



Southern and Eastern Africa Consortium
for Monitoring Educational Quality

Quality of Primary School Inputs in South Africa

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Introduction

This paper highlights the quality of four primary school inputs in South Africa in relation to the nation's defined benchmarks. The four inputs are: basic learning materials, mathematics textbooks, learner-teacher ratios, and class size. These four indicators are described in the section titled Selected Indicators, where it is also shown how they are related to the quality of education. The data used in this paper were collected in 2007 from 9,071 Grade 6 learners in 392 primary schools in all nine provinces of South Africa. This was part of a major international study known as the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ) III Project. The SACMEQ III Project sought to examine the quality of education provided in primary schools in South Africa and 14 other African school systems.

The results in this paper cover South Africa as a whole, and are then further disaggregated by province and school location (rural versus urban). The results from the SACMEQ II Project (2000) are also provided, to enable monitoring the general trend in the provision of the selected inputs in primary schools in South Africa between 2000 and 2007.

Background

South African education is governed by a system of cooperative governance, with power shared by the national and provincial governments. The fourth schedule of the South African Constitution states that 'education at all levels, excluding tertiary education,' is an area over which national and provincial governments have concurrent powers

(RSA, 1996). This means that both national and provincial governments can legislate on any matter concerning non-tertiary education (DoE, 2008a).

At a national level, the function of primary and secondary education, Grade R to Grade 12, is administered by the Department of Basic Education (DBE)¹. At provincial level, each of the nine provinces has its own education department. The governance of schools is not confined to national and provincial levels. Power is further devolved to elected school governing bodies (SGB), which have a significant say in the running of their schools. SGBs comprise juristic persons and representative bodies, with parent representatives constituting the majority.

At a national level, the Equitable Shares Formula redirects larger funding allocations to needy provinces. 'Neediness' is defined in terms of existing infrastructure, other backlogs, and size of the province's school-aged population. At the provincial level, the Norms and Standards for School Funding are used to ensure redress in the funding of schools within each province. This formula-driven financial policy relied on a resource-targeting table (a school index of need) to determine the allocation per learner and per institution. The poorest learners receive seven times more non-personnel funding per head than the least poor in a province. Teaching resources are distributed in favour of the poorer schools (DoE, 2008b). On average, each province spends one-third of its annual budget on education (Wildeman, 2005:14). Education was and remains the largest category of government spending, with R105.5 billion allocated in the 2007/2008 financial year (DoE, 2008b).

¹ Prior to 2009 the Department of Basic Education (DBE) was referred to as the Department of Education (DoE).

Recent Educational Initiatives

The Department of Education (DoE) has undertaken a wide range of initiatives aimed both at improving access to education and the quality of the education, especially for the poor and disadvantaged. Some of the most important are outlined below.

Introducing no-fee schools: In 2006, the Minister of Education declared all schools in the lowest two quintiles (i.e. schools with the poorest 40% of learners as measured by the socio-economic conditions of the surrounding communities), as 'no-fee schools'. This policy was widely welcomed and was extended to schools in the third quintile in 2009 (DoE, 2006a).

Improving rural schooling: A National Framework for Quality Education in Rural Areas was formulated and focused on improving the quality of teaching and learning in rural and farm schools (DoE, 2006b).

Addressing backlogs in school infrastructure: The Accelerated Schools Infrastructure Delivery Initiative (ASSIDI programme introduced by the DBE focused on accelerating infrastructural development and support, particularly the building of new schools and refurbishing existing ones.

Improving access to curriculum materials: Interventions aimed at improving educational quality in schools – especially schools serving the poor (DoE, 2008a) – included:

- The Quality Improvement, Development Support and Upliftment Programme (QIDS-UP) which focused primarily on the provision of resources to support learning and teaching and improved learner competencies in literacy and numeracy.
- The Foundations for Learning Campaign which the Minister of Education, at its launch, said 'is a call to schools and communities to focus on reading, writing and calculating'. It indicated the basic resources needed for effective teaching.
- The National Reading Strategy which focused on increased access to books and providing support to teachers through the provision of resources and techniques for inculcating a love for reading.
- The Dinaledi Schools project, established in 2002 as a strategy to promote mathematics, science, and technology education mainly in rural and township areas (DoE, 2007b).

In 2007, the Ministry of Education also announced plans to place greater emphasis on the provision of sufficient, high-quality textbooks in all schools (DoE, 2007a).

Selected Indicators

The four selected indicators of the quality of school inputs are: (a) basic learning materials, (b) mathematics textbooks, (c) learner-teacher ratios, and (d) class size. The descriptions of these four indicators have been provided in Table 1 below together with the set benchmarks for South Africa.

Basic learning materials (that is, possession of at least one exercise book, something to write with, and a ruler) are considered crucial to ensure that the learners participate reasonably in learning activities in the classrooms. Therefore, it is desirable for all learners to have these materials. A ruler is especially important for mathematics and science lessons, particularly for the upper primary school classes (Grades four to seven). Likewise, it is desirable for each learner to have sole use of a textbook (especially for the core subjects, such as reading, mathematics, and science), because research evidence has shown that sole use of textbooks is essential for effective teaching and learning in the classroom. Sole use of textbooks is also preferable, because it enables learners to undertake academic activities at home, such as doing homework and revising school work.

Concerning learner-teacher ratios and class size, research evidence shows that lower values are desirable for better quality education. It is thought that, to a certain limit, lower values on these two indicators are associated with more interaction between teachers and learners, resulting in better quality education. Learner-teacher ratios and class size are also key indicators for checking if expansion in participation rates is accompanied by adequate provision of teachers and classrooms.

The recommended learner-teacher ratios and class size for primary schools in South Africa are 40 learners per teacher and 40 learners per class, respectively (DoE, 2010).

Table 1: National Benchmark for the Selected Indicators of Quality Education

Selected Indicator	Description of the Indicator	National Benchmark
Basic learning materials	Learner has at least one exercise book, a pencil or a pen, and a ruler	100 %
Mathematics textbooks	Learner has sole use of a mathematics textbook during mathematics lessons	No benchmark*
Learner-teacher ratio	Total number of learners in a school divided by number of teachers in the school	40:1
Grade 6 class size	Average number of Grade 6 learners per class	40

*No benchmark in place in 2007. However, mathematics workbooks were provided to every child in Grades 1-6 from 2010 onwards.

SOURCE: DoE, 2009, 2011.

Key Findings

The data on the four inputs were analyzed and the results are depicted in Figures 1 to 4.

Basic Learning Materials

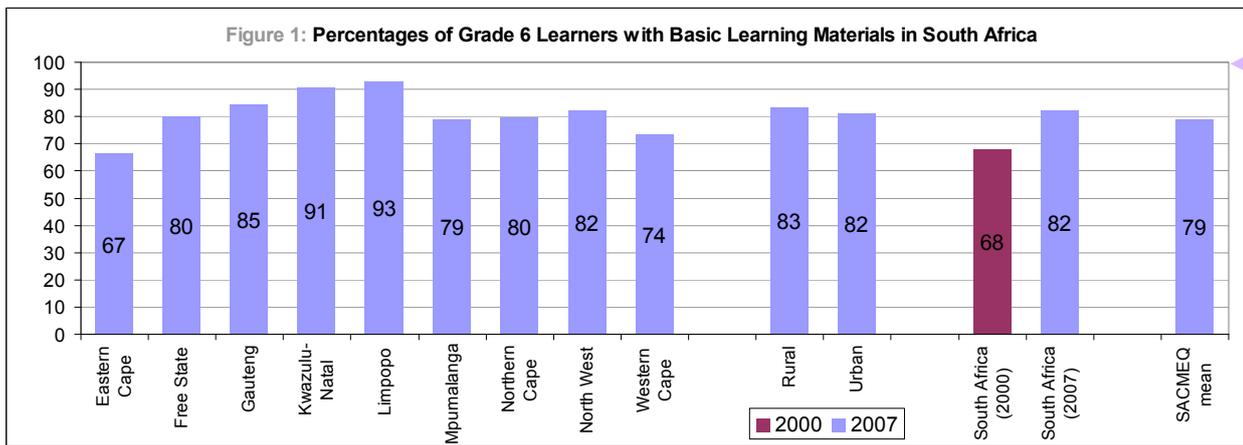
In 2007, only 82 percent of the Grade 6 learners had at least one exercise book, a pencil or a pen, and a ruler. In other words, around one in every five (18%) learners did not have all the three basic learning items that were considered necessary for effective participation in classroom activities. There were noticeable variations among provinces, ranging from 67 percent in the Eastern Cape to 93 percent in Limpopo. These results are troubling, because it has always been expected that each province would have considered basic learning materials a top priority for their schools. There was little variation between learners in rural schools (83%) and learners in urban schools (82%).

On average, 79 percent of learners in all the SACMEQ countries had basic learning materials. This implied that the situation in South Africa was generally better than the overall situation in SACMEQ countries. Between 2000 and 2007, the percentage for South Africa went up by 14 points, which meant that the situation had considerably improved.

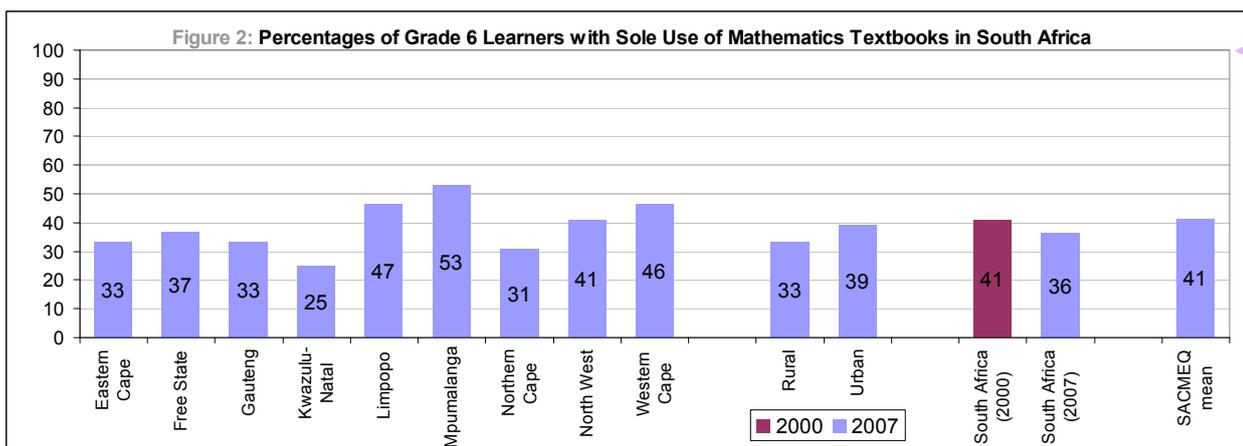
Mathematics Textbooks

In 2007, the DoE had already introduced the Revised National Curriculum Statement (RNCS) in grades one to nine in the General Education and Training Band (GET). The phasing in of the new curriculum, which started in 1997, de-emphasised the need for each learner to have sole use of a textbook per subject. It is, therefore, not surprising that only 36 percent of the Grade 6 learners in 2007 had sole use of mathematics textbooks. Nevertheless, it is troubling that the quantity of these textbooks dropped since 2000, when the percentage of Grade 6 learners with sole use of mathematics textbooks had been 41 percent. Furthermore, the textbook situation among SACMEQ countries in 2007 (41%) was generally better than the situation in South Africa for that year.

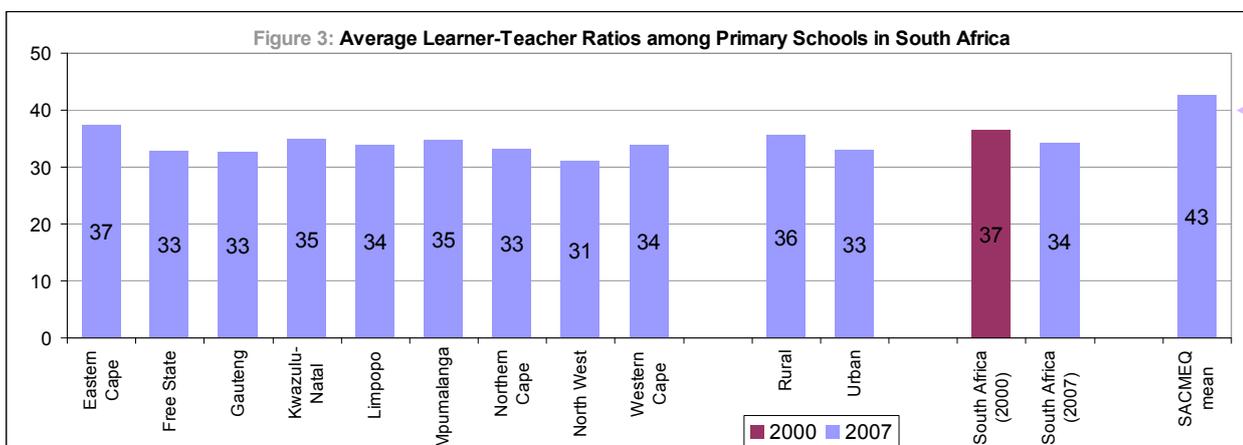
Across the nine provinces, there were noticeable variations in the percentage of learners with sole use of these textbooks. Mpumalanga (53%) and Kwazulu-Natal (25%) recorded the highest and the lowest percentages of learners with textbooks, respectively. These variations were probably due to the unclear position of the DoE on a national benchmark for learners having sole use of textbooks per subject. The textbook situation in rural schools (33%) was about the same as the situation in urban schools (39%).



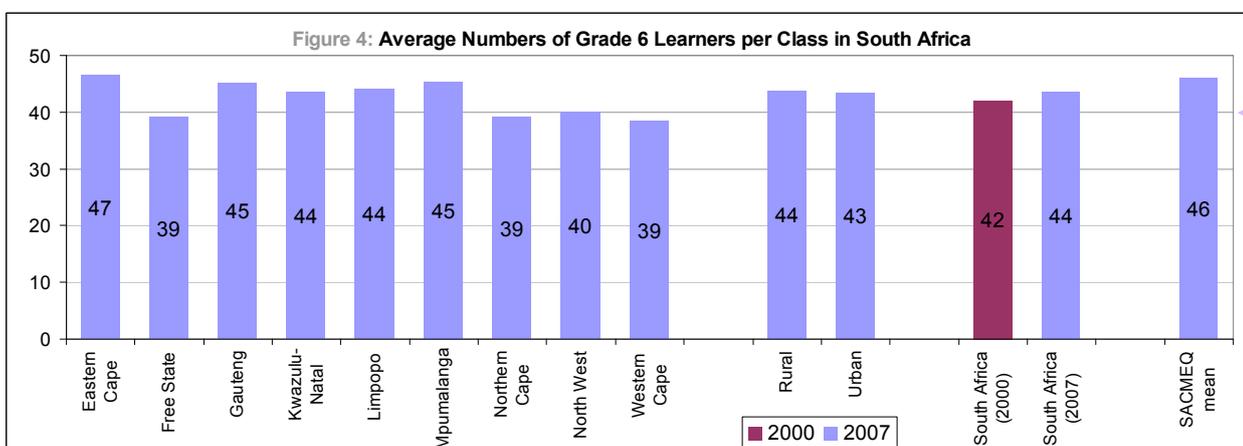
National Benchmark: All primary school learners in South Africa are expected to have basic learning materials (100%)



National Benchmark: All primary school learners in South Africa are expected to have a mathematics textbook by 2010 (100%)



National Benchmark: 40 learners per teacher in primary schools



National Benchmark: 40 learners per class in primary schools

SOURCES of Figures 1 to 4: SACMEQ Data Archive.

Learner-Teacher Ratios

In 2000, the mean learner-teacher ratio among primary schools in South Africa was 37. This mean was within the country's set benchmark of 40. In 2007, the mean had dropped to 34 learners per teacher, thus maintaining the mean within the set benchmark. This affirmed the DoE's commitment to expanding the teacher workforce to match increases in pupil enrolment.

In 2007, there were very little variations among the provinces. Importantly, all the provinces had mean values within the set national benchmark. In addition, on average, there was not much difference between the mean values of learner-teacher ratios for schools located in towns and those for schools located in rural areas.

Class Size

From Figure 4, it can be seen that in 2000, the average number of Grade 6 learners per class among primary schools in South Africa was 42. This number was slightly outside the country's set benchmark of 40. However in 2007, the number had risen to 44 learners per class, and thus the number was no longer near the set benchmark. Furthermore, the numbers for rural (44) and urban (43) schools were also outside the set national benchmark. The number for South Africa (44) was slightly lower (hence, better) than the overall number for SACMEQ (46) in 2007.

Except in four provinces (Free State, Northern Cape, North West, and Western Cape) where the numbers of Grade 6 learners were within the set national benchmark, the numbers for all the other six provinces exceeded the set national benchmark. However, this did not mean that there were no classes that were larger than 40 in the Free State, Northern Cape, North West, and Western Cape provinces. The Eastern Cape (47) recorded the worst number, where on average, the number of Grade 6 learners exceeded the national benchmark by seven learners.

Summary of Findings

This study showed that around one in every five Grade 6 learners did not have all the three basic learning materials needed for effective

participation in classroom activities. The situation in the Eastern Cape was of particular concern, because only 67 percent of the learners in this province had all the three basic learning materials.

- This study also showed that only 36 percent of the learners had sole use of mathematics textbooks in 2007. This means that at least three in every five learners (64%) did not have sole use of these textbooks.
- This study also revealed that the mean learner-teacher ratio (34) in 2007 was within South Africa's benchmark of 40 learners per teacher. In addition, the study revealed that the average number of Grade 6 learners per class (44) in 2007 exceeded the national benchmark of 40 learners per class.

Suggestions

Regarding the problems with the provision of basic learning materials and textbooks in South African primary schools, the following policy options could be considered.

- The newly established Planning and Delivery Oversight Unit of the DBE may wish to review how basic learning materials are distributed to schools (especially in the lower quintiles) and how the allocation and distribution of these materials are implemented at the district and school levels.
- The provincial education authorities could carry out a follow-up audit, through their respective Curriculum and Whole-School Evaluation Units, to determine whether the shortage of mathematics textbooks in Grade 6 that was recorded in 2007 had changed. This follow-up audit is important, because in 2010 the country started providing mathematics textbooks to all Grades 1 to 6 learners.
- The National Ministry, through its Curriculum Unit, may need to be more aggressive in promoting the current policy on the use of textbooks during classroom lessons. The useful role and benefits of textbooks must be communicated to all the levels. The DBE must endeavor to undertake that all learners in the primary school, especially the learners in Grades 4 to 7, have sole use of textbooks for all core subjects.

4. Concerning the need to improve class sizes in South African primary schools, the DBE, through its Education Management Information Systems (EMIS) unit must regularly monitor the percentages of schools (and list their specific details) in each province that have class sizes above the norm of 40, to reduce overcrowding.
5. The provincial education authorities in those provinces affected by large class sizes (such as Eastern Cape and Mpumalanga) should endeavor to keep class sizes within the national norm of 40 learners per class. For the short-term, this could be partly achieved through the introduction of shifts (especially in the lower primary school classes). The long-term solution would lie in targeting schools in those regions most affected by building more classrooms.

Conclusions

This policy brief highlighted the quality of primary school inputs in South Africa using four indicators, namely: (a) basic learning materials, (b) mathematics textbooks, (c) learner-teacher ratios, and (d) class size were examined. Against the country's own set benchmarks, South Africa scored poorly in the provision of basic learning materials, but scored satisfactorily in the provision of classrooms. Furthermore, in comparison with the overall situation among SACMEQ countries, South Africa's score in the provision of mathematics textbooks was rather disappointing. However, the country scored well on learner-teacher ratios (which is a sign of an adequate supply of teachers).

The study showed that South Africa vastly improved in the provision of basic learning materials between 2000 and 2007. It is likely that this improvement was due to the government's pro-poor focus on ensuring that the schools from the poorest communities received high-funding mechanisms and basic school packages through the QIDS-UP initiative.

An area of concern was the decline in the numbers of mathematics textbooks between 2000 and 2007. This decline could be attributed to the phasing in of the new curriculum, which started in 1997, and which de-emphasized the need for learners to have sole use of textbooks. Nevertheless, the textbook situation among primary school learners is likely to have improved considerably since this study was concluded. This is because, as from 2010, the government started providing each learner in Grades 1 to 6 with textbooks for all core subjects.

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Abbreviations and Acronyms

ASSIDI	Accelerated Schools Infrastructure Delivery Initiative
DBE	Department of Basic Education
DoE	Department of Education
EMIS	Education Management Information System
GET	General Education and Training Band
QIDS-UP	Quality Improvement, Development Support and Upliftment Programme
RNCS	Revised National Curriculum Statement
RSA	Republic of South Africa
SGB	School Governing Body

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