

**WIDENING GAP BETWEEN SCHOOL AND TERTIARY LEVEL**  
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By Carol Paton

There is a widening gap in the standards of school and tertiary level

**Minister of basic education** Angie Motshekga wants to change the design of the matric certificate, so that the SA coat of arms features prominently. But the real issue is whether the certificate is worth the paper it is written on.

In recent weeks there has been an intense debate between higher education institutions and the department of basic education about the quality of matriculants entering the university system. At stake is the validity of the matric certificate - since last year known as the National Senior Certificate (NSC). Is it still an indicator of potential success at university? Have pass rates and grades become ridiculously inflated?

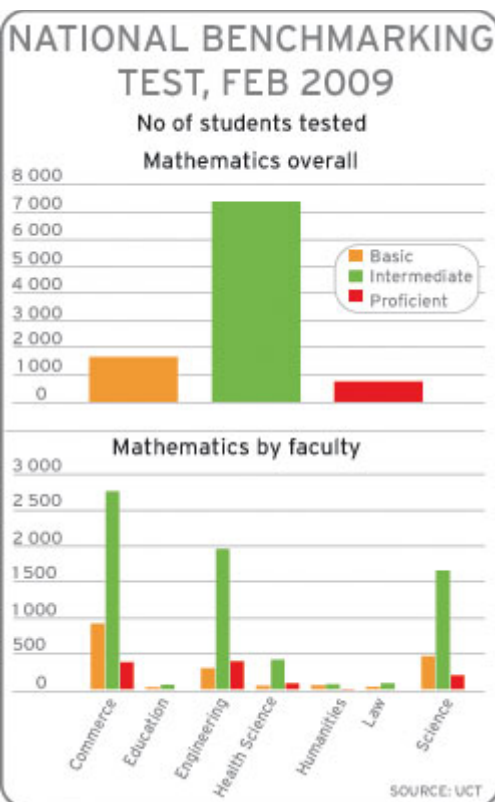
The debate got off to a bad start when Theuns Eloff, the chairman of Higher Education SA (Hesa) and vice-chancellor of North-West University, told a parliamentary committee that the majority of students could not read, write or comprehend at the required levels, and that general competence was declining.

The real picture is more nuanced: students are not illiterate. But two different studies have found the majority do not have the necessary competence in language and comprehension to handle university study without additional support.

**Nan Yeld - The whole curriculum is not being taught**

The studies - one by the national benchmarking test (NBT) project commissioned by Hesa and another by historically Afrikaans universities, in which Eloff is involved - were done so that universities could establish what kind of support they need to offer students. However, they have also indicated that strong conclusions can be drawn about the schooling system and the NSC:

- The maths pass rate and grades in last year's NSC exams were unrealistically high;
- SA students' foundation skills of numeracy and literacy are disastrously weak; and
- In both maths and language, the problem is getting worse, not better.



But first, the basic findings.

The NBT study was commissioned by Hesa and conducted by Professor Nan Yeld at UCT, assessing 13 000 first-year students at several universities. The NBT tests three areas of competence: academic literacy (language and comprehension); quantitative literacy (the ability to use and understand numbers in context); and mathematics.

Students are placed in three categories:

- Proficient;
- Intermediate (which means they will need various levels of additional support to pass); and
- Basic (which means they need extensive long-term support).

The basic category would be unlikely to cope with university study.

The NBT found that only 43% of students were proficient in academic literacy; 25% in quantitative literacy; and only 8% in maths.

This points to a problem on which both Yeld and the department of education now agree: last year's NSC maths paper was too easy. The number of A s and B s increased enormously from 16 000 in 2008 to 25 000 in 2009.

Says Penny Vinjevold, deputy director-general of education: "There wasn't enough differentiation at the top end, so the As and Bs were not a good predictor [of university success]. We need to set more problem-solving questions."

Vinjevold says that expert review of the paper found that other than at the top end, it was of an acceptable standard. "If you got 50% for this paper, then you were at [the old] higher-grade level."

But Yeld says the problem is more fundamental. "At the top end it was too easy, but this does not explain the problem entirely. We believe that the whole curriculum is not being taught, but only the bits that the teachers can manage." The curriculum is excellent, she says, but "I don't think the system can deliver it - it makes too many demands on parents, on teachers, and so on."

This explains why the NBT, which also tested only the NSC curriculum, gets such different results from the NSC exam. Apart from the problem with last year's NSC (which was introduced for the first time in 2008), Yeld says there is a long-term decline in maths skills coming out of schools.

The effect of last year's high number of As and Bs and the trend of declining preparedness have been disastrous for courses that rely heavily on maths. The worst hit has been engineering.

At Wits the good matric results led to an extra 300 students being allowed on the programme. But these students (and many others) failed dismally in the June exams. More than half of the 640 first-year students in engineering who got an A for maths in matric failed at mid year.

A tutor at Wits's Academic Development Unit, which provides students with extra classes, is quoted in the student newspaper: "The bottom 300 should never have been allowed to enter the programme." He also complains that, despite the extra classes being free, most of the struggling students don't attend.

At UCT, the increased numbers also led to a higher failure rate. Of the 450 first-years who got either an A or a B in matric, only 81 (18%) passed. But this is not a one-off disaster. The UCT engineering faculty says pass rates have been declining since 2005.

Because the NBT was conducted for the first time only in 2009, it cannot yet support the conclusion that the problem is getting worse. But Eloff's study, done every year for 10 years, shows a clear deterioration. The tests assess academic literacy. Afrikaans-speakers are tested in Afrikaans, everyone else in English.

Says Eloff: "There has been a clear regression over the past five years. At North-West University, the pass rate has declined by 13%. This test shows that things have gone backwards."

Though things did get worse this year, he says, the NSC is not to blame. "The NSC was the final straw. The problem lies in our schools at the primary level. They are not learning to spell using syllables, they don't do comprehension and they don't drill times-tables. These things have an accumulative effect."

The education department, which responded to both reports in parliament's portfolio committee on basic education, was mortified over the negative publicity generated and what seemed like finger-pointing by higher

education.

While conceding there had been a problem with the maths paper, officials said both the curriculum and the exemplar papers had been reviewed by bodies such as Cambridge International Examinations, the Scottish Qualifications Authority and the Board of Education in New South Wales.

#### **WHAT IT MEANS**

- > Many students need extra support
- > Maths curriculum not properly taught

But again Yeld is not convinced. "The ratings were not on the final exam papers and there was some controversy that in several areas the final papers were easier. The external bodies did not see the standardising processes, either, so just took the papers at face value."

The upshot of the debate over matric as an accurate predictor of success is that universities are increasingly adopting their own tests for placement.

From now on, several institutions, including Wits and UCT, will be using the NBT as an additional test that all university entrants must take.

Though university authorities insist that the NBT will be used only to determine the support needs of students and not to block access to higher education, education officials and politicians are extremely worried.

Nkosi Sishi, chief director for examinations at the department of education, told parliament: "The minute you introduce any benchmarking test, you are getting in the way of access, unless you explain yourself."