Education, the great equaliser: Improving access to quality education

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For decades, education in South Africa operated under the shadow of the Bantu Education Act of 1953. Recent reform has focused on creating a more equitable and accessible system of public education. This essay discusses current inequality in education for South Africa's children. It describes some of the main disparities in education and considers what policy options are available to ensure that educational opportunities are more equal and accessible.

There are many different lenses through which to reflect on the educational inequality that children face in South Africa. Given the historical context, the single most important area of attention is to what extent economically advantaged students have an edge over the poor.

This essay draws on analyses from a number of contemporary educational studies to address the following questions:

- Why is schooling important for addressing inequality?
- What are the trends in educational access and attainment?
- What are the disparities between rich and poor schools?
- What are the critical areas for improving quality?

Why is schooling important for addressing inequality?

Education plays an important role in promoting inequality in South Africa, as illustrated in figure 26, which highlights two critical points where interventions in education can contribute towards breaking the inequality cycle:

1. Equal access to quality education.
2. Increased access to higher education.

Success in the labour market is critical in determining household income. Earnings and unemployment are the key drivers of income inequality in South Africa.[1] Education plays a predominant role in determining who is employed, and the earnings they receive. School completion (matric), tertiary education and further education and skills training give young people entering the labour market an advantage. Yet the quality of schooling in poor schools results in high drop-out and low school completion rates. For those learners who do complete school, few are equipped with the necessary skills to succeed in the post-schooling education sector. Only a few poor learners get the education necessary to enter top income jobs. In this way, inequality is recycled and the stark differences in incomes between the rich and the poor in South Africa are reinforced.

Figure 26: Education and inequality

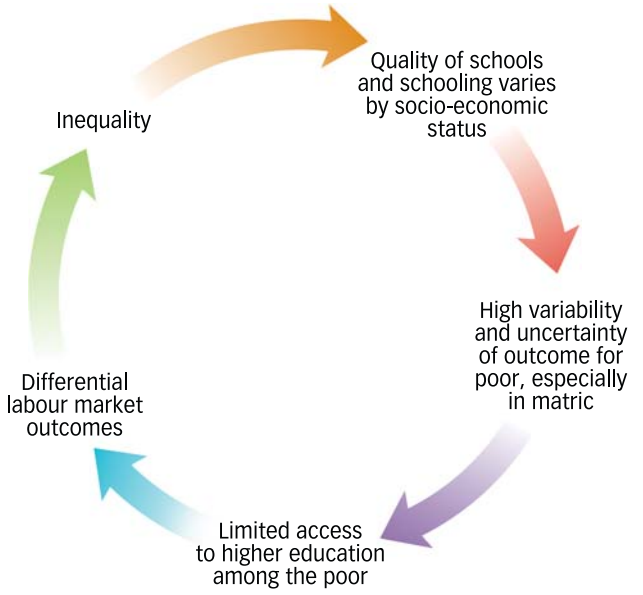
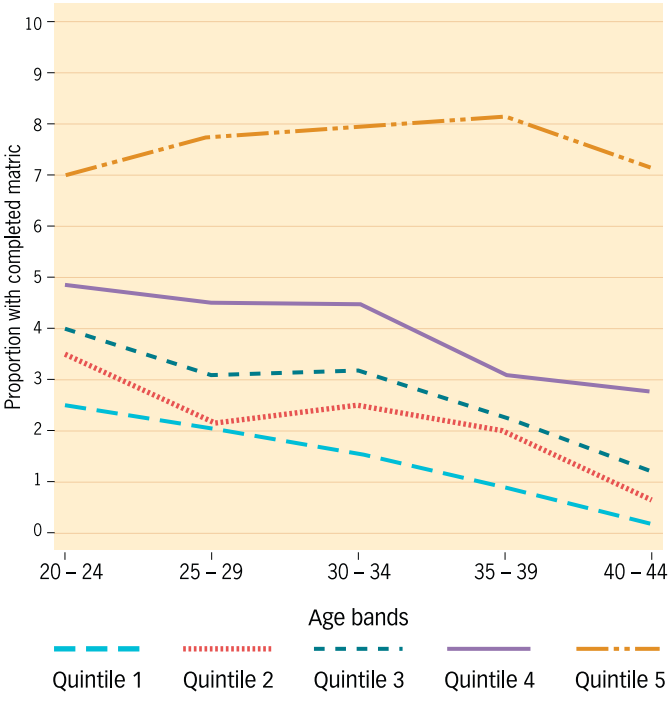


Figure 27: Proportion of adults who had completed matric by 2008, by household income quintile



Source: Southern Africa Labour and Development Research Unit (2012) *National Income Dynamics Study 2008, Wave 1* [dataset]. Version 4.1. Cape Town: SALDRU, UCT [producer], DataFirst [distributor]. Calculations by Nicola Branson and Tia Linda Zuze.

Table 6: Education inputs and outputs	Status
Public expenditure on schooling as a percentage of gross domestic product (2009/10)	4.1%*
Total public expenditure on education as a percentage of total government expenditure (2008)	17%‡
Real per school-going child expenditure on primary and secondary schooling (2009/10)	R7,307*
Public expenditure on the poorest learners as a percentage of public expenditure on the least poor learners (Western Cape example)	102,9%†
Percentage of public ordinary schools with average class size less than 40 (2009)	60.4*
Average percentage score for Grade 3 literacy in the 2011 annual national assessment	35%§
Average percentage score for Grade 3 numeracy in the 2011 annual national assessment	28%§
Average percentage score for Grade 6 language in the 2011 annual national assessment	28%§
Average percentage score for Grade 6 mathematics in the 2011 annual national assessment	30%§

Sources:
* Department of Basic Education (2011) *Macro Indicator Trends in Schooling: Summary Report 2011*. Pretoria: DBE.
‡ United Nations Educational Scientific and Cultural Organisation (2011) *2011 EFA Global Monitoring Report*. Paris: UNESCO.
† Western Cape Education Department (2007) *Annual Performance Plan 2008/09 – 2010/2011*. Cape Town: WCED.
§ Department of Basic Education (2011) *Report on the Annual National Assessments of 2011*. Pretoria: DBE.

What are the trends in educational access and attainment?

South Africa has almost universal enrolment until grade 9 and the average number of years of education attained has increased by over 50% in the past three decades. Yet most of this improvement is below the secondary school completion level. Figure 27 demonstrates that improved educational attainment has not translated into substantial increases in school completion rates among the poor, meaning large inequalities between the rich and poor remain. It shows that only 25% of 20 – 24-year-olds in the poorest 20% of households had completed matric in 2008, compared to 70% of the richest quintile.[ii] This high level of educational attainment does not reflect the quality of learning in the majority of South Africa's schools.

Table 6 highlights the disconnection between education inputs and outputs in South Africa. By all accounts, expenditure on public education is high. Over 17% of government expenditure goes towards funding education programmes. This figure is higher than estimates for both developed and developing countries (12% and 16% respectively). Educational outcomes are however persistently poor and highly unequal across schools, at all education levels.

Performance in annual national assessments has raised concerns about the quality of teaching and learning. Table 6 shows that the average Grade 3 and 6 learner did not achieve at the appropriate level in the 2011 annual national assessment. Children whose marks ranged between 35% and 50% were said to have "partially achieved" an acceptable level of performance. Students with marks of above 50% had "achieved" an acceptable level. Student achievement is cumulative. Therefore it should come as no surprise that the results of the grade 6 assessment are equally poor.

South Africa's schools are assigned a quintile ranking based on the relative poverty level of the school's neighbourhood, with schools in quintile 1 encompassing the poorest schools.[2] Table 7 shows that the annual national assessment results vary substantially across these quintiles. In the table, schools where more than 95% of learners scored below 35% are classified as struggling (x) and schools where more than 50% of learners scored over 50% are classified as performing (✓). It is clear that most schools in the lower quintiles are underperforming and that the majority of quintile 5 schools are performing well. For grade 6 numeracy, 45% of schools in the lowest quintile are classified as struggling compared to only 8% of schools in the highest quintile.

Table 7: Percentage of schools struggling (x) and performing (✓), by school quintile, 2011

Assessment	Quintile 1		Quintile 2		Quintile 3		Quintile 4		Quintile 5		All schools	
	x	✓	x	✓	x	✓	x	✓	x	✓	x	✓
Gr 3 literacy	17	45	16	42	12	52	7	58	9	66	12	54
Gr 3 numeracy	38	19	35	11	34	25	26	30	10	41	30	25
Gr 6 literacy	46	13	56	9	32	16	18	35	3	62	31	27
Gr 6 numeracy	45	13	33	11	26	10	17	24	8	60	26	23

Source: Department of Basic Education (2011) *Report on the Annual National Assessments of 2011*. Pretoria: DBE.

i A quintile represents 20% of households in the country.

The allocation of total government education spending is not directly linked to the level of need within schools.[3] The National Norms and Standards for School Funding allocates non-personnel expenditure budgets based on school quintile ranking and is therefore redistributive but captures only 9% of the education budget.[4] Personnel expenditure accounts for the lion's share of total education expenditure and is not allocated redistributively. In fact, current regulation for the creation of educator posts uses a "post-provisioning formula" that effectively results in government personnel expenditure being higher, on average, for educators in richer schools.[5] As a result, and as the example from the Western Cape in table 6 shows, total government expenditure per learner is relatively equal between learners in rich and poor schools.[6] Yet schools in quintiles 4 and 5 have the discretion to charge school fees to supplement their resources while quintile 1 – 3 schools rely solely on government resources.

Repetition rates are high. It is only in the top income quintile that a majority of learners progress at the desired pace.[7] The pattern of repetition – rates over 10% in grade 1 and grades 10 to 12 – speaks both of insufficient pre-schooling preparation and the inability of primary schools to prepare learners for successful school completion. Another consequence of low quality schooling is high levels of drop-out in post-compulsory school grades. The National Income Dynamics Study (NIDS) data show that 25% of grade 9 learners in 2008 had dropped out of school without completing matric when reinterviewed two years later.[8] Only 16% of those who had left were employed or in alternative education. This means that 84% were neither working nor enrolled.

Post-schooling education has the potential to provide children who drop out from school with a second chance by providing them with skills that are valued in the labour market. While opportunities for training exist beyond the formal schooling system, there remain concerns about quality and accessibility of post-schooling institutions. The post-apartheid government has placed much emphasis on restructuring the higher education and college sector, yet in the process the educational opportunities available to school leavers have declined.[9] The N1 – N3 vocational training for post-grade 9 learners is being phased out and replaced by the National Certificate Vocational; however few learners choose this route.[10] Only 155,000 learners were enrolled in N1 – N3 or in the National Certificate Vocational in 2010 compared to over 2.4 million learners in ordinary school grades 10 – 12.[11]

What are the disparities between rich and poor schools?

Inequality in learning inputs

Opportunities to learn vary greatly in South Africa. While most learners from both rich and poor households have access to a school within one kilometre of their house, learners in wealthier households have on average two additional schools within 2 km of their household. The schools in the choice set of the rich have lower pupil–teacher ratios and are more likely to be higher quintile schools.[12] Wealthier children are also more likely to attend schools that are further from their homes.[13] What this implies is that children of the rich have a greater range of schools to choose from when compared to children of the poor.

Children who live in poor areas also have limited educational support outside of school.[14] They have access to less reading material in their homes and often live in communities without public library facilities. Their parents are less likely to provide assistance with homework and their living conditions make studying difficult. Some children are expected to assist with domestic chores before and after school. They might even be responsible for taking care of sick relations. These additional responsibilities reduce the time that they can dedicate to their studies. In spite of these setbacks, they must remain in school and perform well enough at competitive school-leaving examinations to earn the right of passage to a better way of life.

The organisational and professional conditions in rich and poor schools also vary considerably. Schools in the top quintiles have additional funds to employ more or better trained staff because of the additional revenue they raise through school fees. However, increasing public funding to poor schools does not guarantee that available resources will be managed effectively. Organisational characteristics such as curriculum planning, regular learner assessment and high teacher attendance have been linked to better academic results. Many of these indicators of efficient management are lacking in poor schools.[15]

Equally troubling is the level of teacher content and pedagogical knowledge in many poor schools. A study of mathematics teachers in Gauteng showed that there remain large differences in teaching methods across schools.[16] Some teachers showed that they had been trained in pedagogical methods that focused on relaying a full understanding of their subject. Other teachers, especially in African majority schools, followed a more rote learning approach with poor use of questioning and practice exercises. Many were also found to have a limited understanding of the content they taught, often presenting incorrect mathematical statements, sometimes as a result of language use but other times clearly a consequence of incorrect understanding or a limited grasp of the subject.

The implication is clear. It is absolutely critical that schools in poor communities are equipped with basic facilities, appropriate learning materials and adequately trained staff. Effective management and accountability systems are also essential to ensure these resources are used for teaching and learning.

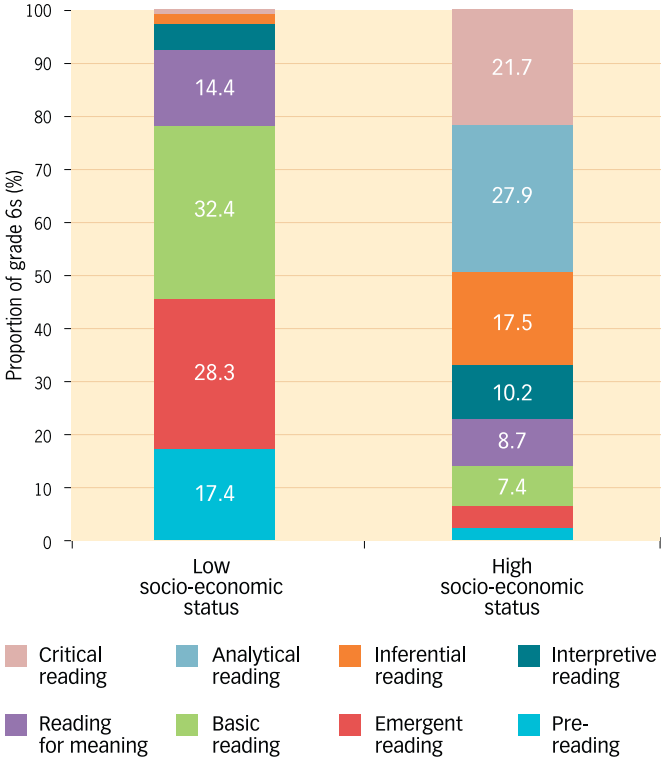
Inequality in learning outcomes

In a perfectly equitable schooling system, differences in academic performance among schools would be extremely low. A child would have the same opportunity for success irrespective of the school attended. By contrast, inequality in educational performance among South Africa's schools is exceedingly high. South Africa has one of the highest estimates of intraclass correlation (ICC), which

is a measure of variation in educational quality. It is usually measured by comparing academic achievement using a standardised test. It ranges from between 0 (for education systems whose schools perform equally) and 1 (for perfectly unequal systems). South Africa's ICC for reading skills obtained at the primary level remains above 0.60, which is considerably higher than many countries in the region.[17] Like South Africa, Botswana is a middle-income country with a highly unequal income distribution. Unlike South Africa, however, Botswana's ICCs for the same primary school assessments were below 0.30.[18] The intraclass correlation at secondary school level in South Africa is slightly lower but this can be partly attributed to high drop-out, repetition rates and a wide subject choice.

Figure 28 highlights alarming differences in the skills acquired by rich and poor primary school children. The graph contrasts the reading competency levels of the wealthiest 25% of grade 6 children (high socio-economic status) to the poorest 25% (low socio-economic status). Several points are obvious from these results. The majority of the poorest children had only acquired skills for reading at the basic reading level. In fact, nearly half were reading at a pre-reading and emergent reading stage. Whereas half of the wealthiest children were comfortable with critical and analytical reading, less than 1% of the poorest could read at these advanced levels. There have been a host of local and international studies that show very similar patterns of achievement stratification between South Africa's schools. But there is no indication that these gaps narrow by the end of secondary school – quite the opposite is true. In 2003, African students made up 83% of the matric cohort but contributed only 8% of the A-aggregate marks that are essential for many advanced tertiary programmes.[19]

Figure 28: Percentage of grade 6 learners reaching reading competency levels, 2007



Source: Hungi N, Makuwa D, Ross KN, Saito M, Dolata S, van Capelle F, Paviot L & Vellien J (2010) *SACMEQ III Project Results: Pupil Achievement Levels in Reading and Mathematics.* Paris: International Institute for Education Planning.
Note: Percentages not shown represent less than 5% of the sample.

What are the critical areas for improving quality?

There are three broad areas that can be addressed to reduce quality differentials in the education available for South Africa's rich and poor. The first involves improving the quality of the schooling environment. This includes improving teaching and learning facilities and ensuring that children's basic needs are met. The second involves establishing effective accountability structures. The third focuses on assessing learner progress regularly.

Environment

Children cannot learn when they are hungry. The National School Nutrition Programme provides children at no-fee schools with a lunch meal. Children in quintiles 1 – 3 primary schools are guaranteed coverage by the scheme. As previously noted, most low-income families send their children to schools within their communities and would be covered by this scheme. There are some instances of poor children attending higher quintile schools who would not benefit from the feeding programme. The challenge is to ensure that there are measures in place to meet the needs of poor children who do not automatically benefit from the programme. The programme has been plagued by allegations of inefficiency and mismanagement. In some parts of the country, such as the Eastern Cape, this has led to sporadic delivery of meals and questions about the nutritional content and hygiene of food being provided to schools.[20]

Some of South Africa's schools possess an excellent modern infrastructure but many lack basic services such as water and sanitation.[21] According to the 2011 National Education Infrastructure Management Systems Report, 14% of schools have no access to electricity, 79% of schools do not have library facilities and 77% have no computer centres.[22] The Accelerated Schools Infrastructure Delivery Initiative has been introduced to ensure consistency in the provision of infrastructure and to address backlogs in construction and maintenance, and it is vital that progress is monitored.[23]

Similarly, providing schools in deprived areas with effective teachers and learning material is one of the key ways to narrow the inequality gap. Revising the "post-provisioning formula" to ensure equitable personnel expenditure across schools could alleviate some of the burden placed on teachers in overcrowded and under-resourced classes but would need to be coupled with effective school management.[24] One of the most practical policy innovations in this area has been the recent introduction of national workbooks. Workbooks are provided to children in grades R – 6, with plans to extend their availability to grades 7 – 9 during

2012. Children using well-designed workbooks have been found to make equivalent improvements as children using more costly standard textbooks.[25] As with any teaching aid, the use of workbooks needs to be monitored to ensure that it supports learning. Like textbooks, workbooks need to be developed in conjunction with curriculum developers, to be delivered on time and to be updated regularly.[26] Workbooks will make the greatest difference when they are adopted by competent teachers who are using a variety of instructional tools.

Effective teachers require both appropriate training and continued supervision and evaluation. Many teachers in the current education system were trained during the apartheid years and the quality of education training institutions varies by institution. Thus the legacy of unequal teacher training and pedagogical support remains in the classroom today.[27] Upgrading the skills of teachers who are already within the system and ensuring that they can teach the subjects assigned to them is a cost-effective approach to improving education outcomes.[28]

Much contestation has taken place in finding the appropriate mechanism to supervise and evaluate teachers. In April 2008, the Occupational Specific Dispensation agreement, which rewards teachers who perform well or above the standard expected, was signed. However, many issues around teacher evaluation remain unresolved and it is not clear that the new system is effective.[29] Support for new and struggling teachers is limited in most, especially poor, schools.[30]

Accountability

A sound infrastructure is no guarantee that a school functions well. The National Education Evaluation and Development Unit (NEEDU) and the Planning and Delivery Oversight Unit (PDOU) are two recently established institutions tasked with providing support to schools and to district offices. NEEDU reports to the minister on the state of schools and their developmental needs. It is responsible for identifying factors that are inhibiting school progress and formulating solutions to overcome these.[31] The PDOU focuses on improving curriculum delivery and learner achievement at the district office level. Schools that are identified as continually underperforming are provided with management support.[32] In addition, the proposed creation of the South African Institute for Vocational and Continuing Education and Training[33] is recognition of the need to strengthen post-school education in South Africa.

Assessment

Early intervention is recognised as key to ensuring that children in underperforming schools are not left behind. For decades, South Africa has participated in a number of international surveys of educational achievement. These have been useful in addressing a number of systemic issues in the education system. The Standardised Annualised National Assessments go a step further by monitoring the performance of all learners in grades 1 – 9. More work needs to be done to guarantee that tests are administered uniformly, evaluated independently and that results are communicated effectively, and then acted upon.[34]

As education differences emerge so early in children's schooling careers, it is vital that access to early schooling be extended. By 2014, all children of appropriate age will be required to attend grade R. The essay on early childhood development services on pp. 52 – 57 discusses the many benefits of early childhood programmes, and their potential to reduce existing inequality.

What are the conclusions

Educational inequality in South Africa remains a complex issue. In contrast to the situation in the past, some progress has been made in addressing racial differences in attainment. The pattern of progress has been uneven. In some instances, particularly in urban areas, racial differences have been replaced with class differences. Further work needs to be done to extend quality education to the poor.

Improving the quality of public education will involve ensuring an ordered environment for learning to take place. Part of the policy constellation for education should address whether available programmes support teachers sufficiently and allow all learners to complete school on an equal footing. This has the potential to address the divide between rich and poor in the labour market and move towards breaking the cycle of inequality and poverty.

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