

Long Divisions:

Challenges and Countermeasures in South African Education

South Africa spends the bulk of its national budget on education, yet the education standards of South African school pupils fall far behind countries with far lower incomes or levels of spending. What are the challenges facing the education sector that weigh on educational attainment and how can they best be addressed to bring us in line with our peers?

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(Including headings and footnotes. Excluding references and in-text references)

1. Introduction:

‘The Doors of Learning and Culture shall be Opened!’

- Freedom Charter. As adopted at the Congress of the People, June 1955.

When it comes to equipping its citizens with the skills and knowledge necessary to engage productively in the economy and broader society, education is arguably the most elementary tool at the disposal of the state (OECD, 2016). But despite South Africa allocating the largest proportion of its national budget towards education, our education outcomes remain disappointing (The World Bank 2016). South Africa spends a greater proportion of its GDP on education than even the best performing developed nations, (Norway, Australia, and Switzerland), but performs worse than many of our much poorer regional neighbours (The World Bank, 2016). In terms of mean and expected years of schooling, South Africa ranks 116th out of 188 countries on the UN Human Development Report (United Nations Development Programme, 2015, p.242-5) while in mathematics and science, the OECD ranks South Africa 75th out of 76 participating countries (Hanushek and Woessman, 2015, p.36-45). The South African education system requires urgent attention and reform (National Planning Commission, 2012, p.294).

This paper examines three challenges facing the education system, namely persistent socioeconomic inequality in education outcomes, challenges in early childhood development impeding educational performance, and the poor quality of teachers in South African schools. A series of potential countermeasures is proposed for each.

2. The Gini in the Bottle: The Impact of Persistent Socioeconomic Inequality on Education

As a nation South Africa is still grappling with the structural effects of 46 years of the social and economic policies of Apartheid. The effects of segregation on education are deep and persistent and the sector remains divided into two largely independent systems differentiated by socioeconomic status and race (Spaull, 2012, p.1-4).

An analysis of the SACMEQ¹ III results and attendant questionnaires shows that the wealthiest 25% of school students still attend largely former White and Indian schools and display reasonably competent outcomes on local and international examinations. By contrast the least wealthy 75% of school students attend mostly former Black, Indian, and Coloured schools and perform very poorly on the same examinations² (Spaull, 2012, p.2-3; Van der Berg, 2006, p.3-4). This result is equally clear when schools are divided by language or former department, and is consistent across grades and subjects. Students at the former White schools are reasonably racially diverse but disproportionately White and Indian, reflecting the changes at the top of the income distribution post-1994, while the students at the former Black schools are overwhelmingly Black (Spaull, 2012 p.3-6). Of 27 variables that were found to be

¹ The Southern and Eastern African Consortium For Monitoring Education Quality.

² See Figure 1.

significantly correlated with mathematics outcomes only 5 were shared between the wealthiest 25% of schools and the poorest 75% of schools, the results for language were similar, suggesting that the two systems are not only differentiated by outcomes but also more fundamentally by the variables affecting performance. (Spaull, 2012, p.10-11).

Countermeasures:

Policy Awareness

The presence of two parallel education systems is a fundamental problem that can only truly be solved by solving the underlying systemic racial and spatial inequalities in South Africa. However, policy must be cognizant of the bifurcation within the education sector as statistics that average outcomes across the two systems are misleading. Outcomes in the dysfunctional majority of schools are notably worse than what the already poor national averages suggest, while a functional minority of schools perform much closer to international standards (Spaull, 2012, p.14). Policy should focus specifically on the parts of the education system that don't work.

3. Child's Play: Challenges in Early Childhood Development (ECD)

Early childhood development is acknowledged as one of the most important factors expediting successful movement of learners through the education system. Advantages and disadvantages in education, nutrition, health, sanitation, and access to water that characterize a child's early childhood have significant effects on their performance outcomes at school and later in life³ (Philip et al, 2014, p.42-3).

There are two fundamental components to effective ECD service provision. Firstly, education and cognitive stimulation prior to entering the basic education system are vital to developing a child's cognitive ability, with preschool enrolment found to notably improve long-term education outcomes (Barnett, 2008, p.1-2). However, although 83% of children are enrolled in Grade R, the quality of ECD facilities (crèches) is varied and often amounts to little more than supervision (Van Der Berg et al., 2011, p.19-20). Secondly, poor nutrition and health in small children hinders cognitive development, creating disadvantages that persist through life. In contrast, better nutrition can improve school achievement by up to a grade (National Planning Commission, 2012, p.297). In South Africa roughly 1 in 5 children and almost 1 in 4 rural children are affected by stunting, while about 1 in 3 children don't receive sufficient nutrients or food (National Planning Commission, 2012, p.299).

Consequently, a significant proportion of South African children, principally those from a lower socioeconomic background, enter the schooling system at a considerable disadvantage to their peers, a disadvantage that is incredibly difficult to rectify later in life.

³ See Figure 2.

Countermeasures:

Increase ECD Subsidy Allocation

The allocation towards ECD subsidies should be significantly increased. In 2015 the state spent R1 671 321 000 in subsidies on 704 798 children at the 25 524 registered Early Childhood Development centres in South Africa. This subsidy is intended to cover child nutrition, the wages of ECD workers and running costs for these facilities but only amounts to around R2371 per child per year, which is woefully inadequate (Department of Social Development, 2015, slide 8). The ECD budget allocation has been increased by R813 000 000 in 2016 (Gordhan, 2016, p.22) but the problem of funding remains chronic. This leads to a tradeoff where ECD facilities often have to choose between spending on proper nutrition schemes for children and ECD practitioners' wages, and leads to financial requirements on parents that are prohibitive for poor families and children (Department of Social Development, 2015, p.103).

Relax ECD Compliance Criteria

The ECD facility compliance criteria, while intended to create safe and clean spaces for children, include multiple health and physical requirements that are unrealistic for prospective centres in rural areas and informal settlements where children need these facilities most (Department of Social Development, 2015, p.132).

Direct Public Provision of ECD

ECD remains largely privately provided and unequally dispersed, with limited access for poor and rural children, and despite significant subsidies towards ECD centres, the costs of ECD remain prohibitive for the poorest families, impeding precisely the children who would benefit from it most (Department of Social Development, 2015, p.103). Given South Africa's context of intense inequality and the urgency of the need for ECD provision for poor children and families, the state should seriously consider direct public provision of ECD facilities in rural areas, informal settlements and other poor areas in the form of public crèches.

4. The Quality of Human Capital in Education

The National Development Plan (National Planning Commission, 2012, p.302) identifies human capacity weaknesses in teaching as one of the most substantial contributing factors toward failures in school education outcomes. Teachers play an integral role in determining the quality of education that students receive (Armstrong, 2009, p.1), so it is unsurprising that education outcomes are so disappointing when based on the SACMEQ III⁴ teacher assessment, at schools in the lower 3 wealth quintiles, South African educators scored worse in their own subjects than teachers in almost any other participating nation (Spaull, 2013, 25-6). Almost 4 out of 5 Grade 6

⁴ See Figure 3.

Mathematics teachers could not score better than 60% on the same material they teach⁵ (Venkat and Spaul, 2014, p.2, 14,19).

There are two fundamental issues affecting the quality and quantity of teachers in the education system. Firstly, the teaching profession doesn't attract high quality graduates. Teachers are paid less than equivalent professions, returns to tertiary education are lower than in the rest of the labour force and returns to experience for teachers are lower than in other professions (Armstrong, 2014, p. 23-8; Gustaffson, 2006, p.2-4). In consequence the teaching workforce is an ageing one despite younger teachers showing better education outcomes in mathematics and language at a primary school level (Armstrong, 2014, p.17-8). Secondly, the higher education system isn't producing enough qualified teachers to meet the demands of the primary and secondary education systems, and practicing teachers are hemorrhaging into other professions at an increasing rate. (Van Broekhuizen, 2015, p.83). The consequent shortages necessitate educators teaching subjects they weren't trained in (Van Broekhuizen, 2015, p.84).

Countermeasures:

Reforming Teacher Pay

Collective Agreement No.1 of 2008 between SADTU, SAOU, and the Department of Basic Education linked teacher pay progression to student performance and sought to improve the returns to experience of the profession (Education Labour Relations Council, 2008). However the link between teacher pay and performance was terminated in 2009 (Education Labour Relations Council, 2009) and the returns to experience in teaching remain poor (Armstrong, 2014, p.23).

The terms of the current collective agreement should be renegotiated to reintroduce the annual 3% and 6% increments in pay for good and outstanding student performance respectively, as initially stipulated in 2008. With the Annual National Assessments used as the benchmark for performance as suggested in the Stellenbosch Report for the NPC (Van Der Berg et al., 2011, p.15). If the incentive is not sufficient the increments may need to be increased. Additionally the biennial pay progression increments of 3% could be increased to 6% to improve the teaching profession's returns to experience. It is worth noting that linking teacher pay to student performance carries the risk of perverse incentives for teachers to encourage underperforming students to drop out from classes in order to improve average results. Introducing a penalty for teachers or schools with high drop out rates from their classes should be considered as a countermeasure. Investigating and holding school governance accountable is vital for ensuring effective implementation of any of these policies.

Incentivizing Teacher Content Knowledge (Teaching Old Dogs New Tricks):

South Africa could also attempt to emulate Chile's AVDI⁶ program that evaluates teachers on subject content knowledge and financially incentivizes good performance

⁵ See Figure 4.

(Van Der Berg et al., 2011, p.6). South Africa could implement a voluntary annual assessment on each subject, paired with externally audited Annual National Assessments suggested above, with a financial incentive for good performance on that or the following year's salary. The size of the incentive and the performance cutoff would have to be decided with budgetary constraints in mind. Increasing the reward for more experienced teachers would improve the returns to experience and increasing the reward for teachers at the poorest and worst performing schools would incentivize the best teachers to move to where they are most needed helping to redress the systemic inequalities of the education system (Van Der Berg et al., 2011, p.6).

Absorbing Foreign Teachers into the Workforce (Teaching New Dogs Old Tricks):

Over the last two decades South Africa has experienced a significant influx of people from across Africa (National Planning Commission, 2012, p.252). Many of these migrants are teachers, but they face significant obstacles in joining the South African education system. In 2010 28% of new registered teachers were foreign educators, but whereas the process for South African educators to register takes only 3 weeks, for foreign educators it can take up to 3 months, and the registration remains on a provisional annually renewable basis. Many foreign educators cannot work because their teaching qualifications are not recognized in South Africa, and this is particularly true of Zimbabwean teachers who make up a significant proportion of the pool of foreign teachers in South Africa (South African Council For Educators, 2011, p.9-14). Considering the shortage of teachers in South Africa, the failure to utilize this existing pool of teachers is an issue.

The NDP suggests recruiting foreign teachers to combat shortages (National Planning Commission, 2012, p.306) and if South Africa relaxed the restrictions on foreign educators entering the workforce and invested in a system that allowed more foreign teachers to have their qualifications recognized or to transition into a South African qualification through a short conversion course, the supply of teachers entering the workforce could immediately come quite close to meeting the required demand for teachers in the public education system (based on the quantity of foreign teacher evaluations performed by the South African Qualifications Authority between 2008 and 2010, and the quantity of qualified teachers produced over the same period) (South African Council For Educators, 2011, p.9-14).

5. Conclusion:

With a 97% school enrolment rate, the doors of education in South Africa have largely been opened, but with such poor education outcomes the doors of learning remain largely closed. The causes of dysfunction in the education system are numerous, but systemic inequality, failures in early childhood development, and low human capital quality in the teaching profession stand tall amongst the problems weighing on educational attainment. These systemic and persistent problems require solutions equal to the task of what are truly profound challenges for our society, but

⁶ Asignación Variable por Desempeño Individual (Program for the Variable Individual Performance Allowance).

they are problems that must be solved if our nation is to meet the goals and visions outlined in the Freedom Charter, our Constitution and the National Development Plan. However, as long as our society remains plagued by massive inequality and poverty, these challenges are that much more difficult to meet. Education is the foundation on which the pillars of society are built and we must always do more than paper over cracks.

**‘THESE FREEDOMS WE WILL FIGHT FOR, SIDE BY SIDE, THROUGHOUT
OUR LIVES, UNTIL WE HAVE WON OUR LIBERTY’**

- Freedom Charter. As adopted at the Congress of the People, June 1955.

6. Tables and Figures

Figure 1. Distribution of Grade 6 Reading Performance by School Wealth Quartile. (Spaull, 2012, p.4)

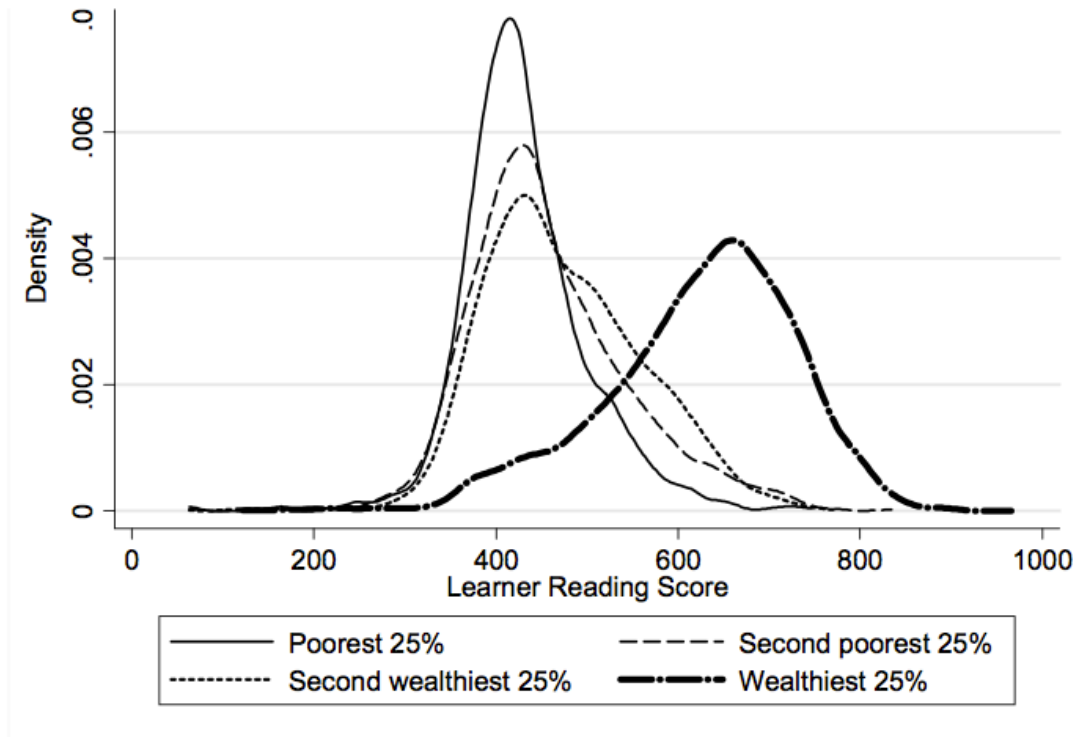


Figure 2: Academic Achievement by Socioeconomic Status and Age. (Heckman and Masterov, 2007, p.86; Philip et al, 2014, p.42)

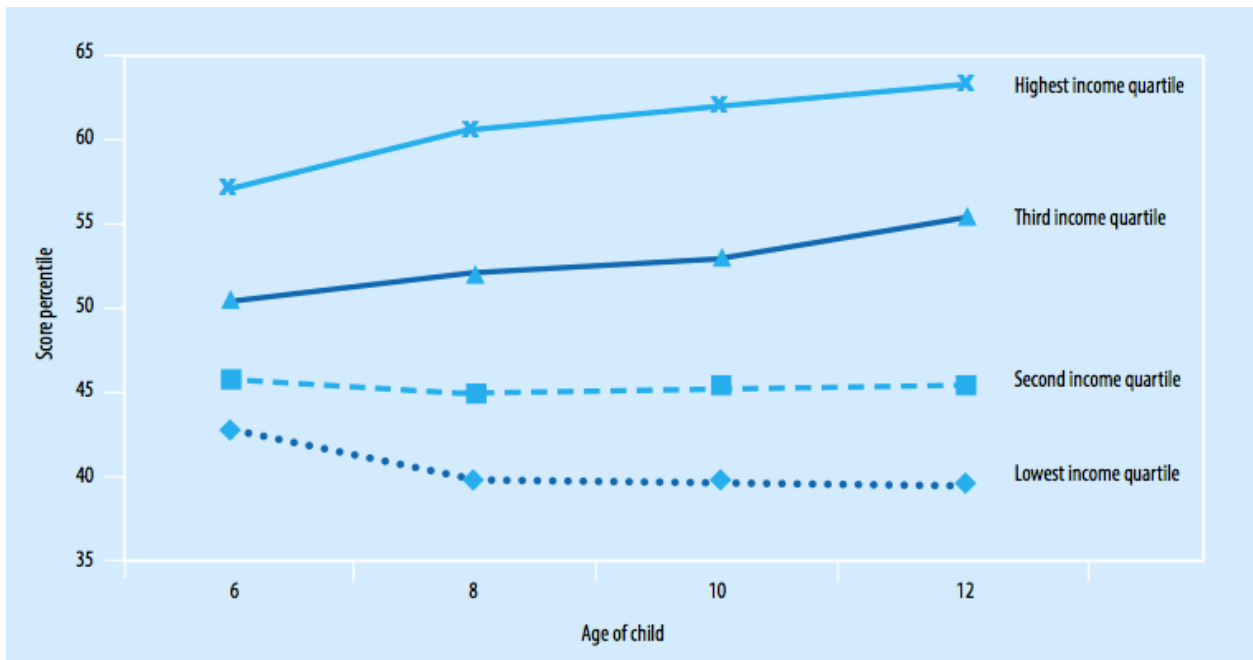


Figure 3: Comparison of Teacher Performance in SACMEQ III by Country by School Wealth Quintile in SA (SOU). (Spaull, 2013, p.25)

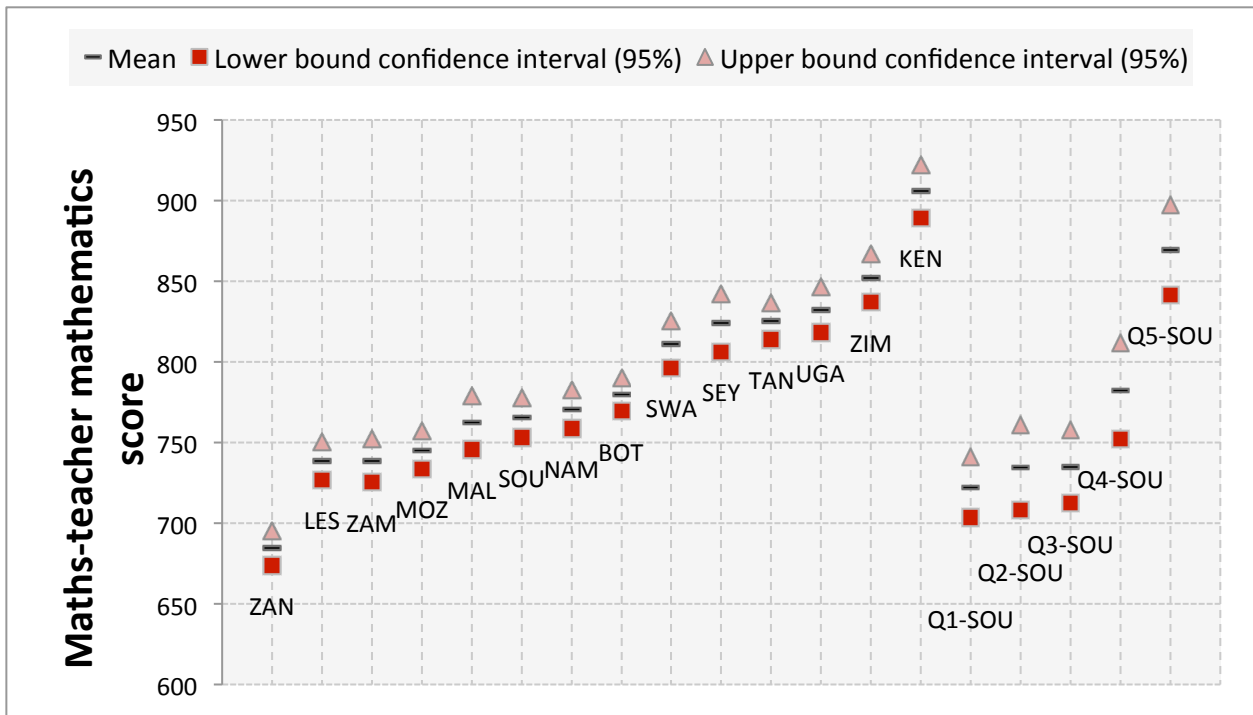
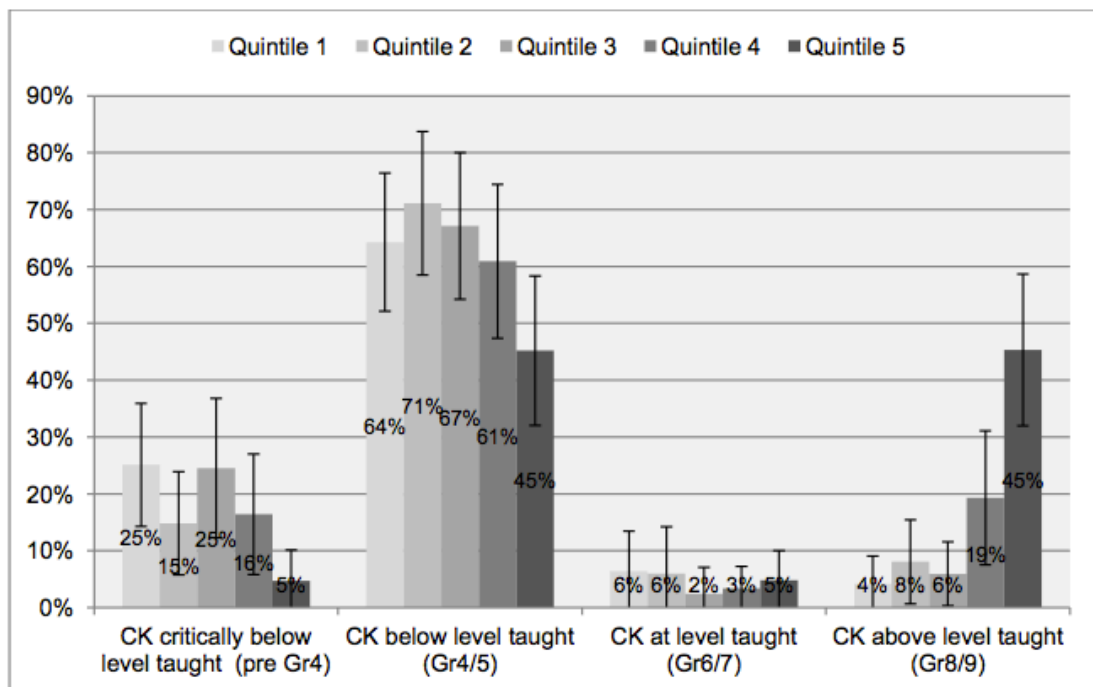


Figure 4: Proportion of Grade 6 Mathematics Teachers by Content Knowledge Grouping and Quintile of School Socioeconomic Status. (Venkat and Spaull, 2014, p.16).



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