Constantly weighing the pig¹ will not make it grow: do teachers teach assessment tests or the curriculum?

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For a number of years now, South Africa, like many other countries, has been debating a major paradiam shift in education, a shift from learning and teaching, which focused primarily on content to learning and teaching focused on outcomes. One of the most dramatic trends in education over the last decade has been the shift towards the use of assessment-based criteria, as opposed to assessment tests based on marks, scores and data. However, as Jordaan (2010) auite rightly points out, assessment is an integral part of teaching and learning, not just a means of monitoring or auditing learners' performance. Assessment is much more than just measuring learning outcomes: it is an instrument to improve teaching, the curriculum and conditions for learners' learning. The question is why the negativity about testing if assessment is associated with effective teaching. Since South Africa became a democratic country, it has been struggling with low levels of literacy. Poor performance of South African learners in basic literacy in national and international tests has moved the Department of Basic Education (DoBE) since 2010 to place more emphasis on systemic tests as a way of securing an improvement in learner performance. However, many researchers have blamed the emphasis placed on standardised tests for the poor state of our education system. More and more voices are going up for improved teacher development and more support to teachers and learners. In this article, I shall argue that too much emphasis is placed on standardized tests, and not much is being done to develop teachers in providing a balanced teaching and learning experience to learners. I shall indicate that the continual testing of learners' performance in literacy through systemic and standardised tests has not led to improved reading ability, but has in fact contributed to a decline in learners' creativity, innovation and independent thinking, and the skills needed to leapfrog this country into the 21st century. These tests emphasised the skills involved in taking multiple-choice tests over those of researching, analysing, experimenting and writing, the tools that students will more

1. Stein, M. 2009. Weighing the pig doesn't fatten it. Mail Online. [In time]

Michael le Cordeur Department of Education, Stellenbosch University E-mail: mlecorde@sun.ac.za Telephone: 021 808 2265 likely need to be areat thinkers, excellent university students and valued employees. I will argue that today's children spend too much time preparing for tests and this has come at the expense of a broader education in other subjects. Drilling pupils to pass tests does not help their longer-term learning and results in a narrower curriculum, poorer standards of teaching and lower auglity of education. The point I want to make is that teachers have learnt very fast how to coach for the tests, which led to inflated results. Thus, while test scores have risen, educational standards might actually have declined. Therefore, rather than adding new measurements of progress, schools need to move away from data and towards a more holistic approach to assessing educational auality. I shall also argue that we must assess students' work throughout the year by means of portfolios, rather than by means of a narrow snapshot of learning measured on one test day. As Jordaan (2010) puts it, we need to ensure that learning is not simply assessment-driven. Students are highly intelligent people; if we confront them with a game where learning is linked to a rigid and monotonous diet of assessment, they will learn according to the rules of that game. To improve their learning, we need to improve our game.

Keywords: assessment-based criteria, assessment-driven tests, educational standards, learner performance, learning outcomes, standardized tests, systemic tests

Introduction

Results of the ANA tests written in February 2011 confirm that learners in South African school underperform with regard to their literacy and numeracy. The ANA² represents one of the most important interventions by the government to enhance the basic skills in literacy and numeracy. The report indicates that countrywide, only 20% of all Grade 6 learners who wrote the ANA in 2010 performed at an internationally acceptable level in literacy (DvBO 2011a). This has led to the situation that experts in general are very negative about the quality of education in the South African school system (Bloch 2009:26; Jansen 2009:37 & 49; Ramphele 2008:171).

The standardised tests written by more than six million learners in South African primary schools showed that the poorest schools did the worst. Learners from Limpopo, North-West and Mpumalanga could not even attain the most basic skills in literacy (DvBO 2011a:20). According to the Minister of Basic Education, the reasons for this state of affairs are mainly socioeconomic in nature. The percentage of schools that could not attain the basic skills in literacy and numeracy in 2011, appears in Table 1:

2. The Annual National Assessment tests (ANA), are the standardised assessment tests in literacy and numeracy annually conducted by the National Department of Education at all schools.

Province	Grade 3	Grade 6
Western Cape	41	41
Eastern Cape	45	67
KwaZulu-Natal	48	68
Free State	50	80
Gauteng	53	54
Limpopo	61	85
North-West	63	83
Northern Cape	66	70
Mpumalanga	67	85

Table 1: Percentage of schools that did not attain the basic skills in literacy in 2011:

Statement of problem

The low level of literacy amongst our learners is not unique to South Africa. Nevertheless, the poor performance of South African learners in basic literacy in national and international assessment tests is a matter of concern (Jansen 2013, Le Cordeur 2013a, Ramphele 2012). Consequently, this poses tremendous challenges for the South African teaching profession and has led to the Department of Basic Education (DBE) starting to place more emphasis on standardised tests since 2010 in an attempt to improve the performance of learners in literacy. However, experts (Jansen 2013; Ramphele 2012; De Klerk 2012; Le Cordeur 2012) are unanimous in their view that the assessment tests per se do not promote better learner performance. This is more probably a way to force schools in the direction of greater responsibility (Frederiksen 1984).

According to a recent list by the magazine *Newsweek* (2010) of the bestperforming countries in the world, South Africa is 82nd altogether, and our education system 97th out of 100 countries. South Africa's education system is rated even lower than the systems of Mozambique, Bangladesh and Iran, countries that are significantly poorer and less free. It is therefore clear that the annual standardised tests to which we submit our learners have not produced the expected change in our country's literacy levels. On the contrary, Jansen (2013:1) is of the opinion that our country's education system is deteriorating. Le Cordeur (2013a:7) pleads that schools and teachers who do not do their bit should be brought to book. Ramphele (2013:3) accuses the education authorities of failing the learners. As proof, she claims that 80% of our schools are dysfunctional.

Taking the above into account, I shall contend in this article that the DBE places too much emphasis on the annual assessment tests, but that too little is done to ensure that learners receive the maximum teaching time. In this regard, I shall concur with Brown (2011), who argues that the continual measuring of learners' performance and reading ability by means of standardised test achieves exactly the opposite: in many classrooms learners' creativity, innovation and individuality are limited. In another article, Le Cordeur (2013b) writes that it is inexplicable that, while the demands for good reading are on the increase, the support for teachers gradually declines. By focusing on standardised tests all the time, the focus is deflected from an important cause of low literacy, namely the flawed in-service training of teachers in order to enhance their own skills in the teaching of reading.

Research question

Resultant from the above, the following research question is investigated: *Is the increase in the pass rate of standardised tests an indication of improved learning and quality teaching*?

Methodology

As research topic I have decided on a historical investigation, combined with a literature study. Many current educational issues, theories and practices can be understood better in terms of experiences from the past. The knowledge acquired from the historic pedagogy often offers valuable insights in terms of which the changes in the current education system as well as the practices and approaches can be investigated. It also gives an accurate indication whether those changes will be effective and sustainable.

Literature study

The purpose of assessment

Before the debate about excessive assessment is continued, it is advisable to stop for a minute at assessment first and asks oneself why it is necessary at all to assess learners regularly. According to researchers (Jordaan 2010; Huba & Freed 2000), the purpose of assessment is not only a way to measure and monitor learners' performance; it forms an integral part of teaching and learning. Assessment is therefore synonymous with effective teaching and an instrument of learning (Dochy & McDowell 1997). According to Jordaan (2010), a further goal of assessment is the improvement of teaching, the curriculum, and the circumstances under which learners have to study, while Wolf, Le Mahieu and Efresh (2002) focus on assessment as an instrument of educational transformation. Assessment also offers valuable data that can serve as basis for remedial action (Huba & Freed 2000), while it is also the basis according to which one has to decide whether it is in the learner's best interests to keep him/her back or to promote him/her to the following grade (Dochy & McDowell 1997).

Debate about the positive or negative consequences of testing

The research question under investigation in this article is whether it is possible for the pass rate of tests to improve without any visible increase in learning. In this regard, one has to refer to the research by Cannell (1987) showing that standardised test programmes – like the ANA tests in South Africa – could lead to dubious and artificially high results. Independent evidence by the National Department of Education in America has shown that learner performance has increased in basic literacy and numeracy during the period when the tests were conducted. At the same time, however, there was no improvement or decline in high-order and advanced skills. Shepard and Dougherty (1991) ascribe this pattern in the test results to the negative influence of standardised tests on teaching and learning.

The question thus arises: why then the negativity around testing, if it is generally accepted that testing is associated with quality education? Research in the USA by Shepard and Dougherty (1991) indicates that the debate about the negative versus the positive of standardised tests is nothing new; on the contrary, it has already been the topic of discussion for some time.

People like Popham (1987), who are in favour of standardised tests, are of the opinion that tests take the role of an external examiner similar to the state of education district to set standards and maintain the application thereof. He continues to state that, if tests measure important skills, they will serve as motivation for teaching and learning, which in turn, will lead to improved education. Those who are opposed to standardised tests (cf. Bracey (1987; Frederiksen 1984) argue that these tests will have a negative effect on the quality of education, because it will attenuate the focus of the tuition simply to the content learners will be tested on.

Brown (2011) and Frederiksen (1984) also refer to the pros and cons of standardised tests. According to them, the annual standardised tests lead to a decline in creativity innovation and individuality amongst learners. This emphasises the skills that are necessary for tests like multiple choice questions, at the expense of research, analysis, experimenting and writing – the very skills necessary to cultivate great thinkers, good leaders, brilliant university students and valued employees. Still, according to Brown (2011), it cannot be denied that, by forcing schools to enhance their literacy figures, many more learners have reached secondary school and even tertiary education. Shepard and Dougherty (1991) quote evidence underwriting the positive influence of test-based teaching and state that this mainly comes from those who administer these tests (i.e. the state). Popham (1987), for example, refers to the sharp increase in the pass rate for tests of Grade 1 learners' reading ability. Similar improvements have also been reported in other grades. Popham (1987) particularly refers to the fact that, where changes had been effected to prepare learners for a specific test, the increase in the pass rate was even higher.

In the following section, the situation in the United States, Australia and the United Kingdom will be reviewed.

The United States of America (USA)

Research (Wolf, Le Mahieu & Efresh 2002: Shepard & Dougherty 1991: Darling-Hammond & Wise 1985) indicates that teachers are pressurised by the Department of Education and the District Office to increase their pass rates in standardised tests. Because of this, according to Rottenberg and Smith (1990), teachers are compelled to "teach the test". Subject content not covered by the tests is ignored. For instance, according to Darling-Hammond and Wise (1985), the creative writing of essays was abandoned in order to spend more time on work that could be examined in the tests. Rottenberg and Smith (1990) refer to principals who changed their school timetables and created special periods to coach learners in answering multiple choice questions, punctuation and grammar use. Shepard and Dougherty (1991) also refer to interviews conducted with district directors, who frankly admit that teachers spend more time on the outcomes of the test than they would normally have done if standardised tests had not been written. Researchers like Brown (2011) and Wolf, Le Mahieu and Efresh (2002) agree that the excessive emphasis on standardised tests and numeracy discriminates against most of the schools struggling to survive on a daily basis. Furthermore, it limits the curriculum and it is unfair towards schools that perform well. Brown (2011) also argues that the policy was instituted to pressurise schools to pay more attention to disadvantaged learners from the black and coloured communities. It is therefore clear that assessment has taken place for all the wrong reasons, mainly to create a false image to the outside that all is well with the education system at the expense of quality education. In this regard, it is expedient to read what the award-winning author, Eugene Robinson, recently wrote in *The Washington Post*:

It is time to acknowledge that the fashionable theory of school reform – requiring that pay and job security for teachers, principals and administrators depend on their students' standardized test scores – is at best a well-intentioned mistake, and at worst nothing but a racket (Robinson 2013).

Australia

In their submission to the House of Representatives, the Australian Principals Association has criticised the federal government's intention to establish Australia as one of the top five education countries in the world by 2025, based on the pass rates in reading, mathematics and science. According to a newspaper report (Ferrari 2013), the danger of such a goal is that it will attenuate the curriculum

by overemphasising the importance of three subjects and undervaluing the creative aspects of the primary school curriculum. This goal will focus Australia's attention on aspects of curriculum, which may well not be viewed as important by international testing authorities in 2025. According to the report, the matric certificate in Australia has specifically been adapted to include fewer tests. Amongst others, the adjusted policy requires that only two of the five tests in Grade 11 and 12 must be done in writing. Other assessment tasks could include observation, discussion and oral tests. The system rests on all that learners are able to do, rather than the "marks" attained in tests. This means the teacher has to perceive what the learners have learnt, and the learner has to provide evidence by submitting assessment tasks and a portfolio. Shaw (2013) emphasises that no evidence exists that standardised tests in the Australian school system have improved literacy and numeracy. Shaw (2013) further writes:

Parents should be aware that a quality report by a professional teacher encompassing a range of measures over time, preferably accompanied by a face-to-face discussion, is a far better indicator of student capabilities.

The United Kingdom (UK)

Leading academics warn that education standards have declined with rapid strides in the United Kingdom, thanks to the British government's obsession with testing (Harris 2013). It is expected of all primary schools in the UK to administer standardised tests. According to the official policy document of the Department of Education (Circular 0056/2011), the regulations are as follows:

- English-medium schools are required to administer standardised testing in English reading and Mathematics during the period May/June for all students in 2nd, 4th and 6th classes on an annual basis, with effect from 2012 onwards.
- Irish-medium schools are required to administer standardised testing in Irish reading, English reading and Mathematics during the period May/ June for all students in 2nd, 4th and 6th classes on an annual basis, with effect from 2012 onwards.

According to Harris (2013), an in-depth inquiry into primary education has brought to light that the average child in Britain spends too much time on preparation "for batteries of tests in English and Maths" (Harris 2013). Whilst test results have increased since the mid-1990, this achievement has been reached to the detriment of children's right to a balanced curriculum, inadequate exposure to other subjects, and excessive time spent on preparing for tests. Although the pass rates for mathematics and literacy have increased from 54% to 77%, the pass rate in both subjects has stabilised over the past few years. According to Harris (2013), this is in all probability because teachers have learnt very quickly how to coach learners for the tests. Therefore, although the results have improved, the advantages of coaching have long since reached a point of satiety; no attention is paid to high-level skills.

The report also states that coaching learners for a test does not help them in terms of their long-term learning, and consequently leads to a deficient curriculum, lower teaching standards and less quality education in general. This results in a poor

relationship between teacher and learner in the classroom, which can even decline further as schools do everything within their power to improve their results (Harris 2013). Instead of trying a variety of teaching methods – amongst others, teaching in smaller groups – learners often do nothing more than prepared lessons that will prepare the whole class for these tests. The report concludes that, while test results have improved, educational standards have declined.

The result of this is that both Wales and Scotland have already started to abandon standardised tests, and according to Lightman (2013), a principal at a secondary school on the outskirts of Cardiff, Wales, they are impressed with the new results. He writes:

Our students now are so much more independent and capable of organizing and analysing what they're doing, and they're able to improve as a result of that.

Next, I shall focus on Finland and how this country can serve as model for quality assessment.

The success story of Finland vs. the South African situation

The question is now: how do we handle the issue of testing in future? In this regard, I want to refer to the Finnish success story. According to Darling-Hammond (2011), other countries can learn a lot from Finland, and this includes South Africa. In the 1970s, when the USA was the leader in the field of education, Finland's education system had little to be proud of. From a humble beginning, the country has resolutely developed certain strategies to expand education capacity. Finland, once a country that was very low on the education scale and characterised by an uninspiring, bureaucratic education system – reminding one a lot about the current South African model – is today the foremost leader on education in the world. On the OECD³ nations' list of top-performing countries Finland is followed by South Korea, Canada, Japan and New Zealand.

Finland has transformed its traditional education system "into a model of a modern, publicly financed education system with widespread equity, good quality, large participation—all of this at reasonable cost" (Sahlberg 2012: 2). More than 99% of the learners completed the compulsory primary schooling in 2012, and approximately 90% were successful at secondary school. From these Finnish matriculants, two thirds have enrolled at universities or other tertiary or technical institutions. More than 50% of the adult Finnish population participate in adult education programmes (Sahlberg 2012). This is in sharp contrast with the South African model, where nearly 35% of the learners who enter into the system do not pass matric (Le Cordeur 2013). Bloch (2009:11) points out that South African learners constantly underperform and are not only regarded amongst the poorest in the world, but also amongst the worst

^{3.} Organization for Economic Cooperation and Development – commonly known as the developed countries.

in Africa: "They produce barely literate and numerate learners and (I) believe the country is headed for a national education crisis." (Bloch 2009:12)

Laukkanen (2008) points to a recent analysis emphasising the core principles of the Finnish education system. According to him the emphasis is on resources for those who need it most (in South Africa, the reverse is true because the rich schools still receive more and more); high-level standards for special education needs; a healthy balance between centralisation (top-down approach) and decentralisation (bottom up approach) and qualified teachers (most teachers have master's degrees). Teachers are prepared to teach a diverse group of learners, unlike in South Africa, where there are constantly court cases when government requests schools to teach learners from other language and cultural groups (Malan 2013). These principles ensure that learners are taught by well-prepared teachers on a daily basis, working in tandem with a high-quality curriculum, supported by suitable learning material and assessment methods. This leads to a situation where learners, teachers, education leaders and the system as a whole constantly learn and improve (Laukkanen 2008).

The principle to care for learners scholastically as well as personally stands central to the Finnish school system. According to Darling-Hammond (2011), Finnish schools are generally small, with less than 300 learners per school and approximately 20 learners per class. There is greater equality in the Finnish school system, with no private schools, because 98% of the education expenses at all levels are covered by the government, and not by private institutions like sponsors and even parents. All learners receive a free meal every day, as well as free health care, transport, learning material and counselling at the school, in order to ensure that an environment conducive to learning (in SA known as "Foundations for Learning") exists at every school. A child cannot study when he/she is ill and hungry (Sahlberg 2012). However, notice must be taken of Stein's (2009) point that more money without accountability and true transformation in schools is tantamount to milk into a basket: the money disappears into a bottomless well.

This principle also applies to South Africa, where the greater part of our tax money is spent on education (Malan 2013; Le Cordeur 2013c). In contrast to Finland, the shortfalls in South Africa are so large that money will not make a difference overnight. Despite the fact that the major part of South Africa's budget is spent on education, observers like Malan (2013:3) and Van den Berg (2005) agree that more money allocated to schools will not resolve the problem. The most important reason for this is the fact that many principals in South Africa struggle to keep up with the transformation and changes (Galloway 2004:75). Since 1994, many developments in the field of education have taken place, particularly with respect to education management. De Klerk-Luttig (2009) is of the opinion that principals are left in the dark with all the changes and are therefore not motivated to apply any new policies.

In Finland, the focus is on science, technology, innovation and creative thinking. Buchberger and Buchberger (2004:10) point out that Finland has moved away from a centralised system with external tests and examinations to a local system, where highly trained teachers develop their own curriculum based on the basic national standards. This new system is applied with equal funding for all schools and intensive training for teachers. The core principle on which the entire system is based is to invest in the capacity of local schools and their teachers in order to address the needs of that specific school. Together with well-thought-out guidance, each child's creativity is realised within the collective, but accessible outcomes (Buchberger & Buchberger 2004).

In South Africa, the opposite is the case. Gallie (2009) and Malan (2013) argue that poverty and lack of educational resources prevent both the school and the learners to reach their full potential. According to them, approximately 50% of all learners live in poverty and nearly 25% go to school hungry. The result of unemployment is that books, pens and school uniforms are luxuries. Malnutrition affects learners' ability to concentrate and leads to learning problems. Furthermore, schools' basic functions, like timetables either are entirely absent or are not applied, departmental procedures are executed bureaucratically and service delivery in the public service has deteriorated. According to Sigudla (2002:38) and Le Cordeur (2013a), most of the governing bodies in disadvantaged communities are simply not able to perform tasks like the appointment of new educators, because these parents are often illiterate.

It is unlikely that a Finnish teacher will teach for 50 minutes. According to Darling-Hammond (2011), learners choose the tasks themselves, which they then complete at their own pace. Often they will complete individual assignments, but also group projects. Sometimes they write articles for their own school newspaper. In this way, they determine their own weekly goals in collaboration with their subject teachers. The development of metacognitive skills that assist in problem analysis and solutions, as well as the skill to evaluate and improve their own progress, forms the building blocks of the Finnish education system.

According to Laukkanen (2008), the Finnish system is based on the principle that the teacher stands central to education. That is why the empowerment of teachers and the recognition of their role as professional educators form the core around which everything revolves and are the most important reasons for the Finnish success. The training of teachers is entirely the responsibility of the state. After the basic training of three years, an intensive overview over the assessment guidelines and the curriculum follows. The course is developed to inculcate critical thinking within prospective teachers, thereby teaching them to think on their feet, the ability to curriculate on their own, when necessary, without first getting permission from a district office or government official. Laukkanen (2008) takes the view that professional teachers must have the freedom to discover new, innovative methods and improve learning. He continues to state that teachers should not be regarded as technicians who must only apply the curriculum according to strict instructions, but as professional individuals who know how to disseminate their learners' learning experience maximally. An investigation into the qualifications of educators in South Africa still displays the legacy of apartheid (Ramphele 2008:172). For instance, in 2005, only 38% of the country's educators in public schools were in possession of matric and four years' training. In 2001, 27% of all black learners in mathematics and 38% of the learners in science were taught by educators who had no mathematics or science qualifications, respectively. Of all the Grade 6 educators who teach literacy, 32% only had primary or junior qualifications in 2005. The most important thing that South Africa can learn from Finland is that the status that the Finnish teacher enjoys is higher than any other profession's. All the systems in a country can only work if the education system is successful.

In the meantime, the USA, according to Sahlberg (2009:22), has turned to even more extreme testing, which leads to yet more unequal education standards. In Finland, learners only write one examination before proceeding to university: the matriculation examination, which is administered by the matriculation examination committee, appointed by the Minister of Education. For some educators this might sound radical, but Finland's curriculum, modelled after school-based, learner-centred and open-book tasks, is given as the main reason for the country's success in international examinations and tests. In the South African context, experts (Jansen 2010; Kloppers-Lourens 2010) are of the opinion that already disadvantaged learners are exposed to a curriculum that impairs a fragile learning environment even more. Therefore, the following conceptual framework for the South African education system is proposed.

Conceptual framework

During the post-apartheid era, education departments has not "trained" teachers, but has "orientated" them with respect to the policy goals and objectives of the National Curriculum Declaration (WKOD 2006:4). There has been a lack of emphasis on issues related to epistemology, which provide the conceptual tools, by means of which teachers are enabled to enter the new education pedagogy. This has impeded the growth of knowledge regarding conceptual development, renewal, creative thought and imagination. It is therefore important that teachers who want to educate or orientate learners must have a thorough understanding of epistemological issues and the impact these have on thinking, practices and transformation in general.

Given South Africa's unique situation as stated above, an education approach will be proposed in this article, based on Freire's (1970) *pedagogy of hope*. The objective of this approach is to empower learners to do something for themselves in order to escape the yoke of oppression, poverty and injustice (Crittenden 2008). That is why the education system in South Africa should strive towards empowering learners with those skills necessary for life-long learning, in order to strengthen learners' chances of success in higher education. On the other hand, the conceptual framework envisaged in this case is an example of constructivism. The social learning theory, namely that learning takes place through social interaction, had been developed by the Russian psychologist Lev Vygotsky (Woolfolk 2010). This educational approach is learner-centred (Kim 2001:2) and based on the view that knowledge is not absolute, but are constantly construed by the learner on the grounds of previous knowledge and universal world views (Baker 2000:260). According to Piaget, one of the earliest voices that propagated this approach is the basic principle of education, namely to understand and to discover, or to reconstruct through discovery and these conditions must be fulfilled if future individuals have to be formed who are able to effectuate production and creativity, rather than simple repetition (Piaget 1978:20).

This is a learning theory that strives to invest learners with the skills necessary for lifelong learning. In essence, this is a moving away from the conception that knowledge is conveyed to the passive learners to the idea that active learners create knowledge while becoming involved therein. This learning theory proceeds from the viewpoint that learners are not empty beings (Freire 1970:22), but that each learner possesses an own perceptual framework; that learners learn in different ways; and that learning is a dynamic, active process (Kim 2001:3). Developing learners are not regarded as passive receivers of knowledge, but rather as active builders of their knowledge in interaction with the world around them. Passive learning with its numerous standardised tests expects very little more from learners that memorising notes and textbooks without thinking about and interpreting it. Self-directed learning, on the contrary, encourages learners to reflect on learning activities and to accept responsibility for the learning process; skills that are conducive to life-long learning (Baker 2000:261). To my mind, such an approach will facilitate the paradigm shift from teaching to learning the best.

Findings and recommendations

From the preceding literature study, it transpires that education in South Africa is facing major challenges. Chesterson (1935) states that, "It isn't that they can't see the solution. It's that they can't see the problem."

Consequently, a new approach to assessment is not something that can be resolved in isolation through extra tuition or complementary programmes – it demands a joint attempt and national strategy extending into all classrooms and districts across the curriculum.

The solution to South Africa's education problem, according to this author, no longer rests with more tests and more examinations. If we realise that teachers are the key to a successful education system, we must do everything in our power to enhance their effectiveness. In this regard, I want to agree with Stein (2009) that we must spend far more time, money on and pay attention to the professional development of teachers. South Africa must employ more teachers. It is unacceptable that teachers have 132 learners in one class (SABC 2013). We must train and retrain our teachers intensively and provide them with the opportunity to improve their skills by means of further study, study leave and bursaries. Young teachers must

complete a trial period of at least a year under the vigilant eye of a mentor or master teacher. The bureaucracy (Malan 2013) must be scaled down. There are far too many teachers sitting around in district offices while their skills are needed at schools.

Concluding remark

Instead of constantly tasking teachers and learners with even more tests, schools must start to move away from marks and test results to a more holistic approach to assessing the quality of teaching. It is very inspiring to evaluate education in terms of learners' interaction with the learning content by means of their portfolio, rather than with a single test. Jordaan's (2010: 215) warning against excessive testing is appropriate here: "We must put structures in place that will ensure that learning is not only test and examination driven". We can argue that currently we have too much assessment but, according to Jordaan (2010: 216), neither the quality, nor the variety of assessment tasks is spot on. Learners are highly intelligent; if we confront them with a game where teaching and learning are simply reduced to tests and assessment tasks, they will study according to the rules of that game. In order to improve their learning, we must improve the game we propose.

I conclude by referring to a saying by Stein (2009): "Just weighing a pig doesn't fatten it." The point is, if we only test for the sake of testing and then coach the learners for the test, it will not necessarily lead to enhanced educational outcomes. On the contrary.

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