



Southern and Eastern Africa Consortium
for Monitoring Educational Quality

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Learner preschool exposure and achievement in South Africa

Introduction

“Our performance in the ECD domain is one of our poor performance areas. We need to speed up implementation of the integrated plan and consider a sharper review of the current allocation of responsibility for this important part of education (DoE, 2007).”

There seems to be growing universal recognition of the critical role that early childhood care and education (ECCE) plays in expanding access to education. In South Africa the White Paper 5 (DoE¹, 2001) mandates the inclusion of children of five to six years of age (Grade R) into the formal schooling system. Otherwise public care for younger children, known as Early Childhood Development (ECD), is an inter-sectoral responsibility involving the Departments of Social Development, Health, Education and the Presidency (Department of Basic Education, 2010).

Although participation in ECD programmes and provision of Grade R have been increasing steadily since 2002², the impact of such participation on the level and quality of educational outcomes remains a debatable issue. In this policy brief the extent of participation in pre-school programmes by learners who were in grade 6 in 2007 is reported. Importantly, a proposition that such participation might impact on performance is explored and appropriate policy suggestions are proposed. The findings and recommendations were based on the study conducted under the auspices of the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ³) conducted in 2007.

Background

¹ ‘Department of Education’ which has since been replaced by the Department of Basic Education (DBE).

² Statistics South Africa, General Household Survey, 2002-2009.

³ SACMEQ member countries are: Botswana, Kenya, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania (Mainland), Tanzania (Zanzibar), Uganda, Zambia, and Zimbabwe

SACMEQ is a network of 15 ministries of education whose main aim is to build internal national capacity to monitor and evaluate the quality of their basic education systems. South Africa participated in two SACMEQ projects: SACMEQ II in 2000 and SACMEQ III in 2007. Participation in cross national studies allows for the ministries of education to (a) examine changes in the performance of single education systems across several time points (“Is our education system improving, staying the same, or getting worse?”) and (b) examine differences in the performance of different education systems at single time points (“Is our education system better, the same, or worse than other education systems like ours?”).

For valid benchmarking, SACMEQ literacy and mathematics learner tests are developed from a common framework that incorporates themes and content that are common among the respective curricula of the member countries.

Sampling

In all the SACMEQ projects the ‘desired target population’ for the study was *defined* as:

“All pupils at Grade 6 level, during the first week of the eighth month of the school year, who were attending registered mainstream primary schools.”

This consistency was maintained in order to be able to make valid cross-national and cross-time estimates of “change” in the conditions of schooling and the quality of education.

SACMEQ uses a two-stage sampling design which involves sampling a) *schools* from the list of all eligible schools in the country in the first stage and b) *learners* from the grade enrolment in a sampled school in the second stage. The design is such that large schools stand a higher chance of being selected than small schools in the first stage but, in the second stage every learner, regardless of the size of their school, stands an equal chance of being selected.

The South African achieved sample has been summarized in **Table 1**.

Table 1: Distribution of achieved sample of 6 learners across provinces

Province	Achieved sample	% of total sample
Eastern Cape	1477	16.3
Free State	449	5.0
Gauteng	1562	17.2
KwaZulu-Natal	2148	23.7
Limpopo	1218	13.4
Mpumalanga	775	8.5
Northern Cape	186	2.0
Northwest	546	6.0
Western Cape	710	7.8
Total	9071	100

Collection of information

Information on learner characteristics and the conditions of schooling was collected through a self-completed questionnaire and tests. Learners were asked to indicate whether they had attended any schooling programme prior to enrolling in grade 1. In the South African context this could include early childhood development (ECD) programmes and/or grade R (reception year). In addition, learners were asked the duration of such attendance with options of “never”, “a few months”, “one year”, “two years” or “three or more years”.

During the administration of questionnaires, learners wrote achievement tests that assessed their competencies in reading and mathematics.

Expected Age at Grade 6

In South Africa the age of admission to Grade 1 in a public school is five (6) years old if the child turns seven (7) on or before 30 June in the Grade 1 year. Accordingly, the expected average age by end of Grade 6 is 12.5 years. In this study the average South African Grade 6 learner was 12.9 years of age.

Measure of School Location

Pupil socioeconomic status (SES) levels used in this document were derived from SACMEQ’s pupil SES scores (Dolata, 2005). “Low SES” and “High SES” pupils are defined as pupils in the bottom quarter and pupils in the top quarter of the SACMEQ’s pupil SES scale within each country, respectively.

Measure of Pupil SES

The School Heads in the SACMEQ III Project were asked about their perceptions regarding location of their schools. For this report, if the School Heads said that their schools were “isolated” or “rural”, then such schools would be deemed to be located in rural areas. But if they said that their schools were “in or near a small town” or “in or near a large town or city”, then the schools would be considered to be located in urban areas.

Note that it should be emphasized here that information about school location was based on perceptions about the locality of schools. It is likely that School Heads in different schools and in different countries may have slightly different viewpoints of what is “rural”, and what is “urban”.

Preschool exposure

In **Figure 1** the overall percentage of preschool exposure for South Africa (74%) was higher than and SACMEQ average (60%). For South Africa the results in **Figure 1** reflects the exposure by region, gender, location and socio-economic status. The regional spread suggests that more than 30% of learners in Kwazulu Natal and the Northern Cape have not had some preschool exposure. In Gauteng and Western Cape regions that have a more urban makeup, more than 80% of learners have preschool exposure. Generally learners from urban areas had higher levels of preschool exposure than learners from rural areas. There were marginal differences in preschool exposure between boys (72%) and girls (75%).

Achievement levels

The mean scores of learners in reading were 449 points for learners who indicated they had never attended preschool while those who had three or more years experience had a mean score 555. This pattern was similar for mathematics where the mean score of learners who never attended preschool was 463 and

those who had three or more years experience achieved a mean score of 541.

Learner performance by preschool exposure		
Duration of Preschool experience	Reading	Mathematics
Never	449	463
A few months	474	479
One year	483	485
Two years	527	516
Three or more years	555	541
Total	495	495

There was an exponential relationship (**Figure 2**) between reading and mathematics scores and the corresponding duration of preschool experience. Learners with longer durations of preschool experience had higher scores in reading and mathematics. There was a sharp increase in performance (44 points) among learners indicating two years of preschool exposure compared to those having one year experience. The results in **Figure 2** further point towards a leveling off in performance among learners with more than two years preschool experience.

Key Findings

1. Pre school attendance has a positive impact on achievement in reading and mathematics.
2. The duration of the pre-school attendance has an impact on learner achievement but tends to level off after two years.
3. In South Africa more than 20% of learners indicated they had no pre-school experience.
4. These findings must be read with caution as they represent a bi-variate analysis and other possible contextual influences such as socio-economic status have not been controlled for⁴.

Policy Options

1. The DBE should strengthen norms and standards to monitor the quality of educational programmes offered to learners in grade R. A performance measuring and development support programme should be formally regularized for grade R “practitioners” as it is currently implemented for teachers in the public schooling sector.

⁴ Studies by Spaull (2011) used a multi-variate analysis to control for such variables.

“With regard to children below five years of age, the role of the national and provincial departments of education is mainly to promote quality ECD programmes within the NGO and private sector, and there are no plans to bring such provision into the formal sector (DoE, 2007).”

2. The Department has made good progress in providing to children five years and older (grade R) access to quality educational programmes. The results in this brief indicate that learners with two or three year’s preschool exposure perform well on reading and mathematics tests conducted in later schooling phases. The DBE Educational programmes should be extended to younger age groups with the current reception year stating at age four. This could be done by amending the scope of White Paper 5 to increase not only access to educational programmes but also exposure to suitable educational programmes for children younger than five years but also to include

Conclusions

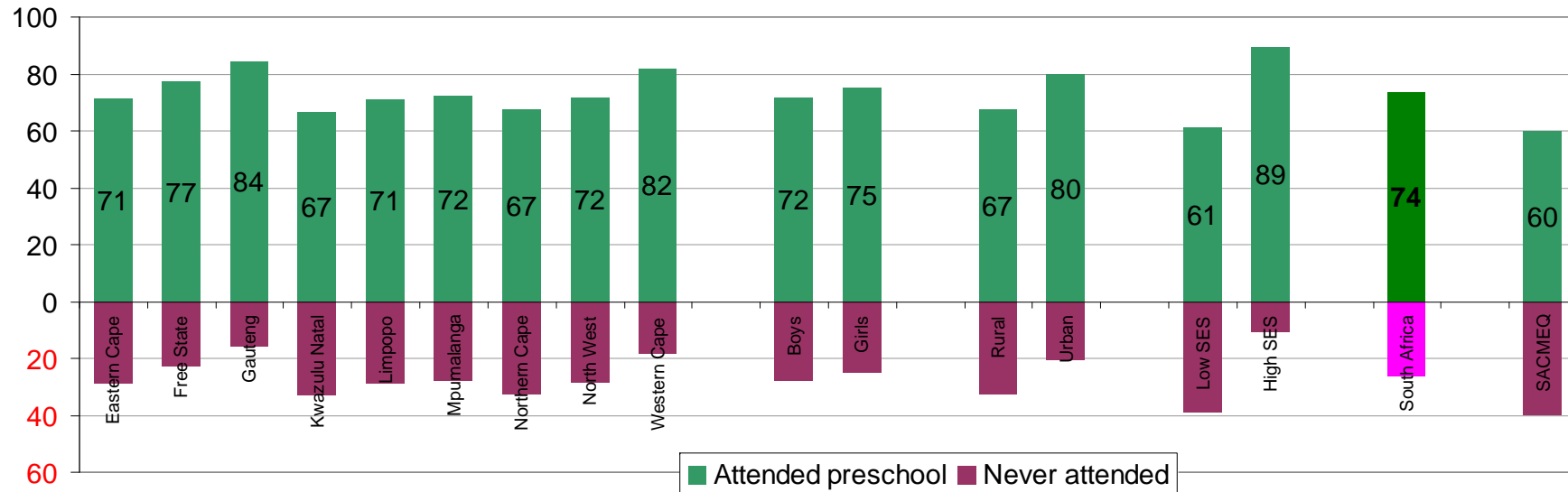
In this policy brief it has been reported that the extent of participation in pre-school programmes by learners who were in grade 6 in 2007 has a significant impact on learner achievement in reading and mathematics.

This further strengthens the strategy of the DBE to increase year on year the access of children to quality educational programmes.

This policy brief suggests that the SACMEQ findings provide a credible means towards enabling the DBE to extend its responsibility in the area of early childhood development.

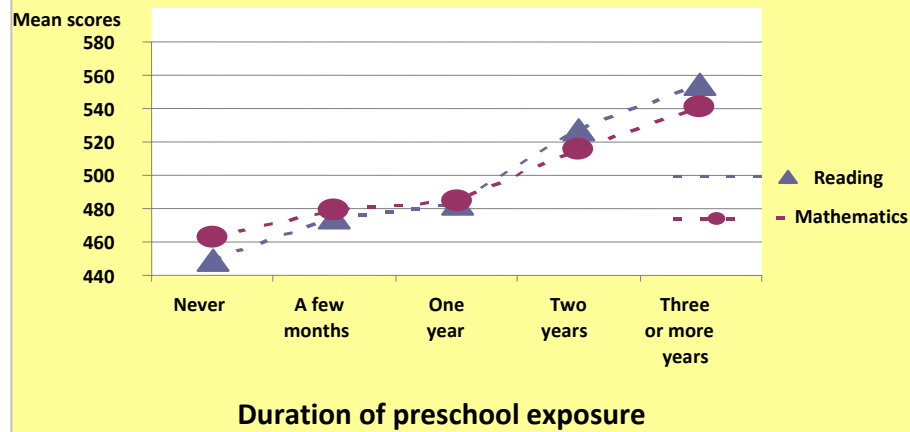
Percentages of Grade 6 pupils who attended preschool in South Africa

Figure 1



Learner performance by preschool exposure

Figure 2



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