

Grade 3 pupils tackle maths problems. KZN's matric results slump resulted from too many pupils trying to pass maths, instead of maths literacy, among other reasons, says educationist Mary Metcalfe.

Picture: CINDY WAXA

Matric in the danger zone

THE 2014 National Senior Certificate results are a dangerous moment for education in KwaZulu-Natal, because disappointment brings pressures that can lead to hasty conclusions and false solutions. Hasty solutions are unimplementable, and remain symbolic gestures unfurled half-heartedly as a shield from criticism. Short-term thinking can bring unintended consequences, such as excluding weaker pupils to artificially raise pass rates, or a focus on Grade 12, rather than systematically building quality over the 12 years of which the NSC is a culmination. Additional "plans" on top of the plethora of those that already exist will further congest the compliance burden of districts and schools.

A clear focus on what is core to the central task of improving learning outcomes is needed, with all efforts concentrated on that. As teachers return for the 2015 school year, credible plans must inspire, give hope and renew commitment.

This article provides technical analysis, but will not change practice. It is hunger for change that must be ignited, with concrete plans and tools to operationalise this.

My work with teachers and officials in KZN convinces me that, despite the massive challenges faced, what holds the system together is the deep moral purpose, commitment and resilience of the majority of educators and officials.

These are our greatest assets, and will be the engine of any action aimed at improving learning. Our teachers deserve the active community support on which their success depends.

What do we know about the performance of the province in the NSC in 2014? I abhor provincial comparisons that fail to take into account the contextual differences between provinces – the differing levels of poverty and inequality, urban-rural economies, and legacies of education infrastructure – and when these comparisons promote unhealthy competition. But to understand the unusual decline of

Despite KZN coming eighth out of nine provinces in the 2014 matric exams, **Mary Metcalfe** believes our teachers can turn things around this year

2014, comparisons are necessary.

In 2014, KZN improved its performance relative to 2013 in six of nine key subjects: economics (10.2 percent), history (1.2 percent), business studies (14.3 percent), geography (3.5 percent), life sciences (1.7 percent), and maths literacy (5.5 percent).

How did we fare relative to the performance of other provinces? In these six subjects, we maintained or improved our ranking – in geography and business studies by three places. For these subjects (except maths literacy), KZN is between third and fifth nationally.

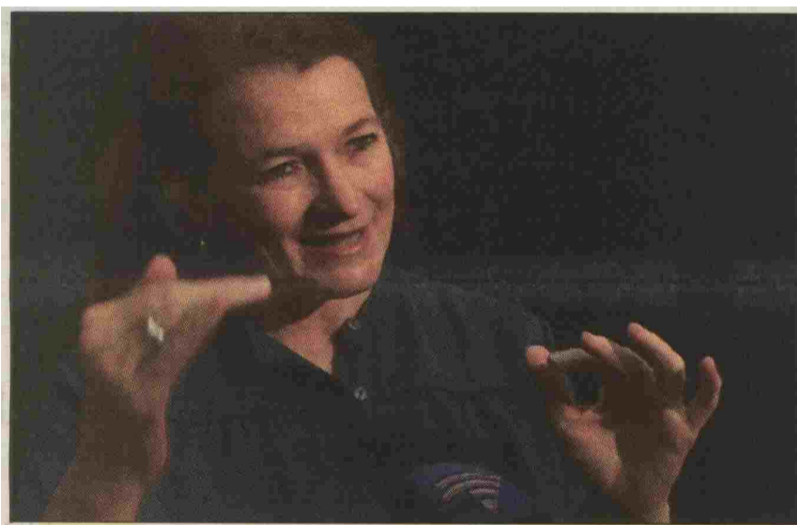
How can this be if our position has dropped to eighth, and the pass rate by 7.7 percent?

The answer is in the three subjects that declined: maths, physical science and accountancy.

In accountancy, KZN was the only province in which the pass rate declined. This anomaly needs to be explored in a detailed error analysis by subject experts.

In maths and physical science, all provinces declined (with two minimal exceptions), and KZN suffered the greatest decline. Why?

Two recent policy changes contribute to an answer. First, the 2014 candidates were the first to write



exams with a new format and different content.

In maths, the content has been made more demanding by including Euclidean geometry, probability, statistics and data handling. Umalusi has ascribed the decline to these changes.

A second important change is the requirement since 2008 that all pupils must do either maths or maths literacy. This is a high-stakes choice.

Many university courses require maths for admission, but the chances of failing are greater. Should we encourage a strategic choice between a safer pass in maths literacy or a riskier attempt at maths?

The evidence suggests that in KZN we have not got this balance right. There is a consistent pattern in the best-performing provinces between the proportion of pupils attempting maths and the success rate.

In the Western Cape, 32 percent of NSC candidates attempted maths last year and 73 percent of them succeeded. In Gauteng, 36 percent tried and 69 percent succeeded. In the Free State, 38 percent tried and 66 percent succeeded.

In KZN, the pattern is reversed. 52 percent attempted maths, while only 41 percent succeeded. KZN was therefore disproportionately

negatively affected by the national decline in maths because its maths participation was disproportionately high.

Provinces that are more selective about who writes maths (rather than maths literacy) achieve better pass rates.

KZN strongly encourages the selection of maths, and there are schools in which maths literacy is not an option. We should encourage pupils who need academic maths for their career choices and are likely to succeed with their maths attempts to take this subject. Where pupils have little chance of succeeding in maths, they risk failing the whole NSC.

KZN might consider processes to support teachers in guiding pupils on the choice between maths and maths literacy, such as a common test as a basis for differentiation and to guide pupil choice.

This might over time achieve an appropriate balance between maths and maths literacy participation that is consistent with national patterns and optimises the chances of success for pupils.

In addition to finding this balance, KZN has quality challenges. Maths and reading performance must improve from the foundation phase. The results of the annual national

assessment are clear in this regard – the retention rate must improve.

Nationally, only 40 percent of an age cohort pass matric, and this is the pattern in KZN. The quality of passes in all subjects must improve. More pupils in quintile 1 schools must succeed in the NSC, and more with bachelor's degree passes.

All of this needs careful diagnosis, translated into clear and credible plans implemented effectively at school level, on a sustained basis, within limited resources.

Stakeholders from school level to district and province must be part of crafting these plans and committed to integrating them into their own programmes of action.

Improvement will happen only when teachers, principals and officials commit themselves to making the effort to improve, and when pupils and parents see that the changes that must be made will be good for them.

The 2015 moment is an opportunity for KZN to seize the shared concern and use this to rally every school and community behind a clear programme of improvement.

The province has a five-year turnaround strategy, *Jika Imfundo*, being tested on scale in uThungulu and Pinetown, with funding from the National Education Collaboration Trust. This has a clear focus on core behaviour to improve learning outcomes.

An improved KZN NSC is not a one-year "quick fix" driven by inter-provincial competition, but a result of well-crafted, realistically resourced plans, supported in implementation vigorously by all stakeholders.

I believe *Jika Imfundo* is a solid multi-year plan to turn KZN education around and obviate the need for crisis-driven crutches for Grade 12 pupils who have limped through the system and must be supported in their final year to defend our provincial pride.

● *Mary Metcalfe is director of the programme to improve learning outcomes and honorary associate professor at the Wits School of Governance.*