REPORT

IRR

OVERCOMING THE ODDS:
Why school vouchers would benefit poor South Africans

June 2023

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June 2023

Published by the South African Institute of Race Relations

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Introduction

In *A Long Walk to Freedom*, Nelson Mandela described education as 'the great engine of personal development'. It is through education, he said, 'that the daughter of a peasant can become a doctor, that the son of a mine-worker can become the head of the mine, that the child of a farm worker can become the president of a great nation'.

Implicit in Mr Mandela's assertion is the thought that no matter your life circumstances, education opens the doors of opportunity. If you work hard enough in school, you can achieve success in life. In other words, education has the potential to level the playing field – or as American education reformer Horace Mann put it, education can be the 'great equaliser of the conditions of men' – such that the most important variable determining one's prospects in life becomes merit.

While it is an idealistic sentiment, it is certainly a goal worth aiming at. However, to suppose, as Mr Mandela and Mr Mann do, that education can be the engine of upward mobility and personal development is to presuppose that the education received by a child born to a poor family in a South African township is of sufficient quality to enable them to improve their lot in life.

Despite some isolated successes, most notably in equitable funding of schools and almost universal Grade 1 enrolment, the post-apartheid government has utterly failed in its mission to provide most children with an education sufficient to their '[contributing] towards improving the quality of life and building a peaceful, prosperous and democratic South Africa'.[1]

This is clear when one considers that approximately 50% – 60% of pupils entering the public school system in Grade 1 will reach and write matric, and 14% will reach university[2]; 78% of Grade 4s cannot retrieve basic information from a text in any language[3]; and South African pupils perform poorly in maths and science compared to their international counterparts, many of whom are from less-developed countries.[4]

As is the case with most underperforming government departments in South Africa, their failings affect the poorest people the most. The education sector is no exception, and it is here, perhaps, where the notion of a 'poverty trap' is most apt.

The overarching purpose of this report is to propose possible solutions to the education crisis in South Africa, to add to the marketplace of ideas a plan that could turn our education system into 'the great engine of personal development' that Mr Mandela hoped for.

Section 1 discusses some key features of the education system, paying special attention to inequality between pupils attending non-fee-paying schools and those attending fee-paying and independent schools.

1 Department of Basic Education, https://www.education.gov.za/AboutUs/AboutDBE.aspx, accessed 7 February 2023
2 Spaull, N, *Priorities for Education Reform in South Africa,* (2019)
3 Mullis, I, Martin, M, Foy, P, Hooper, M, *Pirls 2016: International Results in Reading,* (Association for the Evaluation of Educational Achievement, 2017)
4 TIMMS, *TIMMS 2015 Grade 5 National Report: Understanding mathematics achievement amongst Grade 5 learners in South Africa*, 2017

Section 2 explains 'the poverty trap' as it relates to education and identifies early-grade literacy and numeracy as the features that are most worthy of targeted intervention.

Section 3 identifies the most salient barriers to improving early-grade literacy and numeracy in public schools as poor teacher content and pedagogical knowledge, teacher absenteeism, the influence of teacher unions, and lack of accountability in general. The section concludes with a discussion of the key administrative differences between schools that are failing and schools that are succeeding.

Section 4, drawing on the lessons from **Section 3**, proposes a viable solution to poor early-grade learning outcomes among poor children: a school voucher system. Thereafter, several targeted interventions are discussed.

Section 1: The inequality crisis: how bad is it, really?

In 2018, the IRR stated: 'Children attending South African schools fare poorly on almost every metric, and are ill-prepared for the world after school.'[5] Tragically, this remains true today, in particular for children attending state-run non-fee-paying schools, the vast majority of whom are black.
It is well known that South African pupils fare poorly on academic benchmark tests compared to their international counterparts.

For instance, in 2015, the Organisation for Economic Co-operation and Development (OECD) ranked the education systems of 76 countries on how high school pupils fared in maths and science tests. South Africa came 75th, one place ahead of Ghana in last place.[6]

In the 2015 Trends in International Mathematics and Science Study (TIMSS), South African Grade 5 pupils came 48th for maths (above only Kuwait), despite most other countries having tested their Grade 4s.[7] The same study showed that 61% of South African Grade 5 pupils could not add or subtract whole numbers and had no understanding of multiplication by single-digit numbers.[8]

Similarly, South Africa's Grade 9s performed poorly relative to international standards. Despite most other countries having tested their Grade 8 pupils, South Africa was, once again, second last, this time ahead of Saudi Arabia.[9]

South Africa's performance in science was even worse. Of the 39 countries that participated in the 2015 TIMSS, South Africa's Grade 9s were placed last.[10]

In TIMSS 2019, South Africa's Grade 5s were placed 62nd out of 64 countries for maths and science. In both instances, South Africa was placed above only Pakistan and the Philippines.[11]

5 Roodt, M, *The South African Education Crisis: Giving Power Back to Parents* (Johannesburg, South African Institute of Race Relations, 2018)
6 https://www.bbc.com/news/business-32608772, accessed 8 February 2023
7 TIMMS, *TIMMS 2015 Grade 5 National Report: Understanding mathematics achievement amongst Grade 5 learners in South Africa*, 2017
8 Mullis, I, Martin, M, Foy, P, Hooper, M, *Pirls 2016: International Results in Reading,* (Association for the Evaluation of Educational Achievement, 2017)
9 TIMMS, *TIMMS 2015 Grade 5 National Report: Understanding mathematics achievement amongst Grade 5 learners in South Africa*, 2017
10 Ibid.
11 *TIMSS 2019: Highlights of South African Grade 5 Results in Mathematics and Science* (Department of Basic Education, Pretoria, 2019)

When it comes to literacy, the picture is equally bleak. The latest Progress in International Reading Literacy Study (PIRLS), released in 2016, revealed that some 78% of South African Grade 4 pupils could not reach the minimum reading benchmark, compared to 4% internationally.[12]

Essentially, what this means is that 78% of pupils in Grade 4 cannot 'retrieve basic information from [a given] text to answer simple questions' in any language[13] (e.g., Question – What was the boy's name? Answer – Jabu).

A recent report estimates that the number of Grade 4 pupils unable to read in any language has risen to 82% post-pandemic.[14]

One particularly telling measure of educational performance is the pupil retention rate read against the matric pass rate. Out of the 1 062 510 pupils enrolled in Grade 10 in 2020, 337 364 (31.8%) dropped out before writing the National Senior Certificate (matric) exams in 2022.[15]

The proportion of South African pupils who began Grade 1 and go on to pass matric in Grade 12 fluctuates around 40%.[16] Comparing this figure to Turkey (53%), Brazil (67%) and Chile (72%) illustrates how badly South Africa is doing in terms of its throughput rate. It should be noted that South Africa's is a relatively sophisticated economy; making the most of opportunities for socio-economic mobility depend heavily on skills. For the country as a whole to make progress will require an increasingly skilled workforce. The failure of the education system to contribute properly to this is a threat to the country's prospects and those of all its people. South Africa's poor performance in international benchmark tests, and in pupil retention and matric pass rates, paints a picture of a government failing in its job to provide quality education for all. However, the failings are brought into sharper relief when they are considered against the country's bimodal education system.

Statistically speaking, South Africa's education system presents itself as two distinct systems, one large and underperforming significantly, and the other small and internationally competitive.

Under pre-1994 governments, there was a multi-modal system, divided along the lines of race, in which not only were schools serving black, Indian, and coloured children underfunded relative to those serving white children, but white children were taught a higher-quality curriculum.

Today, as during apartheid, South Africa effectively has multiple education systems. Although a measure of apartheid inertia is evident in that, on average, educational outcomes between races differ significantly, in contrast to the situation prevailing during apartheid – where racist policies accounted for the discrepancies – the biggest determinant of inequitable outcomes between racial groups today is 'whether the school charges fees or not, and if it does, how large those fees are'.[17] Put differently, if you are a poor South African attending a non-fee-paying public school, the chances that you will succeed academically and go on to join the ranks of the employed and upwardly mobile are very small.

12 Centre for Evaluation and Assessment, *PIRLS LITERACY 2016: South African Highlights Report, (Pretoria, 2017)*
13 Ibid.
14 Spaull, N, *2023 Background Report for the 2030 Reading Panel*, Cape Town, 2023
15 Businesstech, https://businesstech.co.za/news/lifestyle/657849/south-africas-real-matric-pass-rate-is-under-55/, accessed 9 February 2023
16 Spaull, N, 'Schooling in South Africa: How Low Quality Education Becomes a Poverty Trap', in de Lannoy, Swartz, Lake, & Smith (Eds), *The South African Child Gauge,* pp34-41
17 Spaull, N, 'Equity: A Price Too High to Pay?', in Nic Spaull & Jonathan D. Jansen (ed), *South African Schooling: The Enigma of Inequality* (New York, Springer Nature, 2019)

To illustrate this, consider the following:

- In 2018, the top 3% of South African high schools (the majority of which charge significant fees) produced more mathematics distinctions than the remaining 97% put together.[18]
- Professor Nic Spaull has calculated that, based on the 2016 PIRLS data, 71% of Grade 4 pupils attending the richest 10% of schools can read at a basic level compared to 16% attending the remaining 90% of schools.[19]
- 48% of black Grade 3 pupils pass mathematics compared to 85% of white pupils. In independent schools, 84% of Grade 5s can do mathematics in accordance with the international norms based on TIMSS data, compared to 67% in fee-charging public schools and 25% in no-fee public schools.[20]
- Pupils attending a school with a library scored, on average, 16% higher than those in schools with no library, according to PIRLS data. Worryingly, over 60% of South African schools do not have libraries.[21]
- As reported in Roodt (2018), 'Learners with access to educational resources at home – such as books or the internet, and whose parents were themselves highly educated – were the only sub-group who managed a reading level which, on average, matched the international norm'.[22]

Looking specifically at the different results by school quintiles further corroborates the observation that pupil performance at school correlates with class status.

The Department of Basic Education (DBE) divides South African schools into quintiles based on the general economic status of the school catchment area, which in turn determines the level of government subsidy a school is entitled to. Quintile 1 schools are the poorest, while the 20% most well-off schools are in Quintile 5. Schools in Quintiles 1-3 are not allowed to charge fees, while schools in Quintiles 4 and 5 are allowed to do so.

In 2016, less than one percent of pupils attending Quintile 1 schools managed a mark of above 80% for maths in matric, while more than three-quarters could only manage a mark of 40% or lower.

Taking all of this into consideration, it is clear that something is drastically wrong with our education system.

18 Ibid.
19 Ibid.
20 Isdale, K, et al, 'TIMSS 2015 Grade 5 national report: Understanding mathematics achievement amongst Grade 5 learners', in *South Africa: Nurturing green shoots,* (Cape Town, HSRC Press (2017)
21 Centre for Evaluation and Assessment, *PIRLS LITERACY 2016: South African Highlights Report, (Pretoria, 2017)*
22 Roodt, M, *The South African Education Crisis: Giving Power Back to Parents* (Johannesburg, South African Institute of Race Relations, 2018)

Section 2: Early-grade literacy and numeracy, and the poverty trap

Local research has continually shown that poor school performance in South Africa 'reinforces social inequality and leads to a situation where children inherit the social position of their parents, irrespective of their motivation or ability'.[23]

Professor Nic Spaull sums up the grave consequences of the government's failure to provide quality education for poor South Africans:

> Two decades after apartheid it is still the case that the life chances of the average South African child are determined not by their ability or the result of hard-work and determination, but instead by the colour of their skin, the province of their birth, and the wealth of their parents. These realities are so deterministic that before a child's seventh birthday one can predict with some precision whether they will inherit a life of chronic poverty and sustained unemployment or a dignified life and meaningful work.[24]

Spaull implies, and is right to do so, that a well-functioning education system would serve to level the playing field somewhat, making it difficult to predict the life prospects of a 7-year-old with any degree of precision based on factors like skin-colour, province of birth and wealth of their parents.

Looking at the data presented in the previous section, it is obvious that we are a long way from an education system that can call itself a 'great engine of personal development'.
What is to blame for South Africa's education crisis? Why can't 82% of Grade 4s read? Why are high school pupils so bad at maths and science, and why will approximately 50% – 60% of children who start school, fail to reach and write their matric exam?[25] And, most important for the purposes of this report, why are poor people the ones struggling the most, despite significant government spending?

Understanding why pupils drop out of school is a good starting point when considering meaningful interventions that will lead to improvement in the basic education sector.
While there are a number of reasons why pupils drop out of school before matric, including pregnancy, financial stress, and choosing to leave school after Grade 9, Senior Research Fellow in the University of Cape Town's School of Economics Nicola Branson and colleagues drew on data from the National Income Dynamics Study to show that 'not keeping pace at school is a fundamental determinant of who drops out' and that 'falling behind at school is strongly correlated with socio-economic status and school quality in South Africa'. [26]

23 Spaull, N, 'Equity: A Price Too High to Pay?', in Nic Spaull & Jonathan D. Jansen (ed), *South African Schooling: The Enigma of Inequality* (New York, Springer Nature, 2019)
24 Ibid.
25 Spaull, N, *Priorities for Education Reform in South Africa,* (2019)
26 Branson, N et al, 'Progress through school and determinants of school dropout in South Africa', in *Development Southern Africa*, Vol 31:1, 2014, pp106-126

Why are poor children falling behind? The main reason is that the vast majority of poor children attending free public schools (98% of whose pupils are black or coloured[27]) cannot read or do basic maths by Grade 4. Since learning is a cumulative process, particularly when it comes to maths, 'children who do not master basic concepts in the first few years of primary school are at a perpetual disadvantage'.[28]

The significance of this fact cannot be overstated. Take reading as an example. If a child cannot read by the end of Grade 4, they cannot 'engage with the rest of the curriculum in meaningful ways'.[29] This is because in Grades 1 to 3, the curriculum focuses on learning to read, and thereafter on 'reading to learn'.

A child who cannot read by Grade 4 will inevitably fall behind because they will have trouble understanding the content of the curriculum from Grade 4 onwards. Many pupils will be pushed through the grades despite poor performance until eventually they grow despondent and drop out of school (mostly between Grades 10 and 12) to join the masses of unemployed. And so, the poverty trap is sprung.

Education scholars Taylor, Muller, and Vinjevold explain that:

> 'At the end of the foundation phase [grades 1 – 3], learners have only a rudimentary grasp of the principles of reading and writing … it is very hard for learners to make up this cumulative deficit in later years … particularly in those subjects that … [have] vertical demarcation requirements [especially mathematics and science], the sequence, pacing, progression and coverage requirements of the high school curriculum make it virtually impossible for learners who have been disadvantaged by their early schooling to "catch up" later sufficiently to do themselves justice at the high school exit level.'[30]

Elsewhere, Taylor and Mawoyo put it thus, regarding the problem of early-grade illiteracy:

> 'This problem, in turn, inhibits learners from making significant progress from lower level comprehension skills to more sophisticated cognitive tasks, such as building or refuting an argument, or surveying and critiquing a field of literature. The detrimental impact of the inability to read on their life chances is obvious.'[31]

Focusing on early-grade literacy and numeracy should, therefore, be of the highest priority for anyone looking to improve learning outcomes among poor South Africans.

27 Spaull, N, 'Equity: A Price Too High to Pay?', in Nic Spaull & Jonathan D. Jansen (eds), *South African Schooling: The Enigma of Inequality* (New York, Springer Nature, 2019)
28 Spaull, N, 'Schooling in South Africa: How Low Quality Education Becomes a Poverty Trap', in de Lannoy, Swartz, Lake, & Smith (Eds), *The South African Child Gauge,* pp34-41
29 Ibid.
30 Taylor, N, et al, *Getting Schools Working: Research and Systemic Reform in South Africa* (Cape Town, Maskew Miller Longman, 2003)
31 Taylor, N & Mawoyo, M, 'Professionalising teaching: The case of language and literacy', in Spaull, N & Pretorius, E (eds), Early Grade Reading in South Africa, Volume 1, (Cape Town, Oxford University Press Southern Africa, 2023) pp164-178

To come up with meaningful interventions, however, we need to know why poor children are so far behind their middle-class peers attending former Model-C and independent schools. Put differently, what are the barriers to early-grade reading and mathematical success that disproportionately affect poor children?

Section 3: Barriers to early-grade literacy and numeracy

A natural way to answer the question is to ask what differences between free and fee-paying public primary schools might be responsible for the differences in early-grade pupil performance.

Primary school preparedness and socio-economic status

One reason has to do with the difference in socio-economic status of pupils. Pupils attending free public primary schools often start school without the skills necessary to learn effectively. In an investigation into the early roots of reading failure in the Western Cape, Hofmeyr explains that 'Socio-economic status clearly plays a role in determining learner's readiness to start formal schooling, with children from wealthier backgrounds being much more likely to start school developmentally on track.'[32]

While a discussion of why this is the case is outside the scope of this report, some factors are that:

- Poor children are less likely to get a sufficient nutritional intake, which affects their cognitive development;
- Poor children are less likely than middle- and upper-class children to attend pre-primary school, and when they do, the school is not of the same quality;
- Poor children are less likely to have educated parents who read to them, explicitly teach them about the value of reading or who can afford to buy books; and
- Poor children are disproportionately from broken homes which means they do not receive the same amount of attention and care as those from stable, middle-class homes.

The fact that there is a correlation, albeit an imperfect one, between socio-economic status and school preparedness highlights how important it is that pupils entering Grade 1 receive high-quality reading and maths instruction. In so far as it is possible, the value of a good primary school lies in its ability to nullify the role that poverty plays in early childhood development.

Quality of instruction

This brings us to another reason for the difference in early-grade literacy and numeracy abilities between pupils at free and fee-paying primary schools: the quality of teaching. Frequently, fee-paying schools, particularly expensive independent ones, attract the best teachers[33], while poor pupils are often taught by teachers who have neither the content knowledge nor the pedagogical expertise to teach effectively.

32 Hofmeyr, H, 'Elom in the Western Cape: Investigating the early roots of reading failure' in Spaull, N & Pretorius, E (eds), *Early Grade Reading in South Africa,* Volume 1, (Cape Town, Oxford University Press Southern Africa, 2023) pp64-82
33 Spaull, N, 'Equity: A Price Too High to Pay?', in Nic Spaull & Jonathan D. Jansen (eds), *South African Schooling: The Enigma of Inequality* (New York, Springer Nature, 2019)

No education system can proceed beyond the competency of its teachers. For pupils to achieve competency in maths or reading, the person charged with teaching them must, first, be competent in those disciplines, and, second, have the pedagogical know-how to be able to teach effectively. This is a common-sense idea. Unfortunately, on both requirements, South African teachers perform poorly.

When it comes to literacy, although there is no systematic evidence regarding the state of subject-specific knowledge held by South African primary school teachers, there is much to suggest that the majority are not equipped to help pupils achieve even the intermediate PIRLS benchmark.[34]

In a representative sample of Grade 6 language teachers in South Africa, 45% struggled with reading comprehension tasks requiring straightforward inferences, and 26% even battled with retrieving information explicitly stated in a given text.[35]

Regarding numeracy, in 2007 the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ) tested the content knowledge of a representative sample of South African Grade 6 maths teachers. The results showed that 79% of teachers could not achieve 60% or higher on the test, classifying them as having content knowledge below what is expected of a Grade 6 teacher[36]

Extrapolating from the SACMEQ results suggests that approximately 17% of Grade 6 pupils are taught by maths teachers with content knowledge below a Grade 4 or 5 level; 62% are taught by teachers with a Grade 4 or 5 level of content knowledge; 5% are taught by teachers with a Grade 6 or 7 level of content knowledge; and 16% are taught by teachers with at least a Grade 8 or 9 level of content knowledge.[37]

Breaking results down by school quintile shows that even in Quintile 5 schools, representing the wealthiest public schools, 50% of Grade 6 maths teachers possessed content knowledge below the Grade 6/7 level. This is poor. However, comparing this figure to Quintile 1 schools, where 89% of teachers do not have the content knowledge on par with the level they are teaching, further underlines the problem of educational inequality in the country.[38]

The problem of a lack of primary school teacher competence originates, according to Taylor and Mawoyo and others, in university education departments. '(T)he one constituency in South Africa that, until relatively recently, has seemingly been oblivious to what teachers are expected to know and be able to do after being declared qualified to teach in South African schools', the researchers contend, 'is the one charged with awarding the qualifications, namely, university-based teacher educators.'[39]

34 Taylor, N, 'The PIRLS Assessment Framework: Implications for teacher education' in van Staden, S (ed), *Tracking changes in reading literacy achievement over time: A developing context perspective*, (Brill Publishers, forthcoming)
35 Taylor, N, 'Teachers' knowledge in South Africa' in Spaull, N & Jansen, J (eds), *South African Schooling: The Enigma of Inequality* (New York, Springer Nature, 2019) pp263-282
36 Venkat, H, Spaull, N, 'What do we know about primary teachers' mathematical content knowledge in South Africa? An analysis of SACMEQ 2007', *International Journal of Educational Development*, Vol 41, 2015, pp121-130
37 Ibid.
38 Ibid.
39 Taylor, N & Mawoyo, M, 'Professionalising teaching: The case of language and literacy', in Spaull, N & Pretorius, E (eds), *Early Grade Reading in South Africa,* Volume 1, (Cape Town, Oxford University Press Southern Africa, 2023) pp164-178

With respect to primary school teachers, the authors indicate that 'teacher educators, with few exceptions, have in the past paid only lip service to policy set by government, neglected the poor language proficiency of their students, and given scant attention to research on literary pedagogy'. The result of this is that newly qualified teachers, 'through no fault of their own, are not competent to teach the school curriculum'.[40]

Further exacerbating the problem is that, according to results from the National Benchmark Tests taken by 75% of university applicants annually, not only is it the academically weakest students who apply for Bachelor of Education (BEd) programmes, but nearly a third of applicants 'exhibit serious learning challenges with respect to academic literacy, with a further 47% requiring academic support in order to cope adequately with tertiary studies'.[41]

In addition, research of a cross section of BEd programmes reveals that they are inadequate in addressing the very low levels of language proficiency exhibited by most students.[42]

As is the case with content knowledge, when it comes to pedagogical knowledge – that is, knowing how to teach – South African universities are failing their students, and by extension, primary school pupils.

According to a 2020 report compiled by Yvonne Reed, a study of 16 of the 24 universities offering BEd courses for primary school teachers revealed that only seven offered modules that focused on the teaching of reading.[43]

In a separate study, researchers from JET Education Services found that out of the 12 universities in South Africa offering BEd courses in Sotho and/or Zulu, not one offered a module dedicated to the teaching of reading.[44]

Clearly, the education of prospective primary school teachers by universities leaves much to be desired when it comes to pedagogical understanding, and imparting content knowledge.

School management

Teacher absenteeism

A third barrier to early-grade success in literacy and numeracy in poor schools compared to fee-paying schools is the high rate of teacher absenteeism, and a lack of professionalism in the former. This speaks to a general lack of competent school management.

Research by the DBE in 2017 and 2018 found that 'In the whole of South Africa, on aggregate … teachers absent from school on an average day' went up to 10% from 8% in 2011.[45]

40 Ibid.
41 Taylor, N, 'The PIRLS Assessment Framework: Implications for teacher education' in van Staden, S (ed), *Tracking changes in reading literacy achievement over time: A developing context perspective*, (Brill Publishers, forthcoming)
42 Bowie, L, & Reed, Y, 'How much of what? An analysis of the espoused and enacted mathematics and English curricula for intermediate phase student teachers at five South African universities', *Perspectives in Education*, Vol 34(1), 2016, pp102-119
43 Reed, Y, *Foundation and Intermediate Phase BEd programmes: Language and Literacy components*, (JET Education Services, 2020
44 Taylor, N, 'The PIRLS Assessment Framework: Implications for teacher education' in van Staden, S (ed), *Tracking changes in reading literacy achievement over time: A developing context perspective*, (Brill Publishers, forthcoming)
45 *School Monitoring Survey 2017/2018: Quantitative and Qualitative Summary Report* (Department of Basic Education, Pretoria, 2019)

If you consider that in 2017 there were 433 320 teachers in ordinary schools, it means that approximately 4 332 teachers were absent on any given day.[46]

A high rate of teacher absenteeism has long been an unfortunate feature of South African schooling.

Data collected during the SACMEQ study in 2000 showed that 97% - 100% of principals of schools in Quintiles 1 to 4 reported that teacher absenteeism was a problem, compared to 26% of principals of Quintile 5 schools.[47] (Although this information is dated, it appears that the issue remains very much alive.)

As reported by Spaull, 2007 SACMEQ data finds 'that the average Grade 6 mathematics teacher in South Africa reported being absent from school for 19 days (annually)'. The figure was much higher in the poorest 20% of schools (23 days) compared with the wealthiest 20% of schools (11 days).[48]

South Africa has the highest rate of teacher absenteeism in the Southern Africa Development Community (SADC) region. In 2012, just as in 2007, average absenteeism in South Africa was calculated at 19 days per teacher. For comparison, the average in other SADC countries is 9 days per teacher. Furthermore, 77% of teacher absences in South Africa fall on a Monday or Friday, suggesting that while in many cases absenteeism is justified, this is certainly not always the case.[49]

According to his own calculations using the SACMEQ scores from the 2000 study, Gustafsson states that if the problem of teacher absenteeism was eliminated, pupil SACMEQ scores would improve by 20% in poor schools.[50]

Not only does teacher absenteeism have a direct detrimental effect on pupil performance, by virtue of the loss of teaching time, but it also contributes to an atmosphere of professional apathy.

'The first problem with the majority of South African schools,' education specialist Nick Taylor argues, 'is that they exhibit a culture which tolerates a very loosely bounded timetable: teachers and learners come and go as they please and teaching happens desultorily.' Where this is the case, he continues, children in these schools 'are socialised into giving little value to efficient work habits, and to having very low expectations for their own intellectual development'.[51]

The theme of professional apathy was also found to be a feature of underperforming schools by researchers working on a 2003 cross-sectional study on the effectiveness of primary schools in the Western Cape, called 'The Pupil Progress Project'.

When asked about the problem of absenteeism and late-coming among teachers, 'most principals tend to shrug and write off the practice to the unreliability of public transport, a lack of teacher commitment, or union militancy'.[52]

46 *School Realities 2017* (Department of Basic Education, Pretoria, 2018)
47 Taylor, N, *What's Wrong with South African Schools?*, (JET Education Services, 2008)
48 Spaull, N, 'Accountability and Capacity in South African Education', *Education as Change*, Vol 19(3), 2015, pp113-142
49 Msosa, S, 'A Comparative Trend Analysis of Changes in Teacher Rate of Absenteeism in South Africa', *Education Sciences*, Vol 10, 2020
50 Gustafsson, M, *The relationships between schooling inputs and outputs in South Africa: methodologies and policy recommendations based on the 2000 SACMEQ results*, Paper presented at the SACMEQ International Invitational Educational Policy Research Conference, Paris, 2005
51 Taylor, N, *What's Wrong with South African Schools?*, (JET Education Services, 2008)
52 Ibid.

It is here, contends Taylor, that the 'root problem in South African schools is discernible'. The failure on the part of principals to exert a tight time-management regime 'is symptomatic of a general failure to take responsibility and to exercise control over their own work environment'.[53]

Arguably, the failure of school principals to enforce standards of professionalism comes down to the fact that the principals themselves are not being held to account for their own lack of professionalism. In fact, it can be argued that the main difference between free public schools and fee-paying schools (particularly independent schools) in general, is the lack of accountability in the former.

Accountability

Spaull writes: 'The common denominator across all dimensions (of pupil performance) is the fee status of the school and the concomitant privileges and resources that come with that.'[54] As has already been discussed, pupils who attend fee-paying schools are more likely to begin Grade 1 more prepared than their peers attending free public schools, and are more likely to be taught by well-qualified teachers who are absent for fewer days than teachers at free public schools.

The most impactful 'privilege' afforded to pupils at fee-paying and independent schools, and one that plays a role in the quality and dedication of teachers at these schools, is attending a school where poor performance is met with consequences.

Ultimately, the downfall of South Africa's public education system is its lack of accountability. This is, more than any other feature, the one responsible for the huge discrepancy in pupil outcomes between the rich and the poor.

Although fee status is a deterministic feature of inequitable outcomes, in the South African context the fees themselves are not causally sufficient to explain the difference in educational outcomes.

Drawing on the pass rates from the 2004 Senior Certificate mathematics exam, Christie et al found that 'the pass rates in the SC [Senior Certificate] exam show the full range of variation from 0% to 100% in schools classed in all 5 poverty quintiles', leading the researchers to conclude that:

> '... there is no deterministic relationship between performance and financial resources. This is not to imply that there is no threshold of poverty below which no school can operate effectively, nor that increased levels of resourcing are not generally associated with improved performance; rather, it is to emphasise that most South African schools can do far more with the resources at their disposal than they currently do.'[55]

53 Ibid.
54 Spaull, N, 'Equity: A Price Too High to Pay?', in Nic Spaull & Jonathan D. Jansen (eds), *South African Schooling: The Enigma of Inequality* (New York, Springer Nature, 2019)
55 Taylor, N, *What's Wrong with South African Schools?*, (JET Education Services, 2008)

Other researchers have arrived at similar conclusions. Van der Berg and Moses argue: 'In education there is still no clear link between resource shifts to the poor and social outcomes, despite substantial improvements in access to and investment in public education in recent times.'[56] Crouch and Mabogoane show that 'mere distribution' of funds in the absence of concomitant managerial expertise will not lead to meaningful improvement in outcomes at poor schools.[57] Lastly, Van der Berg contends that educational spending is now well targeted at the poor, but that 'equity of educational outcomes remains elusive', highlighting the need to improve 'efficiency in schools, particularly in poor schools'.[58]

(It is worth noting that funding directed at targeted interventions has produced positive results in poor schools as opposed to a general increase in funds for poor schools. This will be addressed later in this report.)

A compelling piece of evidence in support of the claim that money alone is not sufficient in accounting for the vast discrepancy in pupil performance is that there are many free and low-fee public schools in South Africa that produce good results. If the amount of money available to a school was sufficient to explain pupil performance, we would not expect to find successful poor or middle quintile schools – schools that are succeeding where similar schools are not. However, as reported by Christie[59], Christie et al[60], as well as Kane-Berman[61] and others, this is not the case.

According to two separate surveys commissioned by the Department of Education, a feature common to poor schools that succeed (where similar schools fail) is that stakeholders have a 'sense of responsibility and shared enterprise, a culture of hard work, and high value attached to good performance'. In other words, 'principals were focused, teachers dedicated, and pupils motivated'.[62]

Likewise, in a study of successful schools by Christie et al, all 18 were found to have no significant degrees of late-coming or absenteeism among either teachers or pupils.[63]

These features all point to effective accountability structures as the secret to success, a feature generally absent from the majority of public schools, particularly those in Quintiles 1-3.

A shocking consequence of the absence of accountability in the public sector is the presence of what Spaull refers to as 'cognitive wastelands'. These are schools where not a single Grade 4 pupil can 'read in their home language and make inferences'. This is the case in 45% of South African Grade 4 classrooms.[64]

56 Van der Berg, S, & Moses, E, 'How better targeting of social spending affects social delivery in South Africa', *Development Southern Africa*, Vol 29(1), 2012, pp127-139
57 Crouch, L, & Mabogoane, T, 'When the residuals matter more than the coefficients: An educational perspective', *Journal for Studies in Economics and Econometrics*, Vol 22, pp1-14
58 Van der Berg, S, 'The targeting of public spending on school education, 1995 and 2000', *Perspectives in Education*, Vol 24(2), 2006, pp49-63
59 Christie, P, 'Improving School Quality in South Africa: A study of schools that have succeeded against the odds', *Journal of Education*, Vol 26, pp40-65
60 Christie, P, Butler, D, Potterton M, *Schools that work: report to the Minister of Education of the Ministerial Committee on Schools that Work*, (Department of Education, Pretoria, 2007)
61 Kane-Berman, J, *Achievement and Enterprise in School Education* (South African Institute of Race Relations, Johannesburg, 2018)
62 Taylor, N, *What's Wrong with South African Schools?*, (JET Education Services, 2008)
63 Christie, P, Butler, D, Potterton M, *Schools that work: report to the Minister of Education of the Ministerial Committee on Schools that Work*, (Department of Education, Pretoria, 2007)
64 Spaull, N, *Priorities for Education Reform in South Africa,* (2019)

That the problem has been allowed to reach such proportions is indicative of the fact that the education department lacks the capacity and the will to hold failing schools to account.
The two main reasons are a general lack of bureaucratic competence and the political influence of the country's majority teacher union, the South African Democratic Teachers' Union (SADTU). A 2016 report commissioned by the Department of Education and led by Professor John Volmink to investigate fraud and corruption in the education sector found that SADTU was in 'de facto control' of the education department in six of South Africa's nine provinces, those being KwaZulu-Natal, Limpopo, the Eastern Cape, the North West, Mpumalanga, and Gauteng.[65]

A feature of SADTU's control over education departments is that it wields a corrupting influence over hiring and firing decisions regarding teachers, principals, and administrators within the department. SADTU's allegiance lies, first and foremost, with its members. This can be expected of a workers' union. However, what makes the influence of SADTU poisonous is that it prioritises the interests of its members over that of school children. As the Volmink report showed, SADTU officials regularly accept bribes in exchange for promotions within the education system and interfere in teacher disciplinary hearings, making it extremely difficult for schools to fire poorly performing teachers.

None of this would be possible if it weren't for the fact that powerful figures within the education department, despite not being teachers themselves, are members of or are aligned to SADTU. The investigators reported that 'all Deputy Directors-General in the DBE are SADTU members and attend meetings of that Union', leading them to conclude that 'it is not improbable to say that schooling throughout South Africa is run by SADTU'.[66]

The report and its recommendations, far from spurring decisive action from the Minister of Basic Education, Ms Angie Motshekga, instead have been largely ignored. 'The lack of action on this,' according to Spaull, 'is widely believed to be due to union opposition to the report.'[67]

The desire for accountability within an education system is evidenced by the fact that poor parents in developing countries around the world are voting with their feet and choosing to send their children to low-cost private schools instead of entrusting their child's education to free public schools, despite the extra costs required.

The main reason why they are doing so is that they believe the quality of education is better at independent schools, based primarily on the fact that they are subject to market forces. Independent schools have to perform or risk the dissatisfaction of their customers – the parents – who will look elsewhere if standards are not met.

A common misconception about independent schools is that they are for the rich. The Centre for Development and Enterprise (CDE) has probably done the most extensive research on the rise of low-cost independent schools in South Africa. Research conducted in 2015 by the CDE led to an estimate that a quarter of a million children in South Africa are being educated in independent schools charging fees below R12 000 a year.[68]

65 Department of Basic Education, *Report of the Ministerial Task Team Appointed by Minister Angie Motshekga to Investigate Allegations into the Selling of Posts of Educators By Members of Teachers Unions and Departmental Officials in Provincial Education Departments*, (Pretoria, 2016)
66 Ibid.
67 Spaull, N, *Priorities for Education Reform in South Africa,* (2019)
68 The Centre for Development and Enterprise, *Low-fee Private Schools: International experience and South African realities*, (Johannesburg, 2015)

Investigating the reasons for the increasing preference for independent schools, even among the poor, Dr Jane Hofmeyr writes that 'studies undertaken of the factors behind this trend and the performance of these schools provide a very clear lesson – in system reform, accountability matters.'[69]

That there is generally more accountability in independent schools should come as no surprise. As noted above, in independent schools, parents are the customers and therefore, if they are unsatisfied with the school, they will take their children elsewhere. This, in turn, creates an incentive for the school governing body to hold principals to account for their performance, which then increases the likelihood that the principal holds teachers to account for their performance. In short, if an independent school does not produce the outcomes desired by parents, the school will close down. This is evidently not the case in the public sector, where underperforming schools continue to operate, even in cases where they can be considered 'cognitive wastelands'.

To conclude, independent and former 'Model C' schools vastly outperform ordinary public schools. One reason is that high fee-paying schools can afford to purchase extra resources, have smaller class sizes, and attract better teachers overall. However, considering that there are poor public and independent schools managing to succeed, and that what they have in common is more robust systems of accountability, suggests that the wealth a school is able to gather in fees is not the most important factor in producing good pupil performance. The most important causal factor seems to be whether a school and its managers are held accountable for performance by their customers, or whether bureaucrats concerned with politics and pay cheques, ill-gotten or otherwise, call the shots.

Section 4: Interventions

School vouchers

As has been discussed, the South African public education system is in crisis, and the crisis disproportionately affects poor South Africans. The most important priority should be improving the rates of early-grade literacy and numeracy in public primary schools, particularly schools serving poor areas. Doing so, however, is not straightforward given that poor children are likely to begin school underprepared, be taught by incompetent teachers prone to absenteeism, and attend schools that lack robust systems of accountability.

Independent education, on the other hand, whether targeted at the rich or poor, is on the rise. In 2000, independent schools numbered approximately 971 and served 256 000 pupils.[70] In 2022, according to the Department of Education, there were 2 282 registered independent schools attended by pupils numbering 735 085.[71]

69 Ibid.
70 Roodt, M, *The South African Education Crisis: Giving Power Back to Parents* (Johannesburg, South African Institute of Race Relations, 2018)
71 *School Realities 2022* (Department of Basic Education, Pretoria, 2022)

The reason for the drastic rise in pupils attending independent schools is that parents believe that their children will receive better quality education there because those schools are forced, by their nature, to compete for customers. If an independent school is not performing – if teachers continually abscond from work or do not produce the desired results – parents will withdraw their children and the school will have to close.

The question of how to improve early-grade literacy and numeracy is a matter of finding a way to replicate the accountability model of independent schools across the entire system whilst ensuring affordability. Or, as Taylor puts it: '... the key to improved performance lies in fostering a culture of professional responsibility at all levels of the system.'[72]

The IRR proposes that the most reasonable way to achieve this end is to implement a school voucher system. The IRR is a classically liberal think-tank and as such is generally in favour of decentralisation and maximising individual freedom. The argument presented in this report is a pragmatic response that seeks an answer to the question: under the current South African circumstance, what would work the quickest to improve education?

Answering the question, current CEO of the IRR John Endres writes: 'School vouchers are probably a key element in achieving that [improvement], because you've got to bring the forces of supply and demand to bear on the education system to lift performance. Under the current system, there are no consequences for bad performance. In contrast, with school vouchers, there would be: underperforming schools would see themselves starved of funding, unless they get their act together.'[73]

How does it work? A voucher system is effectively a universal bursary programme. Parents would be given a voucher per child per year to the value of R16 000 (roughly the equivalent of per capita government spend on a pupil today) to be used to purchase education at a school of their choice, whether it be an ordinary public school, a former 'Model C' school, or an independent school. The school would then submit the vouchers to the government, which would electronically transfer the equivalent amount to the school's bank account. In cases where a voucher might not be sufficient to match the fees of a school, parents would have the option of paying the difference.

Public schools would be responsible for paying staff salaries with the money redeemed from the vouchers, thereby making staff accountable to the school governing body rather than the state and SADTU.

If a voucher system were implemented it would inevitably result in the closure of underperforming public schools as these schools would experience an exodus of pupils and therefore, capital to run the school. In these cases, the facilities could be auctioned off to private-schooling organisations like Spark, Curro, or others, including individual entrepreneurs. School buildings could be refurbished, and new schools opened.

72 Taylor, N, *What's Wrong with South African Schools?*, (JET Education Services, 2008)
73 Personal correspondence

Not only would a voucher system improve accountability, it would enable poor parents to exercise choice over their children's futures, where none exists currently.

The voucher system would increase accountability and parental control over education, but what of the fact that poor children are shown to be less prepared to learn when they enter Grade 1 compared to their wealthier peers, and the problem of poor teacher education?
Vouchers might prove to be of assistance here too.

As vouchers would bring market-forces to bear on the education system, schools that prioritised early-grade reading and numeracy would attract more customers. This would incentivise schools to implement targeted interventions that would help poor children to make up for lost learning time as a result of insufficient early childhood development.

In addition, as schools would be competing for pupil attendance it might be in the interest of schools producing good early-grade literacy and numeracy results to publish those results on an annual basis. This would result in schools producing poor results having to prioritise literacy and numeracy or risk failing to attract parents.

In order to produce competent readers and mathematicians, schools need competent teachers. Education departments attract the weakest high school graduates and have been found wanting when it comes to producing primary school teachers with the content and pedagogical knowledge needed to teach literacy and numeracy to struggling children.

If schools competed for customers this might incentivise them to allocate some portion of collected fees to seeking out and funding bright matriculants to complete their education degrees on condition that they were employed at that school for an agreed duration.

Another way that vouchers might have an effect on university education departments is that in the market model, poorly qualified teachers would not find employment, which would in turn reflect badly on education departments. This could force them to focus more on what schools and parents were looking for – primary school teachers with sufficient knowledge to teach early-grade literacy and numeracy effectively.

Targeted interventions: three priorities

An added benefit of reducing the burden on the state of providing education is that the education department could focus a growing proportion of its efforts on research, improving access to and ensuring the quality of Early Childhood Centres and implementing mass awareness campaigns trumpeting the importance of childhood literacy and of parents reading to their children.

Alongside these 'broad strokes' ideas, targeted interventions to improve pupil outcomes should be prioritised: a national reading plan should be conceived and put into action; university education departments should be held to account, as should teachers' unions.
For reasons given earlier, a priority for improving educational outcomes should be interventions aimed at improving literacy rates among children.

According to a recent report of the 2030 Reading Panel, which includes some of the country's best education experts, if Covid-learning-loss estimates are correct and the country manages to revert to its pre-pandemic improvement trajectory for literacy, 'it will still take 86 years from 2023 until all Grade 4 children can read for meaning'.[74]

This is a frightening estimate and one that reinforces a general theme of this report – that national government cannot be trusted to fix the problem of childhood illiteracy. This is a point backed up by the fact that there is no national budget allocation for reading resources or interventions. In addition, as the 2030 Reading Panel explains, although there has been mention of a 'National Reading Plan' in Parliament, no such plan has ever been published. In fact, the most recent official document outlining a 'National Reading Strategy' was published by the Department of Education in 2008.

Luckily, the panel explains, 'there are some proactive provinces who are not only publishing provincial reading plans but also allocating budgets and implementing well thought-out programs targeting reading in Grades R-3'.[75]

Two such provinces are the Western Cape and Gauteng. Following a promising pilot study in 2022, the Western Cape Education Department has partnered with Funda Wande and will be rolling out a Reading for Meaning programme in all Xhosa and Afrikaans schools in the province. Likewise, the Gauteng Department of Education has partnered with WordWorks and will target Grade R classrooms throughout the province by 2024.[76]

Elsewhere, some small-scale interventions have found success. For example, reading outcomes in North West, Eastern Cape, and Limpopo improved after employing highly skilled coaches to help teachers improve their methods of teaching literacy.

What this means is that targeted interventions for improving literacy can work. What is needed is a large-scale and well-planned initiative to roll out successful interventions countrywide – although these need to be properly piloted and planned to avoid the inevitable risk of failure that might come with precipitously launching and expanding initiatives (however promising) before their operational mechanics have been properly worked out. Ideally, with the implementation of a voucher system, the department could spend its time and money organising early-grade reading interventions. If there is no co-ordinated attempt of this nature, it is likely that we will have to wait until the year 2108 before realising a situation where all South African ten-year-olds can read.

However, using targeted interventions is nowhere near sufficient to deal with the country's shortage of well-trained primary school teachers. This must be the second priority.

74 Spaull, N, *Background Report for the 2030 Reading Panel* (Cape Town, 2023)
75 Ibid.
76 Ibid.

It is obvious from assessments of teacher content and pedagogical knowledge that university education departments are not equipping prospective teachers with the skills required to teach children effectively. The problem is particularly acute when it comes to primary school teachers' abilities to teach maths and reading. Although sustained in-service training is effective in upskilling teachers, it is not nearly sufficient. To ensure primary school teachers are properly trained, there needs to be a focus on holding university education departments to account.

The Department of Higher Education and Training should conduct a thorough audit of university education department curricula to ensure that prospective teachers are receiving adequate training on how to teach primary school children.

Not only that, but teachers should only be allowed to teach a particular subject when they can demonstrate that they are highly proficient in tests administered to the grade they hope to teach. A teacher should not be allowed to teach a Grade 6 maths class, for instance, if they themselves cannot pass a Grade 6 maths exam.

A third priority should be to deal with the politicisation of the education bureaucracy. Evidence of the capture of management and the bureaucracies of education departments calls for robust action.

The interests of teachers and government are often contradictory, notes Spaull in his 2019 report to President Cyril Ramaphosa and then Minister of Finance, Tito Mboweni (for example, managing a budget on the one hand and wanting to increase teacher salaries on the other).[77] If high-level department officials are members of teachers' unions (as is currently the case) then there is a conflict of interests and no way of knowing whether members are acting in service of the department or the union and makes it difficult for the DBE to hold unions like SADTU to account for any misdeeds.

To combat such a conflict of interest, legislation should be introduced that limits the operation of teaching unions to teaching staff. This may well raise some difficult constitutional questions – which would need to be worked out – but it is hard to see how the education system can get back on track with the situation as it is.

Conclusion

The purpose of this report has been to diagnose what ails South Africa's education system and makes it one of the worst and most unequal in the world, and to propose a possible solution to achieving Mr Mandela's vision of ensuring that education in South Africa can truly be a 'great engine of personal development'.

The major finding was that poor pupil performance in early-grade literacy and numeracy is setting children, particularly poor black children, up for failure. The lack of effective accountability on behalf of the state presents the biggest barrier to improving early-grade literacy and numeracy, abetted by university education departments that mostly fail to prepare primary school teachers for teaching effectively.

77 Spaull, N, *Priorities for Education Reform in South Africa,* (2019)

The IRR believes that implementing a school voucher system would be the most effective way to improve basic education in South Africa. It would achieve this by simultaneously removing the responsibility of educating South Africans from the state and putting it back in the hands of those most invested in the future of children – parents. Doing so would bring market forces to bear on the education system, thereby ensuring more effective accountability structures and removing the harmful influence of corrupt unions.

Much research has been done on the success, or lack thereof, of school voucher systems across the world. There is much to learn about the most effective ways to implement the system. Should vouchers only be provided to those of a certain socio-economic class, or universally? What should happen if the value of a voucher exceeds the tuition fees of a school? And how can parents from wealthy homes give up their vouchers out of a sense of charity and ensure that they are put to good use and not stolen by the state? How would parents gain sufficient insight into their school's revenue and expenditure to ensure resources were well spent? These are just some of the many questions that will need to be answered if such a system were to be put in place.

Lastly, it is almost unthinkable that a South Africa governed by the African National Congress (ANC) would ever give the voucher system more than a passing thought. The ANC is ideologically disposed to centralisation and state control over the lives of South African citizens. However, should the ANC lose its majority in the 2024 election, this would open up opportunities for a new governing coalition to think about fixing the broken education system. If this happened, the IRR would urge the new government to consider what it has been proposing for more than a decade – give parents the means to choose where and how they would like their children to be educated. Perhaps only then will it no longer be possible for the life prospects of a 7-year-old to be accurately predicted by the merely superficial characteristics of skin colour or socio-economic status.

REPORT

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