Introduction

This paper highlights the quality of four primary school inputs in Mauritius in relation to the nation’s defined benchmarks. The four inputs are: basic learning materials, mathematics textbooks, pupil-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 3,524 Standard 6 pupils in 152 primary schools in all six regions (including Rodrigues) of Mauritius. 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 Mauritius and 14 other African school systems.

The results in this paper cover Mauritius as a whole, and are then further disaggregated by regions, and school location (rural versus urban). Private schools are featured separately under the title ‘Private’, alongside the six regions listed in the figures. The results from the SACMEQ II Project (2001) are also provided, to enable monitoring the general trend in the provision of the selected inputs in primary schools in Mauritius between 2001 and 2007.

Background

After gaining independence in 1968, education became one of the main preoccupations of the government. Over the decades, there was considerable investment of resources (both human and material) in the education sector, and impressive progress was made in terms of free, universal, and compulsory primary education with free provision of textbooks for primary school pupils.

Ninety percent of primary schools in Mauritius are funded by the government. These schools include government (public) schools (73%) and private schools (17%). The private aided schools are owned by religious authorities, but they are funded by the government just like public schools. The remaining ten percent of primary schools in Mauritius are private, fee-paying schools owned and funded by private organizations (or individuals). These private schools do not receive any funds from the government. In this brief, private aided schools and private fee-paying schools are considered together, and are referred to as private schools.

The government-funded schools receive teachers’ salaries and instructional materials, such as textbooks and teachers’ guides, from the government. In addition, these schools are provided with money by the government in the form of three different annual grants: (a) a per capita grant of three rupees per pupil, (b) a basic grant of up to a maximum of three thousand rupees for a three-stream school, and (c) a matching grant (sum equivalent to the contribution of parents to Parent-Teacher-Association funds) of up to fifteen thousand rupees for a three-stream school. These grants are used basically to meet the costs of minor repairs and maintenance, the purchase of library books, and water tanks, or other essential basic requirements. For minor but urgent expenses, the schools can also access government funding through an imprest fund, which has a limit of one thousand rupees and which can be replenished if necessary. Parents with children in government-funded schools are responsible for the provision of basic learning materials.
materials, such as exercise books, pencils, pens, erasers, and rulers.

In Mauritius, it is generally believed that the quality of education provided in private schools is better than that provided in government primary schools. Government schools, when compared to the private schools, are believed to have larger class sizes and higher pupil-teacher ratios.

The SACMEQ data are ideal for examining the quality of primary school inputs in both government and private schools in Mauritius, for at least two reasons. Firstly, the data were collected using modern scientific sampling techniques that are known to be reliable. Secondly, for Mauritius, the data were already available for SACMEQ II, 2001 and then for SACMEQ III, 2007. This made it possible to monitor the quality of school inputs in Mauritius over time.

**Selected Indicators**

The four selected indicators of the quality of school inputs are: (a) basic learning materials, (b) mathematics textbooks, (c) pupil-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 Mauritius.

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 pupils participate reasonably in learning activities in the classrooms. Therefore, it is desirable for all pupils to have these materials. A ruler is especially important for mathematics and science lessons, particularly for the upper primary school classes (Standards four to six). Likewise, it is desirable for each pupil to have sole use of a textbook (especially for the core subjects, such as English, 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 pupils to undertake academic activities at home, such as doing homework and revising school work.

Concerning pupil-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 pupils, resulting in better quality education. Pupil-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.

In the absence of a national benchmark for pupil-teacher ratios for government schools in Mauritius, the national benchmark for private schools of 35 pupils per teacher has been used as the point of reference (Government of Mauritius, 1989). The recommended maximum class size for primary schools is 40 pupils per class.

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<table>
<thead>
<tr>
<th>Selected Indicator</th>
<th>Description of the Indicator</th>
<th>National Benchmark</th>
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<tbody>
<tr>
<td>Basic learning materials</td>
<td>Pupil has at least one exercise book, a pencil or a pen, and a ruler</td>
<td>100%</td>
</tr>
<tr>
<td>Mathematics textbooks</td>
<td>Pupil has sole use of a mathematics textbook during mathematics lessons</td>
<td>100%</td>
</tr>
<tr>
<td>Pupil-teacher ratios</td>
<td>Total number of pupils in a school divided by number of teachers in the school</td>
<td>35:1*</td>
</tr>
<tr>
<td>Standard 6 class size</td>
<td>Average number of Standard 6 pupils per class</td>
<td>40</td>
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</tbody>
</table>

* In Mauritius the pupil-teacher ratio is calculated as the ratio of pupils to general-purpose teachers and does not take into consideration the Asian and Arabic language teachers. The figure quoted is the national benchmark for private schools of 35 pupils per teacher.

Key Findings

The data on the four inputs were analyzed and the results are depicted in Figures 1 to 4. Data pertaining to private schools (private aided and private fee-paying) are presented under the title ‘Private’ in these figures.

Basic Learning Materials
The percentages of pupils with all three basic learning materials are displayed in Figure 1.

In 2007, 86 percent of the Standard 6 pupils had at least one exercise book, a pen or pencil, and a ruler. In other words, around one in every ten (14%) pupils did not have all the three basic learning materials that were considered necessary for effective participation in classroom activities. There were no great variations among regions, but Black River and Rodrigues recorded the lowest percentages of 73 and 77 percent, respectively. The percentages for these two regions were below the mean percentage for SACMEQ countries (79%). Between 2001 and 2007, the mean for Mauritius decreased from 92 to 86 percent.

Mathematics Textbooks
The government target is for each pupil to have sole use of a textbook per subject. In order to achieve this target, the government provides each pupil in Standards 1 to 6 with new, free textbooks for each subject at the beginning of every school year. In addition, as from Standard 5, each pupil is given a free dictionary and an atlas.

The percentages of Standard 6 pupils who had sole use of mathematics textbooks are shown in Figure 2. In 2007, 90 percent of the Standard 6 pupils had sole use of mathematics textbooks. This meant that one in every ten (10%) pupils did not have sole use of mathematics textbooks.

There were no great variations among the regions, except for Rodrigues (57), whose mean differed considerably from the country mean of 90 percent.

Pupil-Teacher Ratios
In Mauritius, the teacher-pupil ratio is calculated as the ratio of pupils to general-purpose teachers, which does not take into consideration the Asian and Arabic language teachers. There is no set national benchmark for pupil-teacher ratios in Mauritius. However, according to the official policy, in private schools, this ratio cannot exceed 35 pupils per teacher. Therefore, this is the ratio that has been considered as the national benchmark in this paper. Nevertheless, official statistics indicate that this ratio has not exceeded 30 in recent years (Central Statistics Office, 2010).

In 2001, the mean pupil-teacher ratio among primary schools in Mauritius was 24. In 2007, the national mean had fallen (hence, improved) to 22 pupils per teacher. Nevertheless, the mean for Rodrigues (26) was slightly higher than the national mean of 22, but was still within the country’s benchmark of 35 pupils per teacher. The overall mean for Mauritius was well below the SACMEQ mean of 43. Furthermore, on average, there was not much difference in the pupil-teacher ratios between urban and rural schools.

Class Size
The mean number of Standard 6 pupils per class dropped (hence, improved) slightly from 36 in 2001 to 34 in 2007. Importantly, this number was well below the national benchmark of 40 and much better than the SACMEQ mean of 46 pupils per class in 2007. The average class sizes varied from a minimum of 29 in Rodrigues to a maximum of 37 in Education Region 2, Beau Bassin. The average class size for rural schools (33) was lower (better) than for urban schools (36).
Figure 1: Percentages of Standard 6 Pupils with Basic Learning Materials in Mauritius

National Benchmark: All primary school pupils in Mauritius are expected to have basic learning materials (100%)

Figure 2: Percentages of Standard 6 Pupils with Sole Use of Mathematics Textbooks in Mauritius

National Benchmark: All primary school pupils in Mauritius are expected to have a mathematics textbook (100%)

Figure 3: Average Pupil-Teacher Ratios Among Primary Schools in Mauritius

National Benchmark: 35 pupils per teacher in primary schools

Figure 4: Average Numbers of Standard 6 Pupils per Class in Mauritius

National Benchmark: 40 pupils per class in primary schools

Sources of Figures 1 to 4: SACMEQ Data.
Summary of Findings

This study showed that around one in every ten Standard 6 pupils in Mauritius (14%) did not have all the three basic learning materials needed for effective participation in classroom activities. Furthermore, one in every ten pupils did not have sole use of mathematics textbooks. Most of the pupils without these basic learning materials (or without mathematics textbooks) were in schools in Black River and Rodrigues.

This study also revealed that the mean pupil-teacher ratio (22) was within national benchmark of 35 pupils per teacher. In addition, in all the regions, the average number of Standard 6 pupils per class was within the national benchmark of 40.

For all the four indicators, this study also revealed that the situation in private schools was about the same as the situation in government schools. This calls into question the popular belief regarding the levels of resources in government schools in Mauritius.

Suggestions

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

1. The Ministry of Education through school heads could advise parents to always provide their children with at least one exercise book per subject, a pencil or a pen, an eraser, and a ruler.
2. The Education Directorates could regularly monitor the quantities of basic learning materials and textbooks in primary schools. This monitoring can be achieved by regular visits to schools (at least once a term) by primary school inspectors.
3. The Ministry of Education could consider allocating some funds to schools for the purchase of basic learning materials. This would ensure that each class teacher had a stock of basic materials readily available throughout the year, to ensure that every pupil had these materials for full involvement in learning activities.
4. The Ministry of Education may wish to put in place a mechanism to ensure that pupils have their own textbooks throughout the year by replacing lost or damaged textbooks.

Conclusions

This policy brief highlighted the quality of primary school inputs in Mauritius using four indicators, namely: (a) basic learning materials, (b) mathematics textbooks, (c) pupil-teacher ratios and (d) class size. Against the country’s own set benchmarks, Mauritius scored satisfactorily in the provision of basic learning materials and textbooks, and scored highly on pupil-teacher ratios and class size (which are signs of adequate supply of teachers and classrooms, respectively).

The worst situation regarding basic learning materials, mathematics textbooks, and pupil-teacher ratios was recorded in Rodrigues and Black River. Furthermore, concerning basic learning materials and mathematics textbooks, the results show that Mauritius declined slightly between 2001 and 2007. It is likely that this decline was linked with the lack of an established monitoring mechanism and the absence of clear textbook-replacement policies.

References


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