

A VIEW INSIDE PRIMARY SCHOOLS

A World Education Indicators (WEI) cross-national study

EXECUTIVE SUMMARY



A VIEW INSIDE PRIMARY SCHOOLS

A World Education Indicators (WEI)
cross-national study



UNESCO Institute for Statistics
Montreal, 2008

UNESCO

The constitution of the United Nations Educational, Scientific and Cultural Organization (UNESCO) was adopted by 20 countries at the London Conference in November 1945 and entered into effect on November 4, 1946. The Organization currently has 193 Member States and six Associate Members.

The main objective of UNESCO is to contribute to peace and security in the world by promoting collaboration among nations through education, science, culture and communication in order to foster universal respect for justice, the rule of law, and the human rights and fundamental freedoms that are affirmed for the peoples of the world, without distinction of race, sex, language or religion, by the Charter of the United Nations.

To fulfil its mandate, UNESCO performs five principal functions: 1) prospective studies on education, science, culture and communication; 2) the advancement, transfer and sharing of knowledge through research, training and teaching activities; 3) standard-setting actions for the preparation and adoption of internal instruments and statutory recommendations; 4) expertise through technical co-operation to Member States for their development policies and projects; and 5) the exchange of specialized information.

UNESCO is headquartered in Paris, France.

The UNESCO Institute for Statistics

The UNESCO Institute for Statistics (UIS) is the statistical office of UNESCO and is the UN depository for global statistics in the fields of education, science and technology, culture and communication.

The UIS was established in 1999. It was created to improve UNESCO's statistical programme and to develop and deliver the timely, accurate and policy-relevant statistics needed in today's increasingly complex and rapidly changing social, political and economic environments.

The UIS is based in Montreal, Canada.

Published in 2008 by:

UNESCO Institute for Statistics

P.O. Box 6128, Succursale Centre-Ville

Montreal, Quebec H3C 3J7

Canada

Tel: (1 514) 343-6880

Fax: (1 514) 343-5740

Email: publications@uis.unesco.org

<http://www.uis.unesco.org>

ISBN 978-92-9189-057-6

© UNESCO-UIS 2008

Photo credit: © Tomas van Houtryve / Panos Pictures

Design: Tam Fung-Kwan

Printed by: Imprimerie L'Empreinte

Ref: UIS/AP/08-02

The ideas and opinions expressed in this publication are those of the authors and are not necessarily those of UNESCO and do not commit the Organization.

The designations employed and the presentation of material throughout this publication do not imply the expression of any opinion whatsoever on the part of UNESCO concerning the legal status of any country, territory, city or area or of its authorities or concerning the delimitation of its frontiers or boundaries.

Foreword

Why does an education system fail to provide its students with quality education? Schools are one of the first places to look for the answers. They represent a vital element in any successful effort to improve the quality of learning. Yet, policies and programmes aiming to achieve this goal are typically limited by the lack of reliable information on how schools function. The study presented in this report seeks to contribute to the understanding of the role of schools across a range of education systems.

The World Education Indicators' Survey of Primary Schools (WEI-SPS) offers unique insight into the classrooms of 11 diverse countries* in order to understand and monitor the factors shaping the quality and equality of primary education. It examines the main issues and inputs shaping primary schools: the background characteristics of pupils; demographic and educational characteristics of teachers and school heads; school resources and conditions; instructional time; school management; teaching and learning styles in the classroom; as well as learning opportunities provided to pupils.

The survey was designed to ensure that these data could be compared internationally. It serves as a valuable resource for everyone interested in education quality and equity – from policymakers to teachers and academics.

As part of the WEI programme, the study is the result of a collaborative effort amongst participating countries, the UNESCO Institute for Statistics (UIS) and leading international experts. The WEI programme aims to develop a critical mass of policy-relevant education indicators and includes special projects, such as this survey, to broaden the scope and comparability of education data.

WEI-SPS represented a major challenge and investment for the UIS and the countries involved. In 2003-2004, national and international experts, as well as UIS staff, began designing and testing the questionnaires for school heads and Grade 4 teachers. The following year, the target populations and the sampling frames were defined before calibrating the school samples to yield national estimates with small sampling errors. Between 2005 and 2007, the data were collected, cleaned and then analyzed for this publication and an international database.

The survey also benefited from the experience of diverse organizations and projects. In particular, the design of the questionnaires drew on the instruments developed by the International Association for the Evaluation of Educational Achievement (IEA), Organisation for Economic Co-operation and Development (OECD), School Achievement Indicators Program (Canada), Schools and Staffing Survey (United States), the Southern and Eastern Consortium for Monitoring of Educational Quality (SACMEQ), Zelfevaluatie basisonderwijs – ZEBO (Self-Evaluation in Primary Education, the Netherlands), Victorian Department of Education (Australia) and the Assessment Research Centre (University of Melbourne, Australia).

By analyzing the diverse components and issues shaping policies and programmes regarding primary schools, the study can be used to evaluate strengths and weaknesses of educational systems. Furthermore, the comparative nature of the study allows each participating country to evaluate its position in relation to others in terms of

* Argentina, Brazil, Chile, India, Malaysia, Paraguay, Peru, the Philippines, Sri Lanka, Tunisia and Uruguay.

the inputs, policies and processes of schools. These comparisons must obviously be interpreted within the unique traditions and contexts of each education system. But this framework will serve as a resource now and in the years to come for those committed to improving educational quality and equality.

For more information about the study, to download the summary and/or full report and to access the international database, please consult *www.uis.unesco.org*.

A handwritten signature in black ink, consisting of several overlapping loops and a vertical stroke, positioned above the name.

Hendrik van der Pol
Director
UNESCO Institute for Statistics

Executive summary

Introduction

Primary education is recognized as a basic human right, vital both to the development of individuals and societies. It has been made a global priority by the UN Millennium Development Goals (MDGs) and Education for All (EFA) goals. Together, these initiatives call for universal completion of primary school, elimination of gender disparity and improvement in the quality of education.

The 11 countries of the World Education Indicators (WEI) programme that participated in the Survey of Primary Schools (SPS) have nearly reached universal primary enrolment: 95 percent of their primary school-age children were enrolled in 2005. However, as countries near the attainment of universal primary education, much greater attention is being paid to its quality.

This survey was carried out in 2005/2006 in order to address gaps in comparable data about the actual functioning of primary schools. With more detailed information about the context, conditions and conduct of primary schools, participating WEI countries can use the data to explore questions and inform decisions about school inputs, policies and processes. This includes looking at how equitably resources and good practices are distributed, both across and within national education systems.

The survey was administered to school heads (principals) and Grade 4 teachers, with a resulting response rate above the agreed-upon minimum of 85 percent in all countries except Sri Lanka (73.7%). In addition, an 'Opportunity to Learn' (OTL) reading and mathematics questionnaire was administered to a sample of Grade 4 teachers (and information about intended curricula was collected from national experts). While some of the questions in the survey elicited responses that were based on perceptions of school heads and teachers rather than direct measures, they are useful in examining the variation in how schools function, thereby informing policies and programmes which are aimed at improving school quality and equality.

This summary presents the key findings of the survey concerning: the types of schools, school resources and instructional time; the background characteristics of pupils, teachers and principals; teachers' working conditions and classroom instruction; the school climate or ethos; school management; and the opportunity to learn in reading.

School type, resources and instructional time

Schools are defined by many attributes, but there are fundamental distinctions between village and city/town schools and between public and private schools. It might be expected, overall, that city/town and private schools enjoy an advantage in school conditions, but the survey results indicate that this was not always the case.

Schools by location

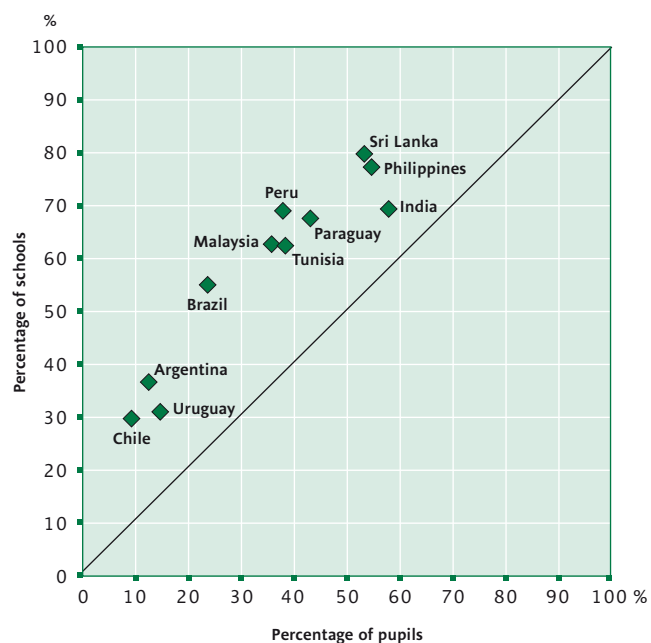
The distinction between rural and urban schools is a basic reality in all countries – and a multidimensional education issue. The WEI-SPS defined village schools as those serving communities of fewer than 3,000 inhabitants. The city/town definition covered communities from small towns to metropolitan centres of one million and more residents.

The survey data showed that village schools made up the majority of schools in all but three WEI-SPS countries, but they did not necessarily cover the majority of pupils. In Brazil, village primary schools made up 54 percent of primary schools but enrolled just 23 percent of primary pupils; in Peru, 70 percent of schools but 38 percent of pupils; and, in the Philippines and Sri Lanka, about 80 percent of primary schools but about one-half of primary pupils (see **Figure 1**).

Notably, in Chile, pupils in communities of more than 100,000 inhabitants accounted for almost two-thirds of total primary enrolment. In the other South American countries of Argentina, Brazil, Peru and Uruguay, such pupils accounted for around one-third of total enrolment. In contrast, more than one-half of enrolment in the Asian countries of India, the Philippines and Sri Lanka was in village schools and less than 17 percent in cities with more than 100,000 inhabitants.

FIGURE 1

Comparison of village schools and enrolment as shares of the totals



Source: WEI-SPS database.

The context of village and remote schools typically involves consideration of the availability of community resources, reliability of transportation to school and the ability to attract and retain teachers. Access to amenities is a very important factor. The survey showed that, compared to city/town schools, village schools were farther away from amenities such as a clinic, tarmac road, public library, bookshop and school offering lower secondary education. For example, access to books is crucial to learning to read, but pupils in village schools were typically much farther away from both public libraries and bookstores. In Argentina, the average distance to libraries and bookshops was about 4 km from the location of the primary school. In village schools, the average distance was 19 km or more.

Public and private schools

Another way to distinguish schools is by governance and financing, or public versus private schools. As presented in **Figure 2**, most primary school pupils were enrolled in public schools – more than three in four pupils in

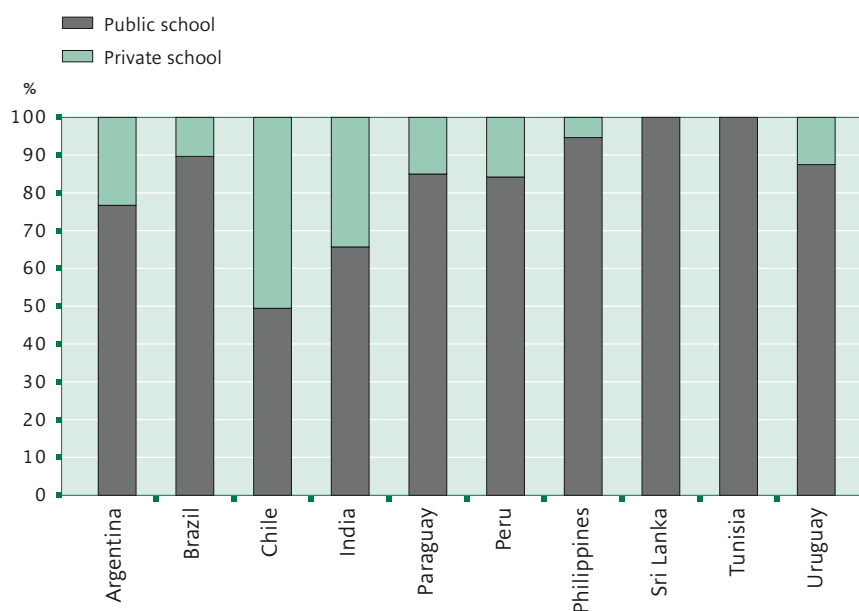
9 out of 11 countries. In Sri Lanka and Tunisia, primary education was almost exclusively public.

In contrast, Chile had the highest share of private school enrolment, accounting for one-half of all primary pupils. This compared to about one-third in India, one-quarter in Argentina and between 10 and 16 percent in Brazil, Paraguay, Peru and Uruguay. Private education was almost exclusively a phenomenon of cities/towns, where more than 90 percent of enrolment in private primary schools took place. The exception was India, where one in four private school pupils attended a village school.

From another perspective, this distinction was also captured by the difference across schools where admission was based on a geographic catchment area and schools that employed selective admission criteria. Overall, place of residence was the most important criterion for admission to primary school in almost all WEI-SPS countries. Entry tests for primary school were relatively common for substantial shares of pupils

FIGURE 2

Percentage of primary pupils in public and private schools



Source: WEI-SPS database.

in some countries but predominantly among private schools and more commonly in city/town schools than in village schools.

Schools that admitted pupils on the basis of academic abilities were also more likely to have pupils from advantaged backgrounds. Similarly, on average, pupils attending private schools were from more advantaged backgrounds than their counterparts in public schools.

School resources

Adequate resources are a necessary, though not sufficient, condition for adequate learning. It is also important to recognize that countries of similar wealth may invest much different levels of resources in education. Among the WEI-SPS countries, Tunisia and Chile invested the largest proportions of their national wealth in education: 7.3 percent and 6.4 percent of GDP respectively.

However, there was enormous variation among WEI-SPS countries in the amount of resources available to each

primary school pupil. According to available data at the system level, educational expenditure per primary school pupil was highest in Chile (PPP\$ 2,120), followed by Argentina (PPP\$ 1,605), Malaysia (PPP\$ 1,552), Brazil (PPP\$ 1,159) and Uruguay (PPP\$ 1,063). In contrast, expenditure per primary school pupil was less than PPP\$ 700 in India, Paraguay, Peru and the Philippines.

It is worth noting that teacher salaries consumed most of the education budgets, from 67 percent in Uruguay to 94 percent in the Philippines. Typically, this demand consumed about 85 percent of current expenditure, leaving just 15 percent for expenses such as textbooks and other learning aids.

The level of a country's education investment was reflected in the condition of school buildings and the resources available in schools. In Peru and the Philippines, 70 percent of pupils in village schools had school heads who reported that school classrooms were in need of major repairs and/or the school needed

complete rebuilding. This was the case for one-half or more of pupils in city/town schools. In Sri Lanka, schools enrolling about one-half of pupils in both village and city/town communities were judged to be in poor condition. In Brazil, almost one-half of pupils in village schools and more than one-quarter of pupils in city/town schools were learning in buildings in poor condition. The gap between village and city/town schools was also substantial in Argentina, Chile, India and Paraguay.

A large majority of pupils in WEI-SPS countries were in schools with such basic resources as electricity and running water. However, more than one-half of pupils in India attended schools without electricity; more than 20 percent in Peru and Sri Lanka (see **Table 1**). More than 10 percent of pupils went to schools without running water in Argentina, Brazil, India, Paraguay, Peru, the Philippines and Sri Lanka.

All or almost all primary pupils in WEI-SPS countries attended schools that had blackboards. But large shares of pupils in some countries went to schools that did not have enough writing and sitting places – over 50 percent in India and 40 percent in Sri Lanka. Only Chile and Malaysia had 90 percent or more pupils in schools with enough writing and sitting places. Six countries (India, Paraguay, Peru, the Philippines, Sri Lanka and Tunisia) lacked adequate toilets for girls and boys.

Books are key to teaching and learning. About 90 percent or more of pupils were in schools where teachers had access to language teaching guides and dictionaries. Some 85 percent of pupils were in schools where the teachers reported that all or nearly all pupils had their own textbooks. No country could claim that *all* pupils had their own textbooks.

According to the WEI-SPS country median, only about two-thirds of pupils attended schools with a library. In addition, in 7 out of the 11 countries pupils were more likely to have a school library than classroom book corner, which is an area of concern because research shows that the latter is effective in promoting pupil learning. In either case, the ability to borrow books – to take them home for a day or longer period – is important, and 83 percent of pupils in a typical WEI-SPS country were offered this resource.

While books are still used widely in the classroom, information and communication technologies (ICTs) are playing a greater role in schools. Typically, in WEI-SPS countries – as in developed countries – computers are mostly used for administrative purposes in schools. Argentina, Brazil, Chile, Malaysia and Uruguay showed good progress on computer-base management systems.

However, computers for pupil use, or with Internet access, were less prevalent. In 7 of the 11 WEI-SPS countries, primary schools serving more than one-half

TABLE 1 LEVELS OF SCHOOL RESOURCES
Percentage of pupils in schools that were reported to have selected resource items

	Electricity		Blackboard in each classroom		Sufficient sitting places		School library		Computer for administrative use		Computers for students to use with access to the Internet	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Argentina	98.7	0.25	98.9	0.44	88.0	1.39	79.7	1.35	75.3	1.61	22.9	1.34
Brazil	94.5	1.03	99.4	0.28	88.3	1.42	62.0	2.32	70.4	1.91	22.8	2.13
Chile	99.4	0.28	99.5	0.27	98.6	0.52	85.6	1.65	93.4	1.07	90.2	1.49
India	47.6	2.93	95.2	0.81	43.2	2.21	64.5	2.54	12.8	1.80	8.8	1.61
Malaysia	98.4	0.68	100.0	0.00	95.5	1.00	96.6	0.90	95.2	1.10	59.4	2.62
Paraguay	96.6	0.50	99.0	0.28	87.4	1.20	53.3	1.63	29.0	1.71	6.5	0.92
Peru	76.4	1.35	98.0	0.54	68.4	2.21	63.9	2.08	52.7	2.00	22.1	1.86
Philippines	89.0	1.36	98.9	0.52	64.3	2.67	53.1	2.57	47.8	2.44	5.8	0.69
Sri Lanka	79.1	1.89	91.1	1.55	58.4	2.56	47.6	2.76	21.3	2.40	3.1	0.99
Tunisia	98.3	0.74	98.7	0.68	88.5	1.69	54.6	2.51	21.9	1.97	23.1	1.96
Uruguay	100.0	0.00	99.7	0.30	85.3	1.52	93.4	1.04	93.4	1.00	36.8	1.88
WEI-SPS median	96.6		98.9		87.4		63.9		52.7		22.8	

Source: WEI-SPS database.

of pupils had no computers for pupil use; the exceptions were Chile and Malaysia which had the best-resourced schools overall against a list that also included fax machine, overhead projector, video cassette recorder, audio-visual rooms and science laboratories. In general, city/town schools were much better equipped than village schools. The allocation of resources also varied within countries, especially within some regions of Brazil, the Philippines and Tunisia.

Instructional time

There is ample research that shows that actual time spent on instructional activities impacts the amount of learning achieved (all other factors being equal). Thus, it is of great interest how educational authorities arrive at and enforce standards for instructional time.

There are large differences across WEI-SPS countries regarding the reported amount of time that pupils received for instruction. As presented in **Figure 3**, the median value for hours of instruction a year – where one-half of pupils are above and one-half

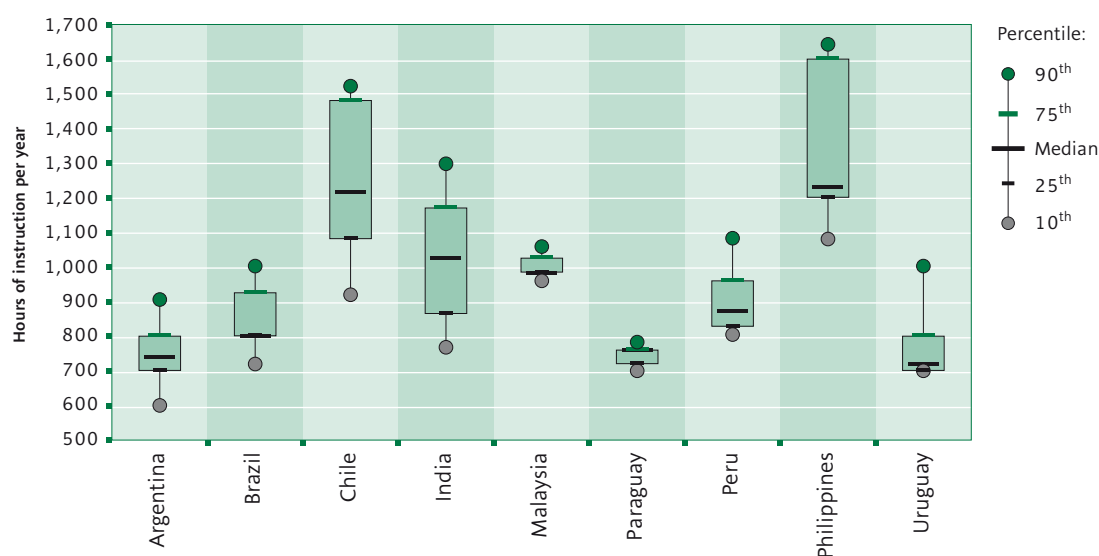
below – ranged from 720 hours of instructional time per year in Uruguay to more than 1,000 hours in Chile, India and the Philippines. In other words, a typical pupil in the Philippines received 71 percent more instructional time than in Uruguay. In Chile and the Philippines, one-half of pupils received more than 100 hours of instruction each year than almost all (90%) of pupils in the remaining WEI-SPS countries except India. The differences in the amount of instructional time across the WEI-SPS countries were also evident in the number of days the school was ‘open for business’. In India, 90 percent of pupils attended schools that were officially open for 204 days a year, much longer than primary schools in other WEI-SPS countries.

There was also considerable variation in the amount of instructional time within countries. For instance, the difference in the annual hours of instruction ranged from about 10 percent between the top and bottom deciles in Malaysia and Paraguay to more than 50 percent in Argentina, Chile, India and the Philippines.

FIGURE 3

Variation in instructional time across and within countries

Number of hours of instruction per year by distribution of the pupil population



Source: WEI-SPS database.

A difference in the amount of instructional time within countries was found by school type. For instance, pupils in private primary schools in Paraguay on average received 47 hours of instruction (about two weeks) a year more than their counterparts in public schools. Similarly, in Uruguay, pupils attending private schools on average received about 101 hours (over four weeks) of instruction more than their counterparts in the public schools. However, in a few countries, private school pupils received less instructional time, though the differences were quite small.

The number of official school days reported by school heads may differ from the number of days stipulated by educational authorities. Furthermore, in a few countries, some 10 percent of pupils attended schools which were closed for about 10 percent of the school calendar due to local conditions such as weather or community events. In most WEI-SPS countries, there were more school days lost in public than in private schools, but the differences were quite modest.

The high level of variation in the instruction time both across and within countries warrants attention by educational authorities. Why did some countries have less instructional time than others? Was it that the official curriculum timetables had stipulated how much time was needed and that it turned out to be less than that required by other countries, or was it because somehow there was a tradition of a given number of days per year? If there are national standards of instructional time, is the variation within countries simply an issue of compliance? Because of the implications that instructional time has on the costs of the school system and the quality of schooling outcomes, it is worthwhile for educational authorities in WEI-SPS countries to further investigate this issue.

Pupils, teachers and school heads

The WEI-SPS study was designed, not only to gather basic information about *who* principals are as well as teachers and pupils, but also about *what they do* and *how they act* and *interact* in the school environment.

Backgrounds of pupils

The relative socio-economic status of pupils has been shown to strongly impact learning achievement. The survey gathered data on a number of items related to

pupil's social background from school heads and Grade 4 teachers. In some countries, notably Argentina and Peru, almost one in five pupils went to a school where teachers said that most or all of the pupils had not had a meal. About one in four pupils attended schools where most or all pupils were reported to have parents with less than primary education. (The ratio varied from about one in ten pupils in Malaysia to one in two pupils in Brazil and Paraguay.)

The share of pupils in schools where most or all pupils were from single-parent families was quite high in Brazil, Chile, Peru and Uruguay but very low in Malaysia, the Philippines and Sri Lanka.

At the same time, in all participating countries, high shares of pupils received support to go to school, much of it from parents and parental organizations. Support took the form of school uniforms, textbooks, meals and various financial assistance schemes. Sometimes parents helped with construction or renovation of school buildings. The share of pupils attending schools where most pupils received support for school attendance ranged from about 12 percent in the Philippines to about 68 percent in Malaysia and Peru.

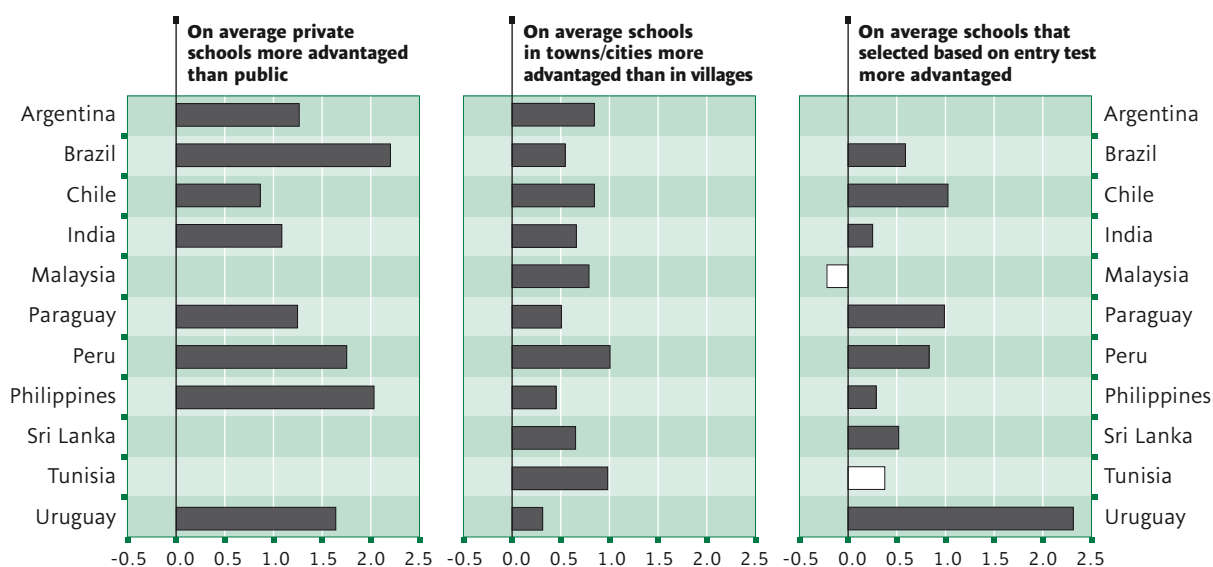
Access and exposure to books is a major determinant in learning to read with comprehension, but, overall, in schools enrolling one-half of pupils in WEI-SPS countries, teachers said that most or all of their pupils came from homes with fewer than 25 books. In addition, one in four primary pupils in India, Malaysia, Paraguay, Peru and the Philippines attended schools where most or all pupils had a first language other than the language of instruction. Overall, a substantial share of pupils were said to come from homes or neighbourhoods where there were problems such as alcohol abuse or violence.

There was enormous variation in the backgrounds of the overall pupil populations across schools within each country. Analysis of an index of *Social advantage of school intake* – constructed using reports by principals and teachers regarding the above and other characteristics of their pupils – found that, in all countries, private schools, city/town schools and academically selective schools tended to have pupils from much more advantaged backgrounds. The differences in some instances were fairly large (see **Figure 4**).

FIGURE 4

Comparing backgrounds of school intake of pupils

Differences in the mean values of the index of *Social advantage of school intake*, by school type and location, expressed as effect sizes



Note: A bar in dark shade means the difference is statistically different from zero.

Source: WEI-SPS database.

Characteristics of teachers

In most countries, the overwhelming majority of teachers in primary school are female. This was also the case in almost all WEI-SPS countries. In Argentina, Brazil and Uruguay, more than 90 percent of primary pupils were taught by female teachers. Only in India were less than 50 percent of primary pupils taught by female teachers. Overall, pupils in village schools were more likely to have male teachers compared to city/town schools, particularly in India, Paraguay, Peru and Tunisia.

The typical Grade 4 teacher in WEI-SPS countries was about 40 years old and had more than 16 years of education, including almost three years spent in teacher training. The average length of teaching experience varied among countries, but typically teachers reported 14 years of experience, including almost four years

at the Grade 4 level. There was little difference in this regard between teachers in villages and in cities/towns. The high overall levels of years of teaching suggest that teachers had the appropriate experience for making judgements about the opportunity to learn and other aspects of the Grade 4 curriculum. At the same time, however, in an effort to meet EFA goals, short teacher training courses have resulted in a sudden influx of new teachers into the field.

It is important, of course, that teachers themselves keep on learning. In general, pupils were in schools where 60 to 70 percent of teachers had in-service training in the previous 12 months – a significant achievement. Rates were particularly high in Paraguay, the Philippines and Sri Lanka but low in Uruguay at 40 percent. Overall, teachers were not likely to take part in qualification programmes or teacher networks.

In addition, they tended to participate in training courses and workshops on subject matter and content rather than on topics such as ICTs. Notable exceptions were Chile, Malaysia and Peru, where more than one-third of teachers took part in ICT training. Overall, Grade 4 teachers in WEI-SPS countries participated in 4 to 12 days of training per year.

These findings can help in the complex task of organizing in-service teacher training courses, which involves: assigning priority to courses; identifying the best people to teach the courses; and ensuring that the relevant people attend the courses.

Characteristics of school heads

In general, school heads are selected from the teaching force. In the median WEI-SPS country, pupils had a school head with an average age of 49 years – from 40 years in Paraguay to 54 in Chile. In a majority of WEI-SPS countries, almost all school heads had some tertiary education, while in other countries – notably India, Tunisia and Sri Lanka – most principals had a secondary school diploma or less schooling.

About one-half of primary pupils in WEI-SPS countries had a female principal. The range was extreme, however, from 3 percent in Tunisia to 91 percent Argentina, 88 percent in Uruguay and 84 percent in Brazil. In general, pupils in village schools were less likely to have a female principal than those in city/town schools, with the exceptions of Brazil, Tunisia and Uruguay.

On average, school heads had received fewer than 100 days of management training in their careers in most WEI-SPS countries. The spread among countries was great, however, ranging from 28 days in the Philippines to 320 days in Chile. More than one in five pupils in India had school heads who had no knowledge of management courses – a situation that raises concern as well as the potential for improvement. About one-third or more pupils in Brazil, India and Paraguay attended schools where school heads had never attended these courses.

Teachers' working conditions and classroom instruction

Teachers are the key agents in actually making education work – operationalizing policy and curriculum goals while taking into account the local

realities of communities and classrooms, as well as the potential and limitations of each pupil. Thus, teacher capacity and motivation are critical factors for well-functioning educational systems.

Teachers' working conditions

The typical WEI-SPS Grade 4 teacher taught 23 hours per week in a single school. The teaching load varied across countries – from just 14 hours per week in Malaysia to 31 hours per week in Chile and the Philippines. There was also wide variation in the time spent by teachers preparing lessons and marking homework. The total teacher workload (teaching, preparing lessons, marking homework and tutoring) was typically 33 hours per week across WEI-SPS countries. In Chile and the Philippines, it was 41 hours. The fact that elementary and secondary education last just 10 years in the Philippines may account for the high work hours.

The share of Grade 4 pupils with teachers who taught in more than one school ranged from one percent in Malaysia to 29 percent in Brazil. For these teachers, a typical week's teaching was 38 hours – some 15 hours more than teachers teaching in one school only – and for a total workload of 48 hours per week. In some countries, teachers working in more than one school spent relatively less time on non-teaching activities, such as preparing lessons and marking homework, but this would seem inevitable given the higher number of hours teaching and other factors such as travel time. However, since homework is a major predictor of achievement, this is an issue worthy of further consideration.

Most WEI-SPS countries had pupil-teacher ratios in the order of 20:1 to 30:1. India had the highest ratio, especially in village schools (59 pupils per teacher); Malaysia had the lowest ratio with an overall average of 18 pupils per teacher. A typical primary pupil in WEI-SPS countries was in a class of 33 pupils in a city/town school and 27 pupils in a village school.

Staff continuity is essential for a well-functioning school. An index of staff stability showed that overall almost two-thirds (63%) of pupils were in schools where less than 70 percent of teachers had taught there for at least five years. High staff turnover was clearly a problem in many schools. In several WEI-SPS countries, a higher share of pupils in village schools experienced greater staff turnover than pupils in city/town schools.

Staff vacancies were a concern in many WEI-SPS countries. Over one-quarter of schools, serving more than one-third of pupils, had permanent teaching positions vacant at the beginning of the school year. The situation was even more severe for vacancies for temporary teachers. In most of the WEI-SPS countries school heads reported a high shortage of support staff. In India, Malaysia, Peru, Philippines and Sri Lanka, there was also a shortage of qualified teachers.

Teaching styles and learning approaches

The survey sought information on teaching practices, and from an analysis of the responses, three approaches were identified: teacher-centred, strongly-structured, and pupil-centred teaching practices. An example of each approach would be: walking around and checking work; explaining the aims of the lesson at the beginning; and asking pupils how they deal with the assignment. The responses showed that teachers practised all of the activities 'a lot', but teacher-centred activities were slightly more common than pupil-centred and strongly-structured approaches. Further analysis found that, in some countries, pupil-centred approaches were positively associated with more experienced teachers and with pupils with more social advantage, but overall the teachers with more classroom resources practised more pupil-centred activities.

Similarly, the questionnaire focused on the types of learning activities for Grade 4 pupils. Analysis of the responses found that the activities clustered into three groups: active learning, group work and rote repetition. There was considerable variation among countries, as might be expected, but it was notable that rote repetition – for example, the whole class repeating sentences or chanting tables – involved a relatively high share of pupils in Brazil, Paraguay and Sri Lanka and an even higher share in India and Malaysia. Further analysis found that active learning was positively associated with social advantage in one-half of the countries and significantly related to classroom resources in all but two countries.

School climate

The values, attitudes, expectations and behaviours more or less shared by the members of a school community are generally referred to as *school ethos* or *school climate*. A positive school climate plays an important

role in fostering pupils' academic achievement, self-concept and school motivation.

Pupils' engagement as perceived by school heads and teachers

Positive attitudes and behaviours towards school, or school engagement, are crucial elements in learning and success. Research shows that successful students persevere when encountering difficulties, make greater effort to learn, and pay attention to their school work. In addition, they tend to display motivation, self-confidence, enthusiasm, interest and pride in success.

WEI-SPS school heads overwhelmingly reported that their pupils had very positive attitudes and behaviours towards school. More than 96 percent of pupils attended schools where the principals said that most or all pupils enjoyed being at school and that student-teacher relationships were positive. Grade 4 teachers were also highly positive about their pupils' attitudes. It should be noted, however, that a social desirability effect could be at work (whereby principals and teachers provided the responses they thought were expected).

The perceptions of principals and teachers about pupil engagement were analyzed on a number of dimensions. The results indicated that pupils attending private schools were reported to have higher levels of school engagement than those in public schools for all WEI-SPS countries reporting data – and sometimes the gaps were quite large (see *Figure 5*).

There was a positive association between the overall levels of pupils' school engagement as perceived by principals and the level of social advantage in all WEI-SPS countries. Similarly, there was a positive link with more teaching resources, though not as strong as the association with social advantage. At the same time, a higher incidence of grade repetition was associated with lower levels of pupil motivation in all WEI-SPS countries except India.

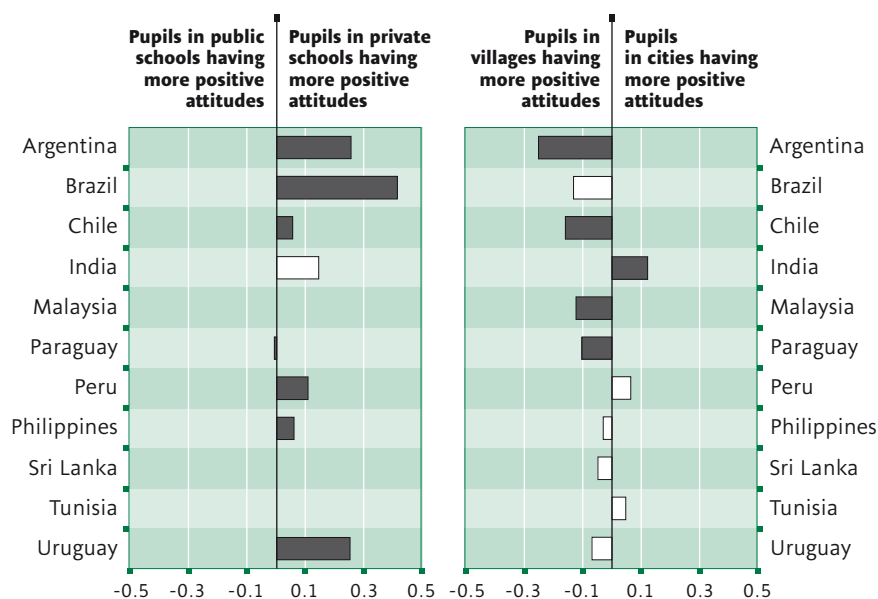
Policymakers should be aware that perceptions of pupil engagement are linked to socio-economic background, classroom resources and type of school (village versus city/town and public versus private) and make improvements based on these factors.

The questionnaire also dealt with the extent of problem behaviour among pupils, such as late arrival and

FIGURE 5

Comparing teacher-perceived pupil motivation across schools

Differences in the mean values of the index of *Teacher-perceived pupil motivation*, by school type and location, expressed as effect sizes



Note: A bar in dark shade means the difference is statistically different from zero.

Source: WEI-SPS database.

absenteeism, as perceived by the principals and Grade 4 teachers. There was quite a lot of variation across countries, depending on the type of behaviour. However, pupils in private schools, academically selective schools and village schools were all reported to have more positive behaviours than their counterparts.

There is a range of policies and policy tools that can be used to strengthen school engagement and positive behaviour. Notably, it is generally recognized that rewards improve discipline more than sanctions do. Parental involvement and collaboration are also key factors. Educational authorities need to set clear and consistent goals that both challenge pupils and allow them to experience a sense of competence and accomplishment. Finally, pupils' engagement depends on educational environments that reward perseverance and hard work.

Teachers' perceptions and professional satisfaction

WEI-SPS questions inquired into the extent to which teachers were satisfied with several aspects of their circumstances, including class size, parental support, salary and perceived social status. In India, Malaysia and Sri Lanka, teachers responded positively on most of these issues. In most other countries, teachers expressed lower levels of satisfaction with their salaries. Teachers with larger classes or classrooms with poorer resources tended to be more dissatisfied; teachers in well-resourced classrooms or classes with advantaged and motivated pupils were more satisfied.

An important aspect of teachers' professional satisfaction is their perception of the school head's role in helping to create a consensus among school staff about their common mission and the practices to fulfil it. The rate of positive answers from teachers

in this regard was so high – more than 90 percent for almost all questionnaire items in all participating countries – that it suggests the influence of the social desirability bias.

Teachers' perceptions of their own social status – compared to others with similar levels of education – were most positive in India and Sri Lanka, but particularly pessimistic in Argentina, Brazil, Chile and Uruguay. Teachers with more favourable evaluations of the social status of their profession tended to report higher levels of satisfaction and higher levels of motivation of the pupils they taught. On the other hand, teachers with negative perceptions tended to have lower levels of education and training and more pupils having repeated a grade in their classes.

One feature of effective schools is that the school head and teachers consider as extremely important that all pupils meet the academic standards that are set for them. In WEI-SPS, the emphasis placed by school staff on academic achievement tended to be somewhat higher for classes with higher shares of motivated pupils, advantaged pupils and better classroom resources. Conversely, the indicator had lower values for classes with high proportions of pupils repeating a grade. This pattern of results is quite common in the literature about teachers' expectations. It is often described as a reciprocal relationship: teachers have higher expectations of a motivated and well-performing class; and pupils learn better and develop better motivation when their teachers have high expectations. The difference between public and private schools was generally significant, in favour of private schools.

School management

School heads' emphasis on administrative duties vis-à-vis instructional support

School principals typically have a number of roles to play in their schools: governing operations; delivering the curriculum; keeping up with pedagogy and teaching approaches; maintaining staff, parent and community relations; creating a school vision and enlisting support for it; developing and delivering policies, procedures and practices; and working with educational authorities. Ultimately, the job is about creating the best conditions possible for pupils

to learn. And, often, there is considerable tension between the competing demands of administrative and teaching tasks.

Indeed, at least some school heads in each of the 11 countries were required to teach every week – from as little as one hour to more than eight hours. While virtually all school heads in Malaysia had teaching obligations, principals for one-half or more pupils had no teaching obligations in Argentina, Brazil, Chile and Paraguay.

Across the WEI-SPS countries, school heads were more often engaged in managing school facilities and resources, administrative and clerical duties, and dealing with disciplinary problems. As a result, they were relatively less engaged in coordinating special measures for pupils with learning problems, coordinating lesson programmes, keeping school accounts and budgeting, and organizing extra-curricular activities. In Argentina, Chile, the Philippines and Uruguay, heads of public schools spent more time fulfilling their administrative duties than their counterparts in private schools. Overall, however, there was virtually no difference in the degree to which schools heads in private and public schools provided instructional support in their daily work. Further analysis suggested that the principals of larger schools tended to demonstrate greater engagement in administrative duties in their daily work, although the link was weak.

The relative balance between administrative and instructional duties will depend on the circumstances within the schools, but it is also a matter of ministerial policy. This balance can be guided through management and professional development courses.

Parental involvement in school

Parental involvement in schooling enhances children's self-esteem, improves children's academic achievement and improves parent-child relationships. Parents also benefit because this involvement helps them develop positive attitudes towards school and a better understanding of the schooling process. Parental involvement can also include generating resources, donating funds and helping with school-related activities, e.g. fundraising and helping out with extra-curricular activities.

Across the WEI-SPS countries, primary schools enrolling only about half of the pupils had parents participate in any type of activity. Where there was parental involvement, much of it concerned fund-raising, various school and extra curricular activities, and donating funds. For instance, it was fairly common in 7 of the 11 participating countries, especially Argentina, Malaysia and Tunisia, for parents to be required to pay for textbooks, school supplies or uniforms. Among schools that lacked certain types of physical resources, those that received assistance from some type of parental group accounted for more than one-half of the primary school population in all WEI-SPS countries. At least one out of five primary pupils in Argentina (24%) and Tunisia (33%) attended schools that required all parents to pay for their children's textbooks. Paying for school supplies was similarly or more commonly required all in other countries as well, including Argentina, Chile, India, Malaysia, Paraguay, the Philippines and Tunisia. This was particularly pronounced in Malaysia and Tunisia, at more than 40 percent.

In a few countries, parents contributed to the construction and maintenance of school buildings and classrooms. It was, however, less common for parents to serve on school boards or participate in primary teaching or learning activities. The WEI-SPS countries may also hope to reconsider the ways in which they would like parents to be involved in the schools.

School governance and school autonomy

The structure of school governance and the locus of power and decision-making are important factors in school conditions. As part of the global trend in the decentralization of education, a majority of pupils in most of the countries were in schools with a governing board – more than 75 percent in Brazil, Chile, India, Peru and Tunisia, but only 8 percent in Uruguay.

School governing boards serve as a mechanism for public accountability and the involvement of stakeholders like parents and community institutions. It is difficult to describe a general pattern in the representation of various groups on school governing boards among different countries, but overall, representation of teaching staff, school management

and parents was relatively high. In countries where boards were less common, representation from business and religious groups was more likely.

The WEI-SPS collected data on whether schools had 'significant responsibility' on a range of issues. Overall, schools seemed somewhat more likely to be autonomous on issues related to the school budget, course offerings and policies on admission, assessment and disciplining of pupils. They were less likely to have control over issues related to teacher hiring and compensation – a barrier if those issues are a concern. However, school heads in Peru and the Philippines reported a higher level of autonomy on teacher hiring and compensation; those in Sri Lanka, on school budget; and most of the Latin American countries, on course offerings.

The heads of private schools, on average, reported more autonomy than their public school counterparts on four key aspects. The differences seemed most pronounced on issues of teacher hiring and compensation. Private schools also had more autonomy in formulating school budgets and deciding on budget allocations within schools.

Monitoring and evaluation

One important feature of effective schools is the consistent monitoring of progress towards achieving goals, which involves performance evaluation at the school as well as classroom and pupil levels. Monitoring and evaluation are essential at all three levels in order to consolidate achievements and identify areas of weakness.

At the school level, as many as 30 percent of pupils in India, Sri Lanka and Tunisia attended schools that had not issued a self-evaluation report in the previous five years. However, a high percentage of pupils in Argentina, Malaysia, the Philippines and Uruguay went to schools that had issued at least one such report in that timeframe.

An important part of monitoring and evaluation involves the appraisal of teachers. In Uruguay, all schools reported to have had their Grade 4 teachers appraised at least once in the previous five years; so had schools serving around 70 percent or more of pupils in five other countries. However, this was not the case for schools serving one-third or more of pupil

populations in Brazil, Chile, India, Peru and Tunisia. Where schools were more likely to have issued a self-evaluation report, it was also more likely that their Grade 4 teachers had been appraised.

Across WEI-SPS countries, the vast majority of pupils were in primary schools that had been visited by an external inspector in the two years prior to the time that the study took place. Such schools covered around 90 percent or more of pupils in six countries. On the other hand, primary schools serving about 20 percent or more of the pupils in Chile and Peru had not received such visits. Visits by external inspectors seemed to be mostly about reviewing the performance of the whole school and for the purpose of providing assistance to teachers overall rather than individually.

Across WEI-SPS countries, schools used assessments mostly for informing parents about their child's progress, helping teachers to plan for remedial work and identifying deficiencies in achieving instructional objectives. Primary schools serving 90 percent or more of pupils used assessments for such informational and diagnostic purposes. Schools serving the vast majority of pupils also used assessment results for deciding on grade promotion and monitoring progress at the school level. Teachers appeared to use a variety of assessment strategies on a daily or weekly basis. Still, there is much room for improvement in using various forms of monitoring and evaluation in WEI-SPS countries.

Opportunity to learn in reading for Grade 4 pupils

Opportunity to learn (OTL) is considered a central determinant of pupils' learning. The idea is that it is not fair to hold students primarily responsible for attaining academic standards if they have not been provided with an adequate opportunity to learn. OTL measures can occur at numerous places along the learning chain: Does textbook content link to national curriculum intentions? Does the local school use those textbooks or follow the national curriculum? Does the Grade 4 teacher prepare adequately to teach the material? Does the pupil lose instructional time due to unruly behaviour in the class or school closing due to weather? An OTL study can reveal opportunities to intervene,

which makes this indicator one of the most important variables over which educators and policymakers can exercise power.

The OTL questionnaire on reading, which was centered around a relatively easy international benchmark test (*The Upside-down Mice*), was reviewed by a national curriculum expert and answered by Grade 4 teachers. An OTL questionnaire on mathematics was also administered, but the results were deemed too unreliable to report.

The reading questionnaire consisted of three sections: whether the reading materials used in class were usually less demanding, more demanding or about the same level as the benchmark; how often they used the same type of texts (a fable) or other types like real-life narrative texts, information texts, authentic documents or basic reading materials; and a variety of reading questions or tasks about the benchmark text.

Overall, the national experts and Grade 4 teachers indicated that the benchmark text was reasonably adequate for Grade 4 pupils and relatively similar in length, content, syntax, vocabulary and difficulty to reading materials used in their classrooms.

The Upside-down Mice was one of the most basic texts in the 2001 IEA *Progress in International Reading Literacy Study* (PIRLS). However, in no WEI-SPS country did a majority of teachers consider it 'too easy' for their Grade 4 pupils. Typically, across all WEI-SPS countries, between 55 and 60 percent of pupils had teachers who considered the text adequate in all respects. Only 15 to 20 percent of pupils had teachers who said that they used more difficult passages.

As for types of reading material, there was a striking contrast between Latin American countries and other WEI-SPS countries. Latin American schools were said to most often use continuous texts such as fables and other narratives, while most Asian schools – and Tunisia – relied on basic materials that focused on decoding skills. It would be expected, in fact, that Grade 4 pupils no longer need basic decoding instruction. However, responses from Grade 4 teachers indicated that a much higher share of pupils in WEI-SPS countries still used such basic materials.

According to the WEI-SPS median, no less than two-thirds of pupils used the basic materials frequently (several times a week/month). **Figure 6** uses spider graphs for two countries, Chile and Malaysia, to show the coverage in terms of type and frequency of use of reading materials.

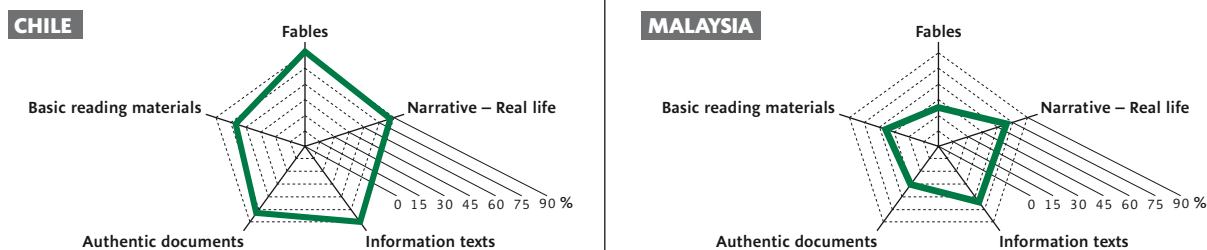
Lastly, the OTL questionnaire looked at reading activities as they related to: interpreting the meaning of the text; creative activities going beyond the text; retrieving information; and vocabulary and grammar. With very few exceptions, the respondents reported high or at least moderate emphasis for a vast majority of the proposed activities. The rate of agreement was

surprisingly large, not only for the ‘formal’ items on the list but even for unusual or challenging activities.

Analysis of two aspects of text – difficulty and appropriateness for Grade 4 – indicated significant within-country differences. In 8 out of 10 countries with private schools, pupils enrolled in those schools tended to benefit from higher standards and a more demanding curriculum than pupils in public schools. The contrast was particularly striking in the Philippines. Similarly, responses tended to be more favourable in city/town schools than in village schools, although the difference was somewhat less than the difference between public and private schools.

FIGURE 6

Types of reading material used in Grade 4 classes, by country



Source: WEI-SPS database.

Conclusion

As the first comparative school survey of its type in WEI countries, this survey of primary schooling provides a wealth of data that can be analyzed to understand the functioning of primary schools in the participating countries, particularly from a comparative perspective. The data analyses and findings can be used to inform the design and implementation of policies and programmes aiming to improve educational quality and equity.

The data analyses have revealed great variation among the participating countries in the context and operation of primary schools. Interestingly, however, sometimes there was substantial commonality and sometimes differences aligned seemingly by geo-cultural factors.

The survey has also yielded data on educational differences within countries, primarily by school type and by the social advantage of the pupil intake. On almost all indicators and variables tested, private schools scored advantage over public schools, and city/town schools scored advantage over village schools. In addition, schools serving pupils from predominantly more advantaged backgrounds also tended to have an edge on school resources, school climate and curricular requirements. There were few findings that were contrary or even of no difference. Addressing equal access to education means addressing these axes of advantage.

The WEI-SPS represents an attempt to inquire into the educational chain in a way that helps identify weak links, and in so doing, it points to opportunities for intervention in the classroom, the school and beyond. For example, providing equally challenging and meaningful opportunities to all pupils to learn the subjects lies at the heart of any initiative to improve the learning achievements. This is reflected in the materials presented to pupils and the teacher-pupil interactions in the classroom. Fostering a positive school climate requires the efforts by all members of the school community, including pupils, school staff and school administrators. While emphasizing the role of classroom teachers, school leaders and other school staff in impacting the schooling experiences of pupils, it is also important to provide the necessary support for the front-line educators to perform their tasks. Such support can be in the form of the

allocation of adequate resources, as well as professional development and training. In summary, educators, parents, policymakers and the public need to work together in order to ensure that once young individuals enter schools they gain a meaningful learning experience.

The full report and more detailed information about the survey are available at www.uis.unesco.org.

A VIEW INSIDE PRIMARY SCHOOLS

A World Education Indicators (WEI) cross-national study

EXECUTIVE SUMMARY

Why does an education system fail to provide its students with quality education? Schools are one of the first places to look for the answers. They represent a vital element in any successful effort to improve the quality of learning. Yet, policies and programmes aiming to achieve this goal are typically limited by the lack of reliable information on how schools function. A new survey from the UNESCO Institute for Statistics (UIS) seeks to contribute to the understanding of schools across a range of education systems.

As part of the World Education Indicators programme, the Survey of Primary Schools (WEI-SPS) offers unique insight into the classrooms of 11 diverse countries* in order to understand and monitor the factors shaping the quality and equality of primary education. It examines the main issues and inputs shaping primary schools: the background characteristics of pupils; demographic and educational characteristics of teachers and school heads; school resources and conditions; instructional time; school management; teaching and learning styles in the classroom; as well as learning opportunities provided to pupils.

The survey was designed to ensure that these data could be compared internationally. Therefore, it serves as a valuable resource for everyone interested in education quality and equality – from policymakers to teachers and academics.

* Argentina, Brazil, Chile, India, Malaysia, Paraguay, Peru, the Philippines, Sri Lanka, Tunisia and Uruguay.

The report and data can be accessed at:
www.uis.unesco.org

ISBN 978-92-9189-057-6

