

Editorial

Standards in education and training: The challenge

The articles in this Special Issue of *Perspectives in Education* were originally presented as papers at a conference held by Umalusi in May 2012 on the theme *Standards in education and training: The challenge*. Umalusi is the Quality Council responsible for setting standards for General and Further Education and Training in South Africa and for assuring their quality. In addition to developing and managing the quality of the sub-framework of qualifications for General and Further Education and Training, Umalusi ensures that quality assurance policies exist and are implemented, and advises the Ministers of Education on matters relating to the qualifications it certifies. Umalusi is currently responsible for the certification of the National Senior Certificate (NSC), which replaced the Senior Certificate in 2008 (this qualification is currently being phased out), the National Certificate Vocational (NCV), which commenced in 2007, and the General Education Training Certificate (GETC).

The perceived challenges referred to in the framing of the conference theme were, firstly, that, in spite of the fact that education standards are a topical issue, there is no common understanding in the South African education community of what is meant by the term 'standards'. Secondly, there are many questions related to the setting and maintenance of standards in a country that is characterised by extreme inequality resulting from its colonial past. Researchers go so far as to say that statistics reflects two distinct systems of education operating side by side, leading to what has been described as a bi-modal distribution of achievement (Fleisch, 2008; Van der Berg, 2007; Spaull, 2013).

The notion of standards is inherently ambiguous (Becher, 1997). In the past, they were generally thought of as outcomes of the process of education but, with the advent of written standards, they have become specifications of what should be learned and assessed, open to public scrutiny and, thus, a means of holding both teachers and the education system accountable. In South African schooling, assessment standards were introduced with the Revised National Curriculum Statement (RNCS) in 2002. Related accountability measures are the Annual National Assessments (ANAs), which are administered in Grades 1 to 6 and 9 (Department of Basic Education, 2012) and a public examination, the NSC, at the end of Grade 12. One of the many challenges Umalusi confronts is how to foster parity of esteem between the NSC and NCV in a society which has traditionally valued the more academic side of learning, especially in the light of high youth unemployment and South Africa's need for vocational skills.

Professor Catherine Snow from the USA and Professor Michael Young from the UK were among the keynote speakers at the conference; they addressed the question of standards in relation to their own countries, drawing comparisons with South Africa where appropriate. In the case of the UK, until the 1970s, standards were normative. High standards were achieved by means of selective education; limits were placed on the numbers of students achieving high grades in examinations in order to maintain quality, and there was a largely tacit agreement as to what constituted these standards, though, according to Young, this was always open to debate. From the 1970s onwards this approach to standards was called into question since it failed to address the needs of the majority of students in an increasingly diverse education system. The UK and the USA are characterised by relatively high levels of inequality in education, and in both countries written standards were introduced with the purpose of making the outcomes of education more explicit and, in theory, achievable by a wider range of students. As Snow points out in her paper, this has the potential to create 'a vision of excellence ... a shared view of what children should learn and how teachers should teach, and of guiding the distribution of resources to schools in need'. However, in both the USA and the UK, standards have been used to emphasise the accountability role of assessment rather than as a means of improving teaching and learning. Snow asks whether this view of standards will allow time for the *process* of education: Will it allow for skills to be built up over time? Will there be time for 'knowledge building activities like discussions, field trips?' Young sums up the situation succinctly when he says, 'You cannot fatten a pig by weighing it'.

A number of common themes emerge in the papers presented at the conference and published as articles in this special issue. Firstly, quality of teaching is highlighted as an important factor in ensuring that learners achieve specified standards. Young in his article refers to the importance of teachers' specialist knowledge, and Bansilal, Brijlall and Mkhwanazi report in their paper on research into the content knowledge of a group of high school mathematics teachers attending an upgrading course. They found that the Grade 12 teachers in their study struggled to answer some questions on an NSC supplementary examination paper and, as the cognitive demand of questions increased, so their responses became less adequate. This points to deep inequalities in the education system, and Bansilal *et al.* question how these teachers would be able to prepare their students for challenging NSC examination questions. However, the teachers did better on topics that had been included in the upgrading course, pointing to the necessity of teacher development to build content knowledge. Similarly, Pretorius in her article reports that the Grade 4 teachers in her study lacked an appropriate pedagogy for teaching reading and, at the start of the intervention, learners were reading four years below their grade level in English. This is not atypical; research shows that many developing countries lag behind developed countries in literacy achievement by several years (Pritchett & Beatty, 2012). With coaching, the teachers in Pretorius's study were able to make changes in their pedagogy and, as a result, the majority of learners made substantial improvements in reading – although 25 per cent were still struggling to decode in

both English and isiZulu. These two studies point to the role of teacher development programmes in improving educational outcomes, but also to the challenges of teaching in impoverished contexts where the gap between the teachers and learners and the assessment standards is often large.

Sosibo and Nomlomo surveyed Foundation Phase teachers' conceptions of education standards to find out how their understanding of the concept influences their classroom practice. The findings showed that teachers regard their school contexts as a restrictive factor in achieving the required standards. Equally, absence of a clear definition of education standards and teachers' exclusion from standards setting exercises compound the situation. In their conclusion, Sosibo and Nomlomo argue for clarifying the concept of 'education standards'.

Scherman, Zimmerman, Howie and Bosker argue for the inclusion of school role players such as teachers in the process of setting standards. Their proposed method is what is called the bookmark standard-setting procedure, which uses a combination of teachers' professional judgement and the Rasch item-mapping to order items from easiest to most difficult on a common scale. This method, in their view, is simple to implement and results in teachers' contributing meaningfully to the standard-setting process, because they become fully aware of the nature of the expected standard used to hold them accountable.

A number of papers deal in one way or another with inequality of access to education. Pienaar and McKay examine an aspect of the legacy of apartheid – the spatial organisation of South Africa's cities with regard to race – and its impact on access to quality education. They report that, after 1994, schools were allowed to define their own geographical catchment areas. They go on to show that geographic location of schools in Gauteng has a strong influence on learner performance and, thus, on educational standards, and they suggest that this has implications for policy with regard to the zoning of schools in Gauteng.

Several articles deal with the way in which language constrains what Young in his paper refers to – with a nod to the late Wally Morrow – as 'epistemic access' or, more simply put, access to meaningful education. Snow captures the essence of the 'language problem' when she writes, 'Language is not only a medium of education, but also an outcome of education – creating one of those difficult situations in which one has to know something before one can learn it'. Pretorius focuses in her research on Grade 4, the year in which English becomes the medium of instruction in township primary schools, and shows how inadequate the learners' English is for this purpose. Even though the learners improved as a result of Pretorius's intervention, they were still performing below grade level, which must have a negative impact on their overall achievement at school. Snow reports that even in the USA, 'Children from non-English-speaking homes fall, on average, about .5 standard deviations below children from English-speaking homes in nationally administered comprehension assessments'.

This suggests that learners are disadvantaged when they are assessed in a language they do not speak at home. In acknowledgement of this disadvantage, NSC candidates whose first language is not Afrikaans or English and who, thus, write the examination in an additional language, receive compensation of 5 per cent in non-language subjects. Introduced in 1999, this policy was originally intended as an interim measure, but it is still in place. Thus, Taylor in his article reviews the policy, firstly, by using statistical methods to examine whether these candidates are disadvantaged by writing in an additional language and, secondly, by considering whether the practice should be allowed to continue. Taylor demonstrates that language disadvantage does persist and concludes that, for largely pragmatic reasons, language compensation should continue. An additional conclusion is that, 'Increasing the English proficiency of African candidates will improve outcomes in all non-language subjects'. He further suggests that 'giving special attention to the teaching of English in the Foundation Phase ... could have exponential benefits'. However, he qualifies this suggestion by also emphasising the importance of a solid foundation in the learners' home language.

Finally, there are four articles dealing with different aspects of assessment. Le Cordeur takes the view that, in response to South African learners' poor performance on national and international assessments, there is too much emphasis on systemic testing at the expense of learning. He argues that the purpose of assessment is not simply to measure learning outcomes, but to improve teaching and learning. Similarly, Long, Dunne and Mokoena argue for an assessment model that supports instruction. They propose a model that includes 'a monitoring component, a formative component and a professional development component'. Like both Snow and Young, they argue that an over-emphasis on the accountability function of assessment is detrimental to education.

Ramnarain, Sewry and Mokilane in their respective articles consider different aspects of validity of the NSC examinations. Ramnarain examines the validity of the assessment of 'scientific enquiry' in the Physical Sciences examination. He concludes that these questions lack construct validity and suggests ways of remedying this. Sewry and Mokilane report that, when the NSC Mathematics examination was introduced for the first time in 2009, the professional community of mathematics educators in South Africa perceived it to be too difficult, though, by 2011, this had improved. Sewry and Mokilane argue that, in the case of a high-stakes examination in a gateway subject such as mathematics, it is important to analyse the quality of questions in a rigorous manner. They use a Rasch analysis to determine the level of difficulty of questions in the 2009 examination using candidates' scripts from the Grahamstown Education District. This mode of analysis evaluates candidates' abilities and item difficulties on the same measurement scale, enabling one to see whether the examination was too easy or too difficult for the cohort and whether it had good targeting (not too difficult for the weak candidates nor too easy for the strong candidates). The analysis confirmed that the examination was difficult for

this cohort of learners despite the fact that there were a fair number of easy items. It also revealed that, although a number of questions differentiated amongst low-ability candidates, there were no questions that discriminated amongst candidates with average to high abilities. Sewry and Mokilane argue that, 'In the ideal paper the distribution of the difficulty levels of the items should be embedded in the distribution of the candidates' abilities'.

Although a significant advancement in the South African education and training system was the introduction of the NCV, which stands next to the NSC as an exit qualification, most articles in this special issue focus on schooling. Only Young addresses further education: he provides a historical overview of changing perspectives regarding standards in the post-school sector in the UK from the 1970s up to the present. Drawing on this experience, he discusses the relative strengths of the older, normative standards and the more recent, written standards. He takes the view that, whereas written standards have the potential for greater precision and can create conditions for debate, they may also undermine quality in various ways. However, in his view, neither approach 'addresses the real sources of raising standards – better qualified teachers and improved curricula'. Young also points to the limitations, especially in unequal societies, 'of using standards for the dual purposes of maintaining quality and promoting greater equality'.

The articles in this Special Issue of *Perspectives in Education* highlight the importance of written standards being appropriate to the context. If the gap between teachers' and learners' capabilities and the assessment standards is too great, this can have a negative effect on teaching and learning. This is especially important in the early years of schooling where an over-ambitious curriculum may cause learners to 'get left behind early and stay behind forever' (Pritchard & Beatty, 2012:13). Such a curriculum does not allow time for the majority of children to learn, and effectively denies them access to education. Furthermore, it is demoralising for teachers to be held accountable to standards they cannot possibly achieve (Shalem & Hoadley, 2009). However, as Young reminds us, this has to be balanced against a normative view of what constitutes high and low standards. Otherwise standards will not be recognised by stakeholders in higher education and the workplace, and capable students may be denied epistemic access. To work towards resolving this tension – though it will always be with us – we need a strong focus on appropriate, high-quality teacher support and development. Finally, the articles also show us the importance of the quality of assessment. In particular, there must be great care and precision in setting examinations in order to not only discriminate between strong and weak students, but also to strike a balance between what is desirable with regard to disciplinary knowledge and the capabilities of the candidates sitting the examination.

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