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The possibility of improvements despite a lack of existing high-quality no-fee primary schools[1]

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The low quality of South African schooling has been widely confirmed through international tests of mathematics and literacy. The 2016 Progress in International Reading Literacy Study (PIRLS) results indicate that 78% of grade 4 children cannot read for meaning.[2] In this context, it is useful to ask whether there are exceptions to the norm: are there schools serving the poor that produce at least adequate levels of learning? This brief describes the findings of a rigorous search process to identify high-performing primary schools accessible to the poor, with a specific focus on three provinces: Gauteng, KwaZulu-Natal and Limpopo. While we failed to find high-quality no-fee schools, variation in learner performance exists among no-fee schools suggesting that improved levels of learning quality are attainable.

> *The variation in learner performance that exists across no-fee schools suggests that improved levels of learning are attainable.*

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1. Previous research on high-performing no-fee schools

It was previously difficult to identify high-performing no-fee primary schools due to an absence of system-wide learner performance data. This changed with the introduction of the short-lived Annual National Assessments (ANAs) between 2012 and 2014. Due to the lack of assessment data at lower levels of schooling, policy-makers had previously focussed on "Schools that work" at the *secondary* level, where matriculation data was used to identify these schools.[3] Case studies attributed school factors such as good leadership to these schools' success. But these schools may have achieved better results because higher ability students sat the matriculation examinations. Significant dropout which occurs at higher grades and 'gate-keeping'[4] makes it easier to identify high-performing secondary schools than primary schools. If there are quality schools for the poor, they need to be identified at lower grade levels.

It is easier to identify high-performing secondary schools than high-performing primary schools.

Box 1: How did we search for higher quality no-fee schools?

| STEP 1: System-wide ANA data | STEP 2: Word-of-mouth recommendations | STEP 3: Select best available schools to visit | STEP 4: Verify school quality-literacy testing |
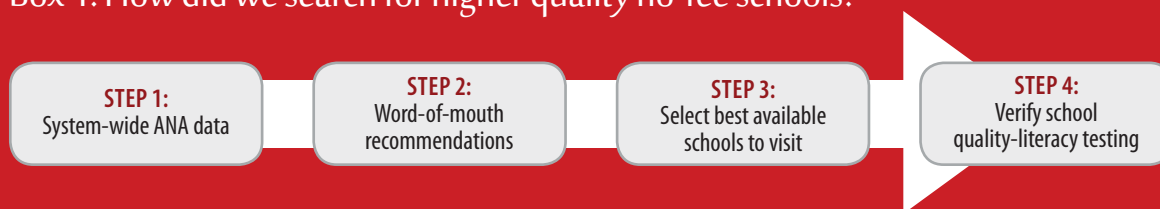
Step 1: System-wide ANA data. We first aimed to identify no-fee schools reaching the average performance levels of Quintile 5 (Q5) schools in the ANAs. This benchmark was chosen because students in Q5 schools typically perform at low international learning benchmarks in tests such as TIMSS and PIRLS.[5]

Step 2: Word-of-mouth recommendations. Almost 500 recommendations of potentially 'good' schools were also obtained from provincial and district offices, subject advisors, NGOS, union representatives, educators in primary schools and no-fee secondary schools with high matric pass rates. We linked these suggested schools to their ANA performance.

Step 3: Select best potential schools to visit. The best available no-fee schools, in which we would verify performance through literacy testing, were selected if they met Q5 performance benchmarks in ANA and/or were recommended multiple times as 'good' schools. KwaZulu-Natal and Gauteng schools also had to have large compositions of isiZulu speaking learners, and in Limpopo schools Xitsonga or Sepedi speaking learners.

Step 4: Verify school quality. Two PIRLS reading comprehension tests and a vocabulary test were administered to over 2600 grade 6 students in 31 potential outlier schools identified in step 3 and 30 additional matched pairs of lower performing schools.

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3 See Christie, P., Butler, D., Potterton, M., 2007 *Ministerial Committee on Schools that Work. Report to the Minister of Education*. Pretoria, and DBE, 2017. Minister Angie Motshekga hosts round table discussions on the NEEDU National Report on Schools That Work, 10 July 2017. www.education.gov.za/Newsroom/MediaRelease/tabid/347/ctl/Details/mid/5986/ItemID/4418/Default.aspx.

4 'Gate-keeping' a process of deterring weaker students from writing the matriculation examination. See Hunter, M., 2015. Schooling choice in South Africa: The limits of qualifications and the politics of race, class and symbolic power. Int. J. Educ. Dev. 43, 41–50. doi:10.1016/j.ijedudev.2015.04.004

5 Van der Berg, S., 2015. What the annual national assessments can tell us about learning deficits over the education system and the school career year. South African J. Child. Educ. 5, 28–43.

2. Main findings

Box 1 describes the 4-step process we used to search for higher performing schools. Central to this process was using the ANAs for the years 2012–2014. The ANAs have their limitations, but still provide useful data to explore the performance of no-fee schools nationally. Findings revealed from ANA on no-fee school performance were closely mirrored by test results from our purposefully selected sample of schools. We highlight three main findings.

1. A lack of adequately performing no-fee public schools

Nationally, it is rare to find any no-fee schools that reach average performance standards of fee-charging Quintile 5 (Q5) schools in the ANAs. Even with the possibilities of cheating or teaching to the test, only 3% of all Quintile 1-3 (Q1-3) schools in South Africa are performing at or above the average of Q5 schools as seen in Table 1.[6] In some provinces there are only a handful of no-fee schools with over 250 learners with average ANA performance similar to Q5 schools.

Nationally, it is rare to find any no-fee schools that reach average performance standards of fee-charging Q5 schools in the ANAs.

TABLE 1: **The number of no-fee schools reaching average performance levels of fee-charging Quintile 5 schools, ANA 2012–2014.**

	Q1–3 schools reaching the Q5 average				Q1–3 schools performing below the Q5 average
	School enrolment >=250		School enrolment < 250		
Province	Number of schools	% of Q1–3 schools	Number	% of Q1–3 schools	
EC	15	0.4%	74	1.8%	4 081
FS	5	0.7%	39	5.7%	642
GP	26	3.7%	2	0.3%	702
KZN	85	2.6%	122	3.6%	3 164
LP	11	0.5%	15	0.6%	2 310
MP	1	0.1%	4	0.4%	933
NC	6	2.3%	6	2.2%	255
NW	1	0.1%	1	0.1%	927
WC	0	0%	11	2.0%	538
Total	150	1.1%	274	2%	13 552

Source: ANA results 2012-2014. Note: School performance is measured by averaging student performance at the school-level across 3 years of test data, multiple grades and subjects.

Unfortunately, this national picture may be an overestimate of actual performance in the no-fee system. Figure 1 benchmarks the reading comprehension scores of our grade 6 student sample in 31 schools against those of grade 4 students[7] from low to middle income countries who wrote the same PIRLS text in 2011. It shows the percentage correctly answered in a test for the middle learner in a class (50th percentile) and a lower (10th percentile) and higher performing (90th percentile) learner in each class.

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6 We follow an approach similar to that used by Janeli Kotze (2017) in identifying high quality schools. See Kotze, J., 2017. *Social Gradients, Early Childhood Education and Schools Performing Above the Demographic Expectation: Empirical Insights into Educational Issues.* Doctoral thesis. Stellenbosch University.

7 Grade 6 students in Botswana and Honduras wrote the same test.

Ranking schools by the the test score of the middle learner, none of the purposefully selected no-fee schools compete with a random sample of students in low to middle income countries. This is concerning as they are likely the best available no-fee schools in three provinces. Only two schools in our sample, both low-fee charging schools (LP21 and KZN0), displayed better performance.
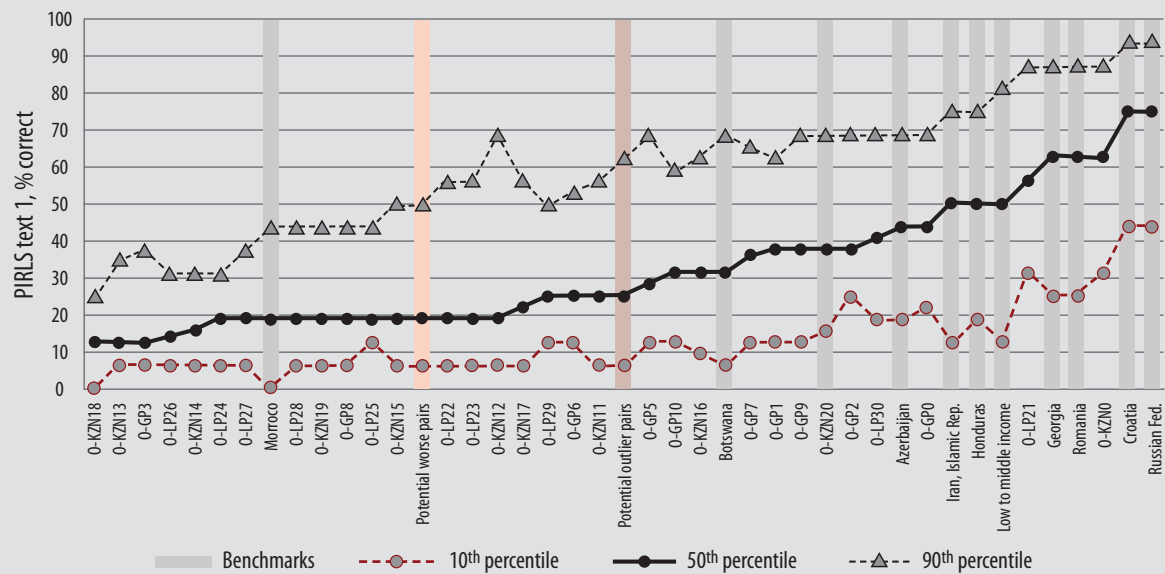

FIGURE 1: Benchmarking the performance of 31 best available schools for the poor in 3 provinces against an international student sample, % correct on a PIRLS reading comprehension passage

2. A continuum of school quality exists across no-fee schools

Although the levels of performance are much lower in no-fee schools when compared with fee-charging schools, there is variation in how much learning takes place across no-fee schools. For example, there are large gaps in the average performance of some Q1-3 schools compared with other Q1-3 schools. This is seen in Figure 2 which compares differences in school performance at the 10th and 90th percentile for no-fee (Q1–3) schools and fee-paying schools (Q4 and 5). This is a key finding of the ANA data nationally. Figure 1 also shows that some schools in our 31-school sample performed better than others, although none of the schools are performing adequately by international standards. These differences in quality remain once accounting for socio-economic differences across each schools' student body.
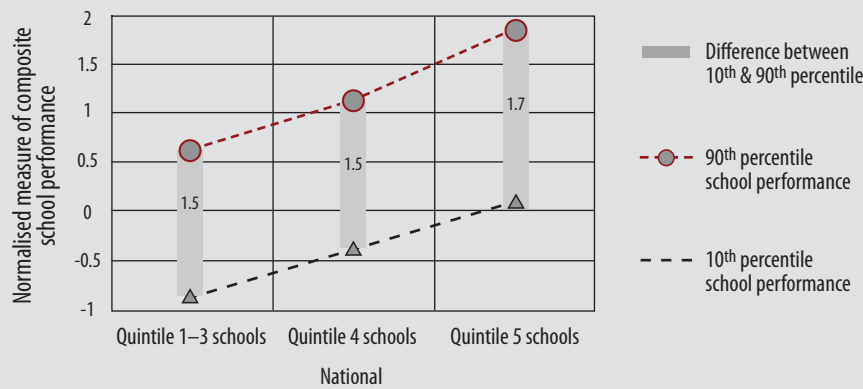
Y-axis: Normalised measure of composite school performance (2, 1.5, 1, 0.5, 0, -0.5, -1)

X-axis: Quintile 1–3 schools, Quintile 4 schools, Quintile 5 schools — National

Bar labels: 1.5, 1.5, 1.7

Legend:
- Difference between 10th & 90th percentile
- 90th percentile school performance
- 10th percentile school performance

FIGURE 2: Differences in school performance at the 10th and 90th percentile, ANAs

Source: ANA 2012-2014. Notes: School performance is averaged across grades, subjects, and years.
The bottom of each bar shows 10th percentile school performance, the top of the bar is the 90th percentile school performance.

3. Higher achieving learners are identified even in low quality schools[8]

ANA and our testing data also show that some learners achieve much higher than expected results despite poverty and the low quality of their schools. There are large numbers of learners from no-fee schools in the ANAs achieving at similar levels to learners in fee-charging schools. For example, 50% of a total of 157 000 grade 6 learners who wrote the 2014 ANA mathematics test and achieved above the Q5 average were from no-fee schools.

In our 61-school sample we identified students in poor school contexts whose literacy levels notably exceeded the performance expectations of equally poor classmates. Of course, there are still many more better performing students in higher quality schools. This also points to a wider issue of high variability in learner performance within the same classrooms.

In the ANAs, there are large numbers of learners from no-fee schools achieving at similar levels as learners in fee-charging schools.

3. Policy implications

- **Reinstate standardised learner assessment in primary schools.** Without comparable learner performance data across primary schools, it is unlikely that parents or education officials could detect the real quality differences that exist across no-fee schools. Schools promoting more teaching and learning should be recognised and praised. An improved, reinstated and system-wide ANA is useful for these purposes and to monitor system performance at the primary school level. The usefulness of testing data is also enhanced if considered against measures of learners' socio-economic status.
- **Establishing learning standards.** If best-practice, no-fee schools do not exist, it becomes very important to establish clear expectations or standards for what acceptable quality looks like. Enabling teachers and school managers to adequately determine whether learners in their classes are achieving minimum proficiency standards requires that they have and use suitable learning benchmarks. Minimum benchmarks for reading in African language, for example, do not yet exist in South Africa although work is underway (and should be encouraged) to develop them.[9]

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8 See Wills and Hofmeyr. 2018. 'Academic resilience in challenging school contexts in South Africa'. ReSEP policy brief.

9 Spaull, N., Pretorius, E., Mohohlwane, N., 2018. Investigating the Comprehension Iceberg: Developing empirical benchmarks for early grade reading in agglutinating African languages (No. No WP01/2018), RESEP Working Paper Series. Stellenbosch.