# Education and Social Inclusion

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*"[They forgot too that] some were fitted to know and some were fitted to dig; that some had the talent and capacity of university men, and some had the talent and capacity of blacksmiths and that true training meant neither that all should be college men nor all blacksmiths"*

*– W E B Du Bois*

## Introduction

The type, extent and quality of South African education is critical for growth, higher levels of employment, improved income distribution and greater social inclusion. Yet there are pervasive concerns about the system as we have it.

Consider the following image, taken from the cover of the 2011 Technical Report on the National Senior Certificate.


It depicts a happy progression up the school steps to the university door. Does it represent current circumstances? Or does it instead depict a reasonable aspiration towards educational inclusion over the next decade or two?

The answer to both questions is no.

## Highest Level of Education and School Throughput

Table 1 sets out the highest level of education reached by 29 year olds (the age by which nearly all education is complete) in the 2011 census.

**Table 1 – Highest level of education achieved by 29 year olds in 2011**

| | Per cent |
|---|---|
| Up to and including Grade 9* | 23.7 |
| Incomplete senior secondary * | 24.4 |
| Grade 12 | 35.6 |
| Technical | 1.8 |
| Certificate/diploma with less than Grade 12 * | 0.5 |
| Higher education | 11.8 |
| Other and unspecified * | 2.2 |
| Total | 100.0 |

Source: Statistics South Africa, 2011 Population Census

The asterisked categories (together coming to 50.8%) never arrived at the university door. Some of the Grade 12 category did, but others did not write the Senior Certificate or failed it. Of those that passed the Senior Certificate, some will have chosen not to go to university, not finding a qualification that they wanted to enter or could enter, or for other reasons. Some of the technical category might have entered university but chose technical education instead.

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On the other hand, more people entered university than the number of graduates indicated. This is because many entering university failed to graduate. About half the Grade 12s and people with technical qualifications might have reached the university door, but did not necessarily graduate. The proportion qualifying for university entrance was only about 30% for this cohort.

Have things improved for later generations? Quite a bit for survival through to Grade 9. Applying rates derived from the National Income Dynamics Survey (NIDS) in 2007/08[1], of a cohort of 1 000 learners entering Grade 1, 123 would leave school before reaching the end of Grade 9. This is just over half of the 237 implied by Table 1. What happens in the senior secondary phase is more difficult to determine. The NIDS estimates imply that of every 1 000 learners leaving Grade 9, 686 reach Grade 12. The trouble with the NIDS rates is that they do not reconcile well with the distribution of enrolments across these grades. It looks as though the dropout rates are too low and the repetition rates are much too low. An adjustment to take these factors into account suggests that the survival rate from the end of Grade 9 to Grade 12 may drop to about 570, and if this is so, there has not been much improvement over the past twenty years[2]. The corpses on the upper steps of our picture have been airbrushed out.

## Achievement of Grade 9 Learners

The 2013 Annual National Assessment (an extensive standardised test of leaners by the Department of Basic Education) key results for grade appropriate tests are summarised in Table 2.

**Table 2 – Annual National Assessment 2013**

| | Mathematics | Home Language | First additional language |
|---|---|---|---|
| **Average marks** | | | |
| Grade 3 | 53 | 51 | |
| Grade 6 | 39 | 59 | 46 |
| Grade 9 | 14 | 43 | 33 |
| **Percentage of learners with marks of less than 30 per cent** | | | |
| Grade 9 | 88 | 27 | 44 |

Source: Department of Basic Education, Report on the Annual National Assessment of 2013, November 2013

In all subjects, the average mark drops between Grade 6 and Grade 9, and in mathematics the decline is continuous from Grade 1 to Grade 9. Over a quarter of learners do not achieve (or fail, in the older parlance) in their home language, over 40% in First Additional Language and nearly 90% in mathematics. Perhaps a third of learners float up to the end of Grade 9 hopelessly ill equipped to start work on the National Senior Certificate curriculum in Grade 10[3]. The result is huge failure to progress in senior secondary school, with attendant demoralization. The reasons are not far to seek. Teachers consume high amounts of leisure on the job as several studies show, notably one conducted by Linda Chisholm in 2005. They teach at too slow a pace. And they often do poorly in grade appropriate tests in the subjects they are teaching, especially mathematics[4]. Moreover, social conditions mean that many households are unable to contribute materially to learner progress.

*A necessary condition of reducing waste is to help adolescent learners to develop a sense of their abilities, interests and circumstances.*

## Alternatives to Senior Secondary School

Twenty years ago, post-apartheid education was conceived of as universal education up to Grade 9, followed by a variety of options: senior secondary school education, further education and training in FET colleges, vocational education and industrial training. The termination of basic education has moved up to Grade 12, and has been formalised in the split between the Department of Basic Education and the Department of Higher Education. The older approach was wiser for the following two reasons:

- It is potentially capable of reducing wasted resources (in the form of ineffectively applied funds and waste of leaner time) in the education and training system. It de-emphasizes senior secondary school education as the overwhelming way forward by stressing the availability of alternative routes. A necessary condition of reducing waste is to help adolescent learners to develop a sense of their abilities, interests and circumstances. The development of this sense is weak currently for several reasons:
    1. In communities where each generation spends more time in education than its predecessors, parents struggle to help their children in senior secondary school.
    2. School assessment is often lenient and avoids discomforting feedback.
    3. There has been a vogue for motivational American advice such as 'become your dreams' and 'unleash your passion'. Given data on income and social mobility in the United States over the last thirty years, this advice mocks the experience of a

great many Americans. It is downright irresponsible in South Africa. It helps to encapsulate learners in a fantastic bubble which often gets burst only by senior secondary school dropout and poor National Senior Certificate results.

There are two things that would help.

First, priority should be given in Life Orientation in Grades 8 and 9 to accurate input about post-Grade education and training options, the requirements for each, and how learners should approach the choice between them.

*Outcomes based education has mercifully crashed and burned in the school system, because it overtaxed teachers while risking serious gaps in basic knowledge among learners. But OBE is entirely appropriate for vocational education, which should consist of completion of unit standards.*

Secondly, there should be an external Grade 9 assessment to continue the development of self-knowledge by learners. Computer markable tests in home language, first additional language (which for 80% of learners is English) and mathematics, accompanied by an interest inventory could all be completed by learners in a couple of days and computer generated feedback could be conveyed back to learners quite quickly. The aim of the assessment would not be to stream learners compulsorily into the different forms of post-Grade 9 education and training. Rather, it would be to provide advice to learners that they would be unwise to ignore, especially after a few years of testing and refinement of the instrument.

- It would provide better routes for learners who reach the end of Grade 9 with virtually no mastery of the three R's (reading, 'riting, 'rithmetic). Post-Grade 9 education which requires writing and more than the simplest form of calculation sets up these learners for failure. Here the form, content and assessment needs careful consideration. Outcomes based education has mercifully crashed and burned in the school system, because it overtaxed teachers while risking serious gaps in basic knowledge among learners[5]. But OBE is entirely appropriate for vocational education, which should consist of completion of unit standards.

As an example, consider Unit Standard 262686 at National Qualifications Framework Level 2:

Glaze steel and wood
*Learners will be able to:*
1. Confirm job/customer requirements for the glazing of wood or steel
2. Prepare to glaze wood or steel
3. Glaze wood or steel.

And the assessment is based not to write an essay about glazing. It requires the ability actually to do it.

Recently, unit standards have been criticized as bits and pieces of learning not forming the basis of coherent qualifications. But learners can collect related unit standards in handyman skills in the form of hanging doors, or fixing garden gates. Or agricultural skills, such as animal husbandry, intensive farming of small plots of land and dry land farming. Unit standards impart defined skills and they are the appropriate components of vocational education. And who is more socially included: a young person able to make a business of applying such vocational skills or a senior secondary school dropout waiting a decade for employment by others?

## Training

A vocational education system should aim to accommodate half a million learners in the first instance. Some, but not nearly enough, of these are being accommodated currently in industrial and other forms of training. Table 3 sets out statistical material for the following training programmes:

- Adult Education and Training Programmes, offering instruction at four levels, the top one being equivalent to Grade 9, as well as Grade 10, 11 and 12 classes
- Sectoral Education and Training Authority learnership, bursary, internship and skills programmes offered to the employed and to unemployed people
- Artisan programmes
- National Skills Fund programmes

**Table 3 – Training Statistics, 2011/2012**

**Adult Education and Training**

| | |
|---|---|
| NQF6 Level 1 | 27 762 |
| Level 2 | 34 967 |
| Level 3 | 35 074 |
| Level 4 (Grade 9 equivalent) | 117 910 |

**Level 4 Examination Statistics**

| | |
|---|---|
| Enrolled | 96 452 |
| Wrote | 62 044 |
| Passed | 17 001 |
| Grade 10 | 213 |
| Grade 11 | 265 |
| Grade 12 | 71 738 |
| **Total enrolments** | **297 634** |

**SETA Programmes**

| | Employed | | Unemployed | |
|---|---|---|---|---|
| | Enrolled | Certificated | Enrolled | Certificated |
| Learnerships | 16 371 | 9 646 | 27 679 | 19 524 |
| Bursaries | 2 800 | 924 | 5 711 | 1 532 |
| Internships | 202 | 127 | 3 452 | 878 |
| Skills programmes | 71 696 | 71 417 | 16 250 | 16 110 |
| **Totals** | **91 029** | **82 114** | **53 092** | **35 044** |

**Artisans**

| | |
|---|---|
| Assessed at government facility | 6 090 |
| Passed at government facility | 2 614 |
| SETA certified | 13 168 |

**National Skills Fund**

Targeted beneficiaries 107 503. The number actually reached is not recorded.

Source: Department of Higher Education and Training, Statistics on Post School Education and Training in South Africa, 2011

The statistics suggest that Adult Education and Training is largely being used as a 'finishing school' for people wanting a Grade 9 qualification or a (National) Senior Certificate. SETA programmes indicate that the majority of those enrolled for learnerships, bursaries and internships are the unemployed, whereas the position is revered for skills programmes, most of which are short cycle. The number of artisans produced was just under 16 000. The National Development Plan calls for 30 000 per year and the Artisan Training Institute has concerns about the quality of existing production.

Success rates are low in the Grade 9 Adult Education and Training Programme. They are higher in the SETA training programmes, but for skills training they reflect attendance rather than achievement. Skills programmes may be undertaken as much for BEE scorecard purposes as for skills transfer. Artisan output remains low.

## Further Education

The other strand of further education and training is the Further Education and Training Colleges. These have been the subject of much official attention in recent years and a variety of institutions have been merged into fifty colleges. Nonetheless, they remain fragile institutions, for five reasons: they are being expected to expand rapidly, their human capital in the form of instructor knowledge, governance and finances is weak, their success rate is very low, their intake is poorly organised and their programmes are little articulated with higher education, particularly with technical instruction. 400 273 learners[7] were enrolled in 2011, taught by 8 686 instructors, implying a learner: educator ratio of 46:1. Moreover, the Minister reported to Parliament that enrolments had increased by over 50% between 2011 and 2012, which is bound to have further increased the learner: educator ratio.

*But it seems that some senior secondary school dropouts then try their luck at FET colleges, as do some unsuccessful National Senior Certificate candidates (and even some successful ones), all starting again at the Grade 10 level. Drift is never good for success.*

The instructional programme consists of two main components, the National Certificate (Vocational) programmes at the equivalent of Grades 10, 11 and 12 and the older N1 (Grade 10 equivalent) to N6 (Matric + 3) programmes, maintained at the request of business. The output of the system in 2011 was 7 638 NC(V) Grade 12 equivalent passes, 212 National Senior Certificate passes, 1 316 N3 certificates and 1 488 N6 certificates, a total of 10 654.

No statistics on the qualifications of the intake into FET colleges are available. There should be entry points for learners who have completed Grade 9 and learners who have completed Grade 12, with a clear set of programmes for each. But it seems that some senior secondary school dropouts then try their luck at FET colleges, as do some unsuccessful National Senior Certificate candidates (and even some successful ones), all starting again at the Grade 10 level. Drift is never good for success.

## Universities

The universities are the best part of the post-Grade 9 system. Undergraduates entering degree programmes have a slightly better than even chance of graduating, though the completion rate for three year national diplomas is little above 40%.

They are better funded than the vocational, industrial and FET systems. But they have the following problems:

- It is going to be a great battle to expand university enrolments at a rate of above 3% per annum in the next decade. This will be sufficient to put the system on track to meet the White Paper target of 1.6 million enrolments by 2030, but only just.

- The university system has the potential to achieve productivity improvements, but these will not necessarily be popular either with the Department or the universities. Key innovations should be (a) the support of private universities at a lower rate than public universities, stretching government grants to cover more students (b) introducing a trimester system to use infrastructure more efficiently and (c) cost-saving technological innovation, which will change work patterns considerably. Productivity increases will no doubt evoke noisy complaints from university teachers about 'neoliberalism' and 'instrumentalism'. But productivity gains are indispensable for allowing enrolments to grow faster, opening up more opportunities for the young. Technological innovation can mean that the best teachers in the world can be brought into the virtual classroom at low cost. They would have the great virtue of sluicing out the Augean stables which have built up in substantial parts of the university system.

- The National Senior Certificate promises candidates who pass that they will be able to go on to higher education. Most learners who achieve Bachelor's passes do so, but the same cannot be said of those achieving Diploma and Certificate passes. In fact, learners with Bachelor's passes are nearly three times

as likely to enter university than their Diploma and Certificate counterparts. Nearly 60% of diploma pass students cannot meet the lowest entry standard for a three year diploma at the University of Johannesburg. There does not seem to have been sufficient dialogue between the two departments of education and the universities about this mismatch. Shorter cycle diploma and certificate programmes should play a more, not less, important part of the policy mix.

- National Senior Certificate Bachelor passes in 2013 were 22% more than in 2012. This increase may have been the pride and joy of the Minister of Basic Education, but the universities cannot absorb such an increase. The necessary implication is that the continuation rate from success in the NSC to university entrance must drop in the short to medium run and then stabilise after that. Entrance into university is becoming more competitive, placing more pressure on a weak further education and training sector.

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- A key part of higher education financing is the National Student Financial Aid Scheme. It is in a mess. It started out as a pure loan scheme, but successive administrators and ministers have enjoyed playing Lady Bountiful, with the results that now more than half the funds advanced are effectively taking the form of bursaries. Worse, these bursaries have been given to the better students, when return flows come from weaker graduates and dropouts. Small wonder that return flows of funds have dropped very low, reducing funds available for the next generations of students.

## Conclusion

South Africa has the financial resources to offer appropriate further education (post Grade 9 but not higher education) to everyone who qualifies and is interested, though the qualifications mix, competence and application of educators leave much to be desired. But from a social inclusion point of view – not to mention efficiency – the education system as a whole is running rough. Improvement will require a careful reconceptualization of the system in all its related parts, with close attention paid to the circumstances we actually have, rather than those we wish to have. And it should elevate the interests of consumers of education above those of its producers. Lack of effective producer accountability is a critical constraint on achievement.

NOTES

1 See Department of Basic Education, Report on Dropout and Learner Retention Strategy to the Portfolio Committee on Education, June 2011, The Department's own records are not in a state to support reliable estimates of promotion, repetition and drop out so they used NIDS data instead
2 Enrolment statistics over the last five years indicate a rising repeater rate in Grade 9 as well
3 This proportion is not fixed forever. More competent and conscientious teaching in Grades R-9 will lower it as should rising per capita incomes in the bottom half of the income distribution
4 On all three points, see Martin Carnoy, Linda Chisholm and Bagele Chilisa, The low achievement trap: comparing schools in Botswana and South Africa, HSRC Press, 2012
5 Indeed, the 2013 Annual National Assessment Diagnostic Report reads remarkably like a school inspector's report of decades ago, pointing out the elements of the syllabus which need more attention.
6 National Qualifications Framework
7 The full-time equivalent enrolment was 184 018