1 POVERTY

Education Access and "Learning Poverty" in Seven Southern African Countries

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1. Introduction

There are many different ways to think about poverty and education. Education, as human capital enables individuals and societies to be more productive, and as an essential capability, in Amartya Sen's sense, is instrumental in improving economic prospects for individuals and societies. Education also has social benefits, such as fertility decline from initially very high levels, reduction in labour market inequality or contributing to political stability, that improve conditions for economic growth and thereby poverty reduction. Poverty can limit education's impact because of the strong association between educational outcomes and home background factors such as socio-economic status, home resources and parental support. The concept "learning poverty"—the inability to read and understand a simple text by age 10—is another conceptual link between education as capability and poverty.

The major success of the educational MDGs was the rapid expansion of access to primary and even secondary education. The primary net enrolment rate (NER, the number of primary-aged pupils actually in school per 100 of the primary-aged population) rose from 83 in developing countries in 2000 to 91 in 2015. Africa saw the most progress, with primary NER rising from 52 in 1990 to 60 by 2000 and a remarkable 80 in 2016 (United Nations 2015, p. 4). However, despite rapid improvement in access and children staying in school longer, progress in terms of how much children learn at school was disappointing. As a result, education quality became an increasingly important focus, as reflected in the 2005 Education for All Global Monitoring Report's focus on what they termed "the quality imperative" (UNESCO 2004). This view grew stronger as the extent of the learning deficit became clearer. The 2019 report on the Sustainable Development Goals (SDGs) (United Nations 2019, p. 30) pointed out that "an estimated 617 million children and adolescents of primary and lower secondary school age-more than 55% of the global total-lacked minimum proficiency in reading and mathematics in 2015." Two-thirds of this was not related to school access, but to low levels of learning in schools.

It is thus not surprising that there was a shift in emphasis, as reflected in Goal 4 of the new Sustainable Development Goals, to "Ensure inclusive and equitable quality

education and promote lifelong learning opportunities for all", and especially in sub-goal 4.1, by 2030 to "... ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes" (United Nations 2015). The SDGs' emphasis on learning outcomes and equity were major departures from the MDGs (Crouch and Gustafsson 2019).

The countries of southern Africa considered in this chapter—South Africa and its six neighbours—share a common economic history. They are all affected by the recent weakening of the South African economy through their common links to the regional labour market and through the customs union that five of them belong to. They cover a wide economic development range: Mozambique is a low-income country, Lesotho, Zimbabwe and Eswatini (the former Swaziland) are lower-middle income countries, and Namibia, South Africa and Botswana are upper-middle income countries. Botswana's per capita income of \$ 8259 is almost 17 times Mozambique's \$490, and extreme poverty rates range between Namibia's 13% and Mozambique's 62% (see Table 1). Additionally, the expansion of school enrolment has taken different courses in these countries, reflecting their institutional backgrounds and history. This has given rise to varied challenges in the field of education and institutional responses to such challenges.

	GDP per Capita in Current \$, 2018	Poverty Headcount Ratio at \$1.90 a Day, 2015	Gini Index, 2015	Total Fertility Rate, 2015–20	Projected Growth Rate of Population 6–17, 2020–30
Botswana	\$8259	16.1 %	53.3	2.9	0.8%
South Africa	\$6374	18.9%	63.0	2.4	0.5%
Namibia	\$5931	13.4%	59.1	3.4	1.5%
Eswatini	\$4140	42.0%	51.5	3.0	-0.2%
Zimbabwe	\$2147	21.4%	43.2	3.6	0.6%
Lesotho	\$1324	59.7%	54.2	3.2	0.6%
Mozambique	\$490	62.4%	54.0	4.9	2.3%
Sub-Saharan Africa	\$1574	41.4%	53.3	4.7	2.0%
Low income	\$813	45.0%	63.0	4.5	1.9%
Lower middle income	\$2219	14.1%	59.1	2.7	0.3%
Upper middle income	\$9200	1.6%	51.5	1.9	0.0%
High income	\$44,715	0.7%	43.2	1.7	-0.3%

Table 1. The countries of southern Africa in a development perspective.

Where data for the year indicated were not available, data for the most recent year were used. Poverty headcount calculated as 2011 PPP dollars. Sources: Authors' compilation based on data from World Bank (2019b); United Nations Population Division (2019).

The central tenet of this short chapter is that educational policies and institutions in these countries overwhelmingly focus on expanding school and even post-school education. The institutional response to expanded enrolment or increased resources is typically a deepening rather than qualitative change in education policy, while there is a surprising absence of policies strongly focused on improving educational quality. By and large, this seems equally true for the education landscape in most developing countries: the emphasis has shifted little beyond those reflected in the goals of the MDGs, i.e., expanding access, while attention to education quality is seldom found in policies and debates within developing countries. This is the case despite efforts by international institutions such as UNESCO, the UN and the World Bank to improve and drastically expand the measurement of cognitive outcomes, in recognition of the fact that the MDGs largely failed to improve education quality.¹

In the next section, I provide a very brief perspective on the economic and educational situation in these countries and discuss education access in the context of southern Africa. Section 3 then turns to case studies by discussing a few major education issues and the policies instituted to address them in some of these countries. Section 4 presents the conclusions.

2. The Countries of Southern Africa in Perspective

2.1. An Economic Perspective

The countries in this group share most of the features of developing countries. Extreme poverty is still above 40% in Eswatini, Lesotho and Mozambique, while the lower estimate for Zimbabwe of 21% is probably incorrect or dated, considering that the country has experienced great economic upheavals. South Africa and Namibia have extremely high levels of inequality, with Zimbabwe's being quite low. Total fertility rates in South Africa and Botswana are markedly lower than in the rest of the group, yet still high when compared to other upper-middle income countries.² Mozambique's total fertility rate of 4.9 is very high compared to countries in the region, though not much above the sub-Saharan average. The growth of the school-age population is high only in Namibia (1.5% per annum for the next decade)

¹ Spaull and Taylor (2015) suggest a way to measure both access and quality.

² The total fertility rate is the total number of children that would be born to a woman if current age-specific fertility rates were to hold. Conventionally a total fertility rate of 2.1 is regarded as replacement level, the level at which the current population would simply replace itself in the absence of migration. This 2.1 replacement fertility rate allows for some early mortality.

and Mozambique (2.3%) and quite low for the other countries, holding the promise of deepening investment per child.

2.2. A Perspective on Educational Access

Table 2 shows net and gross enrolment rates for different years, based on demographic and health surveys and AIDS indicator surveys.³ No data are available for Botswana from these sources. The NER indicates whether children are enrolled at the right level of education. For the most recent years, the primary NER is only 74 in Mozambique, 84 in Eswatini and Namibia, 88 in South Africa, 91 in Zimbabwe and a surprisingly high 94 in Lesotho. Compared to the NERs, primary gross enrolment rates (GERs), the total number of children in primary school expressed per 100 children in the population that are of primary school age, are quite high—121 in Lesotho, 120 in Eswatini, 116 in Namibia and 115 in South Africa. This is mainly due to children who are too old for primary school still being enrolled at that level, either because they entered school late or because of high repetition rates in primary school. It is also indicative of limited drop-out in primary school.

³ Net enrolment relates to the number of children of the appropriate age actually being enrolled in that phase per 100 population in that age group, whereas gross enrolment expresses the number of children in a particular school phase per 100 population in that age group.

		Primary NER			Primary GER			Secondary NER		
	Source	Girls	Boys	Total	Girls	Boys	Total	Girls	Boys	Total
Eswatini	2006–7 DHS	86	83	84	117	124	120	41	33	37
Lesotho	2004 DHS	87	81	85	127	129	128	27	16	21
Lesotho	2009 DHS	91	87	89	123	122	122	40	26	33
Lesotho	2014 DHS	95	92	94	119	124	121	51	34	42
Mozambique	2003 DHS	57	63	60	86	105	96	7	9	8
Mozambique	2011 DHS	75	74	74	98	105	102	23	24	24
Mozambique	2015 AIS	74	75	74	96	100	98	27	26	26
Namibia	2000 DHS	78	77	78	107	112	109	39	30	35
Namibia	2006–7 DHS	85	83	84	112	116	114	53	40	46
South Africa	2016 DHS	87	90	88	109	115	112	76	77	77
Zimbabwe	1999 DHS	92	91	91	122	128	125	42	44	43
Zimbabwe	2005–6 DHS	92	91	92	121	125	123	45	45	45
Zimbabwe	2015 DHS	92	90	91	106	110	108	51	50	50

Table 2. Net and gross enrolment ratios derived from surveys.

Source: Demographic and health surveys and AIDS indicator surveys, access through ICF/USAID (2019).

The secondary school NER is strongly influenced by the fact that many children have repeated or dropped out before getting to or completing secondary education. South Africa's secondary NER of 77 stands out, followed by Zimbabwe (50) and Namibia (46).

The earlier surveys shown in the table make it possible to discern some trends:

- Lesotho's primary NER rose from 85 to 94 between 2004 and 2014, whilst GER fell only marginally from 129 to 124, indicating high rates of repetition or late enrolment in schools and limited primary drop-out. The higher NER and lower GER of girls is because they repeat far less frequently than boys. Secondary NER doubled from 21 to a still low 42, with girls enjoying a much higher rate of 51 as against 34 for boys.
- Mozambique's primary NER rose from 60 to 74 between 2003 and 2015, eliminating the gender difference favouring boys. Secondary NER is still low at 26, although there has been a considerable improvement since the eight in 2003. Inequality is extremely high: amongst children aged 15–19, only 15.1% had completed grade 9, with large urban–rural differences (30.2% as against 5.8%) and large differences between children from the richest and the poorest household quintiles (40.5% as against 1.4%) (Filmer 2016).

- In Namibia, primary NER rose by 6 points to 84 between 2000 and 2006/7. The substantially higher GER of 114 is an indication of late enrolment and high repetition, which affect boys more than girls. By 2006/7, the secondary NER had already risen to 46, one of the highest in the region, with a quite large gender difference favouring girls (53 against 40).
- South Africa's primary NER in the 2016 DHS is lower than indicated by other sources, while the primary GER of 112 results from high grade repetition. Despite this, continuation to secondary education is high, with the secondary GER at 77.
- Zimbabwe's primary NER remained unchanged at 91 from 1999 to 2015, whilst GER fell from 125 to 108, reflecting declining repetition (official policy is that there should be no repetition). Secondary NER rose from 43 to 50. There are hardly any gender differences, except for the slightly higher primary GER amongst boys.

Bashir et al. (2018, p. 9) group 45 education systems in sub-Sahara Africa into four groups. They place six of the seven countries considered here in Group 1, the established group. In this group, "the primary GERs are high in the baseline year (2000) and close to 100% circa 2013; the out-of-school rates for children of primary school age are low in the latest year of available data; and primary retention rates are close to 100% in 2013". It is surprising that the group of southern African countries considered in this chapter constitute six of the 13 countries referred to as "established", given the wide differences within this group. Mozambique is the exception: it is categorised into Group 3, the emerging group, "where the GERs are low in the baseline year and high by circa 2013; the out-of-school rates for children of primary school age are high in the latest year of available data; and primary retention rates are low in 2013".

2.3. Historical Patterns of Access

Information on the highest grade completed by age/birth cohort from censuses and surveys allows approximations of historical patterns of educational access.⁴ Table 3 shows that more than half of the 1930 birth cohort in Botswana, Eswatini and Mozambique never entered school. Access increased markedly in the subsequent four decades: for the 1970 birth cohort, only Mozambique had more than 20% that never entered school. In most countries, fewer than 5% of cohorts born in the late

⁴ Though selective mortality introduces some sample selection bias, as higher income individuals amongst older cohorts would have had better chances of survival.

1990s did not enter school, with Mozambique still the laggard. South Africa's lead in primary school completion had largely disappeared among cohorts born in the 1970s due to rapid expansion of primary completion in other countries. For the most recent cohorts, Mozambique (49%) and to a lesser extent Lesotho (77%) show lower primary completion rates.

	% Tł	nat Never	Entered So	chool	% That Completed Grade 7			
	1930	1950	1970	1997	1930	1950	1970	1997
Botswana	63.2%	40.1%	11.7%	1.8%	7.0%	33.2%	77.3%	92.7%
Eswatini	53.1%	29.5%	12.1%	3.0%	16.3%	38.1%	70.4%	86.4%
Lesotho	27.6%	13.4%	9.5%	2.6%	8.0%	29.3%	62.2%	76.5%
Namibia	57.4%	37.7%	15.4%	6.2%	16.3%	31.6%	65.1%	86.2%
Mozambique	77.2%	59.7%	42.8%	22.5%	3.3%	9.0%	22.2%	48.9%
South Africa	41.0%	21.8%	6.6%	1.4%	39.3%	54.2%	81.2%	95.8%
Zimbabwe		18.7%	2.4%	0.3%		44.6%	84.3%	90.5%

Table 3. Estimated proportion of birth cohorts that never entered school or that completed primary education (grade 7).

Sources: Authors' calculations based on data from censuses and household surveys.

3. Issues and Policy Responses

A number of education issues and policy responses in these seven countries are of interest from the perspective of inclusion. Because of space constraints I will discuss four, drawing examples from some of these countries:

- resources and priorities;
- serving remote communities;
- repetition, high stakes examinations and dropout;
- cognitive performance, testing and measurement.

3.1. Resources and Priorities

Resource constraints bind strongly in all seven countries, even in Botswana, which for a long time could expand education spending without fiscal stress. One prioritisation issue is the spending balance between school and tertiary education; these countries have high tertiary education unit costs and high tertiary spending levels. Within schools, the tendency to provide many electives at secondary schools raises unit costs far above those in primary schools, shifting the spending balance towards secondary schools.

Fiscal constraints now bind so strongly in Zimbabwe that most schools have received no new textbooks since 2012. Adopting a new curriculum and a change in the language of teaching and learning in the first years of primary school from English to Shona or Ndebele, the two dominant indigenous languages, exacerbated textbook scarcity. Without appropriate textbooks geared at the new curriculum and the new language policy and with no funding to train teachers to deliver the new curriculum, learning necessarily suffers. Moreover, the strong emphasis on offering many electives raised unit costs in secondary schools to four times those for primary schools. High dropout also prevents economies of scale in some schools.

In Mozambique the big issue remains expansion of the school system. The civil war from independence in 1975 to 1992 caused death and destruction, including the destruction or closure of 58% of schools (Mozambique Ministry of Education 1996, p. 40). This affected educationally lagging regions most; more than 80% of all schools in the central region were destroyed or closed, but none in Maputo City, the capital (Van der Berg et al. 2017). Free primary education, greater financial support to schools, free textbook provision, appointment of more teachers and investment in classroom construction led to rapid expansion of enrolment, from 3.6 million in 2003 to 6.7 million in 2014 (UNICEF 2017). Clearly, supply side rather than demand side factors had been holding back this expansion. The expansion, though, had serious implications for teacher quality.

Today, Mozambique's school network is still inadequate. While 12,291 schools offer grade 1 classes, only 6,624 offer grade 7, the final primary grade. Much fewer schools offer secondary grades: 854 grade 8, and only 435 grade 12. In the Zambezia Province, this problem is most severe: 3252 schools offer grade 1, though only 85 offer grade 12. In the country as a whole, grade 8 enrolment is only 21% and grade 12 enrolment a meagre 12% of that in grade 1. This favours urban children, who make up 11% of students in grade 1, but 37% in grade 12. Hostels offer the only option for many rural students to attend secondary school (see Section 3.2 below).

Understandably, Mozambique's priority is to expand the school system's reach, but they face a lack of qualified teachers in rural areas. The junior primary pupil–teacher ratio was 75 to 1 in 2006, but the appointment of many thousands of new teachers reduced this to a still high 63 to 1 in 2011 (Mozambique Ministry of Education 2013, p. 27). It is especially difficult to entice qualified secondary school teachers to teach in rural schools.

Lesotho's secondary school network also has a limited reach. Primary NER is high, 95 in 2009, ranging between 97 amongst children in the richest quintile of households and 91 in the poorest. Secondary net enrolment is much lower at 34, both because many children are at earlier school phases than they should be due to late school entry and repetition, and because many children drop out before secondary school. There are ten times as many primary schools as secondary schools, which makes access to secondary schools difficult. High education costs to parents and distance to schools reduce access to secondary schools (see Section 3.2.1 below). The government offers some scholarships to poor secondary students, though these are inadequate in amount and in number.

For Lesotho's government, the costs of providing textbooks and teachers are already quite onerous, in part because of high teacher salaries. School feeding is provided with international assistance at primary schools, yet, despite high poverty levels, not in secondary schools. A new curriculum adds to training and textbook needs and makes it difficult for the government to provide textbooks, particularly at secondary level. It appears that the costs of curriculum change have not really been planned for.

The bigger problem, though, lies with the lack of secondary schools. Expanding the school network would be costly, with high costs of construction and teacher salaries. A recent report (World Bank 2019a) makes a case for extending the grades offered in primary schools as a way of retaining children who live far from secondary schools in school longer. Thus, instead of offering grades 1 to 7 only, some primary schools could evolve into combined schools, adding grades 8 to 10 to their offering. This would reduce the cost of expansion by utilising existing facilities better.

Botswana has more fiscal resources than other southern Africa countries, but fiscal constraints have become tighter. While educational outcomes are very unequal, resource allocation between schools is quite egalitarian. For instance, there is a close relationship between enrolment and teacher numbers in secondary schools: 93% of variation in teacher numbers can be explained by enrolment—i.e., the randomness index is only 7% (though data from TIMSS, the Trends in International Mathematics and Science Study, point to some differentials in availability of textbooks and school furniture).⁵ The primary teacher–pupil ratio is 26 to 1 and the secondary school ratio an extremely favourable 12 to 1. Despite this, class sizes are often not small.

⁵ This index is effectively simply 1 minus the coefficients of determination (R-squared) in a regression that fits the enrolment of a number of teachers employed per school. Thus, such a regression for Botswana had an R-squared of approximately 0.93.

Ninety percent of students in secondary school attend classes with more than 32 students in their core subjects and one-third are in classes of more than 40 students. In the 2011 TIMSS assessment of grade 9, the average core class size was 37.6, with a standard deviation of 8.4. The low pupil–teacher ratio is the result of a favourable fiscal situation and many electives being offered at upper secondary level, thus large classes are split for elective subjects. The average secondary school teacher teaches only two hours per day (World Bank/UNICEF/Ministry of Education and Skills Development 2020, p. 47).

While Botswana's pupil-teacher ratios at secondary level would indicate that fiscal resources are adequate, the full picture is not as rosy. There is a stark shortage of classrooms, 15% at primary level and even larger at the secondary level, especially for specialist classrooms (e.g., laboratories, libraries). Many classes take place under trees. This shortage is at least to some extent the result of the fact that the budget for teacher salaries and for classroom construction is split between ministries. There is currently pressure to appoint even more teachers in the face of rising numbers of trained teachers remaining unemployed. Moreover, there is even a shortage of textbooks: only two-thirds to three-quarters of the required textbooks are available (World Bank/UNICEF/Ministry of Education and Skills Development 2020, p. 81).

A report by the Ministry of Education and Training of Eswatini indicates that the average pupil–teacher ratio is only 31 to 1 in primary and as low as 13 to 1 in secondary schools. Yet, teacher allocation across schools is not particularly equitable: the pupil–teacher ratio at primary level ranges from 20 to over 60 (Ministry of Education and Training 2016, p. 14; Van der Berg et al. 2018) and Eswatini's allocation of teachers across primary schools had a fair degree of randomness in 2007, with a randomness index of around 20% (Bashir et al. 2018, p. 258).

3.2. Serving Remote Communities

Providing educational opportunities for children in remote rural communities is difficult—for instance, in large and sparsely populated countries such as Namibia and Botswana and in the mountainous areas of Lesotho. Botswana is larger than France or Thailand, but has a population of only $2\frac{1}{2}$ million compared to 82 million and 66 million, respectively. This makes it difficult to bring schools close to the population and to attract good teachers to rural areas. In Kavango, a Namibian region, almost half the schools offer education only up to Grade 4, or even less (UNICEF 2015, p. 71), so children need to move to new schools as they progress to higher grades. Mozambique faces similar problems due to the limited accessibility of secondary schools. 3.2.1. School Hostels and Rented Accommodation versus Expanding the School Network

One option for serving isolated communities is to provide schools closer to the population, but that is not always possible. In some locations, the number of children may be too small; in other cases, the cost of constructing schools or providing teacher housing may be astronomical—e.g., in the desert regions of Namibia, where water provision is often unpractical or prohibitively expensive. At the secondary level, ministries often prefer larger secondary schools that make more electives viable. As transport (commuting) is costly or impractical, this necessitates school hostels, which are expensive for poor rural parents, and governments cannot always afford to subsidise them. Evidence to a Namibian Parliamentary Committee supported that "School hostels around the country are still faced with many challenges ranging from deplorable physical facilities, poor food preparation, lack of sanitation and poor hygiene" (UNICEF 2015, p. 73). In the absence of hostels, many secondary students are placed in rented accommodation near schools, but this is expensive and social conditions are sometimes appalling.

As discussed in Section 3.1, many children in Lesotho, especially those located in poor mountainous areas, live far from secondary school, and transportation options are limited or costly. The costs for an average secondary student have been estimated at between USD 650 and USD 900 for a child living in a hostel, with hostel costs constituting up to a quarter of these amounts. Costs include various fees, textbooks/stationery and uniforms (World Bank 2019a, p. 46). These costs are unaffordable to most parents in a country where 60% of the population lives in extreme poverty (see Table 1). Consequently, the net secondary enrolment rate in the richest quintile is 61%, as against only 11% in the poorest quintile (World Bank 2019a, p. 28). Currently, 11% of girls and 5% of boys are in school hostels, with a further 16% of both boys and girls enrolled in secondary school living in rented accommodation. School authorities try to vet the rented accommodation, but this does not completely prevent some serious problems accompanying such accommodation.

As discussed earlier, one of the options of dealing with the access issue at the secondary level is to extend primary schools to incorporate higher grades. This would make it possible for students to continue attending school to a higher level while still living in their own homes. Moreover, this would be cheaper than building completely new schools, and such capital spending would save the recurrent costs for maintaining school hostels. However, an issue that then would come into play is the availability of qualified teachers. This issue is addressed next.

3.2.2. Teacher Assignment: Rural Incentives versus Deployment

Two alternative models of teacher assignment have vastly different consequences. Some countries, such as Botswana and Mozambique, apply a highly centralised system of allocation, often referred to as "deployment", whereas others, such as South Africa and Namibia, have a decentralised system where individuals apply for advertised positions at particular schools. In the latter case especially, incentives are often used to make remote schools more attractive for teachers to choose to go to. However, the fiscal constraints limit the size of incentives that can be offered, and in some countries incentives are regarded as taxable benefits, thus reducing their effect.

Teachers are often highly frustrated with forced deployment to remote areas. In Botswana, many rural teachers complain about what they refer to as "over-staying", a situation where they are initially deployed in rural areas and after many years still do not have the opportunity to move to more attractive locations. Such deployment is also sometimes socially very disruptive—e.g., cases where husband and wife have been deployed in different far-flung parts of this vast country.

A study of the effect of incentives in remote schools in Namibia concluded that incentives for teachers in remote schools may have helped to retain and attract qualified teachers and therefore proposed a modest rise in these incentives: "This places a small additional burden on the education budget, raising incentive costs... This may further improve teacher allocation, signal to teachers in remote schools their contribution is valued, and be a sign to parents in such areas that the education of their children is a concern for the government" (UNICEF 2014, p. 9). Another recommendation that was also accepted was to provide more teacher housing in the most remote areas.

3.3. Repetition Policy, High Stakes Examinations and Dropout

3.3.1. Repetition in the Literature

The international literature is still divided over the issue of repetition as against automatic promotion. Much education research holds that grade repetition may increase the risk of negative outcomes for students. Individuals who repeat face potential stigma, which may contribute to dropout. There is no clear evidence that repetition improves learning, and it is expensive, as it increases the time it takes a student to progress through school. On the other hand, some see repetition as evidence that the school system is promoting learning. There is some evidence that automatic promotion reduces student efforts. A strong argument for repetition in developing countries is that large variation in student capacities in a class complicates the task of teachers. Setting grade promotion thresholds ensures that all students meet some minimal standard. Yet, repetition tends to increase age ranges within grades. Repetition is much more common in developing countries than high-income countries, and in Francophone as opposed to Anglophone African countries (UNESCO Institute for Statistics 2012; Eisemon 1997).

Automatic promotion need not mean that learners are held to a lower standard, but it should be accompanied by increased quality in other inputs and remediation to support low achieving students (Van der Berg et al. 2019).

3.3.2. Repetition in Southern Africa

Promotion policies in southern Africa vary widely between countries. Eswatini, Lesotho, South Africa, Namibia and Mozambique have high repetition rates, while there are stronger limitations on repetition in Botswana and Zimbabwe.

Zimbabwe formally has automatic promotion, yet their Annual Statistics indicate that more than 25,000 children repeated in primary schools (0.75% of enrolment) in 2018 and 12,600 in secondary schools (1.16% of enrolments) (Zimbabwe Ministry of Primary and Secondary Education 2019). Repetition rates have been declining. Especially in primary schools, boys are more likely to repeat than girls are. The Primary School Leaving Examination, which used to be a high-stakes examination that determined access to secondary school, no longer serves this function; all children taking the examination are promoted to grade 8 (Form 1), the beginning of secondary school, although many do not continue (only 80% of 2017 Grade 7 students continued to Form 1). The effect of the high-stakes grade 11 O-level examinations is much more severe, though: this determines access to senior secondary school—Forms 5 and 6 in Zimbabwe's 13-year school system—and also entry into some colleges. The majority of students fail this examination, and less than one-quarter proceed to senior secondary.

Botswana also practices automatic promotion, but with reservation. Officially, it is said that children only repeat when parents agree that they should. Grade repetition is concentrated in the earliest grades of primary school. In 2017, just over 14,000 primary (4.2%) and 719 secondary students (0.4%) repeated (World Bank/UNICEF/Ministry of Education and Skills Development 2020, p. 49). High failure rates in the Grade 10 Junior Certificate Examination result in a small number of students in senior secondary schools. In 2014, the senior secondary GER was 62, while the NER, the proportion of the senior secondary age group that was in fact in this school phase, was only 29 (World Bank/UNICEF/Ministry of Education and Skills Development 2020, p. 9)

Each year, about 15% of Eswatini's primary learners are not promoted to the next grade (UNICEF 2018, p. 11), despite official policy limiting repetition to 10% per grade per school (UNICEF 2016). Due to repetition and dropout, the number of students not overaged in grade 1 was just under 30,000 in 2011, while the number not overaged in grade 7 in 2017 was less than 10,000 (UNICEF 2018, p. 38). Low promotion rates (as low as 60% to 70%) are experienced in the grades before external examinations take place in grades 7, 10 and 12. Ministry officials ascribe this to accountability pressure on schools to perform well in the external examinations. This leads to weaker students being held back in the previous grade, something that also encourages high dropout rates in these grades. The effect of this high repetition rate in combination with high dropout can be seen in Table 4, which shows enrolment by grade for a number of years. By following diagonally downwards and to the left, one can observe a "pseudo-cohort", as, for instance, shown in the table by the highlights for the 2009 grade 5 cohort. These are not actual cohorts. For the highlighted diagonal, the number of students in grade 6 in 2010 was less than in grade 5 in 2009, due to dropout and repetition, but some of the 31,200 grade 6 students in 2010 were repeaters from 2009, so they were not part of the original 2009 grade 5 cohort. Following this diagonal further, it transpires that the Form 5 (grade 12) "pseudo cohort" in 2016 was less than 13,000, only 39% of the number of students in grade 5 in 2009. In a similar way, one can follow cohorts from earlier years in earlier grades, but they would not yet have reached the highest grades. The second panel offers another way of following a real cohort: the cohort of 11-year-old children in 2011⁶ was reduced by dropout and repetition so that there were fewer 12-years-olds in 2012, 13-year-olds in 2013, and so on. Of the original age cohort, only 63% were still in school at age 18, but many of these would have repeated one or more grades. The 63% reflects the high dropout between ages 11 and 18; repetition cannot be observed in this panel.

⁶ Age data are not available for the earlier years.

				Panel				
	2009	2010	2011	2012	2013	2014	2015	2016
Grade 1	37,091	411,843	37,034	36,348	36,211	36,305	34,791	32,491
Grade 2	35,805	36,622	37,631	35,610	34,696	35,097	35,412	33,812
Grade 3	37,158	37,457	38,478	38,889	37,181	36,833	36,968	36,873
Grade 4	34,822	35,180	34,831	36,670	36,896	36,248	36,003	35,997
Grade 5	32,971	34,078	34,389	34,074	35,846	36,888	35,978	35,680
Grade 6	30,081	31,206	32,085	32,574	32,419	34,337	35,886	35,023
Grade 7	23,183	24,260	24,246	24,254	25,055	24,324	25,909	27,679
Form 1	22,059	23,800	24,784	24,940	25,448	26,975	27,080	27,664
Form 2	20,811	22,303	22,648	22,451	22,954	24,182	25,185	25,214
Form 3	14,343	14,952	14,179	13,994	15,077	14,185	15,549	16,873
Form 4	15,553	17,293	18,177	17,398	17,273	18,901	19 ,2 61	19,836
Form 5	10,307	10,626	10,556	11,093	11,144	11,134	12,007	12,753
Panel B								
Cohort			2011 age 13	2012 age 14	2013 age 15	2014 age 16	2015 age 17	2016 age 18
Enrolled			27,605	26,002	24,595	23,147	21,748	17,357

Table 4. Eswatini "pseudo-cohort" versus actual cohorts, 2009–2016.

Note: the highlighted figures show how one can track a pseudo-cohort across years and grades, as shown here for the 2009 grade 5 cohort. Source: Authors' compilation.

Due to late enrolment and early repetition, 29% of grade 1 students in Namibia are overaged. High repetition rates throughout primary and junior secondary grades raise the overage proportion to 72% in grade 9, but thereafter this proportion declines as dropouts exceed the high repetition rate, especially among the overaged. Thus, the overaged proportion declines, but is still as high as 51% in grade 12. As part of a major curriculum change, the grade 10 examination, which currently acts as a high barrier, is being abolished and replaced by a grade 11 examination, which is regarded as the end of secondary school for most children. Those who wish to continue further, especially those with university ambitions, have to write a new school-leaving examination at the end of the new grade 13.

3.4. Cognitive Performance, Testing and Measurement

To improve educational outcomes in line with Goal 4.1 of the SDGs requires measuring and monitoring of cognitive outcomes. Regular participation in international assessments offers a convenient way to do this, where performance of a representative sample of children in a country is measured against that of other countries. Further analysis of such data can also offer insights into shortcomings in learning, thus potentially allowing policy to address specific learning deficiencies. SACMEQ, the Southern and Eastern Africa Consortium for Monitoring Educational Quality, is the only such international assessment that all seven our countries participate in, along with eight other countries in southern and eastern Africa. However, SACMEQ only takes place at quite long intervals and the last data that have been released are for 2007. Botswana and South Africa on occasion participate in other international assessments, TIMSS (a mathematics and science assessment) and PIRLS (Progress in International Reading Literacy Study, a reading assessment).

Gustafsson (2012) used all international cognitive evaluations available in 2012 and a nonlinear programming approach to convert country average scores to a common "Pisa scale". These scores are shown for a selection of countries in Table 5, arranged from lowest to highest. Our seven southern African countries are marked with asterisks. The Pisa setpoint (average) was originally set to 500 with a standard deviation of 100. Lesotho and Namibia performed more than two standard deviations (roughly equivalent to 5 years of learning) below this Pisa setpoint. Even the two best performing countries in our group, Eswatini and Botswana, performed more than 1.3 standard deviations below the Pisa setpoint. Assuming a year's learning to be around 40% of a standard deviation, the average student in the seven southern African countries discussed in this chapter is between 3 and 6 years behind students in the average Pisa country. The extremely low scores of Botswana and South Africa on TIMSS and PIRLS confirm the large gap compared to developed countries. More recent international tests have given some cause for optimism that South Africa is making good progress, but even so it will take many decades for the countries of southern Africa to achieve an education quality similar to that in developed countries today.

Country	"Pisa Scale Score"				
Malawi	260				
Lesotho *	288				
Namibia *	289				
South Africa *	317				
Ghana	331				
Mozambique *	332				
Zimbabwe *	345				
Botswana *	367				
Eswatini *	368				
Brazil	387				
Kenya	388				
Chile	407				
Malaysia	437				
United States	485				
England	487				
Germany	491				
Finland	543				

Table 5. "Pisa scale scores" for a selection of countries based on Gustafsson (2012).

Note: The asterisks indicate countries discussed in this chapter. Source: Gustafsson 2012, Appendix 1.

In 2012, the South African Department of Basic Education introduced the Annual National Assessments (ANAs), which tested *all* children in identified grades (grades 1 to 6 and also grade 9) in both language and mathematics. Although nationally drawn up, the tests were administered by the schools themselves. This initiative offered the potential of providing information on student performance and on specific weaknesses in learning *by school*; thus, the National Development Plan saw the ANAs as a potentially important monitoring and accountability tool. However, there were reservations about the quality of the tests themselves, i.e., their calibration, an issue related to capacity of the education system. An even bigger problem was fierce teacher union opposition, especially to the accountability aspect of the tests, which led to their abolition in 2015. After long negotiations between teacher unions and government, there are now new plans for sample-based systemic evaluations to provide information about system performance in grades 3, 6 and 9, but these would

not provide the school-level results needed for accountability. This is particularly needed at the primary level, as South Africa is one of only a few countries in southern Africa without a standardised primary school examination that could provide some accountability pressure.

In President Cyril Ramaphosa's state of the union address in 2019, he committed the South African government to the goal of every child being able to read for meaning by age 10. This is directly in harmony with the SDGs and with international attention to eliminating "learning poverty", by acknowledging the reality of weak learning outcomes. Yet, thus far there is little indication that the government will be measuring and monitoring progress to this goal.

Although Botswana is one of the richest SACMEQ participants, it performs near the regional average. Poor children perform particularly poorly. The gap between the scores of the poorest quarter of students and the average is almost as large as in South Africa, a country known for its high inequality. Botswana's performance on other international assessments (TIMSS and PIRLS) is also far below the average of middle-income countries. The weak performance on Pre-PIRLS indicates that learning deficits start early. There has also been no improvement in performance on internal examinations in recent years (World Bank/UNICEF/Ministry of Education and Skills Development 2020, pp. 9-10, 12). A report for the education ministry found school monitoring and support services to be ineffective and stated that the country has made little progress in " ... producing an assessment system that enables the government to monitor at a national level what the quality of the national education outcomes are" (Botswana, Ministry of Education and Skills Development 2014, p. 40). Botswana's three national examinations, as well as the international assessments it participates in, are not systematically used to provide information to assist teachers in their work or to direct in-service training. Moreover, there is almost no information on performance in grades that do not have standardised examinations (World Bank/UNICEF/Ministry of Education and Skills Development 2020, p. 72).

Eswatini scored higher than all the other countries considered in this chapter in SACMEQ 2007 in grade 6. High repetition rates may perversely have contributed to this by "weeding out" weaker students (UNICEF 2018, p. 12). It is interesting that the social gradient as measured by the difference in scores between the poorest and the richest quarters of children participating in the test was only 18 points in mathematics and 39 points in reading (the standard deviation across all SACMEQ countries is 100 points). In contrast, these differentials are a massive 119 and 159 in South Africa and 70 and 83, respectively, in Zimbabwe (Spaull 2012).

While Mozambique performed slightly above the SACMEQ average in 2000, in the 2007 version of the tests the average performance of Mozambican grade 6 pupils fell by more than 40 points (40% of a SACMEQ standard deviation) in both reading and mathematics. This deterioration is not surprising, given the massive enrolment growth that brought more pupils from poor backgrounds into schools and increased pressure on resources (infrastructure, textbooks and teachers). However, despite the large increase in students that performed at the bottom end of performance and caused the average decline, there was also growth in the numbers of students performing at higher levels, despite the pressures brought about by expanding enrolment (Taylor and Spaull 2015).

A service delivery indicator survey used by the World Bank for Mozambique points to severe teacher issues. It found that 45% of primary teachers were absent from school on the day the survey was administered, while another 21% were not in class teaching. Thus, only one-third of teaching time was available for teaching. Moreover, the absenteeism amongst school directors (principals), at 44%, is not significantly lower than amongst teachers. In addition, teachers were found to have poor subject knowledge (only 60% of lower-primary teachers could provide the correct answer to a simple subtraction question, 86 minus 55), and teacher pedagogy was found to be weaker than in other African countries where service delivery indicators had been measured (Molina and Martin 2015).

Absenteeism amongst children is also a grade problem. In a Portuguese comprehension test administered to a sample of grade 3 children in 2016, at least half of the students were absent in one-quarter of all schools tested (Mozambique, Ministério de Educação e Desenvolvimento Humano, Institute Nacional de Desenvolvimento da Educação (INDE 2017)). This was especially the case in the central region, one of the most disadvantaged areas. Performance in the south exceeded that in the other two regions—only 19% and 28%, respectively, of students (present or absent) in northern and central regions attained at least the top two performance levels, against 53% in the south.

4. Conclusions

The policy dilemmas and initiatives described above show a strong emphasis on issues of educational access, but generally speaking, cognitive outcomes have received little attention. Where these are discussed, there is often simply a presumption that other policies will somehow lead to better learning in classrooms: improved textbook availability, teacher training, information and communications technology (ICT), or better laboratories are regarded as the tools through which better learning will happen, or even simply continuing with business as usual. There have been few attempts to see whether training actually leads to better teaching and learning, and whether textbooks are actually used; there is little enthusiasm for participation in international tests; available test data are hardly ever used to inform teaching practice or teacher training; internal school assessments or standardised examinations are taken as the measure of learning. The international community may have shifted their emphasis from access, as in the MDGs, to greater attention to cognitive outcomes and equity, as in the SDGs, but this is receiving scant attention in education ministries in southern Africa. "Learning poverty" is still widespread, but largely ignored compared to issue of access and performance on internal standardised examinations. Moreover, as ministries usually measure performance in terms of pass rates, limiting access to such examinations is widely practiced as a means of improving pass rates. The total number who pass has not received much attention.

While this is the case, it is unlikely that there will be much progress with learning, especially early learning. If the measure of learning simply remains how many children reach a certain grade or what proportion passes a standardised examination, too much attention is given to the wrong outcomes. Indeed, "schooling ain't learning", to paraphrase Lant Pritchett, but this does not appear to have sunk in yet in most southern Africa countries. This may be very similar in many other developing countries, especially poorer ones. There is a large schism between the insights of the international community (e.g., the UN organisations and the World Bank) and the policies and practices of many developing countries (often supported by some development partners). It is still easier to acquire support for implementing a new curriculum than to test regularly, and to use test results for accountability purposes. While 2030, the target date for the SDGs, is getting closer, it may still take some time for the fundamental shifts in the educational development goals from MDGs to SDGs to sink in as an integral part of education thinking, policy and practice.

In terms of policy, one would therefore want to see more emphasis on measuring education quality and introducing measures to improve this. Central to such improvements must be teachers—what they know, how they teach, how much effort they put into their work. Measures to improve teacher quality, such as both preservice and in-service training, should be evaluated regularly and rigorously. Participation in international educational evaluations should be expanded—not one of these countries participates in the Pisa for Development initiative—and results from internal evaluations need to be central issues in public debates. The countries discussed here have now fully engaged with the MDG objective of improving educational access, and they continue to implement this. Similar enthusiasm is now needed for the SDG objective of improving quality. Only the combination of broadening access and improving quality can ensure that "learning poverty" is reduced—and this remains an essential component in all efforts to reduce poverty.

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