	10	Lacked of biological content and terminology e.g. distinguishing structure and function of cellular organelles like ribosomes, vacuoles, chromatids Golgi apparatus, mitochondria ,etc.	•Collate and distribute material on biological terminology and concepts. •Distribute SBA tasks which enhance, define and explain biological terminology. •Provide support in cluster meetings.	•Print and distribute resources to districts. •Mediate national vocabulary list to all subject advisors. •Monitor and support subject advisors in mediating the vocabulary list to teachers.	•Facilitate workshops to mediate vocabulary list to teachers. •Provide onsite support to teachers in the mediation of the vocabulary list. •Monitor and support the conducting of SBA tasks at schools. •Provide support and share information to Professional Learning Communities.	•Provide learners with notes and material on biological terminology and concepts. •Teach learners different methods of acquiring and applying biological terminology and concepts. •Sharing information with colleagues at cluster meetings and in Professional Learning Communities. •Design and administer SBA tasks that reinforce biological terminology and concepts.	•Vocabulary list. •Textbooks. •Additional notes. •SBA tasks. •Past examination papers	Jan-Sep 2016
		Failed to describe biological concepts and processes; e.g. describing the process of transpiration and how it is affected by temperature, light intensity, wind and humidity.	•Collate and distribute material on biological processes and concepts. •Distribute SBA tasks which enhance, define and explain biological processes. •Provide support in cluster meetings. •Monitor curriculum coverage.	•Print and distribute resources to districts. •Monitor and support subject advisors in mediating complex biological processes to teachers. •Provide Self-Study Guides to teachers.	•Facilitate workshops to mediate biological concepts and processes to teachers. •Provide onsite support to teachers in the mediation of biological processes and concepts. •Monitor and support the conducting of SBA tasks at schools. •Provide support and share information to Professional Learning Communities.	•Provide learners with notes and material on biological concepts and processes like how transpiration is responsible for circulation of nutrients to all parts of the plant. •Teach learners different methods of acquiring and applying biological processes and concepts. •Sharing information with colleagues at cluster meetings and in Professional Learning Communities. •Design and administer SBA tasks that reinforce biological processes and concepts.	•Textbooks. •Additional notes. •SBA tasks. •Past examination papers.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Learners were unable to interpret graphs and diagrams, specifically diagrams relating to the anatomy of the human skeleton; the anatomy of dicotyledonous plants and animal tissue.	•Collate and distribute past examination papers. •Monitor curriculum coverage and support. •Monitor conducting of SBA tasks.	•Distribute past papers to subject advisors. •Distribute additional notes and material to teachers and subject advisors. •Monitor and support the administering of SBA tasks.	•Provide teachers with past examination papers. •Mediate SBA tasks and past papers to teachers. •Provide onsite support to teachers in the conducting of SBA tasks. •Supporting and mentoring teachers in curriculum coverage. •Sharing concepts and SBA tasks at cluster meetings.	•Teach learners how to interpret graphs and diagrams relating to the human skeletal system and plant anatomy as well as animal tissue. •Provide learners with worksheets involving interpreting graphs and diagrams. •Share worksheets and other relevant material in cluster meetings.	•Past examination papers. •Textbooks. •Self-Study Guides.	Jan-Sep 2016
		Challenges in showing higher-order thinking skills and explaining complex biological relationships like mutualism, predation and parasitism.	•Collate and distribute past examination papers. •Collate and distribute material on biological relationships.	•Distribute past papers to subject advisors. •Distribute additional notes and material to teachers and subject advisors. •Monitor and support the administering of SBA tasks.	•Provide and mediate past examination papers to teachers. •Provide additional worksheets to teachers to assist them in the teaching and learning of difficult biological concepts and relationships.	•Teach learners how biological relationships are interlinked with each other. •Teach learners how mutualism, predation and parasitism differ from each other. However, in all instances it ensures survival of the species. •Share worksheets and other material in cluster meetings and Professional Learning Communities.	•Past examination papers. •Textbooks.	Jan-Sep 2016
		Integrated practical work with theoretical ideas and concepts like dissecting the mammalian heart and identifying chambers, valves, muscle and blood vessels involved in the cardiac cycle.	•Collate and distribute material of the conducting of practical work. •Monitor and support practical work.	•Mediate guidelines on the conducting of practical work in schools. •Facilitate workshops on the conducting of practical work in schools. •Monitor and support of practical work.	•Provide and mediate practical guidelines to teachers. •Facilitate workshops on practical work using lead teachers. •Provide support in the conducting of practical work. •Provide continuous information on practical work in cluster meetings.	•Conduct practical work and integrate with theory like dissecting the heart and demonstrating how it is responsible for pumping oxygenated blood throughout the human body. •Provide learners with the opportunity to observe the practical and link it to a specific biological concept and theory. •Provide learners with practical worksheets. •Share information and skills at cluster meetings.	•Practical guides. •Textbooks. •Past examination papers.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME FRAMES
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	
		Provided a logical, relevant and sequenced explanation of a biological process or concept, e.g. explained the relationship between the lymphatic system and the blood system.	•Collate and distribute material on essay writing delineating important biological processes and concepts. •Monitor and support curriculum coverage. •Distribute past examination papers.	•Mediate material on essay writing to subject advisors and teachers. •Distribute past examination papers. •Monitor and support curriculum coverage.	•Mediate material on essay writing to teachers. •Distribute past papers to teachers. •Provide support to teachers in teaching the concept of essay writing depicting important biological processes and concepts.	•Explain to learners important relationships like that between the lymphatic system and the blood system. •Provide learners with questions from past papers and expose them to how these questions are answered. •Share information with colleagues in cluster meetings.	•Past examination papers. •Past memos. •Study Guides. •Textbooks.	Jan-Sep 2016
	11	Lacked biological content and terminology like distinguishing between bacteria and viruses, mitosis and meiosis, carbon footprint and global warming.	•Collate and distribute material on biological terminology and concepts. •Distribute SBA tasks which enhance define and explain biological terminology. •Provide support in cluster meetings.	•Print and distribute resources to districts. •Mediate national vocabulary list to all subject advisors. •Monitor and support subject advisors in mediating the vocabulary list to teachers.	•Facilitate workshops to mediate vocabulary list to teachers. •Provide onsite support to teachers in the mediation of the vocabulary list. •Monitor and support the conducting of SBA tasks at schools. •Provide support and share information to Professional Learning Communities.	•Provide learners with notes and material on biological terminology and concepts. •Teach learners different methods of acquiring and applying biological terminology and concepts. •Share information with colleagues at cluster meetings and in Professional Learning Communities. •Design and administer SBA tasks that reinforce biological terminology and concepts.	•Vocabulary list. •Textbooks. •Additional notes. •SBA tasks. •Past examination papers.	Jan-Sep 2016
		Failed to describe biological concepts and processes like food security and loss of biodiversity.	•Collate and distribute material on biological processes and concepts. •Distribute SBA tasks which enhance, define and explain biological processes. •Provide support in cluster meetings. •Monitor curriculum coverage.	•Print and distribute resources to districts. •Monitor and support subject advisors in mediating complex biological processes to teachers. •Provide Self-Study Guides to teachers.	•Facilitate workshops to mediate biological concepts and processes to teachers. •Provide onsite support to teachers in the mediation of biological processes and concepts. •Monitor and support the conducting of SBA tasks at schools. •Provide support and share information to Professional Learning Communities	•Provide learners with notes and material on biological concepts and processes such as food security and loss of biodiversity. •Teach learners different methods of acquiring and applying biological processes and concepts •Share information with colleagues at cluster meetings and in Professional Learning Communities. •Design and administer SBA tasks that reinforce biological processes and concepts.	•Textbooks. •Additional notes. •SBA tasks. •Past examination papers.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Unable to interpret graphs and diagrams such as studying periods of mass and extinction in relation to the geological time scale.	•Collate and distribute past examination papers. •Monitor curriculum coverage and support. •Monitor conducting of SBA tasks.	•Distribute past papers to subject advisors. •Distribute additional notes and material to teachers and subject advisors. •Monitor and support the administering of SBA tasks.	•Provide teachers with past examination papers. •Mediate SBA tasks and past papers to teachers. •Provide onsite support to teachers in the conducting of SBA tasks. •Support and mentoring teachers in curriculum coverage. •Share concepts and SBA tasks at cluster meetings.	•Teach learners how to interpret graphs and diagrams relating to periods of mass extinction in relation to the geological time scale. •Provide learners with worksheets involving interpreting graphs and diagrams. •Share worksheets and other relevant material in cluster meetings.	•Past examination papers. •Textbooks. •Self-Study Guides.	Jan-Sep 2016
		Challenges in showing higher-order thinking skills in ascertaining the complex relationship between photosynthesis and respiration.	•Collate and distribute past examination papers. •Collate and distribute material on biological relationships	•Distribute past papers to subject advisors. •Distribute additional notes and material to teachers and subject advisors. •Monitor and support the administering of SBA tasks.	•Provide and mediate past examination papers to teachers. •Provide additional worksheets to teachers to assist them in the teaching and learning of difficult biological concepts and relationships.	•Teach learners how biological relationships are interlinked with each other. •Teach learners how respiration and photosynthesis differ from each other. However, in all instances it ensures survival of all species. •Share worksheets and other material in cluster meetings and Professional Learning Communities.	•Past examination papers. •Textbooks.	Jan-Sep 2016
		Integrated practical work with theoretical ideas and concepts such as conducting an investigation into using methane from a municipal dumpsite for heating and lighting.	•Integrate practical work with theoretical ideas and concepts such as conducting an investigation into using methane from a municipal dumpsite for heating and lighting.	•Collate and distribute material of the conducting of practical work. •Monitor and support practical work.	•Mediate guidelines on the conducting of practical work in schools. •Facilitate workshops on the conducting of practical work in schools. •Monitor and support of practical work.	•Provide and mediate practical guidelines to teachers. •Facilitate workshops on practical work using lead teachers. •Provide support in the conducting of practical work. •Provide continuous information on practical work in cluster meetings.	•Conduct practical work and integrating with theory like providing learners with the opportunity to observe the practical and linking it to a specific biological concept and theory like conducting an investigation into using methane from a municipal dumpsite for heating and lighting. •Provide learners with practical worksheets. •Share information and skills at cluster meetings.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
	12	Lacked biological terminology and content such as distinguishing between biodiversity and biogeography, chromosome and chromatid, monohybrid and dihybrid.	•Collate and distribute material on biological terminology and concepts. •Distribute SBA tasks which enhance define and explain biological terminology. •Provide support in cluster meetings.	•Print and distribute resources to districts. •Mediate national vocabulary list to all subject advisors. •Monitor and support subject advisors in mediating the vocabulary list to teachers.	•Facilitate workshops to mediate vocabulary list to teachers. •Provide onsite support to teachers in the mediation of the vocabulary list •Monitor and support the conducting of SBA tasks at schools •Provide support and share information to Professional Learning Communities	•Provide learners with notes and material on biological terminology and concepts. •Teach learners different methods of acquiring and applying biological terminology and concepts. •Share information with colleagues at cluster meetings and in Professional Learning Communities. •Design and administer SBA tasks that reinforce biological terminology and concepts.	•Vocabulary list. •Textbooks. •Additional notes. •SBA tasks. •Past examination papers. •Mind the Gap in Life Sciences.	Jan-Sep 2016
		Unable to explain biological processes and concepts such as explaining the role insulin plays in stabilising blood glucose levels through a negative feedback system.	•Collate and distribute material on biological processes and concepts. •Distribute SBA tasks which enhance, define and explain biological processes. •Provide support in cluster meetings •Monitor curriculum coverage.	•Print and distribute resources to districts. •Monitor and support subject advisors in mediating complex biological processes to teachers. •Provide Self-Study Guides to teachers.	•Facilitate workshops to mediate biological concepts and processes to teachers. •Provide onsite support to teachers in the mediation of biological processes and concepts. •Monitor and support the conducting of SBA tasks at schools. •Provide support and share information to Professional Learning Communities.	•Provide learners with notes and material on biological concepts and processes such as explaining the role insulin plays in stabilising blood glucose levels through a negative feedback system. •Teach learners different methods of acquiring and applying biological processes and concepts. •Share information with colleagues at cluster meetings and in Professional Learning Communities. •Design and administer SBA tasks that reinforce biological processes and concepts.	•Textbooks. •Additional notes. •SBA tasks. •Past examination papers. •Mind the Gap in Life Sciences.	Jan-Sep 2016
		Failed to describe and explain complex processes that require higher-order thinking skills like natural selection, out of Africa hypothesis and the use of blood groups in paternity testing	•Collate and distribute past examination papers. •Collate and distribute material on biological relationships.	•Distribute past papers to subject advisors. •Distribute additional notes and material to teachers and subject advisors. •Monitor and support the administering of SBA tasks.	•Provide and mediate past examination papers to teachers. •Provide additional worksheets to teachers to assist them in the teaching and learning of difficult biological concepts and relationships.	•Teach learners how biological relationships are interlinked with each other. •Teach learners how natural selection and speciation differ from each other. However, in all instances it ensures survival of all species. •Share worksheets and other material in cluster meetings and Professional Learning Communities.	•Past examination papers. •Textbooks. •Mind the Gap in Life Sciences.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Unable to interpret diagrams and graphs such as the interpretation of the structure of the human eye and its role in accommodation as well as phylogenetic trees in the story of human evolution and how it pertains to South African fossils like Ms Ples, Little foot, Karabo and Naledi.	•Collate and distribute past examination papers. •Monitor curriculum coverage and support. •Monitor conducting of SBA tasks.	•Distribute past papers to subject advisors. •Distribute additional notes and material to teachers and subject advisors. •Monitor and support the administering of SBA tasks.	•Provide teachers with past examination papers. •Mediate SBA tasks and past papers to teachers. •Provide onsite support to teachers in the conducting of SBA tasks. •Support and mentor teachers in curriculum coverage. •Share concepts and SBA tasks at cluster meetings .	•Teach learners how to interpret graphs and diagrams such as the interpretation of the structure of the human eye and its role in accommodation as well as phylogenetic trees in the story of human evolution and how it pertains to South African fossils like Ms Ples, Little foot, Karabo and Naledi. •Provide learners with worksheets involving interpreting graphs and diagrams •Share worksheets and other relevant material in cluster meetings	•Past examination papers. •Textbooks. •Self-Study Guides. •Mind the Gap in Life Sciences.	Jan-Sep 2016
		Unable to draw biological structures and processes such as drawing Metaphase 2 in meiosis and Anaphase 1 in meiosis.	•Collate and distribute notes on drawing of biological structures. •Distribute past papers involving questions of the drawing of biological structures with memos.	•Distribute past papers to subject advisors. •Distribute additional notes and material on drawings to teachers and subject advisors.	•Provide teachers with past examination papers. •Mediate SBA tasks and past papers to teachers. •Provide onsite support to teachers in the conducting of SBA tasks. •Support and mentor teachers in curriculum coverage. •Share concepts and SBA tasks at cluster meetings.	•Teach learners how to draw and label biological structures and processes. •Provide worksheets on drawing of structures. •Provide exemplar tasks on drawing and labelling of biological structures and processes.	•Past examination papers with memos. •Exemplar SBA tasks. •Mind the Gap Study Guide.	Jan-Sep 2016
		Failed to write a coherent, logical and sequenced essay on biological concepts, issues anomalies and processes such as describing protein synthesis and differentiating it from DNA replication as well as linking it to gene mutation.	•Collate and distribute material on essay writing delineating important biological processes and concepts. •Monitor and support curriculum coverage. •Distribute past examination papers.	•Mediate material on essay writing to subject advisors and teachers. •Distribute past examination papers. •Monitor and support curriculum coverage.	•Mediate material on essay writing to teachers. •Distribute past papers to teachers. •Provide support to teachers in teaching the concept of essay writing depicting important biological processes and concepts.	•Explain to learners important relationships, describing protein synthesis and differentiating it from DNA replication as well as linking it to gene mutation. •Provide learners with questions from past papers and expose them to how these questions are answered. •Share information with colleagues in cluster meetings.	•Past examination papers. •Past memos. •Mind the Gap. •Textbooks. •DNA and protein synthesis Study Guide.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
MATHEMATICS	10	•Factorisation. •Simplification of fractions. •Properties of triangles. •Properties of quadrilaterals. •The application of mid-point theorem. •Learners lacked basic knowledge of Algebra.	•Monitor CAPS implementation. •Provide guidance and support to subject advisors. •Monitor CAPS implementation. •Provide guidance and support to subject advisors.	•Provide textbooks aligned to CAPS. •Subject advisor should assist with the teaching of content to learners. •Monitor learners' classwork books •Provide textbooks aligned to CAPS. •Subject advisor should assist with the teaching of content to learners. •Monitor learners' classwork books.	•Distribute Self-Study Guide •Subject advisor should assist with the teaching of content to learners. •Monitor learners' classwork books. •Distribute Self-Study Guides. •Subject advisor should assist with the teaching of content to learners. •Monitor learners' classwork books.	The teacher should: •Teach learners basic calculations on factorisation, and fractions. •Ensure that properties of triangle and quadrilateral are mastered by learners. •Assess learners on the identified content by giving them quality tasks assessing all cognitive levels. •Ensure that the whole curriculum for each grade is covered in full.. •Teach content thoroughly to equip learners with the basic skills of manipulating terms. •Teach learners to manipulate activities without using a calculator. •Ensure that learners know to distinguish similar triangles from congruent triangles. •Exponents need to thoroughly mastered by all learners	•Textbook; •Siyavula Grade 11 textbook; •Scientific calculator; •Mathematical instrument •Exemplar papers for Grade 12; •Revise using November 2014 and 2015 Grade 12 Maths papers; •Self-Study Guide •CAPS document for Grade 10, 11 and 12.	Jan-Sep 2016
	11	Learners were still writing the quadratic formula incorrectly. •Learners should have known when to use quadratic formulae. •Most learners did not understand nature of roots. •Most learners knew sketch trigonometric graphs but could not derive their equations from the sketched graphs. Learners lacked basic knowledge on content. Solving inequalities was still a huge change to most learners. •The use of reduction formulae. •Basic principles of Euclidean Geometry.	•Provide Self-Study Guides. •Monitor the implementation of CAPS. •Provide guidance and support to subject advisors. •Provide Self-Study Guides. •Monitor the implementation of CAPS. •Provide guidance and support to subject advisors.	• Provide textbooks aligned to CAPS. •Develop notes and distribute. •Subject advisor should assist with the teaching of content to learners. •Monitor learners' classwork books. •Provide textbooks aligned to CAPS. •Develop notes and distribute. •Subject advisor should assist with the teaching of content to learners. •Monitor learners' classwork books.	•Print notes and distribute •Distribute Self-Study Guides •Subject advisor should assist with the teaching of content to learners •Monitor learners' classwork books •Print notes and distribute. •Distribute Self-Study Guides. •Subject advisor should assist with the teaching of content to learners. •Monitor learners' classwork books.	•Teach learners to master formulae. •Train learners to use different methods to solve problems •Inequalities should not be treated as equal signs. •Learners should be taught to understand reduction formulae and when and how to apply them when solving trigonometric problems. •Ensure that learners know how to distinguish between similar and congruent triangles. •Ensure that learners know theorem statements by heart and their application. •Teachers should ensure that learners know conditions for independent events in probability.	•Siyavula Grade 11 textbook •Scientific calculator •Mathematical instrument •Exemplar papers for Grade 12 •Revise using November 2014 and 2015 Grade 12 Maths papers •Self-Study Guide •CAPS document for Grades 10, 11 and 12.	Jan-Sept 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
	12	•Functions and Graphs. •Calculus. •Analytical Geometry: learners lack the application of the equation: Learners should have revised properties of triangles, quadrilaterals and the application of mid-point theorem. •Probability. •Euclidean Geometry: Learners seemed to lack the application of similarity of two triangles.	•Provide Self-Study Guides •Monitor implementation of CAPS •Provide guidance and support to subject advisors.	•Provide textbooks aligned to CAPS •Develop notes and distribute •Subject advisor should assist with the teaching of content to learners •Monitor learners' classwork books.	•Print notes and distribute •Distribute Self-Study Guide •Subject advisor should assist with the teaching of content to learners •Monitor learners' classwork books.	•Teach learners to master formulae. •Train learners to use different methods to solve problems. •Teachers should train learners on how to sketch a graph and vice versa to derive its equation if it is drawn. •Use previous question papers to teach the application of Calculus. •Teachers are encouraged to use various methods to find the turning point and the axis of symmetry. •Learners need to be taught thoroughly on how to find the equation of a circle with centre (0 ; 0) and when the centre is out the origin of the Cartesian plane. •Ensure that probability problems done in Grade 10 and 11 are used when explaining counting principle in Grade 12. •Learners are encouraged to know the theorems so that they can be able to provide reasons for their statements. •Learners should master the application of reduction formulae and double angle.	•Textbook •Siyavula Grade 11 textbook •Scientific calculator; •Mathematical instrument •Exemplar papers for Grade 12 •Revise using November 2014 and 2015 Grade 12 Maths papers •Self-Study Guide •CAPS document for Grade 10, 11 and 12.	Jan-Sept 2016
MATHEMATICAL LITERACY	10	•Learners lacked content knowledge and concepts.	•Distribute DBE Self-Study Guides containing notes, questions and answers. •Distribute CDs of Exemplar Question Paper Booklet. •Monitor content coverage; especially in underperforming districts & generate reports.	•Distribute DBE Self-Study Guides containing notes, questions and answers. •Provide CAPS aligned textbooks. •Distribute CDs of Exemplar Question Paper Booklet. •Monitor content coverage; especially in underperforming districts & generate reports.	•Distribute DBE Self-Study Guides containing notes, questions and answers. •Distribute CDs of Exemplar Question Paper Booklet. •Monitor content coverage; especially in underperforming schools & generate reports.	•Use DBE Self-Study Guides containing notes, questions and answers. •Teach content and concepts on measure of central tendencies and measure of dispersion i.e. IQR, Mean, mode and median concepts -Ratio -Percentages •HODs to monitor content coverage & generate reports.	•Textbooks. •DBE Self-Study Guide containing notes, questions and answers. •Previous question papers.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Conversion skills: •Units of distance, area and volume. •Units of mass e.g. pounds to kilograms. •Currency. •Time e.g. years to weeks.	•Distribute DBE Question Paper Exemplar Booklet.	•Distribute DBE Question Paper Exemplar Booklet to Districts.	•Distribute DBE Question Paper Exemplar Booklet to teachers.	•Use at least two currencies of different countries when teaching the exchange rates. • Use different contexts and media to reinforce the conversion of time e.g. timetable problems, TV guide booklet, posters and games. •Learners should paste the matrix conversion sheet for the measurements in their work books.	•Internet resources. •DBE Question Paper Exemplar Booklet. •Magazines, Newspapers and Posters.	Jan-Sep 2016
		Taxation: •Calculation of UIF learners used 1% instead of 2% for calculation of the total monthly UIF. •VAT.	•Distribute DBE Question Paper Exemplar Booklet. •Conduct workshop for teachers on taxation in collaboration with Bright Media.	•Distribute DBE Question Paper Exemplar Booklet to Districts. •Conduct workshop for teachers on taxation in collaboration with Bright Media.	•Distribute DBE Question Paper Exemplar Booklet to teachers. •Conduct workshop for teachers on taxation in collaboration with Bright Media.	• Use the most recent SARS table when teaching taxation, available at SARS offices or at www.sars.gov.za or the district SES.	•Dummy pay slips •Current SARS brochure •Bright Media resource packs	Jan-Sep 2016
		Calculation skills from the given formula.	•Distribute DBE Question Paper Exemplar Booklet.	•Distribute DBE Question Paper Exemplar Booklet.	•Distribute DBE Question Paper Exemplar Booklet.	•Incorporate the changing of the subjects of the formula in daily teaching practice, this is applicable across all the topics.	•Textbooks. •DBE Self-Study Guide containing notes, questions and answers. •Previous question papers.	Jan-Sep 2016
		Map work: •Skills such as drawing, measuring, calculation, interpretation and analysis.	•Distribute Map work Self-Study Guides. •Distribute Mind the Gap.	•Print and distribute Self-Study Guides and Mind the Gap.	•Print and distribute Self-Study Guides and Mind the Gap.	•Use the maps supplied to the geography department at your school. •Consult the geography teachers for assistance •Teach basic and advance map reading skills to learners •Teach learners how to orientate different maps •Apply teaching strategies to teach map work	•Textbooks. •DBE Self-Study Guide containing notes, questions and answers. •Previous question papers. •Maps.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Learners lacked subject vocabulary.	•Distribute DBE Question Paper Exemplar Booklet.	•Distribute DBE Question Paper Exemplar Booklet.	•Distribute DBE Question Paper Exemplar Booklet.	• Develop glossary of all the important terminology used per topic.	•Mathematics and Mathematical literacy dictionary. •Internet. •Textbooks. •DBE Self-Study Guide containing notes, questions and answers.	Jan-Sep 2016
	11	•Lacked content knowledge and concepts.	•Distribute DBE Self-Study Guide containing notes, questions and answers. •Distribute CDs of Exemplar Question Paper Booklet. •Monitor content coverage; especially in underperforming districts & generate reports.	•Distribute DBE Self-Study Guides containing notes, questions and answers. •Provide CAPS aligned textbooks. •Distribute CDs of Exemplar Question Paper Booklet •Monitor content coverage; especially in underperforming districts & generate reports.	•Distribute DBE Self-Study Guides containing notes, questions and answers. •Distribute CDs of Exemplar Question Paper Booklet. •Monitor content coverage, especially in underperforming schools & generate reports.	•Use DBE Self-Study Guides containing notes, questions and answers. •Teach content and concepts. Measure on central tendencies and measure of dispersion i.e. IQR, Mean, mode and median concepts •Ratio •Percentages •HODs to monitor Content Coverage & generate reports.	•Textbooks. •DBE Self-Study Guide containing notes, questions and answers. •Previous question papers.	Jan-Sep 2016
		Conversion skills: •Units of distance, area and volume. •Units of mass e.g. pounds to kilograms. •Currency. •Time e.g. years to weeks.	•Distribute DBE Question Paper Exemplar Booklet.	•Distribute DBE Question Paper Exemplar Booklet.	•Distribute DBE Question Paper Exemplar Booklet.	•Use at least two currencies of different countries when teaching the exchange rates. •Use different contexts and media to reinforce the conversion of time e.g. Timetable Problems, TV guide booklet, posters, and games. • Learners should paste the matrix conversion sheet for the measurements in their work books.	•Internet resources. •DBE Question Paper Exemplar Booklet. •Magazines, Newspapers, Posters.	Jan-Sep 2016
		Calculation skills from the given formula.	•Distribute DBE Question Paper Exemplar Booklet.	•Distribute DBE Question Paper Exemplar Booklet	•Distribute DBE Question Paper Exemplar Booklet	•Incorporate the changing of the subjects of the formula in daily teaching practice, this is applicable across all the topics.	•Textbooks. •DBE Self-Study Guide containing notes, questions and answers. •Previous question papers.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Map work: •Skills such as drawing, measuring, calculation, interpretation and analysis.	•Distribute Map Work Self-Study Guide. •Distribute Mind the Gap Study Guide	•Print and distribute Self-Study Guides and Mind the Gap.	•Print and distribute Self-Study Guides and Mind the Gap.	•Use the maps supplied to the geography department at your school. •Consult the geography teachers for assistance. •Teach basic and advance map reading skills to learners. •Teach learners how to orientate different maps. •Apply teaching strategies to teach map work.	•Textbooks. •DBE Self-Study Guide containing notes, questions and answers. •Previous question papers. •Maps.	Jan-Sep 2016
		Lacked subject vocabulary.	•Distribute DBE Question Paper Exemplar Booklet.	•Distribute DBE Question Paper Exemplar Booklet.	•Distribute DBE Question Paper Exemplar Booklet.	• Develop glossary of all the important terminology used per topic.	•Mathematics and Mathematical Literacy dictionary. •Internet. •Textbooks. •DBE Self-Study Guide containing notes, questions and answers.	Jan-Sep 2016
	12	Taxation: •Calculation of UIF learners used 1% instead of 2% for calculation of the total monthly UIF •VAT	•Distribute DBE Question Paper Exemplar Booklet. •Conduct workshop for teachers on taxation in collaboration with Bright Media.	•Distribute DBE Question Paper Exemplar Booklet. •Conduct workshop for teachers on taxation in collaboration with Bright Media.	•Distribute DBE Question Paper Exemplar Booklet. •Conduct workshop for teachers on taxation in collaboration with Bright Media.	• Use the most recent SARS table when teaching taxation, available at SARS offices or at www.sars.gov.za or the district SES.	•Dummy pay slips. •Current SARS brochure. •Bright Media resource pack	Jan-Sep 2016
		Calculation skills from the given formula.	•Distribute DBE Question Paper Exemplar Booklet.	•Distribute DBE Question Paper Exemplar Booklet.	•Distribute DBE Question Paper Exemplar Booklet.	•Incorporate the changing of the subjects of the formula in daily teaching practice, this is applicable across all the topics.	•Textbooks. •DBE Self-Study Guide containing notes, questions and answers. •Previous question papers.	Jan-Sep 2016
		Lacked subject vocabulary.	•Distribute DBE Question Paper Exemplar Booklet.	•Distribute DBE Question Paper Exemplar Booklet.	•Distribute DBE Question Paper Exemplar Booklet.	•Develop glossary of all the important terminology used per topic.	•Mathematics and Mathematical literacy dictionary. •Internet. •Textbooks. •DBE Self-Study Guide containing notes, questions and answers.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Plans: •Elevation Concept. •Calculations of area and volume.	•Distribute DBE Question Paper Exemplar Booklet.	•Distribute DBE Question Paper Exemplar Booklet.	•Distribute DBE Question Paper Exemplar Booklet.	•Expose learners to the analysis of the layout of the structure shown on the plan and suggest alternative layout options. •Provide an opportunity for the learners to investigate the considerations involved in the construction of a house.	•Textbooks. •DBE Self-Study Guide containing notes, questions and answers. •Previous question papers.	Jan-Sep 2016
		Working with large number and rounding off: •Million and billion •Rounding	•Distribute DBE Question Paper Exemplar Booklet and Mind the Gap Study Guide.	•Distribute DBE Question Paper Exemplar Booklet and Mind the Gap Study Guide.	•Distribute DBE Question Paper Exemplar Booklet and Mind the Gap Study Guide.	•Teach learners how to write million and billion and the effect of rounding when dealing with large amounts. •NB: the words million and billion are not units rather part of the number.	•Textbooks. •DBE Self-Study Guide containing notes, questions and answers. •Previous question papers.	Jan-Sep 2016
		•Lacked content knowledge and concepts.	•Distribute DBE Self-Study Guide containing notes, questions and answers. •Distribute CDs of Exemplar Question Paper Booklet. •Monitor content coverage; especially in underperforming districts & generate reports.	•Distribute DBE Self-Study Guide containing notes, questions and answers. •Provide CAPS aligned textbooks. •Distribute CDs of Exemplar Question Paper Booklet. •Monitor content coverage, especially in underperforming districts & generate reports.	•Distribute DBE Self-Study Guide containing notes, questions and answers. •Distribute CDs of Exemplar Question Paper Booklet. •Monitor content coverage, especially in underperforming schools & generate reports.	•Use DBE Self-Study Guide containing notes, questions and answers. •Teach content and concepts on the Measure of central tendencies and measure of dispersion •i.e. IQR, Mean, mode and median concepts •Ratio •Percentages •HODs to monitor Content Coverage & generate reports.	•Textbooks. •DBE Self-Study Guide containing notes, questions and answers. •Previous question papers.	Jan-Sep 2016
		Conversion skill: •Units of distance, area and volume. •Units of mass e.g. pounds to kilograms. •Currency. •Time e.g. years to weeks.	•Distribute DBE Question Paper Exemplar Booklet.	•Distribute DBE Question Paper Exemplar Booklet.	•Distribute DBE Question Paper Exemplar Booklet.	•Use at least two currencies of different countries when teaching the exchange rates. •Use different contexts and media to reinforce the conversion of time e.g. Timetable Problems, TV guide booklet, posters, and games. •Learners should paste the matrix conversion sheet for the measurements in their work books.	•Internet resources. •DBE Question Paper Exemplar Booklet. •Magazines, Newspapers, Posters.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
MECHANICAL TECHNOLOGY	10	•Lack of basic concepts and content on Maintenance and Systems and Control.	•Provide content notes on general and specifics on Maintenance and Systems and Control.	•Provide content notes on general and specifics on Maintenance and Systems and Control. •Monitor curriculum coverage.	•Distribute e-copies of content notes on general and specifics on Maintenance and Systems and Control. •Distribute e-copies previous question papers.	•Teacher should teach basic concepts and content knowledge on general and specifics on Maintenance and Systems and Control.	•Distribute. •Mediate. •Monitor.	Jan-Sep 2016
		•Lacked basic concepts and content knowledge on general and specifics on Maintenance and Systems and Control.	Distribute DBE Question Paper Exemplar Booklet on general and specifics on Maintenance and Systems and Control.	•Distribute DBE Question Paper Exemplar Booklet on general and specifics on Maintenance and Systems and Control.	•Distribute e-copies of DBE Question Paper Exemplar Booklet on general and specifics on Maintenance and Systems and Control.	•Teachers should do more than just theory, and show learners concepts and content knowledge on general and specifics on Maintenance and Systems and Control. •Theory should be integrated into practical lessons in the mechanical technology workshop.	•Distribute DBE Question Paper Exemplar Booklet on general and specifics on Maintenance and Systems and Control.	Jan-Sep 2016
		•Tools and equipment.	•Use tools and equipment in the classroom.	•Distribute charts of tools and equipment.	•Distribute e–copies of charts on tools and equipment.	•Teach basic tools and equipment.	•Textbooks •Previous question papers and teaching models.	Jan-Sep2016
		•Lacked understanding on general and specifics on Maintenance and Systems and Control.	•Provide models of on Systems and Control.	•Print and distribute. •Organise workshops with Skills Training Centres on general and specifics on Maintenance and Systems and Control	•Print and distribute •Offer specialist training to teachers through Skills Centres.	•Teachers should teach basic concepts on general and specifics on Maintenance and Systems and Control.	•Print and distribute. •Offer specialist training to teachers through skills centres.	Jan-Sep 2016
	11	•Lacked basic concepts and content knowledge on general and specifics on Maintenance and Systems and Control.	•Provide e–notes on calculations on use on general and specifics on Maintenance and Systems and Control. •Monitor content coverage.	•Distribute e-notes to teachers •Provide booklets on general and specifics on Maintenance and Systems and Control Monitor content coverage.	•Distribute e-notes. •Provide training to teachers. •Monitor.	•Teachers should teach basic concepts on general and specifics on Maintenance and Systems and Control.	•Booklets •Previous question papers	Jan-Sep 2016
		•Lacked basic concepts and content on general and specifics on Maintenance and Systems and Control.	•Provide e-copies of Question Paper Exemplar Booklet.	•Distribute e-copies of Question Paper Exemplar Booklet.	•Distribute e-copies of Question Paper Exemplar Booklet.	•Gather sources from the internet on general and specifics on Maintenance and Systems and Control. •Use of exemplar questions and question papers as a teaching tool to expose learners to the different types of questions and how to respond appropriately. •Theory should be integrated practical lessons in the mechanical technology workshop.	•Internet resource & engineering articles on various topics should be used.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
	12	•Lacked basic concepts and content knowledge on the difference between vertical and horizontal components.	•Distribute models. •Provide notes on vertical and horizontal components. •Monitor content coverage.	•Print and distribute to teachers. •Provide workbooks. •Monitor content coverage.	•Textbooks. •Internet sources. •Previous question papers. •Monitor.	•Teachers should teach basic concepts and content on the difference between vertical and horizontal components.	•Print and distribute. •Provide training to teachers. •Monitor.	Jan-Sep 2016
		•Lacked basic concepts and content knowledge to use trigonometric angles to solve the problems.	•Provide content notes on trigonometric angles to solve the problems.	•Provide content notes on trigonometric angles to solve the problems. •Mediate. •Monitor.	•Provide e-copies of content notes on trigonometric angles to solve the problems. •Distribute e-copies of previous question papers.	•Teachers should teach basic use trigonometric angles to solve the problems.	•Distribute. •Mediate. •Monitor.	Jan-Sep 2016
		•Components of a clutch assembly.	•Provide exemplar on components of a clutch assembly and use teaching models. •Monitor teacher training.	•Access exemplar on components of a clutch assembly and use teaching models from Thutong and print for distribution. •Train teachers. •Monitor implementation.	•Distribute e-copies of charts on components of a clutch assembly and use teaching models.	•Teachers to teach components of a clutch assembly and use teaching models. •Use of exemplar questions and question papers as a teaching tool to expose learners to the different types of questions and how to respond appropriately.	•Distribute to schools •Teacher training •Monitor	Jan-Sep 2016
		•Components of turbines and advantages turbines.	•Print charts of components of turbines.	•Print and distribute components of turbines.	•Distribute e–copies of charts components of turbines.	•Teach basic concepts and content knowledge on components of turbines and advantages turbines. •Theory should be integrated practical lessons in the Mechanical Technology workshop.	•Print and distribute charts components of turbines.	Jan-Sep 2016
MUSIC	12-Oct	•Teachers neglected teaching of Indigenous African Music (IAM) content. •Learners lacked basic knowledge and understanding of IAM content. •Learners lacked reading skills. •Learners lacked writing skills. •Learners could not interpret basic subject terminology.	•Teach IAM content prior to exposing learners to the PAT. •Ensure that learners do a lot of reading on the PAT topic. •Teach learners to identify relevant content from sources. •Teach learners to summarise content in their own words. •Teach learners basic subject terminology.	Develop guidelines on basic subject terminology.	•Distribute to schools. •Monitor and support use in schools. •Monitor and support training in the districts. •Monitor impact.	•Identify and address gaps in teacher content knowledge. •Mediate support strategies. •Support, guide and monitor performance in the challenging content. •Mediate appropriate methodologies. •Conduct demonstration lessons in the challenging content area.	•Textbooks.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
PHYSICAL SCIENCES Paper 1 (Physics)	**10**	•Learners unable to use and/or no access to scientific calculators. •Unable to answer pure recall questions, state definitions, laws and principles. •Unable to convert to correct units and solve equations •Unable to draw, interpret and analyse graphs •Poor understanding of basic concepts like reference frame, wavelength, frequency, potential difference, and quantity of charge due to a lack of practical work. •Unable to answer multi-step problems. •Poor understanding of the vector nature of velocity, displacement and acceleration.	•Develop lesson plans. •Conduct lesson study. •Provide a guide to Practical Work. •Monitor curriculum coverage. •Provide support. •Source and share Grade 10 test and examination papers and memoranda with provinces. •Attend provincial and district subject committee meetings.	•Ensure that all Physical Sciences learners have a scientific calculator and are able to use it for both arithmetic calculations and trigonometry. •PEDs should provide all learners with a graph book. •Develop and distribute to learners a summary of all scientific terms, laws, principles, definitions and equations. •Source and distribute best practice on high quality class tests, homework exercises and examination papers. •Develop exemplar weekly "speed tests" (± 10 minutes) and these need to be given to learners to help them remember scientific terms, laws, principles, definitions and conversions. •Prepare and distribute a laboratory guide with detailed experiments and investigations. •Workshop teachers on practical work based on experiments and investigations in the curriculum. •Workshop teachers on "How to teach problem-solving in Physics" using vectors, motion in 1D and electric circuits as the context. Furthermore, teach problem-solving using examples that integrate different knowledge areas in Physics, e.g. electrostatics and motion.	•Ensure that all schools have equipment. •Ensure that Physical Sciences HoDs manage the curriculum effectively by monitoring and supporting them. •Monitor and support curriculum coverage. •Monitor and support implementation of SBA •Subject advisors should develop a Physical Sciences subject profile for each school. •Assist teachers on difficult concepts in vectors, motion in 1D, electric circuits and problem-solving that also include graphs.	•Ensure that all Physical Sciences learners have a scientific calculator and are able to use it for both arithmetic calculations and trigonometry. •Distribute to learners a summary of all scientific terms, laws, principles, definitions and equations. •Ensure that classwork and homework exercises include questions of high cognitive demand. Utilise questions from textbooks and past examination papers as well as other sources. •Provide learners with at least two problem-solving exercises that involve graphs in every knowledge area in physics, e.g. electricity, motion and waves. Give learners practice on doing these exercises using graph paper as well as ordinary exercise book pages. Use examples to relate the x-variable, y-variable and the concept of gradient to Physics concepts. •Give learners weekly "speed tests" (± 10 minutes) and these need to be given to learners to help them remember scientific terms, laws, principles, definitions and conversions. •Source and share best practice on Practical work, lesson plans and tests with other teachers. •Encourage learners to watch lessons that are broadcast on TV •Ensure that your school has equipment. •Give learners at least two problem-solving exercises every day. •Conduct all prescribed experiments and many of the recommended experiments/ investigations.	•Question Papers and Memos. •Textbooks. •Siyavula Physical Sciences Textbook. •Graph Books/Graph paper. •Exercise Books. •Counter Books. •Science Equipment. •Mathematical instruments. •Calculators.	Jan-Nov 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
	11	•Lacked understanding of topics done in grade 11, e.g. Newton's Laws, Electric Circuits, Faraday's Law and Electric Field. •Very poor mathematical skills especially relating to graphs, simultaneous equations, and negative numbers. •Unable to describe motion in words, diagrams, graphs and equations. •Unable to draw free-body diagrams •Unable to use and/or no access to scientific calculators. •Unable to answer pure recall questions, state definitions, laws and principles. •Unable to convert to correct units and solve equations. •Unable to draw, interpret and analyse graphs. •Poor understanding of basic concepts like wavelength, frequency, potential difference, static and kinetic friction due to a lack of practical work. •Unable to answer multi-step problems. • Poor understanding of the vector nature of velocity, displacement acceleration, static and kinetic friction.	•Develop lesson plans. •Conduct lesson study. •Develop a guide to Practical Work. •Monitor curriculum coverage. •Provide support. •Source and share Grade 11 test and examination papers and memoranda with provinces.	•Ensure that each Physical Sciences learner has a graph book. •Ensure that all Physical Sciences learners have a scientific calculator and are able to use it for both arithmetic calculations and trigonometric •Develop and distribute to learners a summary of all scientific terms, laws, principles, definitions and equations. •Source and distribute best practice on high quality class tests, homework exercises and examination papers. •Develop exemplar weekly "speed tests" (± 10 minutes) need to be given to learners to help them remember scientific terms, laws, principles, definitions and conversions. •Prepare and distribute a laboratory guide with detailed experiments and investigations. •Workshop teachers on practical work based on experiments and investigations in the curriculum. •Workshop teachers on "How to teach problem-solving in Physics" using Newton's laws, Electrostatics, Electricity and Photo-electric effect as the context. Furthermore, teach problem-solving in contexts that require the integration of concepts.	•Ensure that all schools have equipment. •Ensure that Physical Sciences HODs manage the curriculum effectively by monitoring and supporting them. •Monitor and support curriculum coverage •Monitor and support implementation of SBA. •Subject advisors should support teachers to manage the science equipment and/science laboratory. •Subject advisors should develop a Physical Sciences subject profile for each school. •Assist teachers on difficult concepts on vectors, Newton's Laws and electro-dynamics. •Subject advisors should support teachers on problem-solving that also include simultaneous equation, graphs and trigonometry.	•Ensure that grade 11 concepts that are examinable in grade 12 are revised further before the end of the year. •When doing the topics that are examinable in Grade 12, expose learners to questions from Grade 12 past examination papers (CAPS and pre-Caps) that cover these concepts •Ensure that all Physical Sciences learners have a scientific calculator and are able to use it for both arithmetic calculations and trigonometry. •Develop and distribute to learners a summary of all scientific terms, laws, principles, definitions and equations. •Ensure that classwork and homework exercises include questions of high cognitive demand. Utilise questions from textbooks and past examination papers as well as other sources. •Provide learners with at least two problem-solving exercises that involve graphs in every knowledge area in physics, e.g. electricity, Newton's Laws and waves. Give learners practice on doing these exercises using graph papers as well as ordinary exercise book pages. Use examples to relate the x-variable, y-variable and the concept of gradient to Physics concepts. •Give learners weekly "speed tests" (± 10 minutes) and these needs to be given to learners to help them remember scientific terms, laws, principles, definitions and conversions. •Source and share best practice on Practical work, lesson plans and tests with other teachers. •Encourage learners to watch lessons that are broadcast on TV. •Ensure that your school has equipment. •Give learners at least two problem-solving exercises every day. •Conduct all prescribed experiments and many of the recommended experiments/ investigations.	•Question Papers and Memos •Textbooks. •Siyavula Textbooks. • Graph Books. • Graph Paper. •Exercise Books. • Counter Books. •Science Equipment. • Mathematical instruments.	Jan-Nov 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
	12	•Lacked revision of concepts done in Grade 11, e.g. Newton's Laws, Electricity and Electrostatics. •Unable to use and/or no access to scientific calculators. •Unable to answer pure recall questions, state definitions, laws and principles. •Poor problem-solving skills. •Unable to solve problems that involve simultaneous equations, quadratic equations, binomials and negative numbers. •Unable to convert to correct units and solve equations •Unable to draw, interpret and analyse graphs •Poor understanding of basic concepts like wavelength, frequency, EMF, internal resistance, terminal potential difference, photoelectric effect, work and energy due to a lack of practical work. •Unable to answer multi-step problems. •Poor understanding of the vector nature of velocity, displacement acceleration, momentum and impulse. •Unable to relate mathematical concepts to physical quantities, e.g. gradient to HC.	•Develop lesson plans. •Conduct lesson study. •Develop a guide to Practical Work. •Monitor curriculum coverage. •Provide support. •Provide a booklet of past NSC and other examination papers and memoranda and distribute to learners.	•Ensure that every Physical Sciences learner has a graph book. •Ensure that all Physical Sciences learners have a scientific calculator and are able to use it for both arithmetic calculations and trigonometry. •Develop and distribute to learners a summary of all scientific terms, laws, principles, definitions and equations. •Source and distribute best practice on high quality class tests and homework exercises. •Develop exemplar weekly "speed tests" (± 10 minutes) and these need to be given to learners to help them remember scientific terms, laws, principles, definitions and conversions. •Prepare and distribute a laboratory guide with detailed experiments and investigations. •Workshop teachers on practical work based on experiments and investigations in the curriculum.	•Ensure that all schools have equipment. •Ensure that Physical Sciences HoDs manage the curriculum effectively by monitoring and supporting them. •Monitor and support implementation of SBA. •Subject advisors should develop a Physical Sciences subject profile for each school. •Subject advisors should support teachers on difficult concepts on vectors, Doppler effect, photoelectric effect, vertical projectile motion, Newton's Laws, work-energy-power and internal resistance. •Subject advisors should support teachers on problem-solving that also include simultaneous equation, graphs and trigonometry. •Source and distribute best practice on high quality class tests and homework exercises. •Develop/ source exemplar weekly "speed tests" (± 10 minutes) and these need to be given to learners to help them remember scientific terms, laws, principles, definitions and conversions. •Source and distribute best practice on practical work. •Workshop teachers on practical work based on experiments and investigations in the curriculum.	•Ensure that Grade 11 concepts that are examinable in Grade 12 are revised and included in classwork, homework and tests in Grade 12. •Ensure that all Physical Sciences learners have a scientific calculator and are able to use it for both arithmetic calculations and trigonometry. •Distribute to learners a summary of all scientific terms, laws, principles, definitions and equations. •Share and utilise best practice on high quality class tests and homework exercises with other teachers. •Give weekly "speed tests" to learners (± 10 minutes) and these needs to be given to learners to help them remember scientific terms, laws, principles, definitions and conversions. •Share and utilise best practice on practical work. •Distribute a booklet of past NSC and other examination papers and memoranda and distribute to learners. •Ensure that all learners have scientific calculators and are able to use them. •Ensure that your school has equipment. •Conduct all prescribed experiments. •Give learners at least two problem-solving exercises every day. Ensure that you also include problem-solving exercises that include graphs on all sections. Give learners practice on doing these exercises using graph paper as well as ordinary exercise book pages.	•Question Papers and Memos. •Textbooks. •Siyavula Textbooks. • Graph Books. •Graph Paper. •Exercise Books. •Counter Books. •Science Equipment. • Mathematical instruments.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
PHYSICAL SCIENCES Paper 2 (Chemistry)	**10**	•The scientific method and the basis of science versus other ways of knowing need to be inculcated in learners so that they can understand why they use the scientific methods in their thinking. •The foundation of the atomic theory and mole concept did not seem to be fully laid in Grade 10. •Basic stoichiometry seemed to be confined to some sections of the curriculum only to be developed using concrete models. •Basic concepts on all chemistry sections not well defined and explained. If concepts were well defined and explained, all learners would be able to understand the subject. •Calculations using BODMAS and involving conversation not well understood. •Complete all topics as prescribed in CAPS.	•Develop material for the scientific framework and share with teachers. •Facilitate programmes where teachers can access tutorials and materials. •HEIs and DBE to participate in course development for teachers. •Develop material explaining concepts for schools. •Develop booklets on calculations to be sent to schools. •Monitor completion of syllabus.	•Encourage teachers to enroll for courses agreed upon between DBE and HEIs. •Encourage schools to use materials developed by DBE. •Link promotion of teachers and PMDS to the successful completion of courses offered every year. •Provide relevant context based workshops. •Encourage use of materials beyond textbooks. •Monitor completion of syllabus.	•Avail materials developed by DBE to teachers. •Avail facilities for teachers to participate in this drive. •Promote the advancement of learning among teachers. •Districts to monitor use of booklets and integrate them as part of learning and teaching. •Districts to distribute materials to schools. •Monitor completion of syllabus.	•Use materials from DBE, PDE and districts. •Participate in projects that improve subject content. •Improve qualifications. •Use material provided by DBE and provinces. •Use variety of materials. •Teach all topics in CAPS.	•TV broadcasts and booklets.	Feb-Oct 2016
	11	•Basic concepts on all chemistry sections needed to be well defined and explained well. •Learners did not seem to understand the contexts for chemistry. •Case studies to be used in the teaching of chemistry to emphasise the concepts being taught. •More complex stoichiometric calculations to be rigorously done across all topics.	•Develop material for all basic concepts. •Contexts for all sections to be developed so as to show the relevance of sections. •Collect case studies to demonstrate relevance of concepts •Collect complex stoichiometric exercises	•Distribute material developed. •Use contexts in workshops rather than pure calculations and rote learning. •Collect case studies from communities and newspaper •Regularly provide complex activities throughout the year.	•Distribute material developed. •Encourage contexts in classroom teaching. •Use case studies for teaching and learning •Use complex scenarios from time to time	•Use materials from DBE and PDE. •Use contexts to explain concepts. •Use case studies preferably from own communities •Solve a variety of problems from many sources	•Tutorial booklets.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME FRAMES
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	
	12	•Completion of all topics as prescribed in CAPS, especially fertilisers. •More complex stoichiometric exercise to be given to learners across all topics. •Lack of integrations of chemistry concepts. Teaching happens in Silos.	•Monitor completion of syllabus. •Provide stoichiometric calculation throughout all topics in chemistry. •Provide integrated problems for learners to solve.	•Monitor completion of syllabus. •More stoichiometry across topics. •Use integrated problem solving approach in workshops.	•Monitor completion of syllabus. •More stoichiometric calculations across all sections. •Encourage integration of chemistry concepts.	•Complete the content in the CAPS. •Do stoichiometric calculations across all chapters. •Use more integrated problems to show relationships across concepts.	•Booklets.	Jan-Sep 2016
RELIGION STUDIES	10	Learners lacked essay writing skills.	•Monitor, support and e-mail to all provinces.	•PDEs to provide quarterly report on the number of paragraphs/essay writing activities covered by each district.	•Districts to report on the number of paragraphs, and the topics covered in each term in RS to PDEs.	•Teachers are required to teach paragraph and short essay writing techniques as part of daily activities to improve writing skills. •Teachers to show evidence of specific content/topic in their daily activities.	•Textbooks.	Jan-Sep 2016.
		Learners struggled with concepts. •Learners struggled with higher-order questions. Learners unable to answer higher-order questions.	Monitor, support, email guidelines to all PDEs.	•Co-ordinate process with teachers and subject advisors.	•Email/distribute and mediate exam guidelines to all teachers. • District officials to work with teachers and provide exemplars.	•Teachers need to teach higher-order skills in daily activities. •Teachers need to provide different levels of questions in the daily activities to assist learners on how to answer questions in the exams. •Teachers should make use of past exam papers as part of daily activities.	•Textbooks. •Internet, journals, newspapers and books.	Jan-Sep 2016
		Learners lacked content skills on specific topics.	•Monitor and email support material to all provinces.	•PDEs to email content and provide quarterly report on progress.	•Email /distribute and mediate content covered as per SBA task completed, either at school/province level.	Teachers must complete daily activities on all topics in religions and hone in specifically on the following: •Hermeneutics: •Secular world views. •All religions. •Governance of religions. •Religious concepts. •Researches on the theme studied for 2016 and link it to Religion. •Doctrines in all the Religion.	•Textbooks. •Internet, journals, newspapers and books.	Jan-Sep 2016
		Learners lacked essay writing skills.	•Monitor, support and email to all provinces.	•PDEs to provide quarterly report on the number of paragraphs and essay writing topics covered in districts.	• Districts to report on the number of paragraphs, and the topics covered in each term in RS to PDEs.	•Teachers are required to teach paragraph and short essay writing techniques as part of daily activities to improve writing skills. •Teachers to show evidence of specific content/topic in their daily activities covered.	•Textbooks.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Teachers lacked content knowledge.	•Monitor, support and e-mail report to all provinces.	•PDEs to assist in conducting workshops by soliciting the support of HEIs.	•District officials to assist PDEs in conducting the workshops with admin support, and appealing to teachers to attend the workshop	•Teachers to engage in research to improve content knowledge. • Invite guest speakers who have content knowledge on the topics. • Engage in twinning schools with those with information. • Invite subject specialist/teachers who have expert knowledge in the field.	•Textbooks. •Internet, journals, newspapers and books.	Jan–Sep 2016
		Teachers did not complete the compulsory sections that had to be taught as per CAPS and Exam Guideline.	•Monitor, support and email reports to all provinces.	•PDEs to coordinate and monitor content coverage.	•Monitor content coverage and provide reports.	•Complete content as per CAPS. • Ensure themes for 2016 are complete.	•Teachers must complete the following themes for 2016 as set in the Exam Guideline 2016: •Abortion • Substance abuse • Environmental ISS.	Jan-Sep 2016
TOURISM	10	Learners lack basic foundational knowledge. •Learners struggled to identify icons from pictures, locations and descriptions. •Basic knowledge on map work and sustainable and responsible tourism were non-existent.	•Compile a terminology list focusing on the following topics: tourism attractions, culture and heritage tourism; tourism sectors; sustainable and responsible tourism.	•Develop, print, mediate and distribute a basic concept and terminology list per topic to advisors.	•Print, mediate and distribute a basic concept and terminology list per topic to teachers.	•Implement individual subject terminology lists. •Teachers must teach basic concepts and terminology before teaching the topic, and use the correct subject terminology. •Use appropriate subject terminology during teaching.	•Basic concept and terminology list per topic. •Textbooks.	Jan-Sep 2016
		Below-average writing skills	•Redistribute ecopies of EAC Book 1 and 2 manuals to provincial and district advisors •Develop sample activities to illustrate various writing to learn activities.	•Mediate different types of writing to learn activities, monitor frequency and quality of activities.	•Mediate different types of writing to learn activities, monitor frequency and quality of activities.	•Give regular meaningful writing to learn activities. Minimum of 4 activities per week.	•EAC Framework. •Textbook.	Jan-Sep 2016
		Below-average reading skills	• Develop presentation to explain various types of reading strategies to PEDs. •Provide guidelines on how to use comprehensions to improve learning.	•Demonstrate various types of reading strategies to advisors. •Monitor and support training in the districts. •Print, distribute and mediate guidelines on how to use comprehensions to improve learning to advisors.	•Demonstrate various types of reading strategies to teachers. •Demonstrate strategies during subject meetings and school visits. •Distribute and mediate guidelines on how to use comprehensions to improve learning to advisors.	•Implement various types of reading strategies during teaching. •Expose learners to regular subject related reading activities. •Regularly expose learners to subject related comprehensions and how to read with understanding as informal assessment.	•Textbook.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Poor responses to higher-order questions, and lack of understanding of action verbs.	•Compile document to explain common action verbs and the expected responses.	•Provincial officials to print and mediate the document. •Illustrate to subject advisors how to support teachers in teaching the art of responding to higher-order questions. •Offer training to district officials on the use of past question papers.	•The district officials distribute, mediate and monitor the utilisation of the document. •Ensure all schools have copies of past question papers •Offer training to teachers on the use of past question papers.	•Use previous question papers as a teaching tool and informal assessment tool to expose learners to the different types of questions being asked and how to respond appropriately. •Set questions requiring various cognitive abilities as part of teaching and informal assessment. •Teach learners how to substantiate answers, this will ensure that learners are exposed to the way content can be tested and the type of questions that can be asked. •Practice the skill of responding to higher-order questions in class.	•Textbooks. •Past question papers.	Jan-Sep 2016
	11	Below-average reading skills.	•Develop presentation to explain various types of reading strategies to PEDs. •Provide guidelines on how to use comprehensions to improve learning.	•Demonstrate various types of reading strategies to advisors. •Monitor and support training in the districts. •Print, distribute and mediate guidelines on how to use comprehensions to improve learning to advisors.	•Demonstrate various types of reading strategies to teachers. •Demonstrate strategies during subject meetings and school visits. •Distribute and mediate guidelines on how to use comprehensions to improve learning to advisors.	•Implement various types of reading strategies during teaching. •Expose learners to regular subject related reading activities. •Regularly expose learners to subject related comprehensions and how to read with understanding as informal assessment.	•Textbook.	Jan-Sep 2016
		Paragraph responses.	•Mediate EAC processes. •Provide examples of how to infuse EAC into tourism lessons with various topics.	•Provincial officials train district officials on language across curriculum.	•Provincial officials train teachers on language across curriculum.	•Regularly assess learners on short and objective questions. •Teachers must infuse EAC into all topics and focus on developing and strengthening the 4 language pillars.	•EAC booklet.	Jan-Sep 2016
		Poor calculation skills: •Learners struggled to perform foreign calculations involving time-zones and foreign currency.	•Compile Self-Study Guide from past exam papers on calculations and provide to provinces. •Provide methodology presentations to PEDs.	•Print and distribute guide to districts •Offer methodology training to advisors on how to teach the topic. •Offer content training on the topic.	•Offer content training to teachers •Distribute Self-Study Guide to schools •Offer methodology training to teachers on how to teach the topic. •Offer content training on the topic.	•Offer in-depth basic theoretical knowledge about foreign currency. •Practice arithmetical skills relating to foreign currency on a regular basis. Give regular calculation exercises to practice.	•Self-Study Guide. •Textbook. •Past question papers.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Lack of basic visual literacy skills: •Struggled to interpret and respond to cartoons and other visual stimuli Poor Comprehension skills: •Inability to interpret texts; •Inability to answer questions •using own words; •Inability to infer meaning, i.e. implied /literal /figurative	•Develop and distribute basic guide on visual literacy and how to use and respond to visual stimuli.	•Provincial officials to print and mediate the document.	•District officials to distribute and mediate the document.	•Teach cartoon interpretation skills to learners. •Practice regularly in class to reinforce skill. •Expose learners to various forms of visual stimuli and how to respond appropriately.	•Visual literacy guide.	Jan-Sep 2016
		Poor responses to higher-order questions, and lack of understanding of Action Verbs.	•Compile document to explain common action verbs and the expected responses.	•Provincial officials to print and mediate the document. •Illustrate to subject advisors how to support teachers in teaching the art of responding to higher-order questions. •Offer training to district officials on the use of past question papers.	•The district officials distribute, mediate and monitor the utilisation of the document. •Ensure all schools have copies of past question papers •Offer training to teachers on the use of past question papers.	•Use previous question papers as a teaching tool and informal assessment tool to expose learners to the different types of questions being asked and how to respond appropriately. •Set questions requiring various cognitive abilities as part of teaching and informal assessment. •Teach learners how to substantiate answers, this will ensure that learners are exposed to the way content can be tested and the type of questions that can be asked.	•Textbooks. •Past question papers.	Jan-Sep 2016
	12	Learners lack basic foundational knowledge: •Learners struggled to use the map and identify the time zones of certain countries correctly. •Learners confused terms and concepts.	•Compile and distribute a summary of icons. •Compile and distribute a basic concept and terminology list focusing on the following topics: tourism attractions, culture and heritage, tourism sectors, sustainable and responsible tourism;	•Print, mediate and distribute a basic concept and terminology list per topic to advisors.	•Print, mediate and distribute a basic concept and terminology list per topic to teachers.	•Basic concepts and terminology must continuously be reinforced and revised to improve learners basic understanding a topic. •Use visual aids to make a lasting impression of a concept or term. •Teachers must teach basic concepts and terminology before teaching the topic and use the correct subject.	•Basic concept and terminology list per topic to advisors. •Textbooks	Jan-Sep 2016
		•Learners struggled to answer basic knowledge questions; they are unfamiliar with basic subject terminology.	•Demonstrate the advantages and use of a terminology book with PEDs at subject meetings,	•Canvas for the introduction and use of a terminology book.	•Canvas for the introduction and use of a terminology book.	•Introduce a subject terminology book/ section per grade/phase.	•Textbook.	Jan-Sep 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
		Lack of basic visual literacy: •Struggled to interpret and respond to cartoons and other visual stimuli Comprehension: •Learners were unable to interpret texts, answer questions using own words and to infer meaning, i.e. implied/literal/figurative.	•Develop and distribute basic guide on visual literacy and how to use and respond to visual stimuli.	•Provincial officials to print and mediate the document.	•District officials to distribute and mediate the document.	•Teach cartoon interpretation skills to learners. •Practice regularly in class to reinforce skill. •Expose learners to various forms of visual stimuli and how to respond appropriately.	•Visual literacy guide.	Jan-Sep 2016
		Calculations: •Learners struggled to perform time zone and foreign exchange calculations.	•Compile Self-Study Guide from past exam papers on calculations and provide to provinces.	•Print and distribute guide to districts. •Offer methodology training to advisors on how to teach the topic.	•Offer content training to teachers. •Distribute Self-Study Guide to schools. •Offer methodology training to teachers on how to teach the topic	•Learners lack basic theoretical knowledge about foreign exchange and time zones; •Arithmetical skills. •Learners not given regular calculation exercises to practice.	•Self-Study Guide. •Textbook.	Jan-Sep 2016
		Poor responses to higher-order questions, and lack of understanding of action verbs.	•Compile document to explain common action verbs and the expected responses.	•Provincial officials to print and mediate the document. •Illustrate to subject advisors how to support teachers in teaching the art of responding to higher-order questions. •Offer training to district officials on the use of past question papers.	•The district officials distribute, mediate and monitor the utilisation of the document. •Ensure all schools have copies of past question papers. •Offer training to teachers on the use of past question papers.	•Use previous question papers as a teaching tool and informal assessment tool to expose learners to the different types of questions being asked and how to respond appropriately. •Set questions requiring various cognitive abilities as part of teaching and informal assessment. •Teach learners how to substantiate answers, this will ensure that learners are exposed to the way content can be tested and the type of questions that can be asked. •Practice the skill of responding to higher-order questions in class.	•Textbooks. •Past question papers.	Jan-Sep 2016
		Paragraph responses: •Showed a lack of basic knowledge. •Candidates were not able to demonstrate sufficient knowledge about each subtopic to earn full marks. •Many learners struggled to express themselves in paragraph format.	•Provide teaching methodologies and guide for successful paragraph writing. •Provide examples of how to infuse EAC into tourism lessons. •Mediate EAC processes.	•Provincial officials to train advisors on teaching methodologies to improve paragraph writing.	•Provincial officials to train teachers on language across curriculum.	•Schools only assess learner on short and objective questions. •Learners see paragraph questions for the first time in the examination. •Teachers must consciously infuse EAC strategies into all topics and focus on developing and strengthening the 4 language pillars.	•EAC booklet.	Jan-Oct 2016

SUBJECT	GRADE	IDENTIFIED WEAKNESSES	REMEDIAL MEASURES AND RESPONSIBILITY AT EACH LEVEL IN THE SECTOR					TIME
			DBE	PED	DISTRICT	TEACHERS	RESOURCES	FRAMES
VISUAL ARTS	12-Oct	•Lacked concepts and content knowledge. •Failed to differentiate basic Visual Arts materials and their uses.	•Teach content and concepts on Visual Arts. •Gather a variety of sources from textbooks & internet for materials in the subject and their uses.	•Distribute booklets and notes on basic Visual Arts topics and concepts. •Print booklets on materials in the subject and their uses.	•Distribute booklets and notes on basic Visual Arts topics and concepts. •Set different questions on these topics. •Distribute booklets on materials in the subject and their uses.	•Distribute booklets and notes on these topics and concepts. •Set different questions on these topics. •Distribute booklets on materials in the subject and their uses.	•Distribute booklets and notes on these topics and concepts. •Set different questions on these topics. •Distribute, mediate & monitor booklets on materials in the subject and their uses.	Jan-Sep 2016

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