Matric:
WHAT IS TO BE DONE?

SEMINAR
PAPERS & PRESENTATIONS

CHET

UMALUSI

MATRIC:
What is to be done?

Seminar

23 June 2005

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1. INTRODUCTION

BACKGROUND

Every year, for many decades, fundamental issues have been raised about standards, performance, quality and the future of our education system. Much of the public concern about 'standards' in our education system focuses on the Senior Certificate, and there has been an ongoing debate about the role and place of the Matric examinations. There is also a great deal of ongoing debate about what is meant by standards, what standards should be in our system, and how we should measure them. The idea of something being construed as 'educational' refers to the possibility of an implicit sets of standard. Understanding what these are requires rational deliberation through which some kind of agreement can be reached.

In 2004, Umalusi commissioned a study to examine the public perception that standards are declining. Building on the findings of this study, as well as on other research in this area, Umalusi and the Centre for Higher Education Transformation (CHET) hosted a seminar, entitled Matric: What is to be Done, on 23 June 2005. Umalusi is the Council for Quality Assurance in General and Further Education and Training, and is the body charged with the quality assurance of education at primary and secondary levels. Umalusi's interest in hosting this seminar was to provide a broad platform to encourage debate, discussion, research and analysis of the system as a whole, to assist Umalusi to reflect critically on its role in the system in order to try to improve it. The Centre for Higher Education Transformation (CHET) mobilises trans-disciplinary skills for specific projects by tapping available expertise in the national and international higher education sector. CHET was interested in the relationship between the Senior Certificate and the higher education system.

Presentations at the seminar were made by members of government and statutory bodies, academics and other leading figures from higher education, and teacher unions. The seminar was attended by over 200 delegates, drawn from higher education institutions, government, secondary schools, non-governmental organisations (NGOs) and sectoral education and training authorities (SETAs). Chairing the panels were leading educationalists - Dr Teboho Moja, advisor to the Minister of Education, Professor Linda Chisholm of the HSRC, and Mr Larry Pokpas of Higher Education South Africa.

The seminar came at an important time in our education system, on the eve of the introduction of a new senior secondary certificate, the National Senior Certificate (NSC). Because of the high degree of interest shown in the seminar, as well as the importance of the issues discussed, Umalusi and CHET have decided to produce this publication, which contains edited versions of all the papers presented at the seminar.

OVERVIEW OF THE PAPERS

The seminar consisted of three panels, and the papers in this publication are therefore presented in three sections.

The first section looks at the institution of Matric and its role in South African society. Professor Cheryl Foxcroft and Professor Rolf Stumpf from the Nelson Mandela Metropolitan University (NMMU) look at the popular use of the word 'Matric' and explain why it is not technically accurate. This point is not just semantic - the certificate was originally designed to lead to higher education, and much of the debate around it has been related to this issue. How well does it predict success at higher education, and does its focus on higher education mean that it does other things less well? Stumpf and Foxcroft go on to look at the purposes of Matric. While they argue that it is meant to prepare learners both for the workplace and for society, they look in depth at whether Matric is fulfilling its purpose as a selection tool for higher education, as well as delivering learners with the necessary academic, cognitive and personal competencies. They argue that the emphasis has been only on academic competencies. Stumpf and Foxcroft discuss the proposed higher education benchmark testing, and argue that it can usefully contribute to the system as a whole. They conclude that higher education should play a greater role in building the school system.

The paper presented by Ms Stephanie Matseleng Allais from Umalusi responds to Stumpf and Foxcroft by arguing that Matric is only an examination which measures scholastic achievement. It is important, and it can and must be improved. However, it is necessary to develop other ways of looking at the success of the school system, as well as ways of supporting and building schools that produce the kinds of learners required by higher education, the workplace and society. We should not, she argues, expect Matric to be more than what it is.

The second section engages critically with the question: How well is Matric performing? Mr Sandile Ndaba from Umalusi discusses how we assess the performance of Matric from what experts say, from examining pass rates and associated trends, from analysing the historical resilience of the system, through examining levels of difficulty and mark adjustments, from participation rates, as well as from the findings of Umalusi's research with respect to the above.

Professor Johan Muller from the University of Cape Town then takes a more in-depth look at the subject reports which formed the basis of Umalusi's 2004 research into the standard of the Senior Certificate, and examines their implications in terms of curriculum and the setting and moderating of examinations. Muller argues that the serious problems highlighted by this research may not necessarily be either a long-term or a permanent downward trend, but rather more circumspectly a temporary side effect of large-scale national reform. However, he emphasises that whether advertently or inadvertently, low cognitive demand and challenge is a threat to the learning health of the nation, and should be addressed at every stage of the educational cycle.

Thulas Nxesi, General Secretary of the South African Democratic Teachers' Union (SADTU) and President of the world's largest global union - Education International - with an affili-

ated membership of 29 million education employees worldwide, provided a perspective on these two presentations from the point of view of teachers. Nxesi said that Matric must be relevant and add value to learners' lives, and that it must be judged in the context of transformation and improvements should focus on all levels of education. Nxesi felt that the starting point in improving standards had to be the teachers. However, he argued strongly that there was not yet adequate capacity among teachers to introduce the new National Senior Certificate, and emphasized the need for teacher training. Unfortunately, this response was not prepared in a written form, and there is no paper in this publication reflecting Mr Nxesi's presentation.

The final section looks at where the system is going, or Where to Matric?. Professor Nan Yeld from the University of Cape Town examines the proposed higher education benchmarking tests, and explains the proposals around them. She examines possible uses of the proposed benchmark tests, and explains the competencies that they will be attempting to measure. Ms Penny Vinjevold explains the new National Senior Certificate. She provides the point of view of the Department of Education in terms of how this new certificate is going to be implemented, and what lies ahead for the South African school system. She argues that the new curriculum, new certificate and national examination system can and should be used to improve the standards of teaching and learning in classrooms across South Africa. The paper by Dr Peliwe Lolwana then wraps up the discussion. She looks at what needs to be taken forward into the system, including issues in relation to curriculum specification, differentiation within curricula and examinations, types of examinations, and trying to do away with persistent inequalities in our system as a whole. She discusses the notion of standards, and explores how we can find more useful ways of talking about standards in our education system.

ACRONYMS AND ABBREVIATIONS

AARP	Alternative Admissions Research Project
ABET	Adult Basic Education and Training
AEAA	Association for Educational Assessment in Africa
APAP	Admissions and Placement Assessment Programme
C2005	Curriculum 2005
CASS	Continuous Assessment
CHE	Council on Higher Education
CHET	Centre for Higher Education Transformation
CTA	Common Task Assessment
CTP	Committee of Technikon Principals
CUP	Committee of University Principals
DET	Department of Education and Training
ELSEN	Education for Learners with Special Education Needs
FET	Further Education and Training
FETC	Further Education and Training Certificate
GETC	General Education and Training Certificate
HE	Higher Education
HEADS	Higher Education Access and Development Services
HESA	Higher Education South Africa
HG	Higher Grade
HSRC	Human Sciences Research Council
ICAS	Intersegmental Committee of the Academic Senates
IEB	Independent Examinations Board
ITC	International Test Commission
JMB	Joint Matriculation Board
KNEC	Kenya National Examinations Council
NBT	National Benchmark Test
NBTP	National Benchmark Test Project
NCS	National Curriculum Statement
NGO	Non-governmental Organisation
NMMU	Nelson Mandela Metropolitan University
NQF	National Qualifications Framework
NSC	National Senior Certificate
OBE	Outcomes-based Education
RPL	Recognition of Prior Learning
SADTU	South African Democratic Teachers' Union
SAFCERT	South African Certification Council
SAIDE	South African Institute for Distance Education
SAT	Scholastic Aptitude Test
SAUVCA	South African Universities Vice-Chancellors Association
SC	Senior Certificate
SETA	Sectoral Education and Training Authority
SG	Standard Grade
TELP	Tertiary Education Linkages Project

TIMSS	Third International Mathematics and Science Study
UCT	University of Cape Town
UPE	University of Port Elizabeth
WAEC	West African Examinations Council

What is Matric for?

Cheryl Foxcroft and Rolf Stumpf

OVERVIEW

In attempting to answer the overall question 'What is Matric for?' four inter-related questions will be contemplated in this paper, namely:

1. What is Matric?
2. What is the purpose of Matric?
3. Is Matric delivering to its purpose?
4. Is Matric enough? If not, who is supposed to be doing something about it?

1. WHAT IS MATRIC?

It might seem surprising to begin this paper with this question, but the term 'Matric' or 'matriculation' is used very loosely in our society - for example, 'I am doing my Matric at present', 'My son passed his Matric' or 'My daughter passed Matric with exemption'.

None of these examples use the term 'Matric' as it is defined in the Universities Amendment Act, Act 21 of 1993. According to Amoore (2001, p. 27), matriculation simply means 'university admission'.

Currently, if a candidate's curriculum (subject groupings and HG/SG requirements) and results are in accordance with prescribed regulations, the candidate obtains a Senior Certificate with matriculation endorsement. Such an endorsement is the minimum statutory requirement for entry into bachelor's degree studies. If the curriculum requirements for matriculation endorsement are not met, but a prescribed minimum aggregate is nonetheless obtained, the candidate qualifies for a Senior Certificate and may also qualify for a certificate of conditional exemption. The candidate who only obtains a Senior Certificate is not said to have matriculated and does not qualify for degree studies.

Confusing? How did we land up with a school-leaving examination that either leads to matriculation or just to a school-leaving certificate? The origins of this anomaly date back to the matriculation examination of the province of the Cape of Good Hope prior to 1910. It was perpetuated by the Joint Matriculation Board (JMB) that was established in 1916. The matriculation examination, initially set by the JMB and later by the four provinces of the previous governmental dispensation under the jurisdiction of the JMB, 'soon established itself as the only school-leaving certificate and gateway to the universities and to many professional careers, and also was recognized by several foreign bodies' (Lolwana, 2004, p. 2). In addition, from 1918 to March 1992 the JMB issued a school-leaving certificate to candidates who wrote its examination but did not meet the requirements for a matriculation certificate. Such a certificate did not give university entry. The parallels with the current Senior Certificate are obvious.

Be this as it may, it would appear that trying to confine the question to be answered in this paper to learners who technically qualify for exemption and thus for university studies does

not address the purpose of this seminar. Given that only about 17% of learners who sit for the Senior Certificate examination obtain a matriculation endorsement, if this seminar only focused on these learners, the purpose of Matric for the other 83% of learners who sit for the Senior Certificate examination would be lost. Consequently, the more popular use of the term 'Matric' will be taken as the point of departure in trying to answer the question 'What is the purpose of Matric?'

2. WHAT IS THE PURPOSE OF MATRIC?

The question on the purpose of Matric can be approached from various angles. Simply put, Matric represents the exit point of school studies. It is the accumulation of twelve years of study, which culminates in an assessment of what has been achieved.

School learners would agree with such a simple answer, and they would probably comment that Matric is the end of school and it is important to pass the Matric examination if you want to study further or get a good job.

Higher education institutions and the world of work would probably concur with this, as they usually place a high premium on performance in the Matric examination when they consider applications by young adults for further studies or a job. For example, in the Umalusi (2004, p.15) report on the Investigation into the Standard of the Senior Certificate Examination, the following comments are made regarding the Matric examination:

> The Senior Certificate (SC) Examination, or Matric as it is popularly known, plays a crucial role in the South African education system at the moment. It marks the culmination of twelve years of schooling, and it is the main exit point from the schooling system. The Senior Certificate is by far the most popular determinant of access to Higher Education and increasingly, though to a lesser extent, to the world of work. As a result of its 'high stakes' nature, the Senior Certificate examination attracts a great deal of interest from the public.

What comes out strongly in the views expressed above is that scholastic achievement is assessed through the Matric examinations and these results are used by higher education institutions and in the world of work as a basis for making decisions about applicants. By implication, then, one of the answers to 'what is Matric for?' is that Matric results serve the purpose of being a widely used selection tool - either for further study in the higher education sector or for a job in the world of work

One of the key requirements of a tool used for selection purposes is its predictive validity. This raises one of the tensions that have revolved around Matric through the decades. The school system argues that the Matric examination results must indicate whether a learner has achieved a desirable standard of general education. Higher education institutions and the world or work, however, argue that the Matric results have to be able to predict future academic or job success.

But surely Matric is about more than the results of the final examination? A key purpose of the school system that culminates in Matric should be to deliver learners with the necessary knowledge, skills and values (competencies) to succeed in life, work, and further studies.

Much has been written, nationally and internationally, about the competencies required of learners entering higher education institutions. Table 1 provides an overview of the critical/core competencies that have been suggested in this regard.

Table 1: Summary of core competencies for higher education entry

PISA (2002)	Rigol (2002)	Intersegmental Committee of the Academic Senates (ICAS) in California (2002)	Woodward & Parsons (2003)
1. Reading literacy 2. Mathematical literacy 3. Scientific literacy 4. Cross-curricular problem solving	5. Academic factors (knowledge depth in core subject requirements) 6. Non-academic factors (commitment, creative and original thinking, intellectual curiosity, disciplined work habits, enthusiasm for learning, independent thinking, interest in ideas, motivation, self-confidence, willingness to explore and question)	7. Habits of mind (exhibit curiosity, ask questions, experiment with new ideas, engage in intellectual discussions, generate hypotheses, respect others' viewpoints, take ownership of own learning) 8. Critical thinking skills (question, analysze, synthesizse, and evaluate ideas) 9. Reading competencies 10. Writing competencies 11. Listening and speaking competencies (understand directions for assignments, listen and take notes, retain information) 12. Information competency (includes library literacy, research methods and technological literacy)	13. Communication (reading, writing, presentation) 14. Mathematical literacy 15. Information literacy 16. Cross-curricular problem solving 17. Working in teams 18. Self-management and study habits 19. Attitudes and values (self-confidence, self-respect) 20. Approach to learning (active engagement)

The following clusters of competencies emerge upon analysis of the information in Table 1:

1. Academic competencies - knowledge and skills in specific content domains or subjects; multiple literacies (academic, mathematical, informational); reading, writing and listening (communication) skills.
2. Generic cognitive competencies - high-level thinking skills (e.g., analyse, synthesise, evaluate), critical thinking skills, and problem-solving skills.
3. Personal competencies and attributes - team working skills, personal characteristics (e.g., motivation, enthusiasm, intellectual curiosity, self-confidence).

Higher education probably places a higher premium on the academic and generic cognitive competencies outlined above, than on personal competencies and attributes. However, a repeated finding in research is that personal competencies and attributes are more important predictors of academic success for learners from disadvantaged backgrounds than academic and cognitive competencies (for example, see Rosenbaum, 2002; Woodward & Parsons, 2003). Furthermore, in the world of work employers place less emphasis on academic competencies and more on communication and non-cognitive skills such as team-

work, social and interpersonal skills, time-management and self-management, and personal attributes such as the ability to take initiative, self-confidence and enthusiasm (for example, see Kemp, 2004; Rosenbaum, 2002). This again highlights some of the tension in using one curriculum stream to prepare high school learners for further studies and for the world of work.

In summary, then, 'the purpose of Matric' seems to be that the school system that culminates in the Matric exam needs to produce learners who have the necessary academic, cognitive and personal competencies (knowledge, skills and values) to successfully cope with the demands of higher education studies and the world of work. Furthermore, the final Matric examination results should provide information that can be used for selection purposes.

The next section explores whether Matric is delivering to these purposes.

3. IS MATRIC DELIVERING TO ITS PURPOSE?

(a) Matric as a selection tool in higher education

Given that one of the purposes of the Matric examination is to provide higher education institutions and the world of work with assessment information that can be used to select, admit or place applicants, it is important that the Matric examination be benchmarked against national and international measurement standards. According to the International Test Commission's (ITC, 2001) International Guidelines on Test Use as well as the South African Employment Equity Act (Act 55 of 1998), if a measure is to be used for selection purposes it must be empirically shown to be valid and reliable not only in general but particularly in the local context in which it is to be used.

No national predictive validity information has been published for the Matric examinations as the focus seems to be more on publishing annual pass rates - these have no psychometric value for higher education institutions and tend to skew the debate away from the predictive power of Matric results. However, international and national best practices in assessment dictate that in any case the onus is on the test user (for example, the higher education institution) to establish local predictive validity information of measures used for selec-

Table 2: Correlations between Matric and first-year academic performance, by faculty

Faculty/Department	r
Arts	.45
Business and Economic Sciences	.69
Education	.52
Health Sciences (excluding Pharmacy)	.48
Pharmacy	.82
Law	.45
Science	.50
Engineering (only diplomas)	.44

r = Pearson r correlation coefficient

tion purposes. In view of this, Table 2 provides such information obtained for a sample of 2004 first-year students in the various faculties of the Nelson Mandela Metropolitan University (NMMU).

The results reflect that matriculation performance has adequate predictive validity in an admissions context as correlations with academic performance of between 0.20 and 0.40 are seen as being the benchmark for academic predictor variables internationally and nationally. However, the size of the correlation coefficients varies across faculties. The highest correlation was found for Pharmacy students. The entrance requirements for the Pharmacy programme are more stringent than for any other programme at the NMMU in that a high level of Matric performance (65%) and mathematics performance is required for entry. However, for Arts and Education degree programmes the entry requirements related to Matric performance are the least stringent of all NMMU degree programmes, and the correlations with academic performance are considerably lower than that obtained for Pharmacy students. It has been reported many times in the South African literature that 'good' Matric results (A and B symbols) are good predictors of academic performance while 'less good' Matric results predict academic performance to a lesser extent (for example, see Griesel, 2001a). The present findings from the NMMU support this.

Another observation that can be made from Table 2 is that although the entry criteria for degree programmes in Science and Business and Economic Sciences are essentially the same, the correlation with academic performance for Science programmes is far worse than that for Business and Economic Science programmes. These varied correlations suggest that the predictive power of the Matric examination results varies across programmes and faculties, which is not a desirable quality of a measure used for selection purposes.

The correlation for diploma students in Engineering is the lowest (0.44). Many diploma students only have a Senior Certificate without matriculation endorsement, as the latter is not an entrance requirement. What needs to be kept in mind, however, is that the Senior Certificate with matriculation endorsement is very different in nature to the Senior Certificate, which is probably less cognitively challenging. The results presented in Table 2 suggest that Senior Certificate results might be less predictive of academic performance than the results of the Senior Certificate with matriculation endorsement.

Do Matric results predict academic performance equally well for the different race groups? During the apartheid years, research findings suggested that while matriculation marks were reasonable predictors of academic performance for white South Africans, they did not

Table 3: Matric and first-year academic performance: correlations for race groups

Race	N	r	p
Black	269	0.21	.001
Coloured	80	0.37	.001
Indian	32	0.65	<.001
White	338	0.55	<.001

N = number of students r = Pearson r correlation coefficient p = significance level

accurately predict the academic performance of black South Africans (for example, see Huysamen, 1999; Shochet, 1986). Table 3 presents information on the correlations between matriculation and first-year academic performance by race group for students in the Faculty of Business and Economic Sciences of the NMMU from 2000 to 2003.

As can be seen from Table 3, the correlation between matriculation and first-year academic performance is the lowest for black learners. This finding suggests that there is some evidence of predictive bias (that is, Matric results are a better predictor for white, coloured and Indian students than for black students).

What happens when we compare the performance of different language groups? It must be kept in mind that the majority of learners write Matric in their second language. In 1998 a governmental research team reached the conclusion that language was a major contributing factor to the poor performance of learners who were not able to write Matric in their mother tongue (Umalusi, 2004). Consequently, a compensatory mechanism was introduced and is now employed for learners who write Matric in their second language - their non-language marks are adjusted upwards by 5%.

Despite this compensation, there were many press reports after the 2004 Matric results were released which argued that poor second-language English proficiency contributed to poor Matric performance. This, in particular, was the reason offered for the Eastern Cape's poor results. Consequently, there has been a strong call for examination papers to be available in more of South Africa's eleven official languages. In addition, the new National Senior Certificate (NSC) is opening up possibilities for learners to be educated in their mother tongue. It is not yet clear what the impact of such mother-tongue education will be on the performance of students in higher education where the medium of instruction in the majority of institutions is English.

Table 4 provides information on the correlation between Matric and first-year academic performance for first-language and second-language English speakers as well as for Afrikaans speakers for students in the Faculty of Business and Economic Sciences of the NMMU from 2000 to 2003.

Table 4: Matric and academic performance: correlations for language groups

Home Language	N	r	p
English	277	0.55	<.001
Afrikaans	145	0.55	<.001
Xhosa	243	0.20	.001

N = number of students; r = Pearson r correlation coefficient; p = significance level

Table 4 suggests that Matric performance predicts academic performance differentially for candidates who write Matric in their first or second language. The correlations are stronger for candidates who wrote Matric in their first language (English and Afrikaans speakers) than for those who wrote Matric in their second language (Xhosa speakers). As was the case with race, the findings suggest that more detailed bias studies need to be undertaken as there is a hint that the examination may be biased with respect to language.

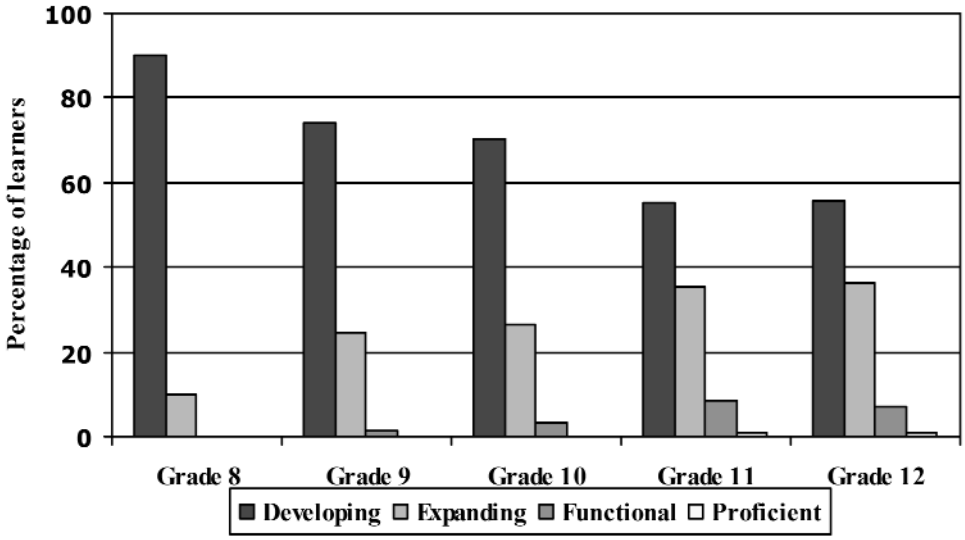
In addition, from a measurement perspective, the use of a compensatory mechanism to adjust the marks of second-language English speakers is not the internationally acceptable way of dealing with linguistic diversity in assessment. If a test is developed for first-language English speakers but then used with second-language English speakers as well (which is the case with the Matric examination), it is important to establish whether the test measures the same thing across language groups and to identify items that could be biased. If there is evidence that the test does not have construct equivalence across groups and that there is measurement bias, it either needs to be adapted and/or translated or a more multilingual and multicultural approach needs to be adopted in the initial development of the test (Van de Vijver & Lueng, 1997).

Many other variables could be explored (e.g., gender, age, urban/rural). However, the point being made here is that, in accordance with good assessment practices in multicultural settings, rigorous bias and equivalence studies need to be undertaken to establish whether the examination can be seen as being an equivalent measure across various groups or whether it is biased against some. If evidence of bias is found, this will have to be addressed; otherwise the validity of the scores and the accuracy of the decisions that are based on them will be in doubt for certain groups.

(b) Delivering learners with the necessary academic, cognitive and personal competencies

A number of South African studies have pointed to the fact that on entry to higher education institutions, large numbers of learners are not sufficiently ready (i.e., do not have the required, academic, cognitive and personal competencies) to cope with higher education studies (for example, Yeld, 2003). The latest results from the Third International Mathematics and Science Study (TIMSS, 2003), for example, indicate that South Africa is ranked last among the participating countries. By way of further illustration, Figure 1 pro-

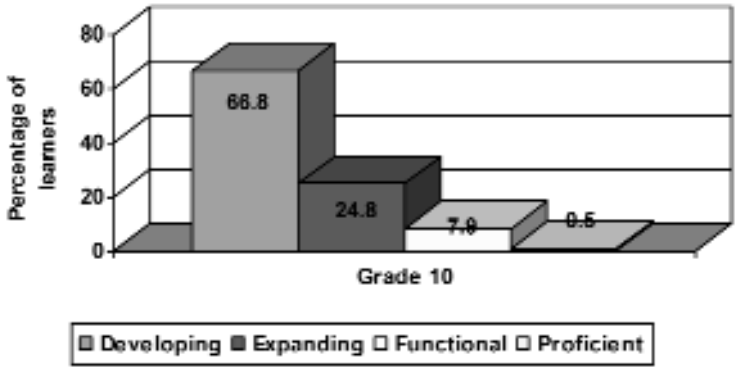
Figure 1: Second-language reading skills, Grades 8 to 12



vides an overview of the English second-language reading skills of a national sample of Grade 8 to 12 learners in South Africa.

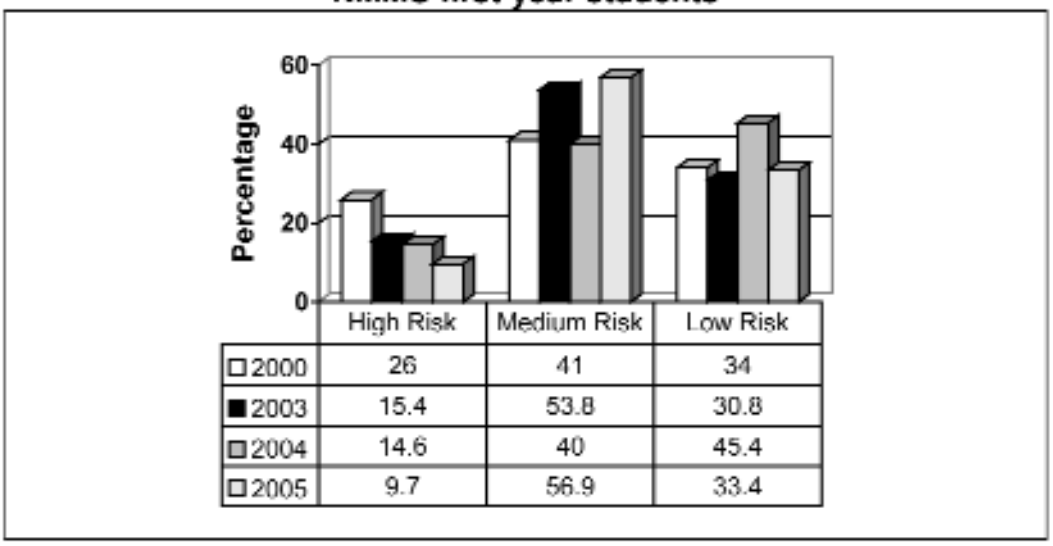
What can clearly be seen in this figure is that the reading skills of the majority of learners in each grade fell in the developing range, which meant that they could only read a very short passage and answer fairly literal questions on it. Equally worrying was the fact that very few learners were found to be proficient in Grade 12, which has serious implications if they want to study further or find employment.

Figure 2: Numeracy and basic mathematical proficiency, Grade 10 Learners



The findings presented in Figure 2 are similar to those in Figure 1, in that the majority of learners can only perform minimal and very simple computation and mathematical operations. Given that they were only 18 months away from completing their school careers, this is a very worrying finding both in terms of their ability to tackle further studies and in terms of finding a job.

Figure 3: Percentages per risk profile for the 2000, 2003 and 2005 intakes of NMMU first-year students



	High Risk	Medium Risk	Low Risk
2000	26	41	34
2003	15.4	53.8	30.8
2004	14.6	40	45.4
2005	9.7	56.9	33.4

Figure 3 provides information on the risk profile of the first-year intake into degree programmes of a sample of NMMU students. The risk profile is determined by weighting matric performance and performance in admissions and placement tests that tap English proficiency, numerical and mathematic proficiency and problem solving.

Low-risk learners do not require development and have a 70% or higher chance of succeeding academically. As can be seen from Figure 2, only a third of the intake each year falls into this category. Medium-risk learners require some academic development and support, and have a 50 - 65% chance of succeeding. The bulk of the intake each year consists of medium-risk learners, which requires investment by the institution into academic development and support services. High-risk learners require considerable academic development and support and often have less than a 50% chance of succeeding. An increasingly small percentage of high-risk learners are admitted to the NMMU each year as these learners are usually first channelled to foundation programmes. Nevertheless, some are admitted and require intensive academic development and support.

The conclusion that one reaches by reviewing the literature and contemplating the information contained in Figures 1, 2 and 3 is that the school system and Matric are currently not delivering sufficient numbers of learners who are appropriately prepared for either higher education studies or the world of work.

(c) Matric as preparation for the world of work

Kraak (2004) traced the destination of learners from Grades 1 to 12 who leave the school system, and found that:
- 19% undertake further studies (in the FET or higher education sector);
- 30% find employment; and
- 51% are unemployed.

Cosser (2004) found very similar results when he traced a sample of learners who sat for the 2001 Senior Certificate examinations one year later. Of the 40% of learners who were entering the labour market, only 35% gained employment. While various factors could have contributed to the high unemployment rate, Cosser asserts that this finding raises questions as to whether the Senior Certificate adequately prepares learners for the world of work by equipping them with skills that will make employers want to hire them.

> That a quarter of learners not in further study in 2002 were repeating all or part of Grade 12 and half of the cohort not studying further were unemployed reflects the differential ways in which the Senior Certificate determines learner destinations. Clearly the Senor Certificate alone does not make learners employable: for the group who are unemployed, its achievement appears to make no immediate difference to their prospects (Cosser, 2004, p. 13).

This section has raised certain concerns around whether Matric is achieving its purpose, either as a selection tool in higher education or in terms of preparing learners for further studies and the world of work.

4. IS MATRIC ENOUGH? IF NOT, WHO SHOULD BE DOING SOMETHING ABOUT IT?

(a) Are Matric results enough?

There is an over-emphasis in South Africa on the Matric examination as being the defining feature of admission to higher education institutions. This is of great concern. This comes across strongly in documentation related to the new NSC, where it is repeatedly stated that the NSC should be the only measure used to decide on entry to higher education and that there should not be a parallel system where higher education institutions use additional tests. This needs to be strongly challenged as relying only on performance in the Matric/NSC is neither in the interest of good assessment practices nor of broadening access to higher education.

Good assessment practices in selection contexts dictate that a variety of measures should be used to increase the validity of the overall assessment (ITC, 2001). Furthermore, national and international literature are in agreement that to broaden access it is important to increase both the variety of the admissions criteria used and the alternative routes available to enter programmes. As regards the former, a survey of national (Griesel, 2001b) and international literature (Harman, 1994; Rigol, 2002) suggests that the following factors are often used as admissions criteria by higher education institutions:

1. Academic achievement

- performance in school-leaving examinations (e.g., Matric);
- performance in a previous post-school qualification;
- admissions and placement test results related to core academic competencies.

2. Non-academic characteristics

- personal background;
- extenuating circumstances (e.g. for poor performance in final examinations);
- extracurricular activities, community service, leadership;
- personal characteristics (e.g., motivation).

When it comes to the world of work, the following are often considered in the selection process:

- qualifications;
- personal characteristics and attributes;
- the competencies required to perform a particular job (Elkonin et al., 2001).

Thus, although Matric results provide information that can aid in selection decisions in higher education and the world of work, it is important to see this as only one of the many sources of information that can guide decision-making. Matric performance on its own is not enough.

(b) Should the delivery of sufficiently competent learners for higher education studies be left entirely to the school system?

The discussion around Figures 1 and 2 raised queries regarding whether school learners developed the necessary core competencies for further studies. Thus the question arises, should the higher education sector continue in its role of being largely a spectator that makes inputs into the shaping of policies for the school sector but otherwise refuses to get its hands dirty? Does the higher education sector in South Africa not need to roll up its sleeves and become a much more active, engaged participant in the school sector? We probably need to take the lead from the State of California in this regard. Their higher education sector has produced a list of academic, cognitive and personal competencies which they believe are essential for entering students to have (Intersegmental Committee of the Academic Senates, 2002) (see Table 1, above). This sends a clear message to schools, parents and prospective students about the requirements of higher education.

However, for the higher education sector in California, the statement of entry-level competencies represented the first of many steps, during which process it has involved itself more closely with the school sector. For example, certain partnership projects have been launched where universities and community colleges collaborate with each other and with schools to produce the type of learners that higher education requires, and to provide articulation and access possibilities for students who might not otherwise have had such opportunities. The Santa Ana Partnership in California between UC Irvine, Santa Ana Community College, California State University at Fullerton and the Santa Ana School District (four schools in particular) is a good example of a very active, systemic educational initiative (http://www.sac.edu/community/partnerships). The time is right for South African higher education institutions to stop moaning about Matric and the poor quality of learner produced by the school system. Instead, the higher education sector needs to send a clear signal about the entry-level competencies it expects of entering students. Thereafter, higher education institutions should develop partnerships with FET colleges and the school sector so as to actively engage with them and the community with a view to developing learners who are prepared for further studies and the world of work. The implication of this is that when the question is asked, 'Who is responsible for seeing to it that the purpose of Matric is achieved?', the answer will not be 'the school sector'. Instead it will be 'all of us-the school sector, higher education, and the community'.

If universities are going to accept a greater role in ensuring that prospective students are adequately prepared for the rigours of higher education study, the next question that arises is, will universities in future then start conducting their own admission tests and disregard the Matric/NSC results all together? Obviously universities would prefer not to have to go down this road. It is much more preferable to link additional admission requirements for higher education study to a nationally conducted test such as the Matric/NSC. Conducting our own version of an 'SAT' test surely has to be a last choice for universities. Unfortunately some policy developments and some educational trends may force universities in this direction.

First, the Department of Education's proposed enrolment capping approach means, in essence, that universities should admit fewer but better-prepared students. If no additional funding is given to universities to assist them to play a greater role in preparing prospective students, it will simply mean that universities have no choice but to lift the level of the additional admission requirements which they set over and above the Matric or NSC. This

could drive universities in the direction of gradually beginning to set their own requirements.

Second, if the predictive quality of the Matric/NSC were to deteriorate due to a decline in the academic standards represented by the Matric/NSC, universities would have no choice but to begin to set tests with a better predictive quality in order to comply with the Department of Education's emphasis on higher levels of efficiency by means of attaining higher throughput rates. In this regard, the results from the National Benchmark Tests project, which is a higher education initiative, could provide information over the next few years about the number of learners entering higher education studies who meet or do not meet the minimum benchmarks set for academic and quantitative literacy and mathematics. Should it be found that large numbers of learners continue to be insufficiently prepared for higher education studies, the possibility of moving to a set of higher education admissions tests must be strongly considered.

Therefore, if universities were to move in the direction of conducting their own admission tests, separate from the Matric/NSC, it would most certainly not be their first choice but would simply be an unavoidable response to consequences flowing from policies and educational trends over which they seem to have little say.

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What is Matric?

A Response to Foxcroft and Stumpf

Matseleng Allais, Umalusi

In my response to Cheryl Foxcroft and Rolf Stumpf's interesting and provocative paper, I will stick to the structure of their paper, using their four questions: What is Matric? What is the purpose of Matric? Is Matric delivering on its purpose? Is Matric enough? In some instances I will try to take their arguments further, or examine the implications of their arguments for Umalusi and the school system, and in others I will take issue with their arguments.

1. WHAT IS THE PURPOSE OF MATRIC?

Foxcroft and Stumpf start their paper by making a point about the correct technical use of the word 'Matric'. This is not just semantic - like many similar certificates internationally, it was primarily designed to lead to higher education, and has had to broaden its purpose along the way, often without enough consideration about the implications.

Foxcroft and Stumpf point to the purposes commonly ascribed to Matric:
- preparation for higher education, and
- preparation for the world of work

They also point out, importantly, that Matric is a school-leaving certificate. They do not mention one of the other purposes generally laid at the door of Matric, which is to prepare young people to function in society.

I would like to take this issue further. The purpose of senior secondary education (or FET in South Africa) is contested internationally. In nearly all countries around the world it is a recent phenomenon that large numbers of young people are completing secondary education. They are doing so mainly in systems which were designed for small numbers of largely middle-class and upper-class students who were on a trajectory to higher education (Allais, 2005). This has led internationally to questioning the role of senior secondary education, as well as fundamental questions about its nature and the structure of education systems.

In the same period the world has experienced significant changes in the global economy as well as in industrial organization in many countries. Education has increasingly become the focus of policy attention of many governments, as senior secondary education (particularly vocational programmes) is presented by governments as the solution to unemployment. Vocational programmes are also seen as a way of providing a non-academic, 'relevant' alternative, and thus enabling governments to maintain an elite academic stream. In effect, they provide a mechanism for differentiation which, many feel (although it is anathema in South Africa) is an inevitable feature of an increasingly massified system.

Another effect of changes in the global economy has been an increasing preoccupation of governments with reducing state expenditure and creating 'efficient' public services, which in turn has led to attempts to measure educational outcomes and make the education pro-

vided more 'relevant' (Allais, 2005).

Thus, since the 1990s assessment and certification, particularly at the level of senior secondary education, have increasingly concerned governments around the world. It seems to be a major focus of policy intervention, as many governments are trying to change, reorganize, improve, and reform senior secondary education. Governments internationally are trying to find ways to ensure that young people stay in school, to provide secondary education for a far wider range of learners than the existing systems were designed for, to prepare a much higher proportion of learners for higher education, to meet the (usually conflicting and always hard to establish) needs of the economy, and at least to appear to be combating unemployment. The frenzy of policy action in education has been argued by some commentators to be the result of governments' inability to intervene more in the economy, and by others as a smokescreen for their unwillingness to intervene in other areas of social policy.

The global phenomena described above are all magnified in South Africa. Where trends internationally have been towards the increasing massification of senior secondary education, in South Africa this tendency was magnified by the fact that after 1994 the state was expected, in a very short time, to overhaul an education system which was deliberately designed to cater for a small white elite. While other countries struggled to find their place in the new global economy, South Africa started from a position of greater isolation, as well as with more structural problems in the economy. While the 'efficiency' of education systems was becoming an increasing concern for governments internationally, South Africa had to overhaul an astonishingly inefficient system, comprising of separate education departments for different racial groups as well as for the so-called independent homelands (Allais, 2005).

And finally, while the South African government was particularly keen to encourage learners to enter vocational programmes, and to raise the status of such programmes in society, vocational education was particularly weak and of extremely low status, seen as a last choice even for weaker learners. The links between secondary and higher education are an important focus of policy reforms geared to improving the status of vocational education, as it is the secondary programmes leading to higher education which are generally perceived to be of higher status. However, in many countries vocational programmes have often been designed for students who are not coping with academic education; they often include very little of the kind of learning which prepares a student for higher education. This was very much the case in South Africa, where vocational programmes were designed in such a way that it was almost impossible to gain access to higher education from them. Thus, all students who possibly can, try to stay in the school system. This further exacerbates the problem that the curriculum cannot be designed only to serve the needs of those aiming for higher education, and creating further need for differentiation within the school system.

One of the most intractable problems in reforming upper secondary education has been the extent to which academic and vocational education are separated and what the appropriate relationship between vocational and general qualifications should be (Allais et al., 2002). A strong vocational alternative (such as in Germany or Scandinavia) is clearly a won-

derful thing, but extremely expensive and difficult to build. Many governments believe that at this level the majority of young people should be studying vocational programmes which governments believe, are more likely to lead to employment. However, this is often official rhetoric which is not based in reality, as Gill, Fluitman, and Dar (2000, p.15) explain, the most common objectives of vocational education internationally are 'first, to keep less gifted students out of higher education and off the streets; second, to keep them temporarily out of the labour market; and third, to provide employers with skilled workers and technicians'.

This is something that the policy and education communities needs to give more careful consideration. Much of the debate around Matric has been related to how well it predicts success at and prepares learners for higher education. Some feel that focusing on higher education has meant that Matric has done other things less well. The reality is that Matric must play the important function of being a school-leaving certificate. In the past these dual functions have been achieved through the distinction between the Senior Certificate with and without exemption. As mentioned above, the notion of differentiation is unpopular in South Africa, but is essential if one certificate is to play these very different roles.

Foxcroft and Stumpf hint at the problem that the requirements of the workplace may be different from the requirements of higher education, with less emphasis on the academic competencies. This much-bemoaned problem is by no means unique to South Africa. However, much of the focus of the paper is on Matric with exemption. In fact, a minority of learners even attempt to attain it (18% attained it in 2004). However, Foxcroft and Stumpf do point to the fact that the Senior Certificate without exemption seems to be a less reliable predictor for higher education. This points to the possibility of even greater problems at this level. Unfortunately, they do not take this idea further, although it was examined to some extent by Umalusi's research.

However, knowing the requirements of the workplace, and how learners can be prepared for them, is not a straightforward matter, as I will discuss in the next section.

2. IS MATRIC DELIVERING TO ITS PURPOSE?

Foxcroft and Stumpf argue that in relation to higher education, Matric is delivering to some extent, although there are considerable problems. In relation to the workplace, they quote research from the Human Sciences Research Council (HSRC) which clearly argues that Matric is of no benefit to job seekers.

Consider some issues in relation to their first point.

2.1. The exam can and should be improved.

Stumpf and Foxcroft raise a particular concern with construct validity in terms of second-language learners, and argue that the current mechanism of compensating them is an inappropriate solution. Instead, they imply, there needs to be more empirical testing of items. This, as Sandile Ndaba discusses in his presentation, is clearly something that Umalusi needs to consider. Exams can always be improved, and it is clear that the current Matric exams can be - the next panel is going to be looking in more depth both at the problems and some

of the solutions which are currently being introduced. Ideally, a body like Umalusi should be able to move into far more validity testing of items, although obviously this would have considerable budgetary implications.

Stumpf and Foxcroft point out that the predictive ability for higher education success is quite good for the Senior Certificate with exemption, and weak for Senior Certificate without exemption, and this is clearly cause for concern. We know, however that the majority of learners do a certificate which was designed for different purposes; the Senior Certificate without exemption was not designed to prepare learners for higher education.

They also argue that large numbers of learners are not sufficiently prepared for further education, quoting various studies to this effect. The figures quoted are very worrying, and must be taken up both in terms of the exam and of curriculum design. There are also clearly a number of issues in their paper that relate to higher education specific policy, such as funding for bridging programmes, numbers capping, and so on.

2.2. Qualification inflation, massification, and high unemployment make understanding the exact nature of other problems with Matric very complicated.

With regard to the workplace, Foxcroft and Stumpf quote research which argues that Matric is of no benefit to matriculants looking for work. Employers (or some kind of generic 'industry') are often quoted as finding that learners with Matric are very unprepared and that they do not have the required skills.

This is a complicated problem, and qualification inflation and high unemployment make understanding its exact nature very complicated. Delivering to the workplace is extremely complicated - knowing what 'workplaces' need (which may be different from what they want) is a massive problem. There are also many aspects of the world of work that simply cannot be learned in formal education, and have to be learned on the job.

But is the problem that is alluded to in the quoted research a problem of the school system, the quality of the exam, or of the job market and rising unemployment? I have already mentioned the recent phenomenon of the massification of secondary education, as well as changes in economies globally. These factors have put a huge emphasis on secondary education, but have also contributed to qualification inflation. Various people (the most famous and influential were Dore (1976) and Collins (1979)) looked at the phenomenon of qualification inflation - the 'Diploma Disease' or credentialism - whereby people come to value certificates more than education: Dore says that education has traditionally been viewed as mastery over knowledge, whether the mastery is an end in itself or whether the knowledge is mastered for use, and whether that use is a practical one or mere self-indulgent pleasure. On the other hand, in the process of qualification the learner is concerned not with mastery, but with being certified as having mastered. If obtaining certificates is the reason for attending school, and the need and desire for certificates rather than knowledge explains the popularity of schooling, he argues, schooling is more and more likely to resolve around certification.

The phenomenon of qualification inflation is important, because we need to understand that while qualifications can and should single out the knowledge and competences that learners have, we also need to remember that qualifications are a positional good.

So, the education system may be seen to be failing because the general perception is that school must solve all the problems of society. In fact, the problem may simply be that there are not enough jobs-primarily an economic problem rather than an educational one, although obviously there is some relationship between the two.

Further, we must accept that how to prepare learners for the world of work is not an easy subject, and there is much debate on whether the focus should be on specific 'hard skills' or 'generic cognitive skills'. However, policy formulators tend to remain at this level-and it is relatively easy to decide that all learners need to be able to solve problems, work in teams, and so on. Less easy is designing and managing an education system which can actually do these things. It is unfortunate, therefore, that we do not put more of our energy into this level.

This brings me to the next point - if what workplaces require is the ability to read and produce complex prose, is it different from preparing learners for higher education? How will content be selected? Wolf (2002) argues that employers generally prefer learners with academic or general education qualifications, and in fact value the skills, knowledge, and abilities that such qualifications produce. This is certainly a point that South African policy formulators need to consider more carefully.

3. IS MATRIC ENOUGH - AND IF NOT, WHO IS SUPPOSED TO BE DOING SOMETHING ABOUT IT?

Foxcroft and Stumpf then pose the question: is Matric enough? There are different ways of interpreting this question.

3.1. Do we need another test at this level for higher education entrance?

In other words, the question could mean: is this one exam enough, and does higher education not need an additional one?

Foxcroft and Stumpf focus on the role of Matric both as a selection mechanism and in terms of how it prepares learners for higher education, looking at academic competencies, generic cognitive competencies, and personal competencies and attributes. They refer to the fact that a number of South African studies have pointed to the fact that on entry to higher education institutions, large numbers of learners are not sufficiently ready (i.e., do not have the required, academic, cognitive and personal competencies) to cope with higher education studies. Their statistics on reading skills are particularly a concern.

Foxcroft and Stumpf argue that higher education would be reluctant to adopt the route of a separate entrance test, but that it may be forced to because of numbers capping and if the predictive value of the Senior Certificate or its replacement decline. Some of these concerns will be dealt with in the third panel discussion today.[1] On the other hand, we are aware that many institutions have administered tests to various categories of applicants for

various reasons, and are aware of the current work, which Foxcroft and Stumpf also mention, in relation to benchmark testing. We feel such testing, if it contributes useful information to the system as a whole, may be helpful. However, Umalusi shares the general reluctance for entrance testing for higher education, and believes that careful thought should be given to who designs and administers such tests, and for what purpose.

3.2. Do our schools at all levels understand the standard at which they should be working?

'Is Matric enough?' could also mean: does the Matric exam provide enough external assessment in our system, and does it give sufficient information to teachers about the standards that they should be achieving in their classrooms?

'Standards' mean an understanding built over time and shared among experts in particular subjects about the levels of cognitive breadth and depth expected of learners. In addition, standards mean the different levels at which learners' performances can be evaluated in relation to these levels of cognitive breadth and depth. To some extent, standards understood in this way can be made explicit-the syllabus, as well as assessment guidelines (what will be assessed in what proportions) and assessment rubrics (guidelines about how learner performances should be evaluated). Marking memoranda and other similar tools also contribute, but to some extent standards are held in the heads of skilled professionals, and need to be developed in professionals who are not yet skilled enough.

It does seem clear that we need much more systematic intervention to build this sense of standards at all levels of our system, and not just Matric. This could mean more exemplar tests at lower levels of the system, or even testing at lower levels, although of course we will have to balance this imperative with the budgetary implications and other possible problems associated with this kind of testing. It also must mean more support to schools, to ensure that teachers at all levels understand in a much more detailed way what is expected of their learners.

3.3. What other aspects of our education system must be emphasised, supported and monitored?

'Is Matric enough?' could mean: can the Matric exam give us all the information we want about learners? Foxcroft and Stumpf discuss the role of Matric both as a selection mechanism and in terms of how it prepares learners for higher education, looking at academic competencies, generic cognitive competencies, and personal competencies and attributes. I would argue that it is clear that much of this information will never be gained from an examination, of any nature.

This raises questions far beyond improving the Matric exam. It is logically feasible that the quality of the exam could improve, that levels of difficulty could be raised, that learners' marks could improve as schools learn better how to prepare them for the exam, and that learners could be less well prepared for higher education-if schools stop focusing on the range of other factors that Foxcroft and Stumpf have isolated as important, but which are not easily measured, and are therefore unlikely to be part of a narrowly taught curriculum.

If the other 'generic cognitive skills' and 'personal attributes' are equally important to higher education, and arguably more important in the workplace, it is clear that Matric is not enough as a test of how healthy our school system is. We need to think about what other mechanisms we need in our education system, both to develop and, where possible, to measure such competences. However, although they are important, many of these competencies are not easily measured. Although setting good exams is difficult, it is easier to test whether or not learners have mastered some aspects of calculus than whether or not they have enough motivation, enthusiasm, intellectual curiosity and self-confidence to succeed at higher education or in the workplace. The main implication is that we need better schools, which do not only prepare learners for the exam. We also need to think about extracurricular activities - sport, debating, drama and so on, which are surely crucial in building the kinds of skills learners are said to need, and which are sorely absent in most of our schools. We need good libraries in our schools. And we need to think about how the state should support and monitor the development of these other competencies.

Foxcroft and Stumpf ask: should the delivery be left entirely to the school system? They argue that
The time is right for South African higher education institutions to stop moaning about Matric and the poor quality of learner produced by the school system. Instead, the higher education sector needs to send a clear signal about the entry-level competencies it expects of entering students.

It is not clear what they mean by 'leaving' it to the school system, except that they argue for higher education playing a role in working with schools, and this idea of sending a strong message to schools in terms of the academic, generic cognitive, and personal attributes that they should be cultivating in their learners.

This brings me to my main issue of contention with Foxcroft and Stumpf. The most important thing with these kinds of skills (and with the more straightforward academic ones) is not telling people what is needed, or even measuring (where possible). I have discussed the need to help teachers better understand the expected standard at all levels. What is equally important, however, is designing curricula, learning programmes and institutions that can cultivate these competencies.

I think there is an over-emphasis in the paper, as well as in general discourse (and research and policy formulation) in South Africa (and internationally) on thinking about the competencies/characteristics/skills/abilities that learners need, and a drastic under-emphasis on understanding how to develop these skills in learners, never mind in building schools that do so. We hit a bit of a diversion as a nation when we started to think about standards as statements about tasks that learners should be able to perform, because we tend to think that once we have told people what the necessary standard is, they will somehow be able to produce it. They have not been doing so until now only because they were really unaware that higher education wanted motivated, curious, critical students. Internationally there are many massive, very expensive projects which have tried to identify 'core skills' or 'generic competencies' or similar such things, and there is also much glib talk about 'the competencies needed in the workplace'. Often, the focus is on things that are arguably aspects of personality (which perhaps could be cultivated through education programmes)

like teamwork. Presentation and 'aesthetic skills' (which is a new term in the literature, and often is used as a nice euphemism for industries which essentially want to hire people who are stereotypically attractive) are also important in the growing service industry - but should they be part of the school curriculum? There is much talk about 'transferable skills' but it is not clear what these are, how transferable they are, how they relate to traditional disciplines, and so on. Some argue that this 'transferability' or 'thinking skills' are only learned through disciplinary study. It is clear the 'problem-solving skills' are different things in different disciplinary contexts as well as different from non-disciplinary contexts.

Rhetorical pronouncements about relevance, efficiency and competencies are easy to make; understanding exactly how education systems should and can be changed is a much harder task. The weakness of the South African system lies in the absence of well-designed learning programmes and sufficiently prepared teachers in all important subjects who can teach the required knowledge and skills. Outcome statements and lists of key competencies can only give a limited guide to what needs to be learned and assessed.

In addition, the institutional context in which learning takes place, as well as the content which is prescribed or chosen to be taught, has a huge effect on what a learner is in fact likely to learn. Thus, the biggest and most difficult challenge is designing curricula and the school system more broadly (including extramurals) in such a way that they actually teach and cultivate the necessary 'knowledge, skills, and values'. Here we could think about more emphasis on curriculum design, better textbooks, better extramurals (or just introducing extra-murals at all), and a stronger inspection function to check up on what schools are doing.

4. WHAT IS MATRIC?

4.1. It is an exam that measures scholastic achievement.
In one sense, Matric is simply an exam which measures scholastic achievement. It is important; it can and must be improved, but we also need to accept the inherent limitations of an examination.

It is well known that examinations have played a central role in setting the standards of the curriculum in most education systems, and that assessment is inevitably linked to certification. The certifier, in this case Umalusi, must attempt to ensure that assessment mechanisms are as good as possible, as assessment systems have a profound effect on teaching and learning - what has been called the 'backwash effect'. The level at which learners are assessed tends to influence the level at which they are taught - the cognitive breadth and depth of the exam will influence the cognitive breadth and depth of the taught curriculum. In addition, during the process of marking examinations, teachers become familiar with what the expected 'standard' is - they get a sense of what is meant by a pass in a certain subject area, what is meant by high achievement, and so on, and this is then fed back into the classroom.

Umalusi thinks that exams are extremely important and that our country should continue to use them as a significant mechanism for quality assurance and certification at significant points of our education system. We also firmly believe that we need to strive to improve

them, and, within our current capacity, are doing various things to do so, which Sandile Ndaba addresses in his presentation. We are also exploring how examinations and other forms of external assessment can be extended to new areas of learning in which they have played a less prominent role in the past. However, we also recognise the limitations of exams. They cannot test everything that we want to know about a learner's scholastic ability, never mind about the other abilities that Foxcroft and Stumpf tell us are so important. This brings me to my next point.

4.2. It is a certificate whose value resides in society and may change over time for a variety of reasons.

I have said that Matric is an exam. But when we say someone has a 'Matric', we do not think of someone who wrote this one set of exams. We think of someone who has been through twelve years of schooling. As I said above, the quality of the exam is very important, as it is a sampling of the 'scholastic achievement' of learners. However, it is also the quality of the institutions that they attended which determines much of what they know and can do, as they learn (or at least, we want them to learn) many other important things that cannot always be measured through an exam.

Qualifications gain their worth from the institutional and symbolic meanings they convey between social groups including qualification recipients, parents, friends and other users such as employers, educational institutions, and occupational and professional associations. These meanings are historically and socially constructed through the use of qualifications in everyday life and through their role in helping to pattern social relations and social reproduction. It is inevitable that perceptions of the value of particular qualifications may alter over time as their meanings are negotiated or disputed (Fuller, 1999).

One implication of this is that there is a huge burden on the certifier to attempt to counter this trend. Umalusi is cognisant of this responsibility: the certifier has to ensure that there is a relationship between the symbolic value and the real value of the qualification. However, as much as we must be worried about the concerns regarding validity and reliability that Foxcroft and Stumpf raise, and that have been raised in various places, and we must strive to improve the exam as much as possible, we also have to realize that other factors will influence the way that society comes to value qualifications.

SUMMING UP

In conclusion: when we analyze and scrutinize Matric, what it is there to do, and whether it is doing it well enough, we do need to look at how to improve the exam. At the same time, though, we need to be absolutely clear which things cannot be solved by the Matric exam, and which should be solved or at least improved through other aspects of the school system. We also need to be clear which things in society cannot be solved by the education system.

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1 See papers by Yeld, Vinjevold and Lolwana in this publication.

Halos and Horns:
Reliving Constructions of Matric Performance in the South African Education System

Sandile Ndaba

1. INTRODUCTION

The question I have been asked to address is how Matric is performing. The seeming simplicity of this question belies its complexity. It raises myriad questions: Performing what? When? Where? For whom? How does one determine the performance of Matric? Chisholm (2004) argues that the analytical tools, quality and disaggregation of information are rarely subject to authentic analysis. The main tool that lends itself quite easily to being used to measure the performance of Matric is the examination.

Assessment in South Africa has been dominated by the Senior Certificate, or Matric as it is popularly known (Loock & Grobler, 2005; Lubisi & Murphy, 2002). The debate about Matric is an old one and it always centres around the issues of quality and standards (Lolwana, 2004; Chisholm, 2004).

The concept of quality in education refers, inter alia, to factors such as learners' achievements, teaching approaches and the nature (physical, cultural and social) of the school. Quality in the classroom also raises issues such as the aims, goals and means of teachers and learners. Quality, however, is one of those terms that are not easy to measure or define. 'Quality teaching and learning', 'quality assurance' and 'total quality management' are all themes that focus the attention and draw the criticism of policy makers, administrators and practitioners across the international educational arena. No one is against quality; everyone wants to be assured that they will obtain it. But what is quality and how do we know when we have found it or failed to achieve it? How are we to assess it and what measures need to be introduced to promote it? Can the introduction of a new curriculum, for example, improve quality in our schools? These are all complex questions.

In South Africa, public examination results are the main performance indicators of schools. Schools with the highest number of passes are reported in the media. While this practice may be seen to be motivating, teaching for examinations (i.e. teaching the syllabus only) may deny learners the opportunity to access the breadth of knowledge associated with education. This is most often the case with traditional, content-based curricula where memorizing knowledge for examination purposes is emphasized, instead of acquiring skills and focusing on processes. In this regard, the teacher remains the key person who can maintain efficiency and effectiveness while facilitating the development tasks related to examinations.

Assessment has become one of the most significant areas of interest in educational policy development worldwide. This is true in emergent educational systems such as ours as well as in the context of government interventions in established systems. The importance of assessment for influencing teaching and curricula has not been lost on governments. Politicians are increasingly aware that what is taught, and how, can be indirectly assessed

through the control of 'high stakes' assessment programmes (Filer, 2000).

Educational assessment has thus become a highly contested area, as it is the focus of complex political, economic and cultural expectations for change. In the context of the growing social significance of assessment, however, policy, public debate and the development of practice predominantly focus on the technical means by which policy is delivered. Notwithstanding the growing significance of assessment in the social structuring of societies, debate rarely addresses more fundamental issues concerning the social functions and outcomes of assessment.

Filer (2000) distinguishes between technical and sociological discourses of assessment. A technical discourse of assessment is one in which required ends - for example, practices of grading, comparing and selecting individuals or schools on the basis of test scores - are not in dispute. It is, rather a discourse concerning the means whereby given ends can be achieved as fairly and objectively as possible. Within such a discourse, therefore, technicalities concerned with test validity and reliability, criterion and norm referencing, and so on, will prevail. Such a discourse is thus about maintaining and improving confidence in systems of assessment and results; thus ultimately legitimizing the uses to which they are put. A sociological discourse of assessment, on the other hand, presents insights into the fact that, as well as having educational purposes, assessment fulfils a range of political and social functions within modern societies. These wider functions are concerned with social differentiation and reproduction, social control and the legitimizing of particular forms of knowledge and culture of socially powerful groups. This discourse is particularly concerned with the social impact of assessment and the perpetuation of educational and social disparity and its cumulative effects in shaping ways in which individuals and groups in society come to be seen and to see themselves.

The performance of Matric has been constructed and cast in different guises. Sometimes it is constructed as pass rates, complete with the number of endorsements and school leaving passes, male versus female, black versus white, English First Language versus English Second Language candidates, privileged versus underprivileged or disadvantaged, urban versus rural, and all the other contrasts and antinomies one can conjure. It is also constructed as the level of difficulty of the various examination question papers. In other instances the focus is on the processes of resulting, and more specifically the statistical moderation of, assessment scores. This paper will now proceed to consider these various constructions of Matric performance.

2. MATRIC PERFORMANCE AS HISTORICAL RESILIENCE

Cast in this mode, Matric is widely revered by many who belonged to advantaged departments of education under apartheid. To some extent, even those who came from disadvantaged systems place a very high value on the Matric. Its currency accrues from its long history and legitimation as the most important qualification in the eyes of the public. Arguments about Matric having built its reputation and legitimacy over the years are passed as evidence of its good performance. Matric history is very often chronicled in a laudatory manner that masks its uses over the years, including serving the purposes of the apartheid government. Lolwana (2004) identifies three distinct phases in the quality assur-

ance of Matric: the Joint Matriculation Board (JMB) era, the South African Certification Council (SAFCERT) era, and the emerging Umalusi era.

The Joint Matriculation Board exercised quality control through the moderation of question papers, moderation of marking, standardization of examination results, annual reviews of the right of any department to run the Matric examination, and control of school syllabi. The JMB's quality control of Matric relied heavily on the standardization of examination results. From 1921 to 1953 the JMB granted permission to various provincial departments of education to run Matric examinations and thus become examination bodies. However, the JMB kept a tight rein on these examinations to ensure that they were of a comparable standard to those set by the JMB itself. This was done mainly through a statistical process of applying an obligatory standard distribution curve per subject to adjust the marks to a standard score before the comparative process could be applied. Even then, the statistical moderation of examination results was highly contested (Trümpelmann, 1991).

The JMB ceased to exist in 1992. Matric was controlled by the Matriculation Board, which was a sub-committee of the Committee of University Principals (CUP), now called the South African Universities Vice-Chancellors Association (SAUVCA). The South African Certification Council was established in 1986, and until 2002 it took over the function of quality assuring Matric. Contrary to popular belief that all was well within both the JMB and SAFCERT, Lolwana (2004, p 6) observes that:

> It is alleged that SAFCERT applied its standard keeping function discriminately to the various examining bodies. Certain examining bodies were allowed to operate unchecked while others were closely monitored. Given the low levels of provisioning in the homelands and the ex-DET and the resultant poor performance in these systems, SAFCERT was compelled to upwardly adjust raw scores in excess of accepted practice so as to present a more favourable picture of performance in these systems. Similarly, in propping up systems of the apartheid government, the Statistics Committee of the JMB was very lenient towards administrations such as the Transkei. Their intention was to give the impression that these homelands were working.

SAFCERT was transformed at the end of 2002 and replaced by the Council for General and Further Education and Training, known as Umalusi. Umalusi largely carries on and attempts to improve the quality assurance regime it has inherited from the JMB and SAFCERT. Umalusi has a bigger mandate than its two predecessors, however. Its role is to maintain the integrity of and confidence in the system. The quality assurance measures used by Umalusi to ensure the validity, reliability and fairness of the Senior Certificate Examination include moderating question papers, moderating marking, monitoring the conduct of the exam, moderating continuous assessment and standardizing marks. In conducting the research into the standard of the Senior Certificate Examination, Umalusi sought to understand whether the quality assurance measures mentioned above were in fact performing the function they are meant to perform.

3. MATRIC PERFORMANCE AS PASS RATES

Bott (2005) observes that the Senior Certificate results are difficult to compare over the

period 1990 to 2004. Racially classified examinations continued until 1996 when non-racial provincial examinations were introduced and, with this, new norms for determining the performance of learners had to be developed for each province as well as for the national subjects. The pass rate in 1991 was 53%, showing a slight improvement to 54% in 1996 and dropping sharply to 49% in 1998. Thereafter, results improved steadily to a high of 69% in 2002, 73% in 2003 and 71% in 2004. Chisholm (2004) observes that an analysis of trends rather than rates since 1996 does show that while the total number of candidates has declined, both the number passing and the number with exemption have risen.

Even as the Department of Education celebrated the improved pass rates and patted itself on the back for this great achievement in the democratization of education in South Africa (Ndhlovu, 2004), serious doubts were expressed about the extent to which they reflect an actual improvement in the performance and quality of candidates. Jansen (2004) fired the first salvo by charging that the Senior Certificate Examination has become easier. Muller (2004) argues that learner performance at all levels of the system remains extremely poor. He argues that current assessment is not telling the public what it ought to know. Foxcroft (2004) observes that Matric has become a very unreliable predictor of success at tertiary level. The improvement in pass rates was ascribed to other factors such as the fact that many more learners are writing subjects on Standard Grade rather than Higher Grade, as the research conducted by Umalusi (2004) revealed. Sceptics have added that practices like the 'culling' of learners at Grade 11, mark adjustments for second-language speakers who offer African languages as their first language, a prevalence of upward rather than downward adjustments of marks during the standardization process have resulted in improved pass rates (Fleisch, 2003).

Considered from the realm of pass rates, therefore, Matric is performing very well indeed, but there are loud voices of dissent.

Regardless of the ongoing annual discourse of derision, statistical realities or legitimacy of comparison from year to year, South Africans continue to want to use Matric to pronounce on how well its school leavers are doing and how well the society is doing.

4. PERFORMANCE AS THE CONCEPTUAL DEMAND OF EXAMINATION QUESTION PAPERS

Sometimes Matric performance is judged by the level of difficulty in examination question papers - the more difficult the question papers are, the higher the standard of the examination is seen to be. Umalusi's research revealed some disturbing findings in this regard. The level of conceptual demand in the majority of subjects - English First Language, English Second Language, Biology and Mathematics - was found to be rather low. Subject specialist teams in all four subjects found a dearth of items requiring the deployment of higher-order thinking skills. This was the case in both Higher and Standard Grades.

The English Second Language subject evaluation team highlighted the crucial role played by English in the South African education system as both a target and a vehicle for learning. They argued that candidates would be required to show that they can operate in English in a competent manner when using it in their other subjects.

> ... the content of the English Second/Additional Language curriculum, together with assessment practices at the Senior Certificate level for this subject, are singularly inappropriate for preparing students to study their other subjects. More specifically, the low levels of cognitive demand at which these practices are pitched are in fact counterproductive to developing the conceptual language and skills needed for higher levels of learning (Umalusi Report, 2004: 47).

In 1998 the then Minister of Education, Kader Asmal, appointed a research team to investigate the language issue, assuming that learners who write the Senior Certificate examination in a language that is not their mother tongue are seriously disadvantaged. The research team concluded that language was a factor contributing to poor performance by such learners. The team also found that the learners were further disadvantaged by the syllabi of the African languages, which did not encourage the use of higher-order thinking skills.

SAFCERT decided in 1999, as part of its responsibility to ensure fairness in the Senior Certificate Examination, to apply a compensatory measure for learners whose first language was neither English nor Afrikaans and who offered an African language as their first language. A compensation of 5% was awarded to such learners for their non-language subjects, based on the mark they had obtained in the examination. This was understood to be an interim measure until the issue of upgrading the teaching and learning of English Second/Additional Language has been addressed.

In 2004 Umalusi evaluated the compensation practice. The findings confirmed the low levels of achievement by compensation candidates compared to the other candidates. The statistical analysis seemed to indicate that the competency level of the compensation candidates in the second language has not improved in the last seven years.

5. PERFORMANCE AS HISTORICAL NORMS

A number of experts in education have expressed scepticism about the standardization process (Bott, 2005; Muller, 2004; Fleisch, 2003). They argue that this process is used to adjust marks upwards with the aim of achieving improved pass rates. Standardisation is the process whereby the results of an examination are compared with established norms and standards and adjusted if necessary. The process is premised on the probability that candidates with equal ability will obtain equivalent results if writing different question papers under different circumstances (Loock & Grobler, 2005).

Umalusi (2004) evaluated the statistical moderation of the Senior Certificate Examination. The evaluation was conducted independently by two specialists who have extensive experience in the process. They produced two independent reports which corroborated each other. Their evaluation found that:

> For 1996 and subsequent years the predominant adjustments performed at the statistical moderation meetings were upwards, not infrequently by a maximum of 10% allowed. However, the situation has improved since 2002. Now both upward and downward adjustments are made, and in many cases raw marks are accepted (Umalusi, 2004, p43).

The evaluation by Umalusi showed, therefore, that the upward adjustments predominant in the earlier years of democracy were more a symptom of emerging norms rather than a conscious effort to raise marks.

1996 was the first year that national examination papers were introduced. There were no norms for these national examinations to assist in the standardisation process. A new approach had to be introduced in the interim until such norms were established. This opened room for bargaining on the results on the basis of other factors outside the statistical norms. The system has, however, stabilised and the norms entrenched.

6. CONCLUSION

The issue of Matric performance is a complex one. It can be approached from a multiplicity of perspectives. The answer is never cut and dried. The various standpoints from which Matric performance can be considered testifies to this fact. There are a number of issues emanating from the research conducted by Umalusi which the new National Senior Certificate will have to battle with. These include:

1. the issue of standard setting;
2. the issue of differentiation;
3. levels of cognitive demand;
4. the articulation and elaboration of outcomes, curriculum and assessment standards; and
5. the whole issue of quality assurance of the qualification.

All these issues need to be addressed before the new qualification is awarded in 2008. This would necessitate the rigorous review of quality assurance processes used by Umalusi to quality assure assessment leading to the award of the National Senior Certificate.

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The Challenge of Cognitive Demand

Johan Muller

INTRODUCTION

Most discussions to date of the rising pass rates of the Senior Certificate (SC) or matriculation (Matric) examination have tended to focus on what might be called the 'big picture'- on patterns of student achievement, on outcomes, on the selection and predictive functions of the examination. In this presentation I propose to delve into the 'black box' of Matric. What I mean by that is that I wish to examine what it is that the Senior Certificate tries to measure, reading from it what we as a society, through the Senior Certificate examination, expect our school leavers to have learned by the time they leave the formal schooling system.

The question of the moment is: have our scholastic expectations for our school leavers dropped? It is a question that arises rather naturally when we see our Senior Certificate pass rates rising while authoritative educators like Jonathan Jansen tell us that the system has not done enough to reform the teaching and learning process to make a rise in passes credible. Therefore, so public opinion reasons, the standards must have dropped: somewhere along the line; the examination must have lowered its expectations, so that it has become 'easier' to pass or to do well.

The Umalusi research was commissioned to answer just this question. Although the validity and generalisability of the research has been questioned in some quarters, I believe its outcomes are more interesting and suggestive than some would suppose. In particular, the subject-based research reports tell a complex and instructive story, and this is reviewed below.

CAPTURING COGNITIVE COMPLEXITY

Umalusi commissioned six reports from five subject areas: Mathematics Higher and Standard Grade; Physical Science Higher Grade; Biology Higher and Standard Grade; History Higher and Standard Grade, English First Language Higher Grade, and English Second Language Higher Grade. These were chosen to reflect the areas of most concern, but were also the subjects which had been examined by a national examination since 2003, an issue I will return to below. The exception to this was the English First Language paper, which had by 2003 not yet been nationally set.

The Umalusi research forum sharpened the question about standards to the following: have our expectations as expressed by the level of complexity of the examination questions, by their level of cognitive demand, declined? Each research group was asked to operationalise the notion of cognitive demand, which they did in terms of a scale of difficulty, except for the group looking at Biology which used the idea of a skill hierarchy. In addition, each group was asked to compare the cognitive demand level between the papers set in 1992, 1999 and 2003, when most of the papers considered here were nationally set. Of course, this would not tell us what the pupils actually learned, only what the examination papers set out to assess. The assumption was that teachers would be teaching to what was

going to be assessed. The inference was that if it was not being assessed, it was probably not being taught, or learned either. The design is summarised in Table 1.

Table 1: Umalusi subject-based research

	1992 or 1993,1999,2003	Difficulty rating On 3 or 4 point scale
Mathematics (SG; HG for 2003)	X	X
Physical Science (HG only)	X	X
Biology (SG & HG)	X	Skill hierarchy
History (SG & HG)	X	-
English (HG)	X	X
English (HG)	X	X

The results are quite unambiguous. In nearly every case the researchers found that the level of cognitive demand had declined, as public opinion had surmised. Here is a sampling of the judgements:

> The Senior Certificate examination in Biology since 2001 can be considered to have become easier to pass...
> (Biology, Standard Grade and Higher Grade).
> In terms of cognitive and subject specific challenge...a decline in the overall level of challenge of the language papers (1992-2003) and to a lesser extent, in the literature papers (English First Language, Higher Grade).
> ...it is difficult to escape the conclusion that the nationally set paper (Paper 1, 2003) is becoming easier
> (English Second Language Higher Grade).
> The obvious decrease in marks allocated for level 3 (highest cognitive level) is dramatic for the national Senior Certificate (2003) with the lowest marks (at level 3) allocated in 2003
> (Maths, Standard Grade).
> It is obvious ... that the NSC has a dearth of marks for level 3 items (high cognitive demand) and more than two times the marks for level one items compared to the marks awarded by the IEB.
> (Maths, Higher Grade).

In Physical Science, Physics was found to be getting slightly easier, Chemistry slightly harder. In History the researchers found that marking procedures flatten the demand intentions of the curriculum - 'the system is flawed and inadequate at discriminating between good and bad answers'.

IS MATRIC GETTING EASIER?

What does it mean to say that the exams have declined in terms of cognitive demand, especially if we look at 2003? Does this mean that the nation is on a long slippery slope to cognitive oblivion? Are our worst fears about to be realised? All those who interpret these results primarily as a progressive trend assume as much. There is a less apocalyptic possibil-

ity, however, one that makes fewer assumptions about the irreversibility of unseen forces at work, and that accounts for the results in the following more circumstantial and circumspect way:

In 2001, the exam papers began to be set nationally for the first time. This is an event whose significance we have greatly under-estimated. By 2003, six subjects (the five discussed above, English First Language excepted, plus Accounting) were either wholly nationally set or had national components. This might seem modest, but these subjects account for a very large proportion of candidates registered for the final examination. Consider, in 2003 more candidates sat the English Second Language Higher Grade paper than sat the entire Senior Certificate in 1990. At the end of 2001, the absolute numbers of passes at both Standard Grade and Higher Grade went down, although the proportion of passes went up. More worrying, there were dramatic differences between the provinces, which we could now start to compare, apples with apples, for the first time on performance across national instruments that had been compiled by national teams of examiners. This represented an enormous step forward, educationally speaking: we were for the first time getting not only equity of expectation, but we could also begin to deal with the serious unevenness between provinces, especially with respect to levels of demand, quality of layout, inaccuracies, ambiguous and unfair questions, poor sequencing and so forth - problems we had long been aware of. At the same time, though, a potential political embarrassment arose, since it raised to visibility differential provincial performance that had hitherto been invisible, and this soon became politically explosive.

There are other things to consider, too. Administering the examination nationally meant a vast increase in the complexity of the task. There were far more candidates and markers within the same framework. Partly for technical reasons (getting large numbers of markers operating within the same framework) and partly due to the new 'skills-based' methodology adopted, it soon became clear that it was far easier to set shorter questions that were unambiguously right or wrong than it was to set questions which required extended answers. This naturally varied from subject to subject. The Biology research team spell out how this worked out in practice for them: there was a reduction in the weighting of the essay as well as a simplification of language, which led to a considerable increase in the number of questions, each worth fewer marks. Quite inadvertently, this lowered the level of cognitive demand overall: learners had less opportunity to demonstrate knowledge in depth; to articulate in written form; and, as spelled out in the case of Biology, to synthesise across topics.

However, setting more questions means setting more text to process, hence increasing what the English First Language team called 'language load'. Here we see how an attempt to standardise the papers to respond to the challenge of setting a national paper had paradoxical and unanticipated effects. A similar unexpected train of events occurred in History. Here, setting shorter or 'resources-based' questions unexpectedly made it easier to get more marks, or even full marks, than it had been with essay-type questions. As one member of the History team put it, 'The mediocre tail of candidates is achieving higher symbols than previously and the examination is failing to differentiate between mediocre and exceptional candidates'. Subsequent attempts to 'contextualise' the language, to make it more 'user-friendly' for English Second Language candidates, added to the problem.

In 2002 and 2003 there was great pressure on the Statistical Moderation team to adjust the marks upwards. This was starkly evident in English Second Language. So paradoxically 2003, the year of six national exams, marked a low point for cognitive demand and it denoted serious political pressure for upward statistical moderation: after all, 2004 was an election year.

This interpretation suggests something like the following:

1. The provinces had been administering the final examination in a very uneven and relatively unaccountable way between 1994 and 2001, with wide disparities and very few quality checks.
2. From 2001 to 2003 national examinations began to be phased in, with the resulting unintended consequences discussed above, including the new visibility of provincial disparities.
3. Reaction from the Department of Education took the form of pressure on examiners to set examinations that would offer greater 'accessibility' (English Second Language), on moderators to make generous adjustments, and for soft upward statistical adjustments.
4. Thus, according to this interpretation, the 2002/2003 results were a low point produced in large measure by the requirements of nationalisation, by new forms of skills-based assessment, by the desire to make the examinations more accessible, and by the political pressures of the 2004 election. The largely invisible outcome - invisible to school educators, that is, though not invisible to employers or to university admission officers - was that the schooling system was emitting a cohort or two which had reduced opportunities to demonstrate higher-level cognitive skills, had possibly not even been taught them and, in far too many cases, therefore did not have them.
5. This interpretation also suggests, however, that this is not necessarily either a long-term or a permanent downward trend, but rather more circumspectly a temporary side effect of large-scale national reform. If that is the case, the questions to be asked are:
a. Do we ignore it, and run the risk of it hardening into a long-term trend (realisation of the worst-case scenario through political timidity and inaction)?
b. Or do we grasp the implications of rapid large-scale reform and move to make adjustments?

If these speculations are correct, then the drop in matriculation marks in 2002/2003 was a compound consequence of:
- the format adjustments of national up-scaling (including new forms of testing);
- statistical adjustments; and
- trying to make the language of papers more accessible.

The last point is, at one level, perhaps the most crucial. Language is the key to all learning. No one disagrees with this. Where they differ is why. For the Department of Education and their examiners, language - or more properly the language of instruction for second-language speakers - was and is a block to learning principally because it was not sufficiently 'contextualised', or insufficiently close to the concerns of disadvantaged learners (insufficiently 'relevant'). The solution for the Department was to contextualise the questions, to make them more relevant to the lives of learners, which many examining teams did. Thus, lack of contextualisation and relevance are considered to be semantic obstructions to comprehension. However, language is also a cognitive tool that works through the syntactic as

well as the semantic structures of language. By acquiring certain forms of language, we acquire the tools for different, higher-level cognitive operations. Without those tools, those forms of cognitive operations are blocked to us; we simply cannot learn them. Language and thought are intertwined in this way, and no amount of semantic tweaking can supply the cognitive cues necessary to perform the cognitive operations when the linguistic tools are not mastered.

This is brought home in shocking fashion in the English Second Language research team's report. The 2003 English Second Language Higher Grade examination is characterised by them as having a high level of contextual relevance, a dearth of items requiring candidates to use language as a tool for learning and thinking, a lack of genre variety, and a low level of cognitive challenge. Consider - having scored the items for the 2003 English Second Language paper, the team found it offered a lower level of cognitive challenge than its 1992 Department of Education and Training (DET) equivalent.

If the fundamental premise of this group is right, then we should not be surprised that we appear to be making little headway with increasing the attainment levels of candidates in subjects where specialised skills are required, like History, Mathematics and Science. The low level of demand and expectation in the largest language-of-instruction Matric subject, English Second Language, effectively places a cap on the learning levels possible for English Second Language learners in all other subjects. We can pump as many resources into Maths and Science as we like, but if the cognitive resources are not provided in English Second Language, we cannot expect to see learning improvements, either there or in any of the other subjects.

CONCLUSION

Whether advertently or inadvertently, as argued here, low cognitive demand and challenge is a threat to the learning health of the nation. It should be addressed at every stage of the educational cycle:
- in the curricular statements;
- in manuals of exemplars;
- in textbooks and learning materials;
- in examination papers; and
- in marking standards.

Not only do we need regular and systematic checks on the cognitive demand health at the different stages of the process, but we need an overall strategy for checking the alignment of the stages. As the History team showed, a disjuncture between the marking standards and the curricular standards leads to a failure to discriminate good answers from bad, negating a central purpose of the examination.

The task here is both a training one and a monitoring one. Curriculum committee members, examiners and chief examiners, moderators and markers should all be trained to be alert to issues of cognitive demand. This task is probably best delegated to the universities. Monitoring demand and alignment is probably best done by a national agency such as Umalusi. This research is a very good start in that direction.

Senior Certificate Syllabus Stagnation and Attendant Woes: Some Consequences for the National Senior Certificate

Nan Yeld

I am talking from the perspective of Higher Education - but I argue that employers would support what I have to say, as I trust you will agree as I progress.

In any country, higher education must take, as its regular starting point, where the country's public education system ends. Its entry assumptions and its admissions and selection systems must be built on this. Its alternative access routes (including access courses, extended curricula and RPL procedures) must also take the 'norm' - the end of public schooling - as the starting point for system design (i.e. what are they alternatives to?).

Common sense dictates that the majority of students entering higher education come to it straight from school, and this is likely to continue, here and elsewhere. However, given South Africa's history of unequal provision and consequent unequal preparation for higher education study, and given our need in a rapidly changing world to continually reinvent and re-educate ourselves (lifelong learning), we need to ensure that access to higher education does not become so rigid that it:

- makes it virtually impossible for adults to enter higher education, or for people to have a second chance;
- narrowly constricts and constrains the curriculum so that all learners in FET are forced to follow more or less the same curriculum path.

In setting minimum entry requirements for higher education, then, it is useful to strip the problem down to its essentials.

I will speak from my experience, based on many years of working with academics at almost all South African higher education institutions. When closely questioned (interrogated?) on what they consider to be absolutely non-negotiable, the results are interestingly uniform:

1. Mathematics is non-negotiable for 'numerate' disciplines, although even here, the level and extent of Maths required at entry level is not completely clear. Will Mathematical Literacy result in enough numeracy to provide entry to BCom study, for example? A previous Dean of Commerce at the University of Cape Town (UCT) maintained that if a student had a good grasp of arithmetic, that was what was required - the rest could be taught along the way. However, for successful study in Science and Engineering, and some programmes in the Humanities such as Economics, school-level Maths is required, preferably at a fairly advanced level.

2. Physical Science is also non-negotiable, although generally only for Engineering and Health Sciences (most Science faculties offer Chemistry courses for regular-entry students who have not taken Science at school level).

3. Beyond this, there are very few subject-specific entry requirements for degree study (apart, of course, from specialist programmes such as Music or Architecture). One can study History or Accounting or Biology or Economics or Religious Studies at university without having taken those subjects at school.

So what is it that is required? What are the entry assumptions? In other words, what types of learning are assumed to be in place (over and above the particular knowledge and skills gained from Maths and Science as described above)?

What it seems to boil down to is such matters as academic literacy (the ability to think logically and critically, to be able to order ideas and construct an argument, both verbally and in writing, minimal levels of numeracy) as well as a threshold level of proficiency in the medium of instruction. I will return to these in more detail later.

I should add at this point, however, that this is NOT to downplay the crucial role of knowledge. It is through deep and meaningful engagement with knowledge-based problems that one develops the 'contentless processes' so essential to higher education study. This argument forms the basis for the 'designated list' of subjects that forms part of the minimum requirements for entry to degree study-that those subjects lend themselves most obviously and efficiently to the development of higher-order cognitive skills (although it should be said that there has been some pragmatic, and understandable, watering down of this by the Department of Education).

I have argued above that there is widespread agreement that students entering higher education should have developed high-level skills in these areas. It is also generally agreed that the development of these skills and abilities is slow and difficult, and ongoing throughout one's life - certainly in formal education, and commonly beyond it.

This takes us to the issue of the legacy of the Senior Certificate, and of the syllabus stagnation that has been its hallmark for several decades.

I would like to focus on what I see as the major consequence of this - a steady and extremely serious decline in the level of cognitive challenge in the teaching and assessment of Senior Certificate subjects (with the inevitable underdevelopment of learners within that system).

This leads me on to the study commissioned by Umalusi last year.

Umalusi, in taking seriously its role as the Quality Assurance Agency for General and Further Education and Training, got groups of researchers together to assess whether or not standards had fallen over the last twelve years, taking the Senior Certificate as the measure.

As well as analysing content (what was being examined), item types and mark allocations, the project assessed what we called the 'conceptual challenge' level, where three levels were assigned.

The subject with which I was involved, English Second or Additional Language, concluded that

> ... the nationally set paper in the subject is becoming easier-or, in the jargon of the examiners, becoming 'more accessible'. The conclusion was reached on the basis of the seeming fall in the number of questions designed to operate at more challenging level.[1]

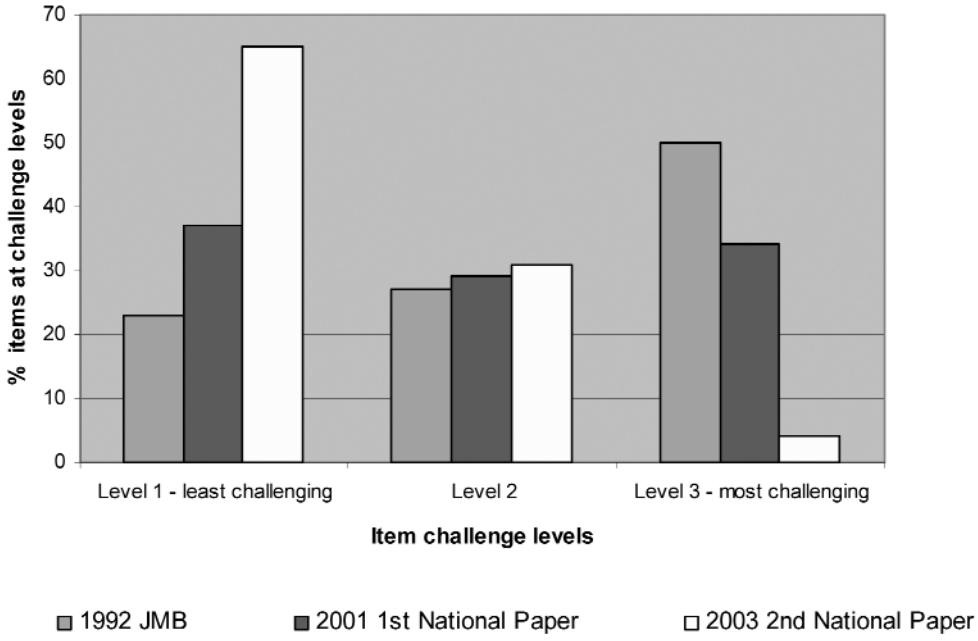
Table 1. Examples of challenge levels in the English Second/Additional Language papers

Options	***Examples***
1 • *The task was very simple.* • *The context/text of the task was very simple.* • *The task was relatively complex but was routinized/predictable.*	• *How many paintings does Portchie produce every year?* • One of the following is NOT classified as a white wine: A: Sauvignon Blanc B: Chardonnay C: Cabernet Sauvignon D: Rhine Riesling • Name any FOUR types of appetisers.
2 • *The task was relatively complex but the context/text made it less so.* • *The task was simple but the context/text was fairly elaborated or complex.*	• *A quite challenging 'word search' item, where the word would have been unfamiliar but the context made it obvious (the desired word stuck out like a sore thumb) or the distractors in a MCQ item were obviously incorrect.* • *An active into passive item with a number of transformations.* • Differentiate between a franchise and a chain group.
3 • *The task itself needed some unpacking - it not always clear what was wanted - would require some strategic thinking,* • *Complex task involving more than one operation.* • *Task to be performed on a complex or subtle text.*	• South African cuisine is often described as a fusion of colours and flavours, representing all the different ethnic groups which contributed to our heritage. Compile an interesting THREE-course menu which represents this eating style.

1 The Literature paper shows an erratic number of Level 3-type questions, demonstrating great uneveness across the provinces. For example, Limpopo had only 1% of its questions at this level in 2003, raising question about the meaning of the 98% pass rate in this province.

The Figure below illustrates the fall in the number of questions designed to operate at more challenging levels. It shows that, in the judgement of the researchers, in the 2003 National Paper, only about 4% of the items were set at the most challenging level, and 50% at the easiest level. In contrast, in the 2001 National Paper there was a much more even spread across the challenge levels, with about 34% at the most challenging level, and less than 40% at the easiest level.

Figure 1
'Challenge levels' of papers



Why is this such a problem?

English occupies a unique place in South African education, as it does in many other countries; it is both a target of, and a vehicle for, learning. One would expect, therefore, that candidates would be required to show that they can operate in English in ways in which they are surely expected to be competent when using English in their other subjects, such as History, Science and Biology.

To take some quick examples, one would expect to find evidence that candidates can, in the medium of English:

- distinguish cause from effect (an item achieving this can be found in the 2001 national paper - "What is the root cause of the 21-year-old's dejection (paragraph 4)? Use your own words." Other examples were not found.
- understand the difference between a point being made and the examples offered to support or challenge this point. Again, an example of such an item can be found in the 2001 national paper - "What proof, in paragraph 3, does the writer give to substantiate

her claim that modern society is obsessed by beauty?"

- sift main points from supporting detail. A hallmark of poor readers is that they get sidetracked by examples, and lose sight of the main argument or thread of the discussion (and if they don't agree with or understand the example, they frequently give up on the text altogether). This should be focused on in the papers (questions could ask, for example, about what point the author is making when she describes x,y, z).
- offer alternatives or counter-arguments to assertions (not just identify those given in the text, although this was not required either). This is an essential critical reading tool (readers should be saying "... but what if ...?", or "... where's the evidence for this?" or "... but surely this can't be right given the information in the previous paragraph ...").
- classify and categorise groups of ideas/actions/phenomena (no examples were found of this).
- understand pronoun references (e.g. "this argument rests on the .....", "people believing this tend also to .....". Candidates would be expected to be able to identify to what the 'this' refers). Anaphoric and cataphoric references are particularly important for understanding coherence in text.

With the exception of the examples given above, there is almost no evidence of these abilities being tested in the papers assessed by the group. The majority of the questions were of the search-and-find variety, requiring little engagement of a deeper kind.

It is important, we would argue, to consider seriously the long-term consequences of allowing the challenge level of the papers to be lowered. This might make the papers 'more accessible' to poorly prepared learners, but surely masks the real picture of what is happening in respect of English Additional Language. As was suggested above, if this is the level at which candidates are really believed to be able to operate, what does this say about what they can do in their other subjects? Are the textbooks in those subjects written in similarly 'accessible' ways?

An assessment-related issue in connection with the inclusion of conceptually more difficult questions is that they are often more difficult to mark. It is possible that more use could be made of multiple-choice formats, carefully contextualised, but these would need to be very professionally set. Sentence completion tasks, which are relatively easy to mark, can be very probing. In essence, though, if assessment is to be allowed to fulfil its potential role of enhancing and promoting learning, it will need to be addressed not only through the increased professionalisation of the examination setting phase, but also through the development of markers and sub-examiners as assessors so that 'marker-proof' formats can be minimised and more meaningful formats employed.

It is argued that even if there are enough Level 1 and 2 questions in the papers for students to be able to pass by answering only those questions (to meet pressures to maintain and enhance pass-rates, for example), conceptually more difficult questions must be included so that they get taught to.

Figure 2. Curriculum areas and levels of difficulty in the November 2004 Catering paper

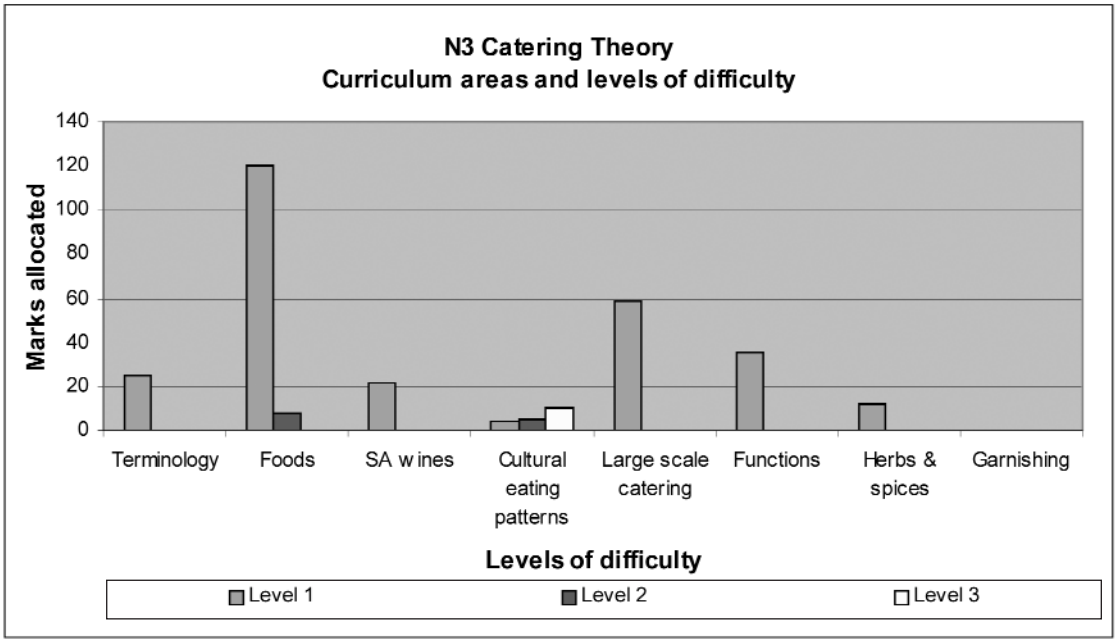


Figure 2 is derived from the November 2004 examination of Catering theory, offered at schools. This paper currently only exists at Standard Grade level, but

1. from 2006 it will be an FET subject (no differentiation);
2. it is on the designated list - that is, it is one of the subjects deemed to be suitable for building higher-order cognitive skills (although it now seems that there is some doubt about its inclusion on the list);
3. it is highly likely that increasing numbers of students will take the subject since it is on the list and since they might reasonably expect it to yield higher marks than (say) Accounting or History, given its history and its traditional learner pool.

Figure 2 shows the total absence of any items at Level 3. Several issues in relation to the new curriculum need to be addressed if its move into the National Senior Certificate (NSC) is to be successful.

First and foremost of these is the need for extensive teacher training. There are plans for training to begin in September. However, on the basis of the syllabi and examination papers on which this brief study was based, truly extensive training is necessary to enable the new curriculum to take its place as an FET subject, rather than a thin Standard Grade option as at present.

Educator knowledge and skill upgrading is urgently required in at least the following areas:

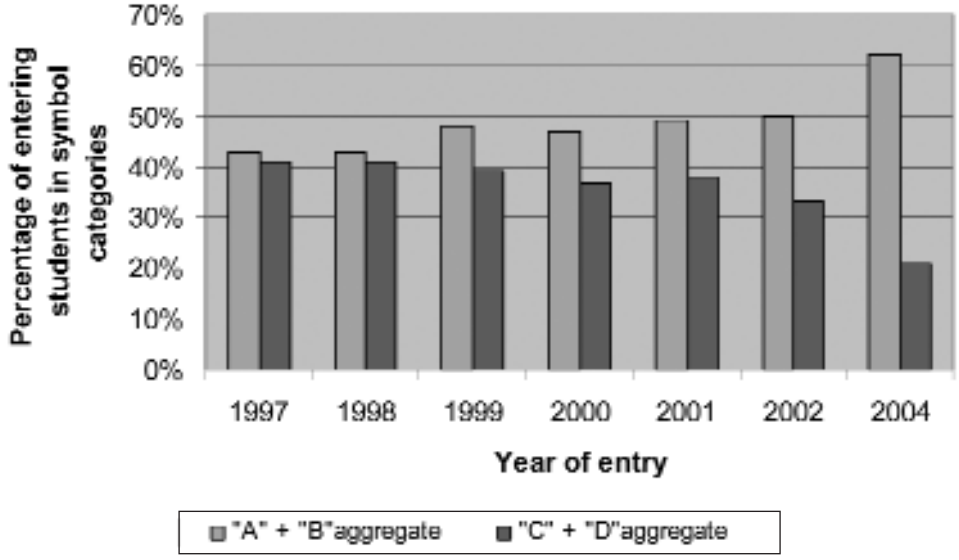
- The extensive reliance on lists of facts, recall of these, and a very superficial approach in general is likely to be difficult to shift without an accompanying growth in educator

knowledge and competence.
- The new subject requires more authentic and comprehensive knowledge of the hospitality industry, which is lacking at present.
- The general level of cognitive challenge has to be raised.
- The standard of assessment will need to be raised. For example, giving only three options means that students can pass by guessing.

It seems fairly clear from the analysis above, and from the general conclusions of the Umalusi study, that there has indeed been a downward drift in the level of difficulty of the examination papers. I do not want to pursue in any depth the controversial issue of whether or not there has been grade inflation, but I thought it might be interesting to examine the next figure:

It can be seen from Figure 3 that the institution depicted has experienced a steadily increasing rise in the number of A and B aggregate students, and a decline in D and E aggregate students (partly because places are being filled by the former). Interestingly, however, the distribution of scores from the admissions testing for this institution does not show a similar upward trend.

Figure 3. Symbols of entering students



There are many reasons for grade inflation. These include:

- *syllabus stagnation:* 'A syllabus stagnates- fewer and fewer creative and genuinely original questions are set, learners become adept at using past papers to prepare and experienced teachers hone exam coaching to a fine art. Teachers and learners without access to resources and experience fall further and further behind' (Davies, 2003).
- *lack of experience in assessment and poor assessment practices:* What gets examined is that which is easiest to examine; soon this is what gets taught.

- *manipulation of marking memoranda,* either to compensate for poorly set examination papers, with errors and inconsistencies, or to ensure that students can pass (lots of evidence of this on the memoranda).

Why is grade inflation a problem?

One of the reasons is that it makes selection extremely difficult. If two-thirds of learners in an institution's feeder schools are getting aggregates over 70%, it means the range of marks for selection is very truncated. (It also means that the gap between advantaged and disadvantaged is getting wider.) The truncated range of scores is one of the reasons for the establishment of the Health Sciences Consortium - the tests spread performance quite satisfactorily. An example in principle of how they are used for selection will be shown later.

The other more important reason - and this relates to the title of my talk - is that a pattern of performance has been set based on stagnant syllabuses, examination-led teaching and poor assessment practices. Pass rates have risen into the 70%s. Now along comes a new and far more demanding curriculum-based on assessable outcomes.

It does not require much imagination to foresee the outcry if the pass rate were to fall by 10% with the introduction of the NSC. The point here is that the dramatic and much trumpeted rise in the pass rate under the previous regime in the Department of Education has created a very difficult context for the introduction of a new curriculum. It has, in a sense, set it up for failure. This is not to say it should not be introduced-it most definitely should-simply that it is going to be difficult, and will require determination and courage. If we truly assess the outcomes stated in the new curriculum statements, as the new NSC sets out to do, it will reveal the problems we all know about in the schools, and cannot result in a pass rate in the 70%s.

What can be done?

1. Phase in the introduction of the NSC.
2. Prioritise the upgrading of teacher competencies in academic literacy (language and numeracy).
3. Employ expert teams to develop the NSC papers, to train markers and to monitor the resulting processes.
4. Employ experts to closely monitor (inspect) continuous assessment (CASS) procedures.
5. Insist that extended writing actually take place.
6. Work with the National Benchmark Test Project (NBTP), whose interests and aims are entirely congruent with the achievement of a successful NSC and well-educated school-leavers.

THE NATIONAL BENCHMARK TEST PROJECT

What is the National Benchmark Test Project? What role could it play in relation to the NSC and to the introduction of the new curriculum?

First, what is it NOT?

PERSISTENT MYTHS

Table 2. The Benchmark Tests versus the SATs in the United States

United States	South Africa – current (SC)	South Africa – future (FETC)
In the USA there is no national school-leaving examination – the states fiercely guard their independence.	In South Africa the 'Matric' is the most public examination in the country, and its results are closely scrutinised.	The NSC will remain the starting point.
The SAT I score of a candidate is used by a very small minority of higher education institutions (the most selective institutions).	The TELP and AARP scores are used by a majority of institutions.	To be decided. The aim is for all students to write, either before entry or at registration.
There is no agreed level of performance for successful entry-level study.	There is no agreement on the implications for curriculum at different levels of achievement on the test/s (so institutions can admit, to regular degree study, candidates whose scores indicate clearly that they will not cope).	The aim is to deliver diagnostic information to all institutions (i.e. for all applicants to write), and for the higher education sector to have established a common understanding on the curricular implications of levels of performance.
The SAT I score is used only for selection purposes	The tests are used for placement (diagnostic) and/or for selection	The tests will be used for placement into regular or extended/foundational programmes of study, and for RPL.
The tests tap core generic competencies in non-curriculum-aligned areas.	The tests tap core generic competencies in non-curriculum-aligned areas.	The tests tap core generic competencies in non- curriculum-aligned areas.
The tests are developed by a professional testing company. A large profit is made.	The tests do not generate profit. Development costs are borne by the institutions using the tests, funders, or (in one case) are passed on to candidates.	The tests will be developed by a not-for-profit organisation, and will draw on panels of experts made up of delegates from all institutions. (They will be 'owned' by Higher Education).

It is generally agreed that failure and drop-out rates at higher education institutions are unacceptably high.[2] There are, of course, several reasons for this, including inadequate preparation for tertiary study on the part of the schooling system, and inappropriate curriculum structures and teaching and learning approaches by the higher education institutions themselves.

The National Benchmark Test Project represents an attempt to provide both sectors (schooling and higher education) with important information on the skills and abilities of their exiting (in the case of schools) and entering (in the case of universities) students-information that does not duplicate the essential information delivered by the school-leaving

2The National Plan for Higher Education reports that ì[Current] poor graduation and retention rates and high drop-out rates are unacceptable and represent a huge waste of resources, both financial and human. For example, a student drop-out rate of 20% implies that about R1,3 billion in government subsidies is spent each year on students who do not complete their study programmesî (DoE, 2001:22).

examination, but that provides an important extra dimension.

As an initiative of the higher education sector, the focus of the Project is on its own core business-teaching and learning beyond schooling. Its primary aim, therefore, is to develop a mechanism to ensure that higher education institutions respond appropriately and responsibly to the demonstrated educational needs of the students they admit.

The mechanism will comprise the development of tests in three domains (discussed further below), and the setting of benchmarks of performance in each of these domains. It is this step-the setting of benchmarks-that most clearly distinguishes the NBTP from its precursors, the existing tests required by the majority of higher education institutions. It is envisaged that the sector as a whole will develop, agree on, and hold to the benchmark levels of performance below which students cannot be admitted directly to degree or diploma study. It is important to note, however, that this requirement is in addition to (not an alternative to) satisfactory performance on the NSC.

Table 3
MOCK-UP 1
INTERPRETATION OF BENCHMARK TEST PERFORMANCE FOR PLACEMENT PURPOSES

<table>
<tr><th>Degree study</th><th>Benchmark test score</th><th>Diploma study</th></tr>
<tr><td rowspan="6">Students achieving 50% or more would be deemed to be prepared for entry to regular degree study, providing they have met the FETC requirements stipulated by the institution/sector.</td><td>100</td><td rowspan="7">Students achieving 40% or more would be deemed to be prepared for entry to regular diploma study, providing they have met the FETC requirements stipulated by the institution/sector.</td></tr>
<tr><td>90</td></tr>
<tr><td>80</td></tr>
<tr><td>70</td></tr>
<tr><td>60</td></tr>
<tr><td>50</td></tr>
<tr><td>Students achieving 40% – 50% would be placed into extended programmes</td><td>40</td></tr>
<tr><td rowspan="3">Students achieving below 40% would be advised to take preparatory courses (for example, at Colleges)</td><td>30</td><td>Students achieving 30% – 40% would be placed into extended programmes</td></tr>
<tr><td>20</td><td rowspan="2">Students achieving below 40% would be advised to take preparatory courses (for example, at Colleges)</td></tr>
<tr><td>10</td></tr>
</table>

Table 4
MOCK-UP 2
INTERPRETATION OF BENCHMARK TEST PERFORMANCE FOR SELECTION PURPOSES

Benchmark test score	Point score to be added to FETC- score	
91 - 100	10	For each benchmark test for which a student gets >90, 10 points are added to her/his FETC Score (F-Score)
81 - 90	9	For each benchmark test for which a student gets between 81 and 90, 9 points are added to her/his FETC Score (F-Score)
71 - 80	8	For each benchmark test for which a student gets between 81 and 90, 8 points are added to her/his FETC Score (F-Score)
61 - 70	7	Etc.
51 - 60	6	
41 - 50	4	
31 - 40	2	
21 - 30	1	
11 - 20	0	
0 - 10	0	

The National Benchmark Tests (NBTs) will focus on three critical domains, viz. academic literacy, quantitative literacy, and mathematics. The test design will yield two tests: one dealing with generic academic and quantitative literacy, the other focusing on mathematical competence. The latter will be more curriculum specific, to accommodate articulation with specific tertiary-level mathematics courses. The meaning of `benchmark' is here understood as a guideline measure of adequacy, and will usually be expressed as a required minimum level of achievement in some criterion-referenced task with respect to a specific content domain.

The choice of these domains arises from the fact that many South African school leavers enter universities, universities of technology or the workplace without the necessary academic skills (in particular, in academic and quantitative literacy, numeracy, or mathematical skills) to enable them to succeed in their chosen course of study or career. In general, it is clear what is meant by mathematical competence. However, there is some confusion over the terms academic literacy and numeracy or mathematical literacy.

Academic literacy is often confused with language proficiency, where language is the target rather than the vehicle for instruction. Put very simply, academic literacy relates to a student's capacity to engage successfully with the demands of academic study in the medium of instruction provided. Typically, and to select only a few examples, it focuses on such matters as:

* students' capacities to understand and use the structure and organisation of discourse and argument by paying attention-within and between paragraphs in text-to transitions in argument;
* superordinate and subordinate ideas;
* introductions and conclusions;
* logical development;
* students' capacities to 'see' main ideas and supporting detail;
* statements and examples;
* facts and opinions;
* propositions and their arguments;
* being able to classify, categorise and 'label'; and
* students' capacities to draw conclusions and apply insights, either on the basis of what is stated in texts or what is implied by these texts.

'Quantitative literacy' can be defined as the ability to manage situations or solve problems in a real context, using quantitative (mathematical and statistical) information that may be presented verbally, graphically, in tabular or symbolic form. For illustrative purposes, some examples of the kinds of mathematical thinking that entry-level students should be able to demonstrate are:

* a familiarity and understanding of the conventions for the representation and arithmetic manipulation (addition, subtraction, multiplication, division and powers) of numbers (fractions, ratios, percentages, etc.) in real contexts and an ability to use these to solve problems;
* ability to perform simple analysis of data;

* ability to produce and translate between different representations of data;
* ability to apply logical reasoning to information about real contexts (for instance, to determine whether a statement or example fulfils given criteria (or definitions); and
* ability to deal with simple questions involving order (for example, inequalities) and approximations.

The NBTs will address a central question: What are the core academic competencies (non-curriculum-aligned) that an entry-level student should demonstrate that will be sufficient indication that he/she will be able to cope with the typical demands of higher education in the medium of instruction of an institution, in a context of appropriate teaching, learning and curriculum support?

National Benchmark Tests in academic and quantitative literacy, and in mathematics, should thus, at minimum:

- assess the academic readiness of students to cope with the reading, writing, calculating and reasoning demands of typical higher education tasks, in all disciplines;
- assist in assessing the academic readiness of RPL candidates;
- act as complementary information to school-leaving results to assist in the placement of students into appropriate forms of higher education curriculum and programme provision;
- provide a sector-wide 'snapshot' of the learning needs of students entering higher education in these core areas; and
- provide the secondary school sector with meaningful additional information about students' results in the school-leaving examination during the transition from the present HG/SG-differentiated certificate to the NSC.

In addition, the benchmark tests as a group will provide a benchmark of the NSC itself during the period of transition from the current Senior Certificate examinations, until the reported figures of performance of the NSC are understood. The tests should provide an independent test of the candidate's skills and knowledge, and allow candidates who have written the Senior Certificate examination and those who have written the NSC certificates to be compared in a fair way during the transition period in relation to those aspects of knowledge and skills which influence or correlate with success in higher education.

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Davies, N. (2003) Differentiation in core Senior Certificate Examination papers. Report to the Committee to investigate and advise on the suitability of the current system of differentiation in the Senior Certificate Examination (SCE). Physical Science report.

Improving the Quality and Cognitive Demand of the National Senior Certificate: Making the Case for the Assessment Tail Wagging the Teaching/Learning Dog

Penny Vinjevold

In 2008 the National Senior Certificate (NSC) will replace the present Senior Certificate, commonly known as 'Matric'. This presentation describes the requirements of the National Senior Certificate and the steps that the Department of Education will take in co-operation with provincial education departments, Higher Education South Africa (HESA) and Umalusi to improve the quality and cognitive demand of the National Senior Certificate examinations over the next three years.

A new curriculum, known as the National Curriculum Statement (NCS), will be introduced into Grades 10, 11 and 12 in 2006, 2007 and 2008 respectively. The introduction of new curricula into schools is not a uniquely South African phenomenon. Across the world developed and developing countries have, in recent years, revised their school and higher education curricula to take account of the knowledge and skills required to participate in a globalising twenty-first century world.

The 29 subjects which make up the National Curriculum Statement are updated and expanded versions of subjects currently offered in South African schools. The names of some subjects have changed to reflect international trends and also to reflect the new content of the subjects. For example, Information Technology replaces Computer Studies, Life Sciences replaces Biology, and Consumer Studies replaces Home Economics.

The 29 subjects will be offered at one level. In the past subjects were offered at three grade levels: Higher Grade, Standard Grade and Lower Grade. This meant that learners offered and were able to pass Grade 12 on differentiated curricula. The new subjects will all be offered at the higher-grade level, which means that many more pupils than in the past will be offering a more cognitively demanding curriculum. The subjects, which will be introduced from 2006, are internationally benchmarked and will require the knowledge and skills to actively participate in, and contribute to, a democratic South African society and economy.

Participation and success in the new curriculum will culminate in the award of a new certificate, the National Senior Certificate: a Qualification at Level 4 on the National Qualification Framework. The National Senior Certificate will be issued for the first time at the end of 2008. The requirements of the National Senior Certificate are that Grade 10, 11 and 12 learners must offer four compulsory subjects: two South African languages, Mathematics or Mathematical Literacy, and Life Orientation. In addition they must offer another three subjects from the approved list of subjects.

The requirements for promotion in Grades 10 and 11 and certification in Grade 12 are set out in Table 1.

Table 1: Promotion requirements for National Senior Certificate

Subject	% required
Language at home-language level	40%
Language at first-additional-language level	30%
Mathematics or Mathematical Literacy	30%
Life Orientation	40%
Three choice subjects	One at least 40% and two at 30%

In Grades 10 and 11 all assessment of the National Curriculum Statement is internal. In Grade 12 the formal Programme of Assessment, which counts 25%, is internally set and marked and externally moderated. The remaining 75% of the final mark for certification in Grade 12 is externally set, marked and moderated.

In planning for the implementation of the National Curriculum Statement and the National Senior Certificate examinations, the Department of Education has taken as a starting point the view that assessment must be used to improve the standards of teaching and learning, and so to increase the life chances of young people. If, as is often claimed, exit examinations drive teaching and learning-that is, teachers teach to the test - then we should use this positively to improve standards. The cognitive demand of exit-level assessment tasks must be raised and ways must be found of assessing a wide range of skills.

In order to support the improvement of standards though assessment, the Department of Education has developed Subject Assessment Guidelines for each of the 29 subjects of the National Curriculum Statement. The Guidelines argue that standards are raised through:
- ongoing and regular assessment that feeds into the teaching and learning process;
- the specification of the curriculum and assessment requirements for Grades 10, 11 and 12;
- publishing excellent examples of assessment tasks for each of the three grades; and
- ensuring that the language of the assessment tasks is not an unnecessary hindrance to second-language candidates.

In preparing the Subject Assessment Guidelines, the Department of Education examined a variety of assessment and examination systems for guidance on the best forms of assessment - not just the cognitive and skill level set but the nature, format, length and type of assessment tasks used for different subjects and skills.

The result is a simple framework. Assessment in the National Curriculum Statement focuses on regular assessment to improve teaching and learning. The regular assessment consists of two different but related activities: informal daily assessment tasks, which are not recorded or reported, and a formal Programme of Assessment. The Programme of Assessment specifies the number of tasks for each subject and grade. The results of these tasks are used for promotion purposes in Grades 10 and 11 and for the internal year mark for Grade 12. In all three grades the Programme of Assessment is heavily weighted to the end-of-year examination, which counts 75%.

The requirements for the Programme of Assessment for Grades 10 and 11 are set out in

Table 2. If a teacher wishes to add to the number of assessment tasks, he or she should motivate the changes to the head of department and the principal of the school. The teacher should provide the Programme of Assessment to the subject head and School Management Team before the start of the school year. This will be used to draw up a school assessment plan for each of the subjects in each grade. The proposed school assessment plan should be provided to learners and parents in the first week of the first term.

Table 2: Number of assessment tasks which make up the Programme of Assessment by subject in Grades 10 and 11

SUBJECTS		TERM 1	TERM 2	TERM 3	TERM 4	TOTAL
Language 1: Home Language		5	5*	5	4*	19
Language 2: Choice of HL or FAL[§]	HL	5	5*	5	4*	19
	FAL	4	4*	4	3*	15
Life Orientation		1	1	1	2	5
Mathematics or Maths Literacy		2	2*	2	2*	8
Subject choice 1**		2	2*	2	1*	7
Subject choice 2**		2	2*	2	1*	7
Subject choice 3		2	2*	2	1*	7

[§] HL = Home Language; FAL = First Additional Language

* One of these tasks must be an examination

** If one or two of the subjects chosen for subject choices 1, 2 or 3 include a Language, the number of tasks indicated for Languages 1 and 2 are still applicable. Learners who opt for a Second Additional Language are required to complete the same number of tasks as FAL candidates.

Two of the assessment tasks for each subject except Life Orientation must be examinations. In Grades 10 and 11 these examinations should be administered in mid-year and in November. These examinations should take account of the requirements set out in the Subject Assessment Guidelines. They should be carefully designed and weighted to cover all the Learning Outcomes of the subject.

Two of the assessment tasks for all subjects should be tests written under controlled conditions at a specified time. These tests may form one of a series of teaching and learning activities. They may require learners to use a variety of written and other resources during the assessment task. The tests should be written in the first and third terms of the year.

The remainder of the assessment tasks should not be tests or examinations. They should be carefully designed tasks, which give learners opportunities to research and explore the subject in exciting and varied ways. Examples of assessment forms are debates, presentations, projects, simulations, literary essays, written reports, practical tasks, performances, exhibitions and research projects. The most appropriate forms of assessment for each subject are set out in the Subject Assessment Guidelines. Care should be taken to ensure that learners experience a variety of assessment forms in the three grades.

Although the same formal assessment tasks will not be set across schools, it is the Department of Education's view that the regulation of the number and type of assessment tasks provides an opportunity to begin to establish standards across schools. In addition, the fact that teachers are required to provide the formal Programme of Assessment to the

School Management Team, learners and parents is expected to increase the quality and reliability of internal assessment practices.

In Grade 12 all subjects include an internal assessment component, which contributes 25% to the final assessment mark. The requirements of the internal Programme of Assessment for Grade 12 are summarised in Table 3. If a teacher wishes to add to the number of assessment tasks, she or he must motivate the changes to the head of department and the principal of the school.

As with Grades 10 and 11, the teacher should provide the Programme of Assessment to the subject head and School Management Team before the start of the school year, and the proposed school assessment plan should be provided to learners and parents in the first week of the first term.

Table 3: Number of assessment tasks which make up the Programme of Assessment by subject in Grade 12

SUBJECTS		TERM 1	TERM 2	TERM 3	TERM 4	TOTAL
Language 1: Home Language		6	6*	5*		17
Language 2: Choice of HL or FAL[§]	HL	6	6*	5*		17
	FAL	5	5*	4*		14
Life Orientation		1	2	2		5
Mathematics or Maths Literacy		3	2*	2*		7
Subject choice 1**		2	2*	(2*) 3*		(6#) 7
Subject choice 2**		2	2*	(2*) 3*		(6#) 7
Subject choice 3		2	2*	(2*) 3*		(6#) 7

[§] HL = Home Language; FAL = First Additional Language

* One of these tasks must be an examination.

** If one or two of the subjects chosen for subject choices 1, 2 or 3 include a Language, the number of tasks indicated for Languages 1 and 2 at Home Language and First Additional Language levels are still applicable. Learners who opt for a Second Additional Language are required to complete the same number of tasks as FAL candidates.

The number of internal tasks per subject differs from 6 to 7 as specified in Section 3 of this document.

Two of the assessment tasks for each subject except Life Orientation must be examinations. In Grade 12 these examinations should be administered in mid-year and September. These examinations should conform to the requirements set out in the Subject Assessment Guidelines.

The external examinations for all 29 subjects of the National Curriculum Statement will be examined by the Department of Education. The Department of Education currently examines six of the Senior Certificate subjects. The examinations for the other subjects are set by provincial education departments. The standards and requirements vary from province to province and so, in an attempt to standardise the examinations and improve standards all subjects will be nationally examined from 2008. This includes the practical examinations for

tions for subjects such as music, visual arts, the technology subjects, tourism etc.

In preparation for 2008 the requirements, including the format, specifications of types of questions, and so on, have been set out in the Subject Assessment Guidelines. In order to set standards now and so guide teaching as well as ensure public and higher education confidence in the standards, examples of Grade 10 and Grade 12 examinations will be published in 2006.

The last part of this presentation describes how the Subject Assessment Guidelines were developed to ensure quality. First, the Department of Education developed a generic framework for assessment. This had to take into account the debates on standards and equity raging in South Africa at present, as well as the Minister's injunction to streamline and simplify the assessment requirements. At the same time it was important to take account of international practices and so ensure that the very best practices are adopted. Wide consultations took place with assessment experts in South Africa and abroad.

The second step was to appoint writing teams to develop the specific assessment requirements for each subject. In April 2005 the Department of Education asked teacher unions and the nine provincial education departments to nominate expert teachers and examiners to serve on writing teams for the development of Subject Assessment Guidelines for each of the approved National Curriculum Statement subjects. Over 300 nominations were received, and the Department of Education then had the difficult task of selecting the writing teams. During this process, it was important to ensure a range of skills and to balance provincial, teacher union, race and gender representation. In addition, it was important to introduce new assessment blood into the teams to ensure that we begin to develop new examiners and moderators.

The writing teams assembled in April with a brief to:

1. develop subject-specific guidelines for assessment in Grades 10, 11 and 12 which included:
- guidelines on daily assessment,
- guidelines on a formal Programme of Assessment, which will be used for promotion purposes in Grades 10 and 11, and will make up the internal assessment mark in Grade 12, and
- the number, length and framework for the Grade 12 examination in 2008;

2. develop exemplars of the end-of-year Grade 10 and 11 examinations; and

3. develop an exemplar of the end-of-year Grade 12 examinations.

Over the three days the teams developed a framework for their subjects and established a network of persons who could comment on the Subject Assessment Guidelines. These advisory commentators were to play an important role in developing the guidelines. In July 2005 the writing teams submitted the Subject Assessment Guidelines to the Department of Education for distribution to selected readers. The Subject Assessment Guidelines were distributed to Higher Education South Africa, the teacher unions, the provincial education departments and Independent Schools Association of Southern Africa for distribution to

expert and interested readers.

Excellent comments were received for all subjects. These were collated and presented to the writing teams at a second working meeting held in August. The writing teams considered the responses and adjusted the Subject Assessment Guidelines. As interest in the Subject Assessment Guidelines grew, there were calls for extensions to the time given for comments. The dilemma for the Department of Education was that if we extended the period for comment we would delay getting the Subject Assessment Guidelines to anxious teachers who will be implementing the curriculum in 2006. At a meeting held with the provincial departments of education and the teacher unions to discuss the issue, it was agreed to extend the period for comment until 26 August and then to edit, print and distribute in late September and October 2005.

The Subject Assessment Guidelines published in September 2005 are intended to provide clear guidance on assessment in Grades 10 to 12 from 2006. However, it is important that they are field-tested. This will happen during 2006 and in the first half of 2007. The Subject Assessment Guidelines will then be amended and become policy from January 2008.

The writing teams will complete examples of examinations for Grades 10, 11 and 12 before March 2006. These will then be edited and published on the Department of Education website with a call for comments and for submission of additional examples of examinations based on the frameworks outlined in the Subject Assessment Guidelines. At the same time provincial education departments will receive copies for piloting and comment. Once the panels of examiners for the 2008 National Senior Certificate examinations are appointed they will be expected to develop and publish examples of examination papers during 2006, 2007 and 2008. Through this process the standards for the National Curriculum Statement and the National Senior Certificate will be set.

It is in all our interests that critical support is provided for this most important process.

Where to with Matric?

Peliwe Lolwana

BACKGROUND

To start with, it is important to be clear about the facts when we talk about where we are in relation to the usefulness of Matric in the education system. In that way, we will be in a better position to steer the radar in relation to any future qualification intended to replace the Matric certificate.

A few facts must be highlighted:

- Not all failures in the first year of higher education can be attributed to poor preparation at school level. Both financial and social under-preparedness probably play equally significant roles in the high failure or non-success rates of first year higher education students.
- Out of the average 70% senior certificate pass rates we have become accustomed to, no more than 18% qualify for university exemptions (DoE, 2002, 2003, 2004b; Shindler, 2005).
- Countries that do not use school-leaving examinations as a requirement for higher education admissions, like USA, still have differentiated criteria based not only on selection tests, but reflecting largely the poverty-to-rich spectrum of school experiences. In this way, the last years of high school tend to be used either in the pursuit of this rich experience to enhance one's chances of being admitted to the best higher education institutions, or simply to 'bum out' for those who have no ambition to enter the race. In addition, in these schooling systems there are opportunities for highly motivated and intellectual learners who are still in school to start taking for credit subjects which are usually offered in higher education. The US higher education system is regarded as the most differentiated higher education system in the world, with a range of institutions from community colleges to Ivy League universities; this variety is seen as necessary to cater for different students' needs and capabilities (Boudon, 1974; Reimers, 2000).

Having said this, we want to bring to the attention of the South African audience the fact that standards in certificated qualifications are largely a function of teaching and learning experiences; examinations play an important role, but it is not as significant as the teaching and general learning experience in a school.

However, examinations on their own play a large enough role to influence the standard of schooling and matriculation, and generally can facilitate or inhibit progression and access to higher education or employment. The standard of an examination is judged in terms of the coverage of content, the range of cognitive challenges it presents, and the management of the examination, including how it is marked.

It is therefore important that we do not talk about the Senior Certificate Examination (SCE) as if it alone makes the standards. That would be putting the cart before the horse.

THE CONTEXT

The Senior Certificate examination is the largest public examination in South Africa and as

such is one very important indicator of the performance of the schooling system (Taylor, Muller & Vinjevold, 2003). Since the establishment of the democratically elected government in 1994 and the subsequent amalgamation of the eighteen racially divided education departments into one department, there has been the perception in certain quarters of the public that standards in education have dropped (Naidu, 2005).

The questioning of standards in the South African education system has a history that is closely linked to the country's racial divisions. There has always been an implicit assumption that whites received superior education to their black counterparts. Allais (2005) points out that this assumption was vigorously challenged in the 1980s when it was argued that although white standards were seen to be accepted as a benchmark, in many instances senior certificate examinations were geared toward the memorisation of facts. This assumption was also rejected because it was seen in the same light as the assertion that 'all that is white is best and that which is black is worst' and in the political environment of the 1980s this notion was not acceptable. The debate was useful as it opened up a space to talk about what was inherently wrong about this examination, even though concrete solutions were not reached.

The new democratic government, acutely aware of the inequalities and divisions in the education system, prioritized its effort to equalize inputs into the system, to remove racial divisions, and to be inclusive in all decision-making structures, including the standards-setting and evaluation processes of the Senior Certificate exams.

In 1995 the new government established the first provincial public examination bodies, which started operating in 1996. During the period 1996-1999, the new examination bodies battled with integrity in the administration of this examination. As the practices of the former departments were brought together, irregularities loomed large and tainted perceptions about this examination. This happened at the same time as the number of candidates writing the Senior Certificate examination increased dramatically-from 1990-1999 the number increased from 360 452 to 511 474. This increase has been attributed to, among other things, the 'back to school campaigns' mounted in the same period. This campaign was seen as having brought large numbers of under-prepared candidates to the examination, thus contributing to a high failure rate. Both Ministers Bhengu and Asmal instituted various investigations of the SCE during this time (Ministerial Committees, 1998, 2002), and implemented various interventions. Positive results were not immediate, and it was only in 2000 that the results pendulum began to swing the other way. Table 1 represents the Senior Certificate Examination results in terms of the total number of candidates, overall pass rates, and exemption rates over a fifteen-year period.

The entry of large numbers of under-prepared learners to the education system contributed significantly to the low attainments experienced from 1997 to 2000 (Lolwana, 2004). However, it also became increasingly clear that the question of standards in relation to this examination had not been interrogated exhaustively. Allais (2005) points us in the direction of the huge diversion that contributed to the lack of progress on the question of standards in the 1990s. According to her, this diversion came with the outcomes-based education (OBE) movement which adopted the word 'standard' to mean something very different from the common perception of the term. The idea was that South Africa needed

Table 1. SCE results for all South African learners, 1990-2004

		Pass		Exemption	
Year	Number of candidates	Number	Percent	Number	Percent
1990	360452	191249	53	60281	17
1991	408468	221407	54	73054	18
1992	448491	250527	56	75601	17
1993	724584	242310	51	68820	15
1994	495408	287343	58	88497	18
1995	531453	283742	53	78821	15
1996	518225	279487	54	80015	15
1997	559233	264795	47	70127	13
1998	552862	272501	49	69861	13
1999	511474	249831	49	63725	12
2000	489941	283294	58	68626	14
2001	449371	277206	62	67707	15
2002	443821	305774	69	75048	17
2003	440267	322492	73	82010	19
2004	467985	330717	71	85117	18

Sources: SAFCERT, 2002; DoE, 2003,2004b

'national standards' which would function as competence statements, with a strong focus on skills. The outcome of this project, in 1995, was the National Qualifications Framework (NQF), which purported to be an embodiment of standards in the education system. Young (2005) states that the immense popularity of the NQF with governments stems largely from the need to hold accountable those who implement education.

Whatever the merits and demerits of the NQF, it is certainly not the right vehicle to improve the standards of the Senior Certificate Examination. The OBE movement and the NQF notion of standards have been unnecessary diversions, as they contributed a great deal to the lack of progress regarding the question of standards setting and development for the Senior Certificate, in spite of the earlier realisation that this was to be a priority area in the transformation of apartheid education. The construction of the NQF as the basis for a new vision of curriculum change triggered a series of changes that impacted the Senior Certificate curricula, albeit prematurely. Even though on the surface, the Department of Education's reaction seems to have been one of ignoring the NQF for the school curriculum (Muller, 2004), the NQF influenced major thinking on the construction of Curriculum 2005 (C2005), which came a year later (Chisholm, 2004). Both shared an outcomes-based philosophy.

However, the pendulum has started to swing the other direction. In 2004 there was public outcry that the 'standards' of the Matric exam had gone down, and Umalusi commissioned an investigation. It found that, indeed, in some instances 'standards' had gone down, in the sense that there were fewer questions which tested 'higher order skills'. There were also more short questions, and fewer questions which demanded sustained analysis and writing ability. Umalusi talks about the 'standard' of a question paper in relation to its reliability, validity and fairness.

Criticism continues to mount, however, and it is becoming increasingly clear that there are deep problems with our new approach. In many classrooms in our country, particularly in poor schools, children are simply not learning enough, and therefore the concept of standards cannot be embodied by only the Matric or the National Senior Certificate (NSC) exam-

ination. It is becoming clear that disciplinary knowledge is being sacrificed at the expense of 'critical outcomes' as memorization was to be avoided at all costs in the new paradigm. As the implementation of Curriculum 2005 unfolded in the lower grades, it became clear that its influence was percolating upward to the Matric syllabi. For example, the shifts that were beginning to occur in the matriculation examination included:

* the introduction of continuous assessment, which would accommodate assessments that could not be catered for in a paper-and-pencil situation;
* the removal from the examination of the language paper traditionally known as the creative writing piece-writing is currently assessed by schools;
* language standardization, whereby all languages would come to be assessed in accordance with the same format, which emphasises skills rather than knowledge; flexibility in the prescription of set books for languages;
* emphasis on information application rather than content in question forms;
* de-emphasis of long essay-type questions that required competences in reading and writing, and emphasis on questions that required application skills, resulting in single and short answers;
* more qualitative inputs brought in, in the process of statistical standardization;
* and the list goes on.

These changes are not unrelated to the expected changes in the implementation of Curriculum 2005 and the philosophy of the NQF. They can also be found in more concrete form in the Revised National Curriculum Statement (DoE, 2004a) of the NSC in schools. In the meantime, learners in the 'three-year Matric' curriculum (Grades 10-12) have brought to the learning process the skills they acquired from Curriculum 2005. It can be extrapolated from this that it has not always been easy to know absolutely which curriculum is in operation for the Senior Certificate Examination, as this animal continued to move toward the future.

HOW CAN THE NSC BETTER THE MATRIC?

STANDARDS OF THE CURRICULUM

The issue of the standards of the school leaving or matriculation certificate cannot be separated from the curriculum. While the question of standards is not a simple one, as it means different things to different people, it can still be assumed that there would be consensus in the view that the notion of standards must include some agreements on:

1. The nature of content or knowledge to be acquired;
2. The amount or volume and depth of that content; and
3. The cognitive skills to be acquired in the process of learning.

The Joint Matriculation Board (JMB) always knew that the key to the standards debate lay in the curriculum more than in the examinations (Trümpelmann, 1991). In this regard, it exercised a very strong and central control of the curriculum-from prescribed books in languages to the syllabi-to ensure that what was taught at 'Matric' level met the requirements for university admissions. In the last eight years of the Senior Certificate Examinations

under the new government, control over curriculum has become less tight. It is ironic, however, that in its quest to reform apartheid education by focusing on curriculum change the present government seems to have lost the control exercised by the JMB in the period when-in hindsight-standards seem to have been 'good'. It is contended that it is the curriculum that is the root of the standards in education and refusal to prescribe curricula often results in unprescribed standards and extreme variation across contexts. In comparison with other countries, which have a strong examination focus in their quality assurance mechanisms, we are an anomaly in refusing to be prescriptive, because the very nature of examinations calls for prescriptive measures; otherwise one is reproducing inequalities all over again.

The second most important element of standards concerns the nature of experience in teaching and learning. In other words, it is the contact hours, times dedicated to study, individual support given to learners, extramural activities, independent work or projects, curriculum challenges, competencies of teachers in both content and pedagogy, home support, as well as intellectual acumen of the individuals that really make a difference to the product of learning, rather than only the examinations. Again, if one compares with countries like the USA, which does not have a strong examination system as a quality assurance mechanism in its school system, it is the quality of these experiences which distinguishes strong from weak schools (Boudon, 1974; Reimers, 2000).

The third important element of standards production is how the curriculum is mediated. Many of the South African schools which are not attaining good results are challenged by the mediation of curricula. There are different challenges, but the two most significant challenges are (a) low competencies in English Second Language, and (b) inequities in the education system.

The issue of language looms large in South African schooling, given that the majority of children study in a second language and that language is a crucially important vehicle for learning. English Second Language is the subject with the largest number of registrations, attracting 80,7% of all candidates in 2003 (DoE, 2003). The performance of these candidates in the SCE is extremely low, and levels of achievement have not changed over the years (Ministerial Committee, 1998; Umalusi, 2004). This indicates that the conditions which gave rise to the practice of compensation have not changed. The rough picture that emerges is that compensation does not necessarily lead to high passes. In other words, it can be assumed that many of the compensated candidates can still be found at the lower end of the range, even when they do pass. More nuanced research still has to be undertaken in order to fully understand clearly where the problem really is.

Low competencies are not the sole preserve of learners. It is safe to assume that teachers also do not command the required competences in the use of the medium of instruction. This problem does not seem to be getting attention anywhere in the system, and this is perhaps the biggest crises in our system, particularly for success at university. Umalusi cannot continue with compensation forever, even if the problem is not addressed.

The problem about the mediation of curriculum is playing itself out in the emerging inequities in our schooling system. While the focus of the Department continues to be on

non-performing schools, it must be acknowledged that there are still huge inequalities in the education system. Although the national Department (2004b) notes that dysfunctional schools are largely located in very poor neighbourhoods, and in rural and township areas, the problem is not just about poverty and lack of commitment in such schools. Considering the fact that there are some schools - admittedly only a few - in similar circumstances who manage to accomplish sterling results, it can be speculated that the difference lies primarily in the quality of teachers and management in the two sets of circumstances (although there could be other differences such as books and parental involvement and support). There seems to be an urgent need to upgrade teacher development in poorly performing schools. Teachers need to have enough disciplinary knowledge of the subjects they are teaching, be competent in the pedagogical discourse of their areas of teaching, and to have the professional disposition associated with teaching and learning. The highly qualified teachers in such schools are often the only teachers available for sought-after or gateway subjects, and therefore operate without the necessary support and mentorship required for professional development and expertise. The majority of these schools could do much better with added supportive inspection from the Department.

THE STANDARD OF THE EXAMINATION

A good starting point for a quality examination must draw strongly from the syllabus, and make this a reference point to articulate the standards to be attained in the examination. In addition, clarity on a host of elements of this examination - such as entry requirements, conditions for grading, examination formats, requirements in each subject, certification, and in general the handling of all aspects of the examination-makes for good standards (Ssebbunga-Masembe, 2005). Breaking away from our apartheid past has resulted in being conservative about prescriptions, and yet this is part of what seems to blur the issue of standards at the moment.

Secondly, when we talk about standards of an examination, we are actually talking about two separate but related things. First we talk about setting questions which aim to guage the range of content, concept and skills acquisition by candidates; questions in this category should range from less challenging to difficult. We also talk about performance levels expected for different awards for different levels of questioning. This in the SCE context has always been treated in a conflated manner, where Higher Grade was supposed to tackle the higher range of questions and the Standard Grade the lower range. A differentiated examination has always attempted to address two issues, namely (a) a differentiated cognitive standard for the examination, and (b) a differentiated curriculum (Tr¸mpelmann, 1991). Higher Grade always covered more or had some different syllabus topics than Standard Grade. According to Henning (2004), this is a problem that surfaced in our system in the 1950s, and is not going away with the establishment a 'one size fits all' examination At the chalk-face in the classroom, especially in the majority of schools where there are constraints in resources, this distinction has not worked in practice. The jury is still out on this one-on how one single examination will be able to cater for more than one purpose.

Related to the above issue of standards in the question papers, is the issue of how far the question types stretch the candidates' abilities. Umalusi's (2004) evaluation of the SCE nationally set question papers confirmed that there are too few questions pitched at high-

er levels of cognitive challenge. Of concern is the seeming fall in the number of questions designed to operate at more challenging levels. The results of all this is that the examinations are currently seen to be unreliable, even though there may be some notable exceptions. The new National Senior Certificate has the advantage that the menu of subjects is smaller and would therefore allow for more attention to be paid to the quality of question papers. However, if we are to learn from other countries, we have to realise that testing our question items would help us to establish benchmarks (Ssebbunga-Masembe, 2005). In addition, again going back to being shy of prescriptions, the types of questions vary within and across question papers. What is clear in general is that the questioning at the SCE level is getting more and more unlike the higher education questioning, and that it is characterised by very simple and short questions.

In the fourth place, the management of an examination is a critical element in its quality of standards. The end-of-school examination is very huge by all standards, and it is high stakes. There will always be someone who will try to beat the system. Contrary to public perceptions, and in spite of the mishaps in Mpumalanga this past year, there have been considerable improvements in the administration and conduct of the SCE nationally.

However, it should be noted that Umalusi has just completed an evaluation of the capacity of all Examination Bodies, public and private, in relation to this examination. We take note of the differences in the level of administration and management competencies in the various provinces and some private assessment bodies, and in particular the fact that:

> No assessment body, from that of the DoE itself to the best performing public and private assessment bodies, is without weaknesses that could lead to new crises (Umalusi, 2005, p. 5)

Of particular importance is the need to build appropriate decision-making skills and experiences in all those who will be confronted with irregularities-from markers to the irregularity committees and officials. This will enable the system to improve. In spite of some weaknesses in the system, Umalusi supports the continued administration of this examination by provinces. When examination problems surface, they are better contained when they can be isolated to provincial or even centre level, rather than becoming a national problem. This has implications for considerations of a nationally orchestrated examination system.

In the fifth instance, we must interrogate the role played by statistical moderation in inflating or deflating pass rates. Statistical moderation is a common practice in all examinations that involve large groups of learners, teachers, markers and administrations, and is an educationally defensible practice. However, in the South African situation this is contested in two ways: the administration is often of the opinion that it brings down marks and is not necessary (though in most cases it helps to improve the performance than the opposite); the public is of the view that this is manipulation of results. What is exceptional in the South African context is the weight given to statistical judgments instead of the professional judgments of chief markers. In fact, in other countries this procedure is known as grade review, whereby grade boundaries are decided per each examination, depending on the difficulty of the examination in question. The difficulty in the South African situation

lies with the condensed time allocated to this examination as well as the expertise of markers. In South Africa we orchestrate this system in a period of eighteen months, but that is a theoretical time frame as in practice most processes happen in the last six months of the cycle.

OTHER ISSUES

At the moment there is lack of clarity about certain parts of the system in the general and further education and training bands. This lack of clarity stems from gaps and non-finalisation of policy matters in areas such as:
- Education for Learners with Special Education Needs (ELSEN): Many learners who would probably qualify as ELSEN learners end by default in being mainstreamed without support and adding to the cohort of learners who attempt the Senior Certificate Examinations without any success. Many become dropouts early in the system and subsequently add to the 'disaffected' youth group. The lack of special needs provision in the system does not mean that the problem does not exist. There must be clarity on how the variations for ELSEN learners are to be dealt with in the curriculum and assessments of the SCE and consequently of the NSC.

- Adult Education and Training has been formalised. The only distinct form of provision that exist is Adult Basic Education and Training (ABET), which is strongly examinations-driven and the highest certificate that can be acquired is the General Education and Training Certificate (GETC), which is pegged at the Grade 9 school level. The education system cannot by any stretch of the imagination profess to be leading the country to any form of lifelong education system soon. Adults (young and old), in their many forms of needs, are far from being catered for in the present system, as anyone under the age of 45 who aspires to access higher education must go back and write school Matric examinations.

- Research on the attainment levels of school-going children shows that there is a progressive decline of competencies in the education system (Western Cape Department of Education, 2004). The Grade 3 systemic evaluation has shown us that these learners are not achieving much. Where provincial assessments have been undertaken, they show that Grade 6 learners perform worse than Grade 3 learners. The introduction of Common Task Assessments (CTAs) in Grade 9 has thrown up a worse scenario. The whole general education and training band has to be problematised and proper interventions made. Umalusi, provincial departments and the national Department of Education must work together to improve our insight into the functioning of the system at different levels in order to make appropriate interventions and provide appropriate support, as all levels in the system add accumulatively to the quality of the product that exists at the end of twelve years of schooling.

In summary, we must be clear that the NSC architecture is still shaky because it is built on untested assumptions about standards and outcomes. We must be more vigilant about it and push the pendulum further back. However, for the NSC to be better than Matric, the following will help:

1. Keep away from an unwieldy curriculum in order to ensure that learners are exposed to the basics, which they should learn well. Resources have to be put into ensuring that teachers are trained well for fewer subjects rather than more.

2. Establishing and prescribing syllabi for the NSC subjects will go a long way towards ensuring the specificity that is required to teach and learn from a common base and to be transparent about expected outcomes. This will give us insights into the adequacy of the varying content, concepts and skills in the different subjects.

3. With the differentiation of Higher Grade and Standard Grade gone, we are now left with an NSC examination to sharpen the differentiation of standards needed in the system, even more so than in the SCE. We must talk about standards setting in examinations in a way similar to other examination bodies. We must also treat standards in performance the same way that other examinations bodies do. We are not as unique as we want to believe.

4. In order to do justice to the issue of standards in this examination, we must first give more time to our question-setting phase at the beginning and the finalization of results at the end. For question setting, we need to test our questions and be satisfied with their standard before they are experienced by 'live' candidates. For resulting, we need to set our performance standards first to allow for grade ranges, before we get to statistical adjustments. Both these interventions need more time and better competencies in the running of this examination.

5. We have to pay a lot of attention to the development of our teachers' competencies in mastering their subjects and the pedagogy thereof, as well as to marking examinations and assessments because that is exactly where judgments are being made about the learners' performance standards. We must strive to support our schools in their attempts to enrich the teaching and learning experiences of most learners, especially the poor.

6. We must continue to strive for a better-managed examination, with as many zero-defects as possible.

7. We must be specific about how we treat the ELSEN and Adult learners, as they also deserve a fair deal in getting the coveted Senior Certificate/NSC.

CONCLUSION

There are probably two things to conclude regarding the issue of where we should take the Matric. In the first place, it is important to understand that the NSC will be a better version of Matric if:

- The curricula treat the content, skills and conceptual issues of disciplinary knowledge in such a way that a firm literacy ground in disciplines such as Mathematics, Science and Language is mastered. Teaching and learning experiences must be structured and supported in such a way that we confidently expect good returns from our schooling system.

- The examinations are built on a thorough understanding of the syllabi, specified outcomes, prescribed question formats, a differentiated range of challenging questions, managed by an increasingly competent cadre of markers and administrators. In order to pay better attention to the standard of question papers as well as resulting, we must explore the possibility of allocating a longer period of time to the beginning and ending components of this examination.

As employment requirements shift, higher education qualifications have become a 'positional good' in the whole education system, making them the most prized credentials. We have to work harder to establish other avenues for those who leave school, so that they do not clamour only at the doors of universities, whether deserving or not.

While it is encouraging to see the real interest in this examination on the part of academics and researchers lately, we must also be sober about what is possible in relation to the standard of the SCE. Perhaps when the quality issues of the entire pre-tertiary education system are addressed, we may anticipate seeing a real turn-around in quality terms of this examination. Equally important, it would be reckless if higher education were to establish an assessment system that would destroy the NSC examination, and consequently the schooling system, as performance in the SCE is currently the single most important indicator of the quality of the schooling system (Taylor, Muller & Vinjevold, 2003).

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