

Management & Leadership

POLICY

LEADERSHIP

MANAGEMENT

GOVERNANCE

for South African Schools

In this Issue

Code distributions of the 2009 NSC examinations 2

Our detailed analysis of the 2009 NSC results based on code distributions provided by the DBE.

Lessons from the NSC Examinations: How to pass matric. 8

Choosing the right subjects is a good place to start.

Results that matter 9

Passing is not enough, it is the quality of the results that matter.

New funding model for schools 10

A recently published draft amendment promises some funding relief for fee-paying schools.

The Minister's Budget Vote 12

Our summary of the Education budget presented to parliament on 23 March.

Parliamentary oversight of the DBE 15

Questions put to the Minister by members of the Parliamentary Portfolio Committee and the replies.

Meaningful data on the 2009 NSC examinations but still no averages

Most of this edition, like the last, has been largely devoted to newly-released data on the NSC examination. It is important data, particularly for high schools, as it provides further insights into this important national examination – currently the only externally set, marked and moderated assessment to measure the performance of every pupil in a particular year-group. It is also only the second year of its operation so we should expect some glitches and unexpected surprises. Besides some dishonesty by officials in Mpumalanga which was fortunately picked up early enough to prevent it tainting the whole examination, the entire process has gone off rather smoothly in both its first and second years, particularly at an organisational and administrative level. The DBE and its officials must be commended because it is a massive undertaking; but commending them for their organisational diligence does not mean that we should leave the data that it produced unexamined because it is this data – the marks achieved by pupils in each of the subjects written – that the whole examination is all about. It is important that we ask questions about how pupils did and whether the Physical Sciences examination was equivalent to the Mathematics examination and whether it in turn was equivalent in standard to that of Mathematical Literacy. Similarly, we need to ask whether all of our 11 languages are equal or whether there are some which are more equal than others.

In several of the articles in this edition, we have tried to use the new data provided to us by the DBE to look for answers to questions such as these, not to find fault but to ensure that where there are problems, these are identified so that remedies can be put in place – if not for the candidates who may have been disadvantaged in 2009, then at least to prevent prejudice to candidates in years to come. We have made some surprising discoveries in our further analysis, which we hope you, our readers, will find both interesting and informative. One of the most surprising is that the DBE does not calculate subject averages for NSC examinations and currently does not have the capability to provide this data.

We are conscious of the fact that this focus on the NSC data may be tedious to our readers who work exclusively in Primary Schools and we ask them to forgive us for this. We plan to correct this imbalance in the coming issues. Primary school principals, would, however, do well to ensure that they are fully apprised of the kinds of analysis that high schools undertake when they receive their results because with the advent of the systemic evaluation of all Grades 3 and 6 pupils in November this year, your time will come. ■

SM&L

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2009 NSC Results

Code Distributions for the 2009 NSC Examinations

Thanks to support from the DBE we were finally able to get hold of the subject code distribution data for the 2009 NSC examinations - but there are no subject averages so we took the liberty of calculating our own.

Thanks to support from the DBE and particularly from Chief Director: FET, Mr E Mosuwe and from Mr Willie Venter, National Systems Administrator, Directorate: FET Schools, we are finally able to provide you with the Rating Code distribution ("symbol distribution" in old terminology) for the 2009 National Senior Certificate examinations. The DBE provided us with the code distribution by province for all of the subjects written by candidates, a total of 483 sets of data in all. Because our space is limited, it has not been possible for us to publish all of this data for every province. However, schools which are interested in province-specific data for one or more subjects or national data for subjects which have not included can contact us and we will gladly provide you with the relevant data if we have it.

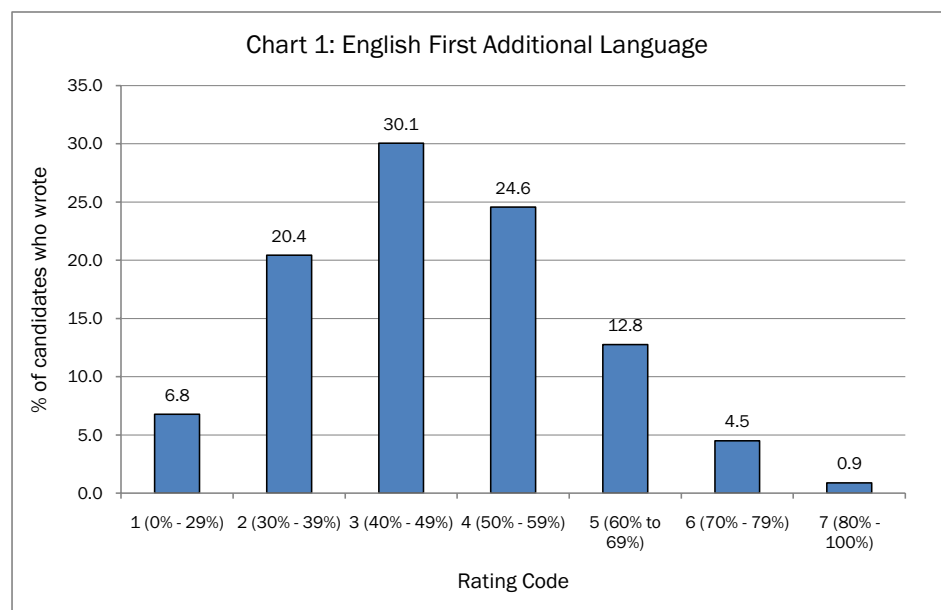
We have presented the code distribution data graphically because we believe that this makes it easier to understand the trends that the data reveals about the performance of the 2009 cohort of candidates. The graphs also reveal some interesting insights into the entire examination process from candidate preparation to the setting, marking and moderation of scripts and the extent to which the results are a valid, reliable and fair measure of candidate performance.

In our last issue (Vol. 4 No. 1 of 2010) we ran an article on the shape of the graph that one would typically expect from data that is normally distributed. One would expect to find a similar distribution pattern from the marks achieved by candidates in a national examination such as the NSC, which assesses the performance of candidates from a large and socio-economically diverse population. Typically in these examinations, the majority of candidates score marks which are centred around the average mark (mean) with increasingly fewer candidates scoring marks which are near the lower and upper limits. In the case of the NSC examination, these limits are 0% and 100% respectively.

Unfortunately the DBE was not able to provide us with the average mark as apparently their system does not yet provide for this. In an effort to address this shortcoming, we have used the code distribution data provided by the DBE to calculate what we believe is a reasonably accurate estimate of the National and Provincial averages for the subjects which we refer to in this article. The method we used to calculate these estimates of the averages is provided in a box elsewhere on this page.

The Code Distribution for English First Additional Language (Chart 1) is a good example of the normal distribution of marks. This chart shows that 30.1% of all candidates scored between 40% and 49%, while 26.2% scoring between 30% and 39% and 21.0% scoring between 50% and 59%. As we move outwards towards the minimum and maximum marks, the percentage of candidates falling into each of the code bands declines. There are 12.8% in the 60% - 69% band, 4.5% in the 70% - 79% band and just 0.9% in the 80% to 100% band. At the bottom end, 6.9% scored less than 30% and failed the subject as a result. Our calculation of the average for English FAL is approximately 47.8% and we would expect about half of the candidates to score more than 47.8% and half to score less than this. Unfortunately we do not have the information to check this but the figures do show us that 42.7% of candidates scored 50% and above and

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How we calculated the subject averages

In our letter to the Department of Basic Education (DBE) requesting the rating code distribution data for the 2009 NSC examinations, we also asked them to provide us with the averages for each subject. The averages were, however, not provided and in follow-up e-mail correspondence with Mr Willie Venter, National Systems Administrator, Directorate: FET Schools, we were informed that the current IT system which is used to capture, collate and adjust the marks, is not set up to provide the averages (means) and medians for individual subjects. We are most grateful to the DBE for providing the information on the rating codes and have been able to use this information to calculate what we consider to be a reasonably accurate approximation of the subject averages of the subjects for which we had requested data. Our estimation is that the figure that we have calculated will deviate by less than 2% from the true average for these subjects. Interestingly, the symbol distribution information for all subjects is available on the DBE website, published in response to a request for this information via a parliamentary question put to the Minister of Education by Mr James Lorimer of the DA.

We made the following assumptions in our calculations:

For rating codes 2 (30% - 39%), 3 (40% - 49%), 4 (50% - 59%), 5 (60% - 69%) and 6 (70% - 79%) we assumed that the average marks for those candidates who fell into each of these bands were 35%, 45%, 55%, 65% and 75% respectively. For codes 1 (0% - 29%) and 7 (80% - 100%) we assumed the average marks were 17.5% and 87.5% respectively. This because we assumed that there would be fewer candidates scoring at the extremes of 0% and 100% than the more median boundaries of 29% and 80% for these two code bands. We used these average marks for each band to calculate the total marks scored by the candidates in that band and totalled all of the marks from each band to calculate the sum of the marks for all candidates. This figure, divided by the total number of candidates who wrote the subject, is the subject average for that subject.

We were fortunate to have been sent a copy of the actual subject averages for the Western Cape, which has its own independent system to capture and collate the marks, and we used these to test the validity and reliability of our assumptions. These figures together with the averages we calculated are also given in an adjacent box.



57.3% scored less than 50%. The discrepancy indicates that a large number of candidates probably scored between the average mark of 47.8% and 50% - which is what we would expect.

English FAL should be a good benchmark result for the other subjects because of all of the subjects that form part of the NSC examination, it is the subject which is written by the largest number - and most representative group - of candidates. A total of 470 589 candidates wrote English FAL and the only large group that is not represented are those candidates who wrote English Home Language (HL). As can be seen from Chart 2, which illustrates the code distribution of the English HL candidates, the pattern of the code distribution is similar to English FAL, although the code band which includes the largest group of candidates is the rating code band 4 (50% - 59%).

The other home languages show a similar pattern to that of English, as can be seen from Chart 3, which illustrates the distribution code for the 5 official languages

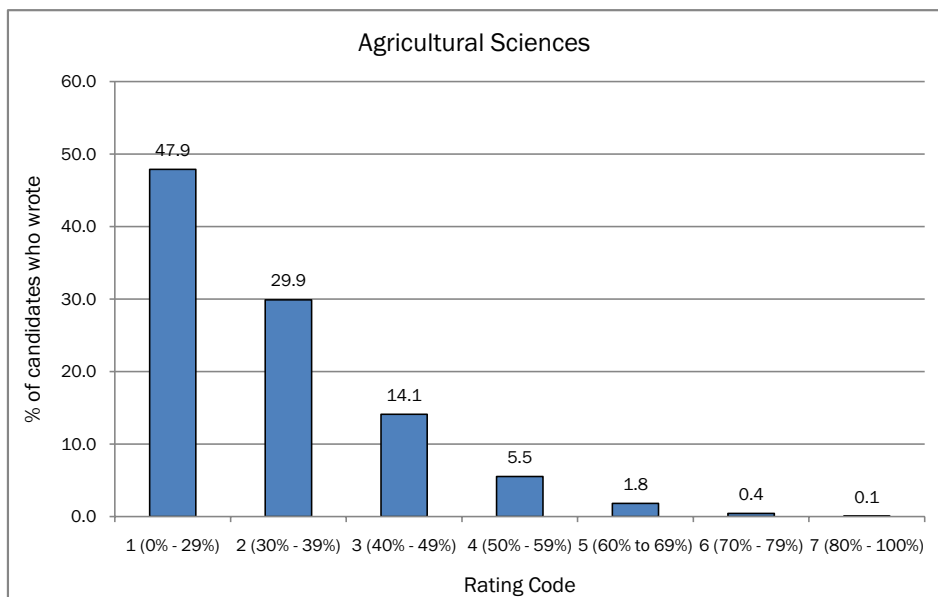
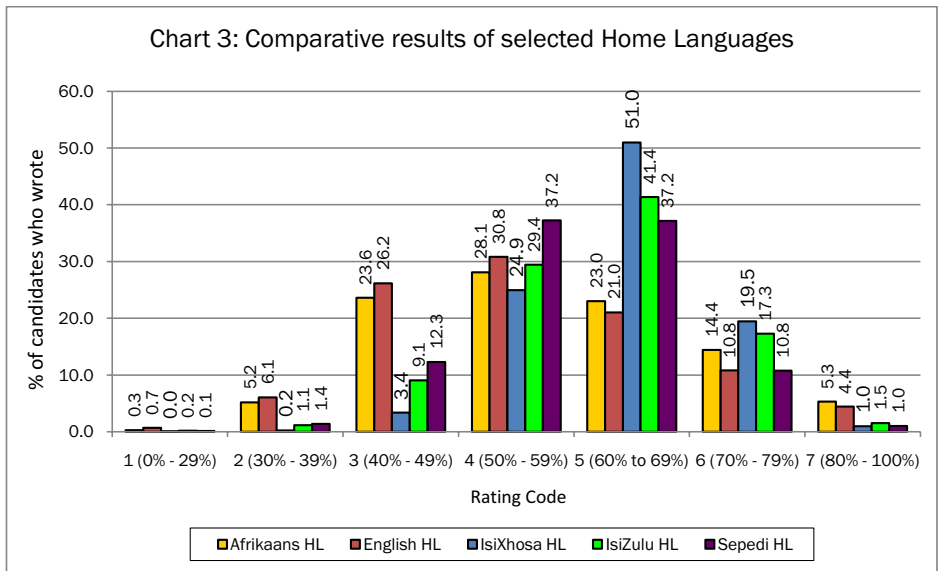
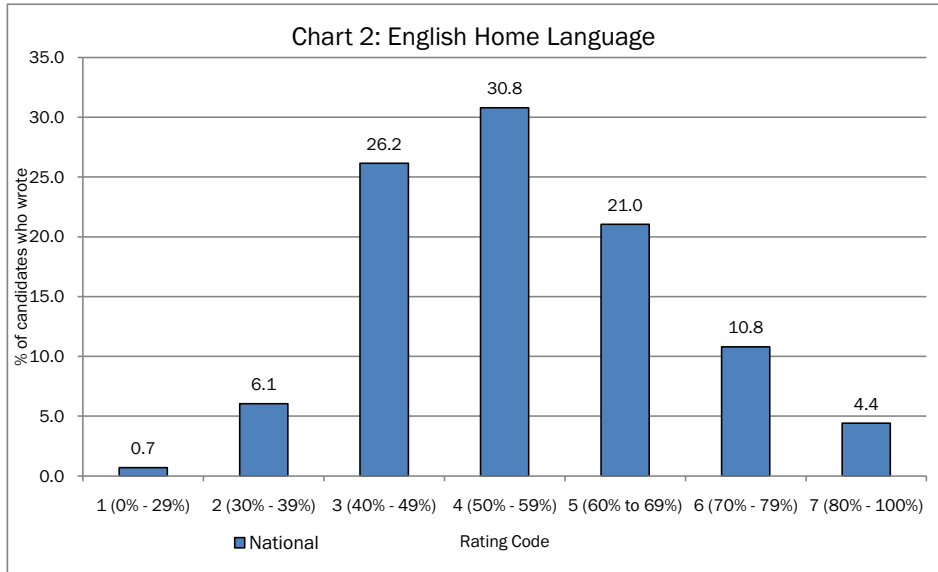
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Estimations of the National Averages for selected subjects

Subject	W. Cape (Actual)	W. Cape National (Calc.)	(Calc.)
Afrikaans HL	54.7	55.4	58.4
English HL	54.4	55.2	56.6
English FAL	53.0	53.4	47.8
isiXhosa HL	59.4	59.4	63.9
isiZulu HL	No W. Cape candidates		61.9
Sepedi HL	No W. Cape candidates		59.6
Accounting	42.3	42.1	35.4
Agric. Sciences	35.4	33.8	29.9
Business Studies	40.6	40.0	39.3
Economics	39.0	38.3	35.0
Geography	40.8	40.0	37.2
History	44.5	44.2	39.7
Life Sciences	42.7	42.2	37.1
Mathematical Lit	50.3	50.4	41.8
Mathematics	41.5	42.7	32.4
Physical Sciences	34.9	34.9	27.7

written by the greatest number of candidates. The languages are Afrikaans HL (55 549 candidates), English HL (98 192 candidates), isiXhosa HL (76 543 candidates), isiZulu HL (138 734 candidates), Sepedi HL (70 471 candidates). What is interesting about these results is that they show that the code distribution for English and Afrikaans is more dispersed than for isiXhosa, isiZulu and Sepedi, which have their results mostly concentrated in code bands 4 (50% to 59%) and 5 (60% to 69%). These languages have a relatively smaller proportion of candidates scoring in code band 7 (80% - 100%) and also fewer scoring marks in code band 2 (30% to 39%) and 3 (40% to 49%). Our calculations to estimate the averages of the five subjects also further illustrate these differences. Our estimates of the averages are Afrikaans - 58.4%, English - 56.6%, isiXhosa - 61.9%, isiZulu - 63.9%, Sepedi - 59.6%.

If one were to evaluate the performance of our education system only on the basis of the performance of candidates in the NSC examinations in the 11 official languages, one would be forced to conclude that it is performing rather well. However, the code distributions and averages for the non-language subjects provide a picture which is rather more bleak, as can be seen from the graphs of some of these subjects which we have illustrated on this and the following page. In virtually every one of these subjects, the code band which includes the largest group of candidates is rating code 1 (0% - 29%) which also represents those who failed the subject. In those few subjects where rating code 1 is not the largest group, the code band which includes the largest

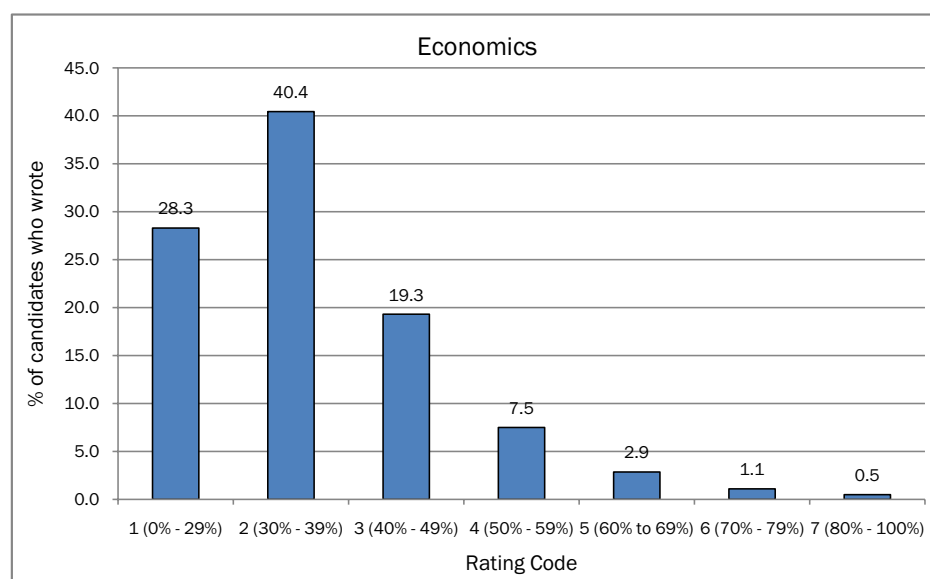
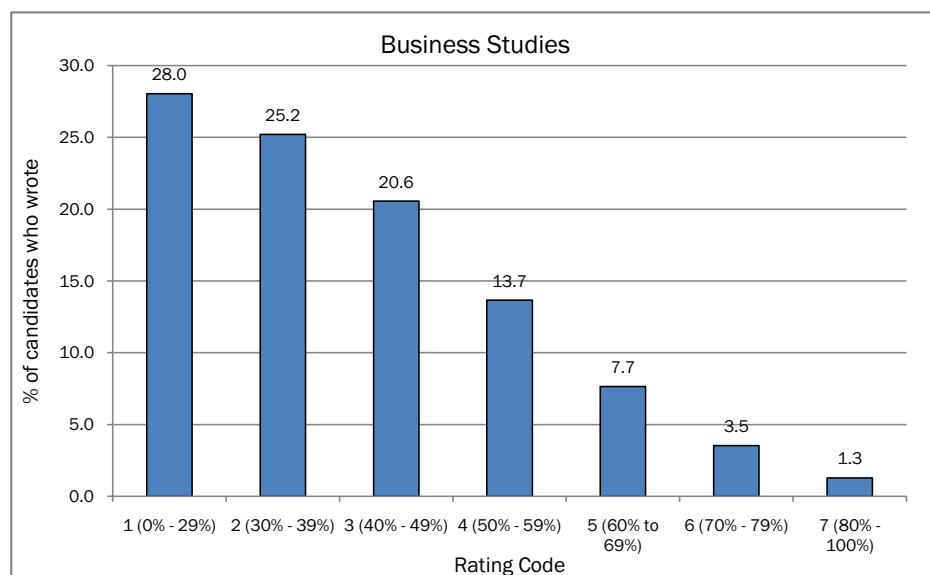
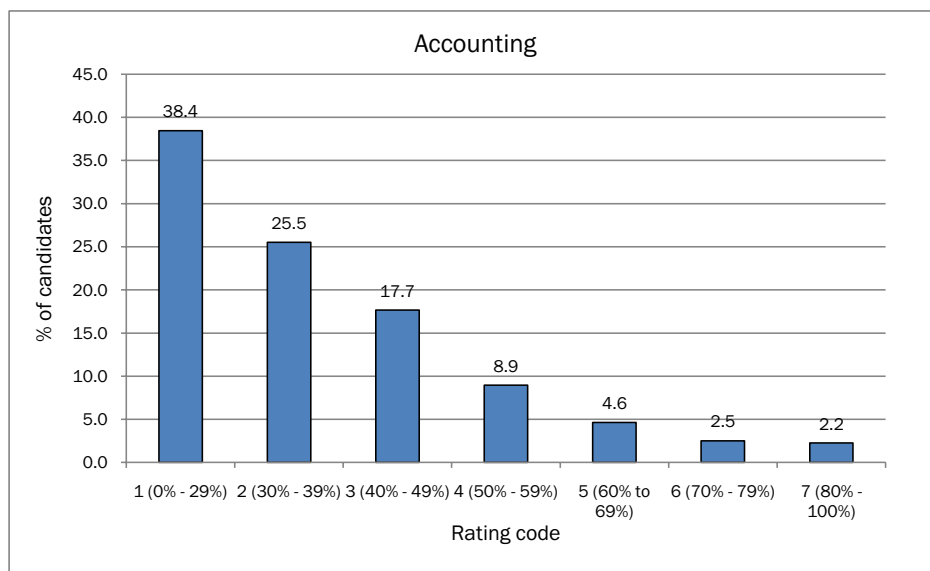




number of candidates is code band 2 (30% to 39%). These two bands account for more than 50% of all candidates in every one of these subjects with the exception of Mathematical Literacy, in which the figure is 48.7%. Our calculations of the national averages for these subjects suggest that they range between 27.7% for Physical Science to 41.8% for Mathematical Literacy. Compare this with the range of 56.6% - 63.9% for the home languages - a difference of between 20% and 30%, which is a very significant figure.

The picture that emerges is one of contradiction and paradox. Is our schooling system really producing pupils who perform well in languages, particularly their home language, and yet who perform poorly in everything else? If this is true, then it would seem that the language factor cannot be blamed for the poor performance of candidates in the non-language subjects. The fact that the majority of pupils in our schools are taught through the medium of English (a language which is not their mother tongue) is frequently cited as the major contributor to their poor performance. These results tend to contradict this fact, although language is clearly a significant obstacle to the ability of candidates to do well in their non-language subjects.

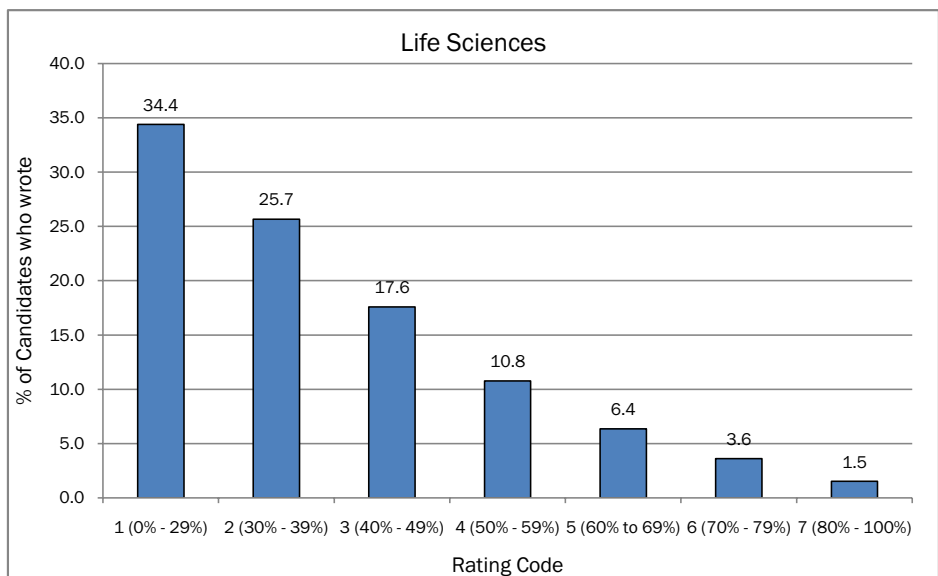
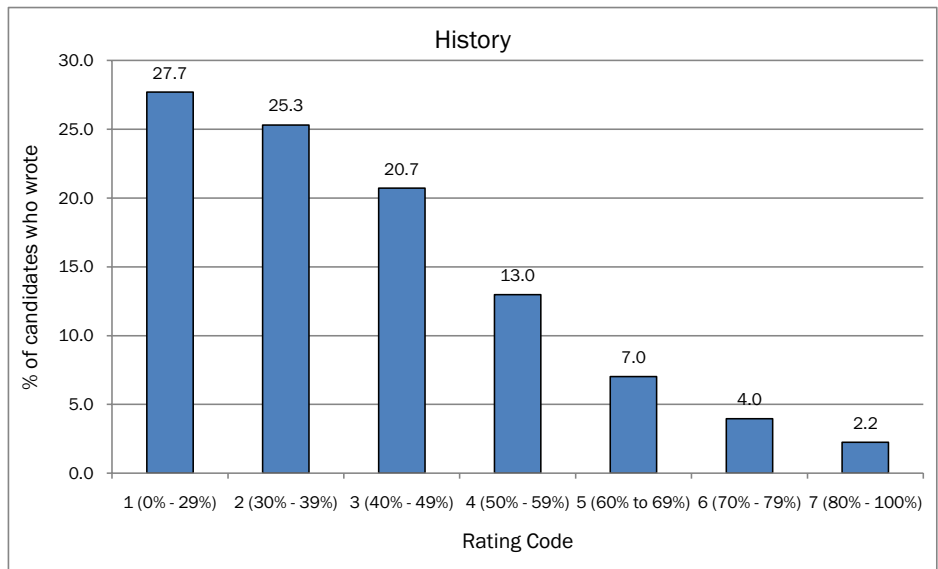
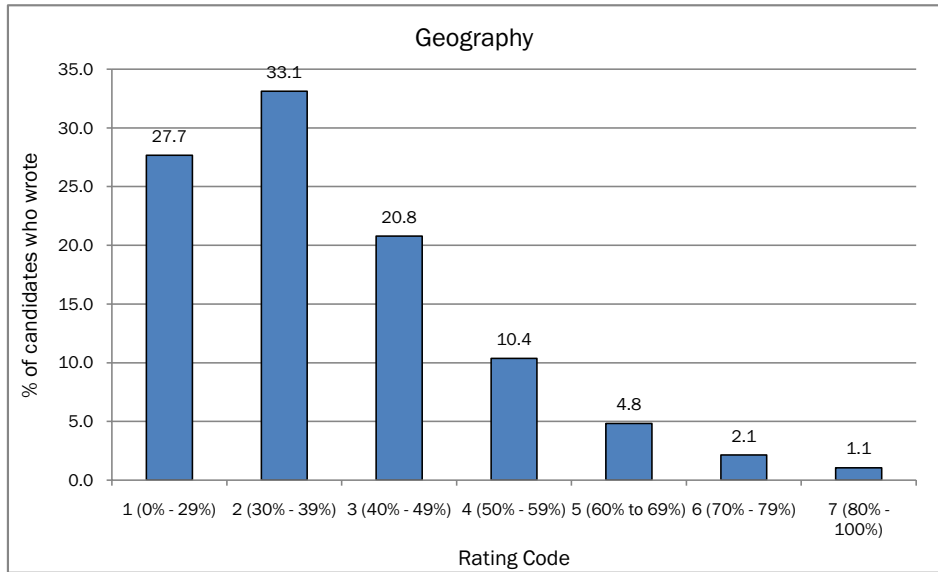
Given the very large differences in the performance of candidates in the languages relative to the other subjects, one is forced to conclude, however, that there are other factors at work and that their impact is significant. If this is true, then the need to identify these factors becomes a vital prerequisite for future improvement efforts. Poor



[Continued on page 6](#)

teaching must surely be a factor to be addressed, as evidence from research identifies “teaching quality” overwhelmingly as the most significant contributor to pupil performance. The message seems clear: good quality teaching is absent in the majority of our classrooms. Up to now, teachers and principals have not been held accountable for doing the work that they are required to do; but if the DBE is to be believed, this is about to change. One other significant factor may well be pupil effort: the amount of time that individual pupils spend on their studies each day outside of the normal teaching time. The work ethic of pupils (and teachers) at the best-performing schools is high - as anyone who has ever worked in these schools will attest to. The good results achieved by pupils who attend these schools are not only a result of better resources or better teaching, they are also a result of the persistence, diligence and hard work of the individual pupils themselves over the course of the entire school year.

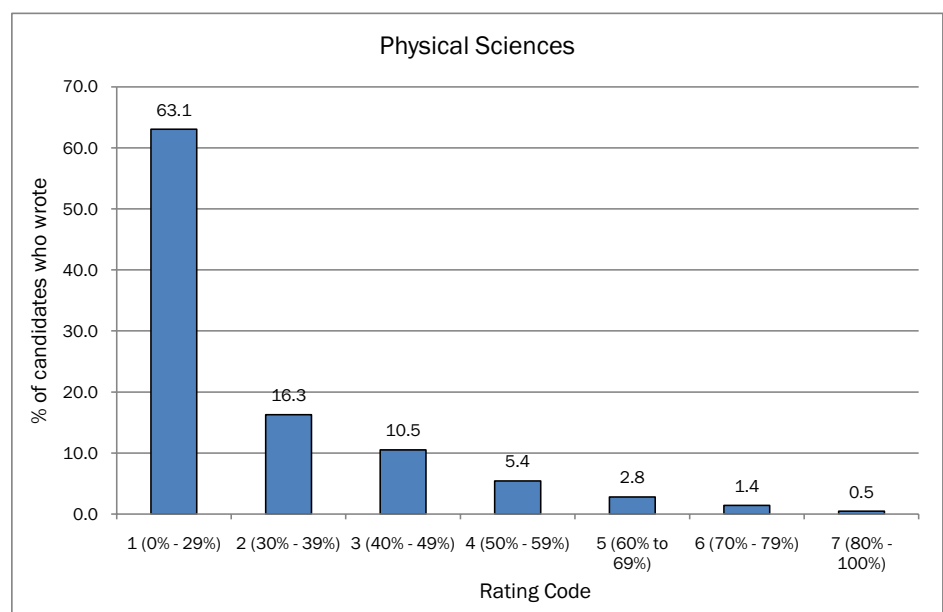
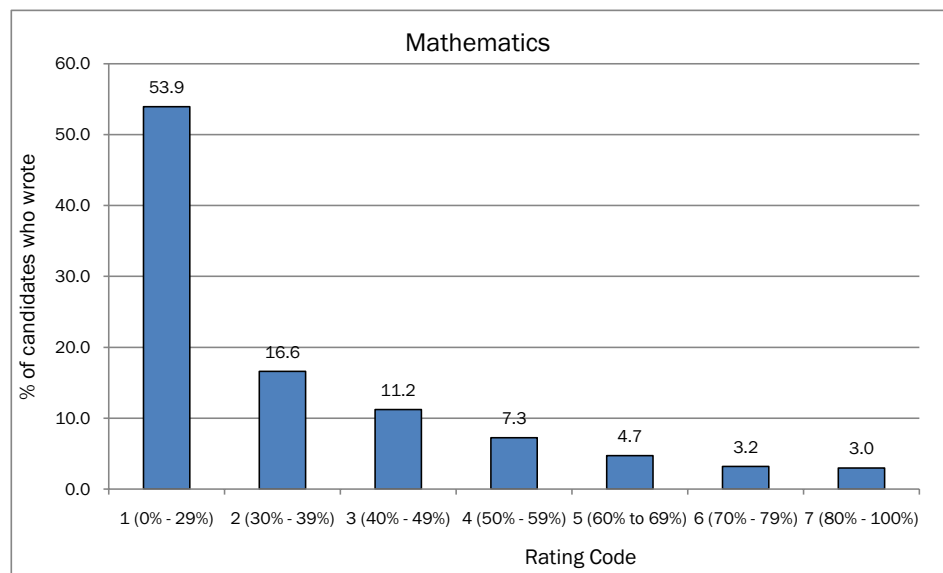
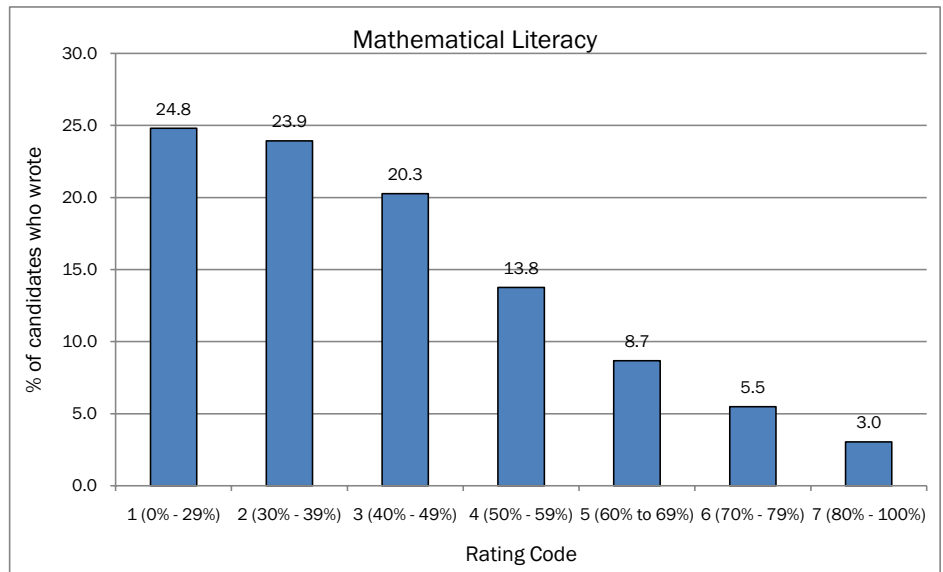
The more we have studied and analysed this data, the more it becomes clear that the poor performance of candidates relates to the teaching and learning of the non-language subjects and possibly correct language use in the teaching and learning of these subjects. Under-qualified teachers and teachers with poor language skills in the language of learning and teaching may well be to blame. Fixing these two problems will require ongoing intensive in-service training. This is training that will need to take place outside of normal school hours because the present allocation of teaching time is clearly insufficient.





Better guidance of pupils at Grade 9 level is also imperative to ensure that pupils choose subjects which they are capable of passing when they reach Grade 12. The decision to introduce national testing in Grade 9 this year – together with testing in Grade 3 and 6 – will provide schools with the nationally-benchmarked hard evidence that they need in literacy and numeracy to provide pupils with this guidance. The DBE could support this process by providing guidelines to schools about minimum requirements for pupils who wish to select subjects such as Mathematics, Accounting and Physical Sciences in Grades 10 to 12. We suggest a minimum mark of 60% for both literacy and numeracy become a requirement for those who wish to take these three subjects to Grade 12. Those pupils who pass but who score less than 40% in the externally set literacy and numeracy tests should be strongly advised to further their education at the rapidly-evolving FET colleges, where they can learn skills which will make it possible for them to find gainful employment when they emerge as college graduates.

All of the above assumes, however, that the NSC language examinations have been set and assessed to an internationally-benchmarked standard and one which is in line with the other subjects. This applies particularly to the languages at Home Language level. It is an assurance that has been repeatedly given when the standard of the NSC has been questioned. If this is not so, then the problems with our education system are deeper than we imagined and the need and the determination to fix them are more grave. ■



Curriculum

Lessons from the NSC examinations: how to pass matric

Choosing the right subjects is a good place to start.

In the previous edition of **SM&L** we published two articles, each of which provided a detailed analysis of the 2009 NSC examination results. The first, "Whatever happened to the ogive curve?", dealt with the results in general while the second, "Physical Sciences – who dropped the ball?", as its title suggests, focused particularly on problems relating to the poor Physical Science results. It was while doing the analysis of the results for these two articles that it became apparent to us that the low pass rate of candidates in the NSC examinations as a whole may be at least partly attributable to their having failed both Mathematics and Physical Science. We alluded to this in one of the articles but further analysis on our part has shown that our assumption may be correct and that a large number of candidates failed because they chose to take both Mathematics and Physical Science, two difficult subjects which they were unable to master at NSC level.

In order to be awarded National Senior Certificate candidates must meet the following academic criteria:

- Achieve at least 40% in a Home Language (HL).
575 744 (or 97.6%) of candidates who wrote a Home Language met this requirement

English Home Language, in which 93.2% of candidates scored 40% and above, was the language with the lowest percentage of candidates who achieved at this level. In all of the other Home Languages except Afrikaans (in which 95.6% of candidates scored 40% and above), the percentage of candidates who scored 40% and above was more than 98%. A simple calculation shows that the total number of failures which could be attributable to candidates failing a Home Language is 1 777 (or 2.45%) of all candidates.

- Achieve 40% in two other subjects.

We have chosen these to be a First Additional Language and Life Orientation because these are the subjects (of those remaining) which had the highest percentage of candidates who passed with 40% or more.

- First Additional Language (For most candidates this is English).
426 948 (or 73.2%) of candidates who wrote a First Additional Language met the requirement of passing with 40% or more.

Because of the number of candidates who wrote English as their First Additional Language is so large and because it is also the additional language in which candidates performed most poorly (72,4% achieved a score of 40% or more) the English result had a significant impact on the number and percentage of candidates who met the 40% requirement.

- Life Orientation
566 639 (or 98.5%) of candidates who wrote Life Orientation met the requirement of passing with 40% or more.
- Achieve 30% in three other subjects; one of these must be either Mathematics or Mathematical Literacy
 - Mathematical Literacy
207 326 (or 74.7%) of candidates who wrote Mathematical Literacy met the requirement of passing with 30% or more. By comparison, the figure for Mathematics was 133 505 (or 46%) of those who wrote the subject.

It is these remaining two subjects which are important because this is where making the correct choice will assist weaker candidates. The non-language subjects with the best pass rates (30% and more) were the following:

- Geography 155 481 (72.3%) candidates passed with 30% or more;
- History 65 025 (72.2%) candidates passed with 30% or more;
- Business Studies 148 469 (71.9%) candidates passed with 30% or more;
- Economics 109 955 (71.6%) candidates passed with 30% or more.

The other subjects all have pass rates which are below 70% and it is failures in these subjects that clearly contributed most to the failure of candidates to meet the requirements for an NSC. The number of candidates who passed with 30% or more in each of these subjects is given below, together with (in brackets) the percentage of candidates who wrote the subject that this represents.

Continued on page 14

2009 NSC Results

Results that matter

Passing is not enough - it is the quality of the results that will determine the opportunities that are available to those candidates who manage to pass.

While exiting school with a National Senior Certificate at the end of Grade 12 is an important first step on the road to future employment for school leavers, it is the quality of those results that will determine the opportunities that are available to them. One of great concerns is that the fixation of the current education debate on quantity, as in number of passes, rather than on quality.

In her budget speech to Parliament, Education Minister Angie Motshekga provided two good examples of this. Both relate to the achievement targets that the DBE has set itself for 2014. They are that:

- the number of Grade 12 learners who pass the national examinations and qualify to enter a Bachelor's programme at a university will increase from 105 000 to 175 000 and
- the number of Grade 12 learners who pass Mathematics and Physical Sciences will be 225 000 and 165 000 respectively;

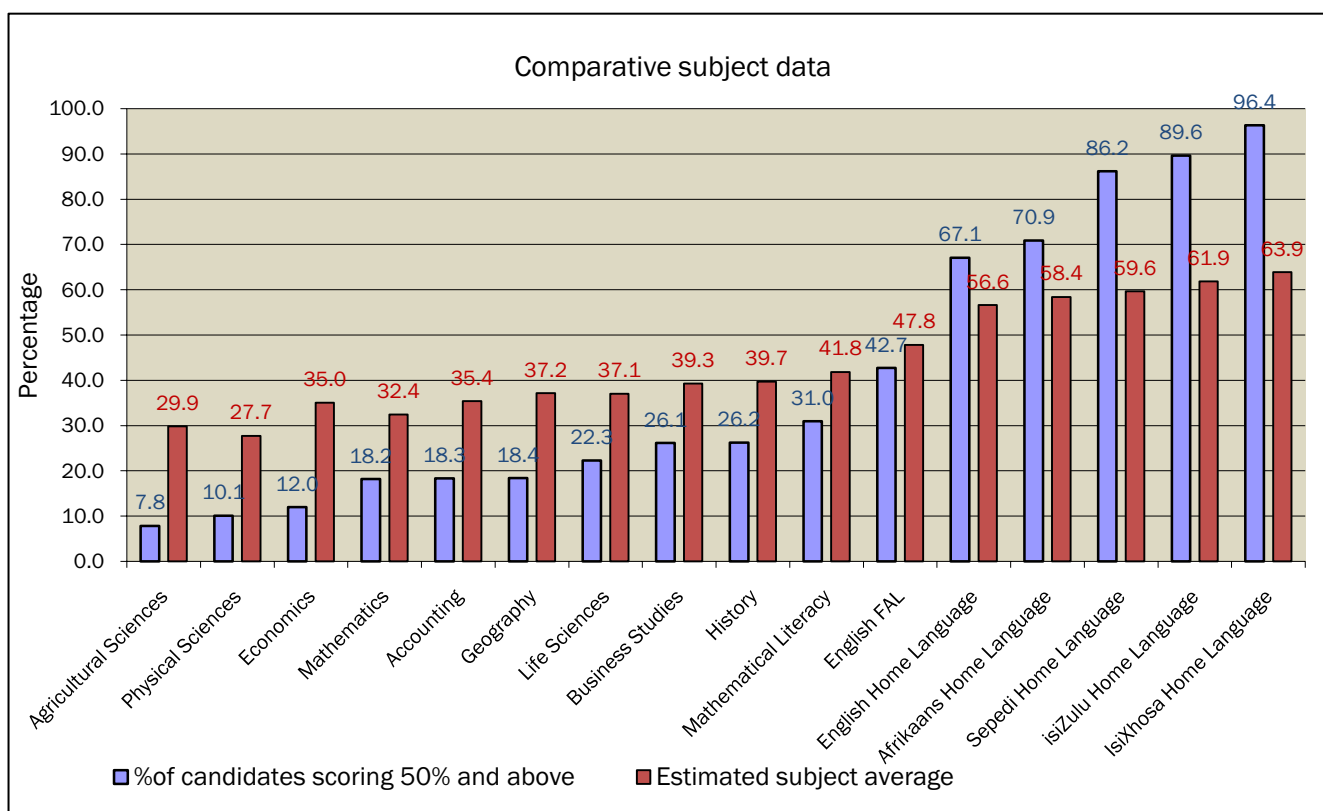
Both of these are laudable and challenging targets and the first has a quality component to it, in that it refers to NSC passes which meet the minimum standards for admission to a Bachelor's programme at

a university. But we believe that simply increasing the number of passes in Mathematics and Physical Science will not provide the kinds of levels of skills in the numbers required for the economic growth that this country so desperately needs.

The chart below provides a useful perspective to illustrate what we mean. The chart plots the percentage of candidates in each of the major subjects in the 2009 NSC examinations who achieved at 50% and above in these subjects. This is a figure that we believe provides a reasonable guarantee that the candidate has a moderate level of competence in the subject – this applies particularly to subjects such as Mathematics, Physical Sciences, Accounting and the candidate's home language or mother tongue. The chart also shows, for comparative purposes, the subject average as calculated¹ by us for that subject.

The chart shows quite clearly that the percentage of candidates who scored at 50% and above is alarmingly low – fewer than 30% for all subjects other than the languages and Mathematical Literacy, and fewer than 20% for critical subjects like Mathematics, where the figure is 18.2%, and Physical Sciences, where it is a dismal 10.1%.

Continued on page 11



New Funding Model for Schools?

A recently published draft amendment to the Norms and Standards for School Funding suggests there may be some funding relief for fee-paying schools.

The Department of Basic Education (DBE) has recently published a draft of proposed amendments to the *National Norms and Standards for School Funding*¹ for public comment.

The schedule proposes to amend the Norms and Standard for School Funding in three respects:

1 Funding of Special Schools (Section 4A of SASA)

The Schedule defines Special Schools as either:

- a special school to provide education for learners with barriers to learning; or
- as a special school which provides education with a specialised focus.

The amendment requires that the MEC determines the basis and conditions for the funding of Special Schools in the absence of national funding norms.

In essence, this means that the funding of Special Schools will rest with the provinces unless the Minister decides to determine funding norms.

2 The recognition of Governing Body associations for funding purposes² (Section 145A of SASA)

The amendments will permit the Head of Department for Basic Education to recognise voluntary associations representing SGBs, bodies such as the Governing Body Foundation (GBF) and the Federation of School Governing Bodies (FEDSAS) and sets out the conditions under which such association will be recognised. These include the following:

- the members of the association must have approved and adopted a written constitution;
- the association operates as a not-for-profit organisation that seeks to promote the interests of education through its members;
- the membership clause of the association is not discriminatory, particularly in relation to school quintile or level of poverty;
- the membership base of the association represents at least 10% of the public schools in a province. Associations will be given a 3-year grace period to reach this membership level.

In terms of the proposed amendments, public schools which are members of associations that are officially recognised by the HOD become eligible for a funding subsidy to assist them in paying the subscription fee of the association of which they are members. The proposed subsidy is equivalent to double the national target per learner allocation for the quintile assigned to the school. Based on the 2010 per learner allocation, this works out as R1 710 (2 x R855) for quintile 1 schools and R294 (2 x R147) for quintile 5 schools.

SGB associations will also be provided with funding for purposes of “capacity building” i.e. for training of SGB members. This training need is not restricted to the SGBs of member schools only. The schedule includes proposals which establish the basis on which this funding will be provided and processes involved in applying for this funding.

3 Compensation for Fee Exemptions (Section 170A of SASA)

It is this section of the amendment which is likely to have the most direct impact on schools as it establishes a formula by means of which fee-paying schools will receive additional funding from the PED for those learners who are fully or partially exempt from the payment of fees.

In essence, fee-paying schools will be able to claim a portion of the difference between the per-learner allocation that the school receives in terms of its quintile and the no-fee threshold value for the year for each learner who is partially or fully exempt from the payment of fees in terms of the Norms and Standards of School funding.

So, for example, if the school's per learner allocation for the year is R100 and the Norms and Standards threshold declared by the Minister is R780, the school will be able to claim a portion of the difference between these two figures (R680) for each learner who is fully or partially exempt from the payment of school fees. The calculation used to determine the proportion of the amount that can be claimed takes into account two variables:

- the number of days that the individual learner has attended school – this to make allowance for learners who join the school during the course of the year;





- the percentage of the school fee that the learner is legally required to pay in terms of Norms and Standards fee-exemption rules.

Using the information and formulae provided in the document, we did several calculations in an effort to get a rough estimate of the amounts of money that may be involved. In each of the examples we have used R780 as the no-fee threshold for the year and have assumed that fee-exempt learners were all enrolled in the school for the full school year.

Example A

A quintile 5 school with 500 learners of which 100 are fully or partially exempt from school fees and a per-learner allocation for the year of R147 – the 2010 per-learner allocation for Quintile 5 schools.

If all of the exempt learners were fully exempt from school fees, the school would receive an additional R64 000.00 for the year.

If of the 100 fee-exempt learners 20 were 100% exempt, 20 were 80% exempt, 20 were 60% exempt, 20 were 40% exempt and 20 were 20% exempt, the school would receive an additional R32 000.00 for the year.

Example B

A quintile 4 school with 500 learners of which 300 are fully or partially exempt from school fees and a per-learner allocation for the year of R428 – the 2010 per-learner allocation for Quintile 4 schools.

If all of the exempt learners were fully exempt from school fees, the school would receive an additional R107 000.00 for the year.

If of the 300 fee-exempt learners 60 were 100% exempt, 60 were 80% exempt, 60 were 60% exempt, 60 were 40% exempt and 60 were 20% exempt, the school would receive an additional R36 000.00 for the year.

Note: We have rounded the final amount to the nearest R1 000.00. Our calculations also do not take into account a provincial budgetary factor which may have a substantial influence on the per-learner allocation. This factor is influenced by the budgetary amount which PEDs allocate to compensate fee-paying schools for learners who are partially or fully exempt from the payment of school fees.

There are two caveats to all of this:

- 1 Schools may only claim if the total Full Time Equivalent (FTE)³ of learners who are exempt from fees is at least 5% of the FTE of all of the learners

enrolled in the school. A school of 500 learners would therefore need to have at least 25 learners enrolled at the school who are fully or partially exempt from having to pay fees in order to claim.

- 2 The figure produced by the calculation determines the amount that will be paid to the school for the following year as compensation for loss of fee income through exemptions in the current year.

The Government Notice can be downloaded from the DBE website, <http://www.education.gov.za/>. ■

Notes

¹ The proposed amendment was published as *Government Notice No. 194* in the *Government Gazette* of 12 March 2010. They are amendments to the SASA which is the Act that establishes the regulatory framework for the Norms and Standards for School Funding.

² “Recognition of a Voluntary Association Representing Governing Bodies of Public Schools for purposes of funding”

³ FTE: This is the number of days that a learner is enrolled in the school divided by the official number of school days for the year. For a learner enrolled for the full school year the figure is therefore = 1

[Continued from page 9](#)

Results that matter

What we need is not more candidates taking and passing these subjects at a basic level but more candidates passing these subjects at a reasonable level. This will not be easy to achieve for a range of reasons, perhaps the most pressing being the shortage of well-qualified and competent teachers of these subjects. The poor pass rates and low averages for these subjects provide clear evidence of how the decisions by large numbers of candidates to take these subjects when they do not have basic numeracy skills to succeed in them skew the results: more than 156 000 candidates failed Mathematics in 2009 and nearly 140 000 failed Physical Sciences. Most of the candidates probably had little - if any - chance of succeeding in these subjects from the moment they chose them in Grade 10 and were simply a drain on scarce teacher resources. It would be better to be more honest and emphatic in our advice to pupils and more selective about which candidates are accepted into subject fields where the expert teachers so important for success in these subjects are in short supply. ■

Notes

¹ For more about why and how we calculated these averages see the box “How we calculated the subject averages” on page 3.

Policy and Finance

The Minister's Budget Vote

When Minister Angie Motshekga presented the DBE's budget to Parliament on 23 March she set herself some challenging targets.

In presenting her budget to Parliament on 23 March, Minister Motshekga covered 6 key areas.

Targets

- to increase the number of Grade 12 learners who pass the NSC and qualify to enter a Bachelor's programme at a university from 105 000 to 175 000;
- to increase the number of Grade 12 learners who pass Mathematics to 225 000 and those who pass Physical Sciences to 165 000;
- to improve the percentage of learners in Grades 3, 6 and 9 in public schools who obtain the minimum acceptable mark in the national assessments for language and mathematics (or numeracy) from the current figure of between 27% and 38% to at least 60%.

In order to support the achievement of these targets the DBE plans to:

- provide universal access to Grade R by 2014 for all age-appropriate children;
- ensure that "adequate" learning and teaching materials are developed and distributed to identified selected schools – one must assume that these are under performing schools or particular categories of schools such as no-fee schools;
- introduce annual standardised national assessment in literacy and numeracy/ Mathematics of learners in Grades 3, 6 and 9.

Schooling 2025

Schooling 2025 is the name the DBE has given to a long-term action plan that it is working on. According to the Minister, once developed, the plan will make it possible for the DBE to monitor progress against a set of "measurable indicators covering all aspects of basic education". These indicators include measures of the enrolment and retention of learners, "teachers", (We are not sure what this entails but

assume it must relate to teacher quality or performance. Ed.), infrastructure, school funding, learner well-being and school safety, mass literacy and educational quality.

Improving the curriculum

Much of this relates to the Minister's acceptance of the recommendations of the committee which undertook the Review of the Implementation of the National Curriculum Statement. The Minister indicated clearly in her presentation that there would be both short-term and longer-term interventions aimed at addressing some of the problems identified

by the Review Committee. Most of the short-term interventions are already in place. These include the reduction in the number of projects, and the abandonment of the need for portfolios of learner assessment and of the Grade 9 CTAs.

Longer-term interventions will be based on the work of three committees which the Minister has established. These are:

- A committee to develop clear curriculum guidelines for what teachers are expected to teach in each grade, as per the

recommendations of the Review Committee. The time frame for this committee to complete its work is 2 years, which is double what was recommended by the Review Committee but, according to the Minister, this will allow the committee not only to consult widely but also to test the statements with teachers. This committee will be chaired by Dr Cassius Lubisi.

- A committee to consider and make recommendations on the reduction of the learning areas in the Intermediate Phase from eight to six learning areas. This committee will be chaired by Prof. John Volmink and will be required to consider all possible implications of

Targets

- increase the number of Grade 12 learners who qualify to enter a Bachelor's programme from 105 000 to 175 000;
- increase the number of Grade 12 learners who pass Mathematics to 225 000 and who pass Physical Sciences to 165 000;
- improve the percentage of learners in Grades 3, 6 and 9 in public schools who obtain the minimum acceptable mark for language and mathematics to at least 60%.
- at least 8 000 principals and deputy-principals completing the ACE:SL course.

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the intended changes including the time-tabling, human resources and legal implications of the intended changes, together with the time-lines for implementation. This committee is expected to report by the end of April.

- A committee to report on improving the distribution and use of Learning and Teaching Support Materials (LTSMs) in schools. This committee will be chaired by Mr Garry Rosenberg and is expected to present its report towards the middle of the year and to make recommendations on guidelines for a national catalogue of LTSMs together with price guidelines. In making these recommendations, the committee is expected to consider such things as teacher choice, quality, and cost effectiveness.

In an effort to ensure that the entire schooling system is kept abreast of what is happening in relation to the curriculum, the DBE plans to publish and distribute *Curriculum News*, a curriculum newsletter, to all teachers and officials, once each school quarter. The first edition was published and distributed at the start of this year and it also available on the DOE website.

Budget

The DBE budget for the 2010/2011 financial year has been increased by R2.23b to R6.166 billion. The additional funds have been allocated to the DBE in support of the following priorities:

- The provision of school feeding to Quintile 2 secondary schools.
- The supply of learners' workbooks (R750 million is allocated for the 2010/2011 financial year increasing to R1 billion in 2012/13)
- The establishment of the National Education and Evaluation and Development Unit (NEEDU). R11.031 million has been set aside for this purpose for the 2010/2011 financial year.
- Funza Lusaka bursaries (R424 million in 2010/11 increasing to R471.9 million in 2012/13). This is the bursary fund for student teachers and pays the full cost of their studies.
- The recapitalisation of technical high schools (R80 million for 2010/2011 financial year).
- Kha Ri Gude campaign. This is the DBE's successful adult mass literacy campaign.
- Workbooks which are provided as part of the Foundations for Learning Programme; the provision of Learning and Teaching Packs for Grade R teachers which have been distributed to

13 900 schools; and the distribution of Lesson Plans in Literacy and Numeracy for Grades 1 – 6 to teachers in primary schools (R750 million has been allocated for the 2010/2011 financial year increasing to R1 billion in 2012/13).

National Education Evaluation and Development Unit (NEEDU)

This unit is set to become functional in the near future and the DBE is presently processing the appointment of staff required for it to operate effectively. The unit will be expected to monitor and evaluate the performance of the DBE, particularly at school and district level and to provide support where this is needed. One of the key responsibilities of this new unit will be systemic evaluation, which will include the testing of all Grades 3, 6 and 9 pupils on an annual basis. As mentioned elsewhere in this edition, the first round of this testing is set to take place later this year. The results of these tests, which will assess the literacy and numeracy levels of pupils, will be reported to parents. As the Minister indicated in her presentation, this kind of testing provides valuable data not only about the performance of individual pupils and schools, but also of the entire schooling system. Importantly, she also stressed that this data could be used by the Department and the general public, to hold teachers, schools and the DBE itself accountable for the levels of performance that the results will reveal. The assessments will take place in November and the results are expected to be made available prior by the start of the following year. From this it appears that the results will not be used as part of each school's own internal assessment processes.

Teachers and human resource development

In acknowledging that teachers and principals are the key determinants of the quality of schooling, the Minister made it clear that the provision of a sufficient supply of properly qualified and trained teachers and principals rested with the DBE. All future policies and relating to the development of teachers and "managers" for the schooling system will therefore be co-ordinated at national level. Policy implementation, however, will remain with the provinces as they are the recipients of the funds that are allocated for this purpose. The DBE is developing a Human Resources Management Information System (HRMIS) to ensure that it has credible data on the supply and demand of teachers to use for planning purposes. The Minister emphasised the need for the Department to establish a system which can ensure that when teachers are appointed, their

Continued on page 14

Continued from page 13

qualifications and skills are appropriately matched to the needs of the school. The DBE also hopes to use the system to compel schools to use teachers according to their “strengths, specialisations and qualifications”. A new, pro-poor post-distribution model for schools is also planned.

In an effort to improve the leadership and management skills of principals and prospective principals, the DBE has set a target of at least 8 000 principals and deputy-principals for enrolment and completion of the ACE: School Leadership course by the end of the 2014/15 financial year. In addition, “school leaders” from underperforming secondary schools and their feeder primary schools will be expected to enrol for, and complete, specific stand-alone ACE modules. Over and above these two initiatives, special training programmes are also planned for subject advisors, in an effort to improve their knowledge of the curriculum and training. Training for ECD and Foundation phase “practitioners” through the FET colleges is also planned.

Infrastructure

The DBE has estimated the cost of eliminating the current infrastructural backlog at R140 billion and that this backlog will take approximately 20 years to eliminate at the current rate of spending. The 2010/11 budget for infrastructure is R5.5 billion and this is expected to increase to R9.4 billion in the 2012/13 financial year. In an effort to address the backlog in the shortest possible time, the DBE is hoping to utilise some of the construction capacity generated by the 2010 World Cup to tackle this infrastructure backlog. This, however, will depend on its ability to

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Continued from page 8

Lessons from the NSC examinations

- Life Sciences 195 652 (65.5%)
- Accounting 107 156 (61.5%)
- Agricultural Sciences 46 597 (51.7%)
- Mathematics 133 505 (46.0%)
- Physical Sciences 81 356 (36.8%)

The message for schools and provinces that are struggling to achieve better overall pass rates is this: ensure that your pupils choose the right subjects at the start of Grade 10. Pupils who at the end of Grade 9 cannot demonstrate by their Mathematics results that they have mastered the subject, should not be allowed to choose Mathematics or Physical Sciences as

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negotiate an appropriate funding model with the Treasury and the Development Bank of South Africa (DBSA). ■

SM&L Comment

This is a positive and constructive budget and the Minister and her department need to be commended on their courage in setting what we consider to be ambitious targets, particularly those relating to the improved academic outcomes. The challenge she and her departmental leadership now face is in ensuring that there are sufficient people within the Department with the capacity and the will to achieve these targets. Their major obstacle, as always, is likely to be the intransigence of the unions and particularly SADTU. In the past the unions have expressed their reservations about the establishment of a monitoring unit such as NEEDU and it will be interesting to see how they respond if and when the results of the first round of the Grades 3, 6 and 9 systemic assessments are released early in 2011. The only mention of the unions by the Minister in her budget speech was the following statement: “Our turn-around strategies include a social compact with unions to achieve our goal to have all teachers in school doing their jobs.” Only time will tell whether the unions consider this to be a binding compact; and if so, whether the leadership of the unions can convince their members to meet their obligations in this regard. Ensuring that every teacher can account annually for the minimum of 1 800 hours of work - as they are required to do in terms of their conditions of service - will be a good place to start.

subjects for Grades 10 – 12. Instead, they must be told to take Mathematical Literacy in place of Mathematics and must select their other three subjects from one of the following:

- Geography
- History
- Business Studies
- Business Economics
- Life Sciences

These subjects have the best passing percentage and offer them the best chance of meeting the requirement for an NSC. ■

Parliamentary oversight of the DBE

Asking pertinent questions of Ministers through the parliamentary processes is an important part of the oversight role that MPs can and should exercise over Government. Below are some of the questions put to the Minister of Education, together with her responses.

One way in which Parliament can exercise its oversight role of the Executive is by submitting questions to the responsible Minister via the relevant Portfolio Committee. Political parties, through their parliamentary representatives, are permitted to submit a certain number of questions each week and the responsible Minister is expected to provide answers either orally or in writing within 2 weeks of the submission of the question.

We have listed below what we consider to be some of the most significant of the questions that have been put to the Minister so far this year, together with a summary of the Minister's reply. We have reproduced the questions exactly as they were formulated on the question paper.

1 Education as an essential service

Whether education will be declared an essential service; if not, why not; if so, what are the relevant details (Submitted by Dr JC Kloppers-Lourens of the DA).

In her reply, the Minister indicated that essential services were those which society needs to have available 24 hours a day, 7 days a week as way of preventing loss of life and serious injury in cases of emergency. It would be incorrect therefore to categorise public schools which operate for 5 days a week and 200 days of the year as an essential service. In acknowledging the fundamental right of teachers to strike, she made it clear in her answer that this right needed to be balanced against the rights of a child to an education. She indicated that strong action, "including dismissal" would be taken against educators who embarked on wild-cat strikes that cause disruption in schools. She also indicated in the reply that the DBE plans to gazette a "strike management policy" sometime in the future.

2 Problems that impact on the quality of teaching

What problems have her department identified that impair the quality of teaching? (Submitted by Dr JC Kloppers-Lourens of the DA).

In her reply the Minister identified the following problems:

- Time-on-task: The time that teachers devote to teaching tasks and to preparation
- Teachers' levels of subject content knowledge and pedagogical skills: Low levels of teacher content knowledge and pedagogical skills have been identified as key areas which need to be addressed.
- Difficulties in implementing the National Curriculum Statement.

What is of concern in the Minister's response to this question is that although she indicated that the DBE planned to tackle these issues, her response did not include a single example of a specific project or strategy that is currently in place to address these problems.

3 Research into learner retention

(a) What were the findings of the research that was conducted into learner retention in schools and (b) what interventions were identified by her department to address any challenges in this regard? (Submitted by Mr FI Chohan of the ANC)

Some of the key findings of the report¹ as listed in the reply are:

- Learner retention is close to 100% up to Grade 9 but reduces sharply from Grades 10 – 12.
- There is almost universal enrolment of children until age 16
- The percentage of Grade 9 learners reaching Grade 12 has remained almost static.
- The reasons for learners dropping out included:
 - Grade repetition (this was the single most powerful predictor of dropping out)
 - The level of education of the child's parent is strongly correlated with dropping out
 - The risk of dropping out at secondary school level of learners who are older than median age of the grade is very high
- Interventions undertaken by the DBE in an attempt to address the issue include:
 - The introduction of a policy on learner

Continued on page 16

attendance. The DBE is apparently in the process of gazetting such a policy.

- The expansion of the FET college sector to provide alternative pathways for those at risk of dropping out.
- The Foundation for Learning Campaign which aims to reduce the drop-out rate by improving the quality of teaching and learning.

4 Intervention in underperforming schools

Whether the interventions her department made in schools which underperformed in the 2008 National Senior Certificate examination were successful; if not, (a) what are the challenges and (b) what steps are being taken to ensure a further improvement in underperforming schools in the future; if so, what are the relevant details?

In her reply, the Minister indicated that there was evidence to suggest that the interventions may have contributed to the improvement in the performance at some schools. Of the 701 schools visited and provided with support by the DBE, 321 had increased their pass rates in 2009 in comparison to 2008. Challenges included a shortage of teachers, especially in Mathematics, Accounting and Physical Sciences. This problem was made worse by delays in filling posts. Some schools also reported a shortage of textbooks and an inadequate supply of LTSMs.

Plans for 2010 are based on lessons learnt during the 2009 school visits. Interventions will be guided by information that the DBE has gathered from its analysis of subject performance by province and district, from studies of the reports of chief examiners and Umalusi. This information will be used to improve the training of teachers and subject advisors in subject content knowledge. Schools will also be more closely monitored by the DBE.

5 Temporary educators

(a) How many (i) teachers are employed in temporary positions and (ii) of these teachers have been earmarked for permanent positions and (b) what is the breakdown according to province.

As part of the Minister's reply the following statistics were given (at January 2010)

In her reply, the Minister pointed out that the Employment of Educators Act had been amended in 2005 to make it possible for the Head of Department, after consulting with the Governing Body, to convert the temporary appointment of an educator on the post establishment of a school to a permanent appointment without the approval of the Governing Body. This measure is apparently being used by PEDs to reduce

Province	Temp. 2010	Total 2009	% of 2009
Eastern Cape	3 588	67 409	5.32
Gauteng	1 964	54 586	3.60
Kwazulu Natal	4 617	85 901	5.37
Limpopo	510	56 766	0.90
Free State	990	23 583	4.20
Mpumalanga	409	33 984	1.20
North West	926	25 762	3.59
Northern Cape	137	8 888	1.54
Western Cape	414	29 708	1.39

the number of temporary appointments and to ensure that teachers do not remain in temporary posts for long periods of time. As a guideline, PEDs are required to ensure that at any given time not more than 10% of the total number of teaching posts is occupied by teachers appointed in temporary capacities. ■

References

¹ Report on Learner Retention in the South African Schooling System (Department of Education, May 2008)

² Based on "School Realities 2009" published by the DBE. These were the latest figures on teaching posts in each province that we were able to access at the time of going to press.

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