The many faces of the learning crisis

Rabia Nura, a 16-year-old girl from Kano in northern Nigeria, goes to school despite ever-present threats from Boko Haram. She is determined to become a doctor (Smith 2014). But 37 million African children will learn so little in school that they will not be much better off than kids who never attend school (van Fleet 2012).

The global schooling expansion hides another statistic: for millions, schooling is not producing enough learning. Learning outcomes in basic education are so low, in so many contexts, that the developing world is facing a learning crisis. In many low-income countries, learning levels are low in an absolute sense, while in many middle-income countries average learning levels remain far behind those in high-income countries. The learning crisis disproportionately affects children from poor households: they are far more likely to leave school without acquiring basic skills like literacy or numeracy. Ultimately, the learning crisis translates into severe shortcomings in the skills of the workforce.

For too many, learning isn't happening

> *In South Africa, 27 percent of 12-year-olds were enrolled in grade 6 but were functionally illiterate; in Zambia that share was 44 percent* (Hungi and others 2010).

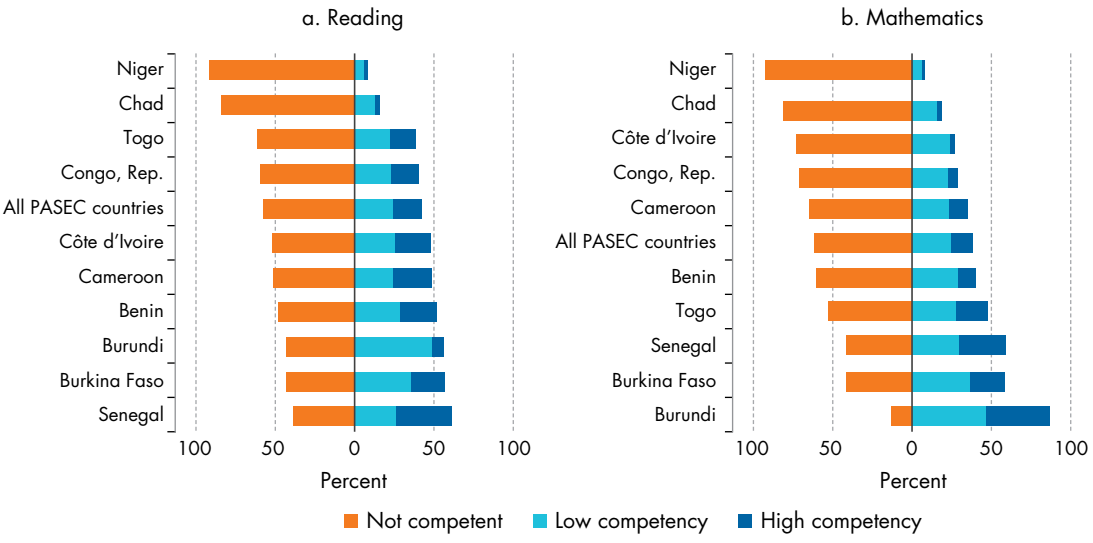
Globally, 125 million children are not acquiring functional literacy or numeracy, even after spending at least four years in school.[1] In Malawi and Zambia in 2012, more than 89 percent of students could not read a single word by the end of grade 2.[2] In Guyana in 2008 (when the most recent data were collected), that share was 29 percent at the start of grade 3.[3] A similar picture emerges for numeracy. In rural India in 2016, less than 28 percent of students in grade 3 could master double-digit subtraction.[4] Emerging data on student achievement show that, for millions, schooling is producing little learning in crucial early grades.[5]

Millions complete primary education without acquiring the basic competencies needed for further learning. According to a 2014 regional assessment, among grade 6 students in West and Central Africa, nearly 58 percent are not sufficiently competent in reading or mathematics to continue schooling (figure 3.1).[6] Similarly, the most recently available regional assessment of grade 6 students in southern and East Africa (from 2007) shows that 37 percent are not competent in reading, and more than 60 percent are not competent in mathematics (figure 3.2).[7] This lack of basic competency is systematically lower for students from poorer families. In Honduras, half of the grade 6 students from the poorest quintile scored at the lowest reading competency level in a 2013 regional Latin American assessment; only 7 percent of those from the richest quintile did (figure 3.3).

Low-performing education systems are failing to meet their own curriculum standards (box 3.1).

Figure 3.1 Most grade 6 students in West and Central Africa are not sufficiently competent in reading or mathematics

Competency levels from PASEC (2014), by subject, participating countries

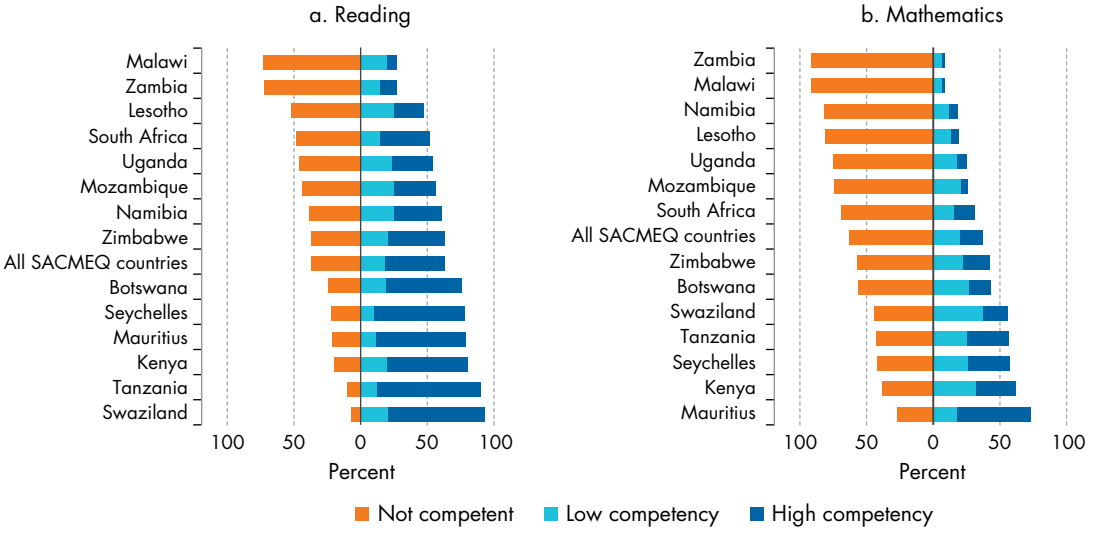


Source: WDR 2018 team, using data from Programme d'Analyse des Systèmes Éducatifs de la Confemen (PASEC 2015) and World Bank's World Development Indicators (World Bank 2016c). Data at http://bit.do/WDR2018-Fig_3-1.

Note: For the PASEC reading exam, "not competent" refers to levels 0–2 in the original coding, "low competency" to level 3, and "high competency" to level 4. For the PASEC mathematics exam, "not competent" refers to levels 0–1 in the original coding, "low competency" to level 2, and "high competency" to level 3.

Figure 3.2 Most grade 6 students in southern and East Africa are not sufficiently competent in mathematics, and several countries score poorly in reading as well

Competency levels from SACMEQ (2007), by subject, participating countries

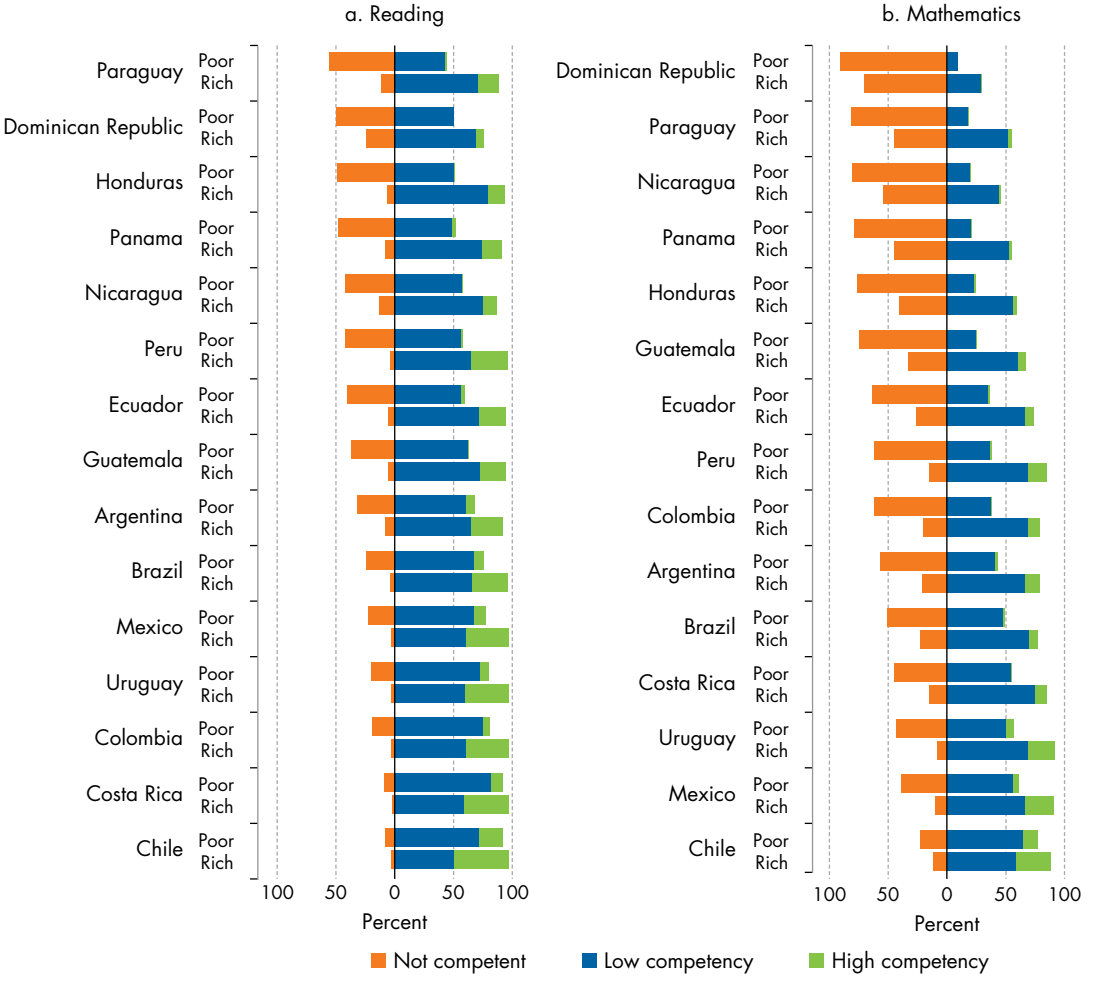


Source: WDR 2018 team, using data from Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ 2007) and World Bank's World Development Indicators (World Bank 2016c). Data at http://bit.do/WDR2018-Fig_3-2.

Note: "Not competent" refers to levels 1–3 in the original SACMEQ coding, "low competency" to level 4, and "high competency" to levels 5–8.

Figure 3.3 Learning outcomes are substantially lower for poor children in Latin America

Competency levels for TERCE (2013) grade 6, by subject, for students in poorest and richest socioeconomic quintiles, participating countries



Source: WDR 2018 team, using data from Third Regional Comparative and Explanatory Study (TERCE), 2013 (UNESCO 2013). Data at http://bit.do/WDR2018-Fig_3-3.

Note: Socioeconomic quintiles are defined nationally. "Not competent" refers to level 1 in the original coding, "low competency" to levels 2–3, and "high competency" to level 4.

While test scores on international assessments may be worryingly low, similar patterns emerge when assessing students against national standards. In urban Pakistan in 2015, only three-fifths of grade 3 students could correctly perform a subtraction like 54 – 25; in rural areas only two-fifths could.[8] Across 51 countries, only about half of women who completed grade 6 (but no higher) could read a single sentence.[9] It is hard to imagine that these women are reaping the full potential economic or social returns from their years of schooling.

These low learning levels are not an inevitable by-product of rapidly expanding education. Starting in the 1950s, the Republic of Korea focused on ensuring quality primary education for the vast majority of its population before shifting to a similar emphasis on secondary and ultimately higher education—with excellent learning results. The success of this strategy shows it is possible to ensure quality education even while rapidly expanding schooling. The key ingredient is a persistent emphasis on the needs of the poor and disadvantaged.[10] The more recent experience

Box 3.1 Those who can't read by the end of grade 2 struggle to catch up

Illiteracy at the end of grade 2 has long-term consequences for two reasons. First, learning is cumulative. Education systems around the world expect students to acquire foundational skills such as reading by grades 1 or 2. By grade 3, students need to read to access their curriculum. Students who master these foundational skills early are at an advantage: skills from early grades are strongly positively associated with later school performance (see spotlight 1).[a] Children who cannot read by grade 3 fall behind and struggle to catch up, perhaps irreparably.[b]

Second, schools do not offer struggling students a chance to catch up. In many contexts, the pace of classroom instruction is determined by the need to cover an overly ambitious curriculum rather than by the pace of student learning.[c] This means teachers have no choice but to ignore students who are falling behind. In India and Kenya, for example, the curriculum has been designed for the elite.[d] Teachers and textbooks focus on advanced topics that are of little use in helping struggling students.[e] These students then fall even further behind—eventually so far that no learning whatsoever takes place.[f]

Source: WDR 2018 team.

a. Glick and Sahn (2010).
b. Muralidharan and Zieleniak (2013).
c. Pritchett and Beatty (2012).
d. Banerjee and Duflo (2012); Glewwe, Kremer, and Moulin (2009).
e. Pritchett and Beatty (2012).
f. Pritchett and Beatty (2012).

of Vietnam reinforces that lesson; it, too, has maintained education quality during rapid expansion by ensuring that disadvantaged students receive relatively equitable access to quality schooling.[11]

Even in middle-income countries, millions of students are lagging behind. In Brazil, internationally comparable assessments reveal that more than three-quarters of youth are reaching the age of 15 without being able to perform at the lowest level of competence on the Programme for International Student Assessment (PISA) tests.[12] Similarly, a third of students in Paraguay have only a basic grasp of reading skills ("reading for meaning") by grade 6.[13] These students are therefore ill-equipped to participate in their economy and society.[14] These numbers also show interesting gender-based differences (box 3.2).

However, some countries are doing better. Albania, Peru, and Portugal have made impressive progress in improving average student achievement relative to countries with similar incomes.[15] Latvia outperforms several countries in eastern Europe; Vietnam is a positive outlier in Southeast Asia. Although it is not always possible to clearly isolate the factors responsible for systemwide improvements in student learning, a policy focus on education quality appears to be important. For example, a major component of Vietnam's strong performance has been a convergence in school quality within the country. The share of schools that meet the national standards of quality has steadily increased over the last 25 years.[16]

Low student achievement in some middle-income countries relative to their economic competitors signals a failure to live up to their own expectations. According to the leading international assessments of literacy and numeracy, the average student in low-income countries performs worse than 95 percent of the students in Organisation for Economic Co-operation and Development (OECD) countries—meaning that student would be singled out for remedial attention in a class in a wealthier country.[17] In Colombia, Indonesia, and Peru, student performance at the 75th percentile on the PISA math test is barely above that at the 25th percentile of the OECD average. In Algeria, the Dominican Republic, Kosovo, and Tunisia, it is below the 25th percentile of the OECD average (figure 3.4). The disparity between the average PISA score for Latin American countries and OECD countries is equivalent to over two full years of math education. Based on its rate of progress in average PISA scores from 2003 to 2015, it would take Tunisia over 180 years to reach the OECD average in math. This slow rate of improvement is especially problematic for middle-income countries trying to position themselves as important players in the global economic landscape.

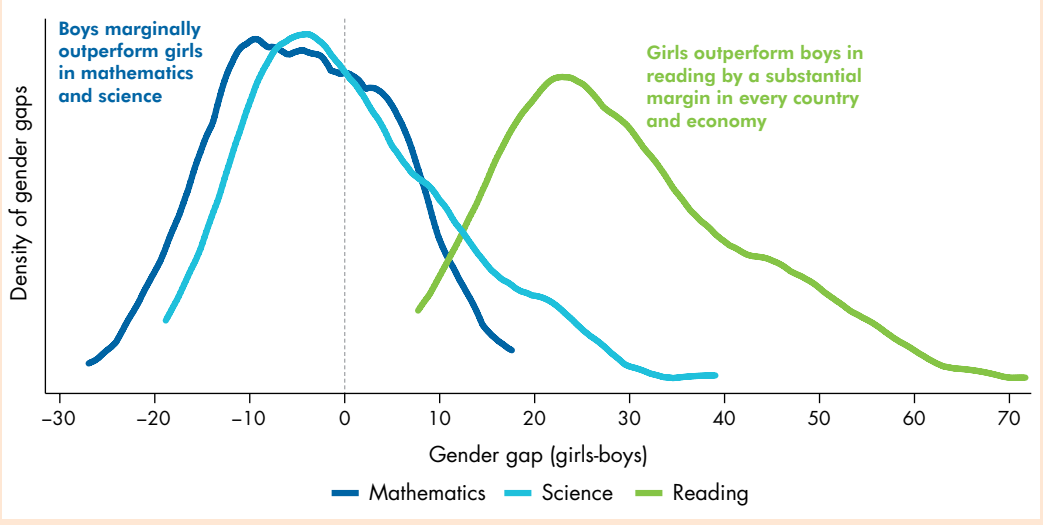
The mapping between schooling and workforce skills varies dramatically across countries. For example, the working-age population in Colombia reaches

Box 3.2 Gender-based differences in learning depend on the subject

Data from internationally benchmarked tests show that boys lag behind girls on test averages. In all but 6 of the 72 countries and economies participating in the Programme for International Student Assessment (PISA), 15-year-old boys are more likely than girls of the same age to be low achievers on the composite average of the three subjects tested.[a] Whether on UNESCO's Third Regional Comparative and Explanatory Study (TERCE), the Scholastic Aptitude Test (SAT) in the United States, or an array of national assessments, girls outperform boys on total test averages in most countries and economies.[b]

Figure B3.2.1 Girls outperform boys on reading in all countries and economies, but boys typically do better in mathematics and science

Distribution across countries and economies of gap between mean score for girls and mean score for boys



Source: WDR 2018 team, using data from Programme for International Student Assessment (PISA) collected in 2015 (OECD 2016a). Data at http://bit.do/WDR2018-Fig_B3-2-1.

Note: Distribution based on data from 72 countries and economies that participated in PISA 2015.

This higher average performance by girls masks important variations across subjects (figure B3.2.1). Girls consistently score higher in reading and writing; boys tend to perform better on mathematics and science in most countries and economies where these tests—and others, such as the Programme d'Analyse des Systèmes Éducatifs de la Confemen (PASEC) and Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ)—are administered.[c]

Whereas girls and boys perform at equal levels in both mathematics and reading from kindergarten through grade 2, boys score slightly better in mathematics and worse in reading starting in grade 3. This subject-specific gender gap continues to grow through secondary school.[d]

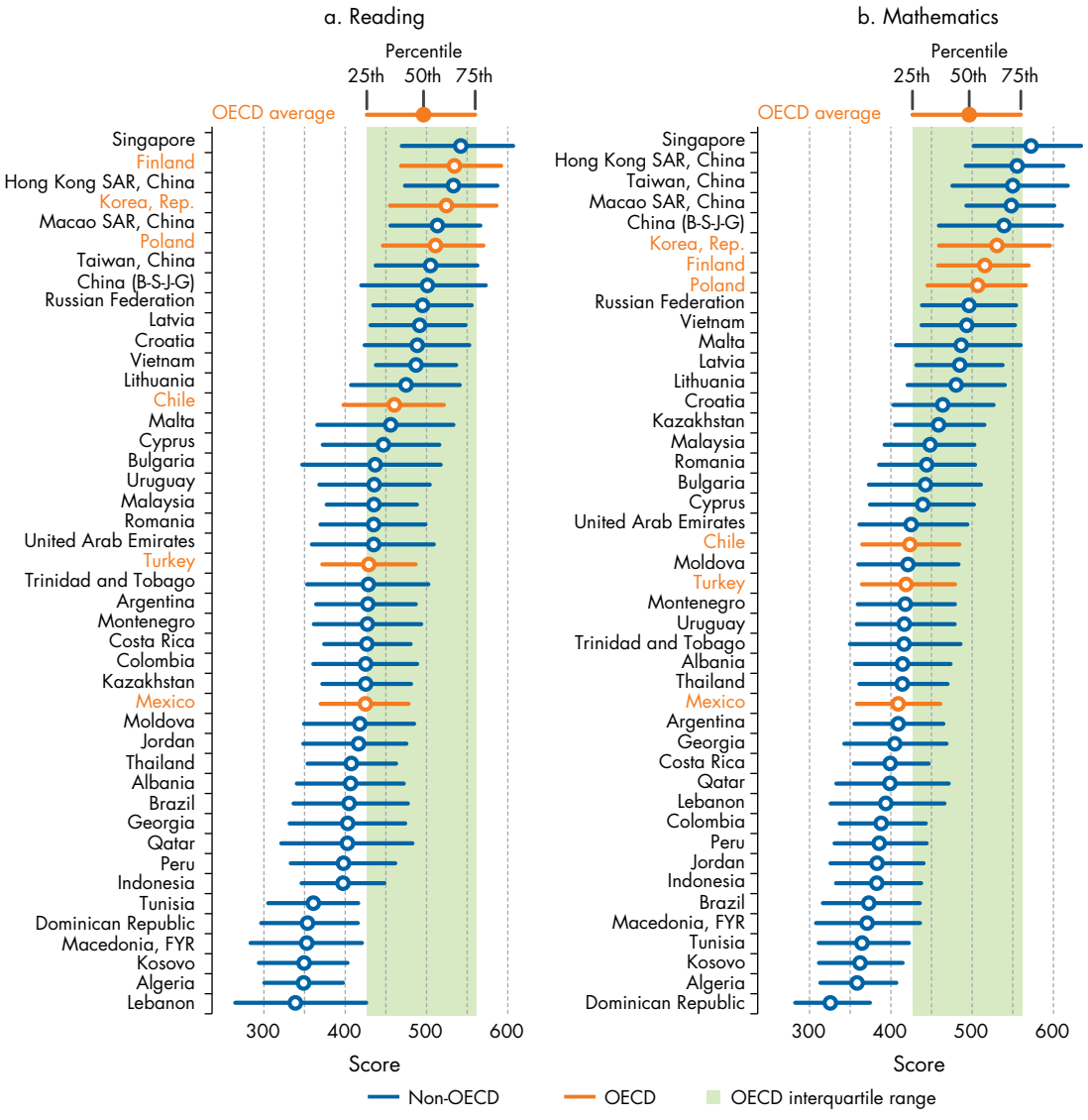
But the mathematics and science gap in favor of boys may be shrinking. Results from the 2015 Trends in International Mathematics and Science Study (TIMSS) assessment were much more mixed than for previous years: in about half the countries and economies tested, there were no statistically significant differences in gender performance in these subjects.[e]

Source: WDR 2018 team.

a. OECD (2015).
b. TERCE: UNESCO (2016); SAT: Fryer and Levitt (2010); national assessments: Bharadwaj and others (2015); Cornwell, Mustard, and Van Parys (2013); Uwezo (2014, 2015).
c. Dickerson, McIntosh, and Valente (2015).
d. Fryer and Levitt (2010); Singh (2016); UNESCO (2016).
e. Mullis, Martin, and Loveless (2016).

Figure 3.4 Learning outcomes vary greatly across countries and economies—in several countries, the 75th percentile of PISA test takers performs below the 25th percentile of the OECD average

Performance of 25th, 50th, and 75th percentiles in 2015 PISA assessment, participating non-OECD economies and selected OECD economies



Source: WDR 2018 team, using data from Programme for International Student Assessment (PISA) collected in 2015 (OECD 2016a). Data at http://bit.do/WDR2018-Fig_3-4.

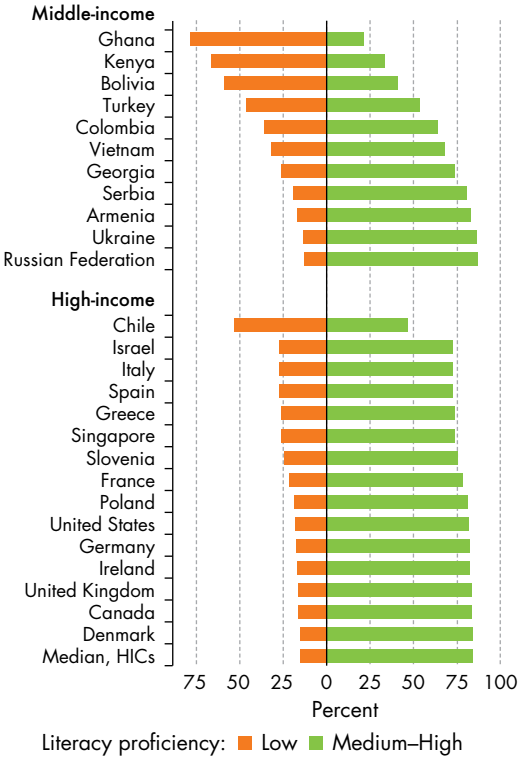
Note: PISA 2015 defines baseline levels of proficiency at a score of 407 for reading and 420 for mathematics. China (B-S-J-G) = China (Beijing-Shanghai-Jiangsu-Guangdong).

basic literacy proficiency by the lower secondary level, whereas the population of Bolivia needs six more years to attain even close to the same proficiency. Similarly, among 18- to 37-year-olds in Nigeria, only 19 percent of primary completers can read; in Tanzania, 80 percent can.[18]

In some countries, large proportions of "educated" working adults are effectively low-skilled. Nearly 80 percent of Ghana's working-age population and over 60 percent of Kenya's have just level 1 literacy or below—that is, their literacy proficiency is limited to understanding basic texts, but they are not able to integrate, evaluate, or interpret information from a variety of text materials (figure 3.5).[19] This contrasts with the average for high-income countries, where only 15 percent of the working-age population is at level 1 or below. Individuals

Figure 3.5 Middle-income countries tend to have lower rates of literacy proficiency than high-income countries (HICs)

Percentage of working-age population relative to minimal level of foundational literacy (2011–14)



Source: WDR 2018 team, using data from Programme for the International Assessment of Adult Competencies (PIAAC) collected between 2011 and 2014 (OECD 2016b, 2016c) and STEP Skills Measurement Program, 2011–14 (http://microdata.worldbank.org/index.php/catalog/step/about). Data at http://bit.do/WDR2018-Fig_3-5.

Note: Data are the latest available by country. PIAAC is representative at the national level for adults, ages 16–65. STEP is representative for urban populations, ages 15–64. Low proficiency is defined as level 1 and below on the assessments and indicates limited understanding of basic texts. Medium to high proficiency is defined as level 2 and above and indicates the ability to integrate, evaluate, and interpret information from a variety of text materials.

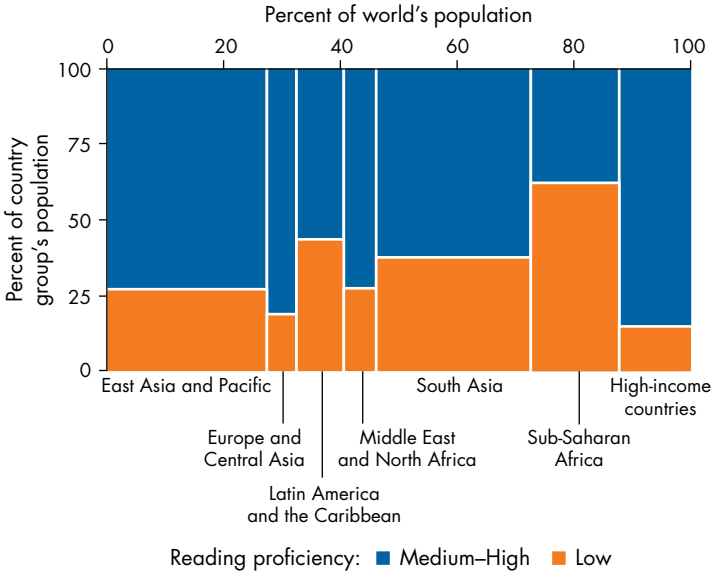
with low literacy proficiency are poorly prepared for the labor market, further education, and on-the-job training. In rapidly modernizing labor markets, most high-quality jobs—and even job training—require reading competency beyond minimum proficiency.[20]

Low skills continue to undermine career opportunities—and earnings—long after students leave school. Gaps in foundational skills affect not only the starting points of new workers entering the labor market but also their growth trajectories. Good foundational skills are essential for further skills accumulation. Worldwide, many students leave school without mastering the key cognitive skills that underpin the development of higher-order cognitive, technical, and specialized skills. This skills deficit limits opportunities for further education or training because the capacity to make up for lost skills shrinks over time: second-chance adult education programs have limited success, and on-the-job training usually favors workers with more education and skills.[21] The consequences are dead-end jobs with relatively flat lifetime income growth for students leaving school with poor foundational skills, a situation that will only get worse as technology affects the demand for skills (see spotlight 5).

Estimates based on 41 countries where skill measures are available suggest that, globally, more than 2.1 billion of 4.6 billion working-age adults (ages 15–64) lack crucial foundational skills.[22] Among younger adults (ages 15–24), the number is 418 million. While these skills gaps exist in all countries, their magnitude is greater in developing countries (figure 3.6), with an estimated 92 million 15- to 24-year-olds affected in East Asia and Pacific, 120 million in South Asia, and 47 million in Latin America and the Caribbean. The implications, already profound, will be felt more acutely as jobs continue to shift from physical to more cognitive or socioemotional tasks. Progress in

Figure 3.6 Reading proficiency is low in many parts of the developing world

Estimated population ages 15–24, by country group and level of reading proficiency



Source: WDR 2018 team, using data from Larson and Valerio (2017). Data at http://bit.do/WDR2018-Fig_3-6.

Note: Model predicts proportion of working-age adults scoring at level 1 or below on the PIAAC-STEP scale based on 41 countries; then projects to world population. PIAAC = Programme for the International Assessment of Adult Competencies; STEP = STEP Skills Measurement Program.

meeting global development goals will be limited as long as the dimensions of this problem, its origins, and its implications remain unrecognized.

Poor children learn the least, which hurts them the most

Learning deficits are largest for poor people. In nearly all countries, students' family backgrounds—including parental education, socioeconomic status, and conditions at home (such as access to books)—remain the largest predictors of learning outcomes (figure 3.7).[23] In France, the difference in science performance on the 2015 PISA between the richest and the poorest students was 115 points.[24] In Hungary, this difference was 202 points.[25] A 100-point difference in PISA scores is roughly equivalent to three years of schooling.[26]

The learning gap between rich and poor students grows as students move to higher grades. In South Africa, children in grade 3 from the poorest households are three years' worth of learning behind children from the richest households. This gap grows to four years' worth of learning by grade 9.[27] In Andhra Pradesh, India, testing the same set of students each year reveals that this gap increases every year after grade 2.[28]

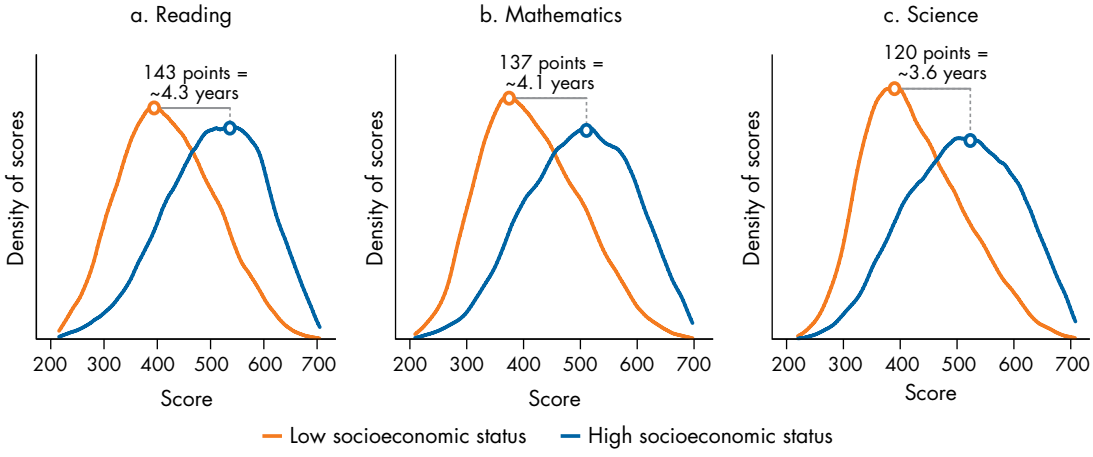
Are learning gaps between rich and poor students simply a matter of household characteristics? Recent evidence suggests not. In Pakistan, rich-poor learning gaps are smaller than learning gaps between children from good and bad schools. In tests of English language, the difference in learning between a high-performing and a low-performing public school is 24 times the difference between children from poor and nonpoor backgrounds, after controlling for observed child-level differences.[29] Analysis of the 2009 PISA found that "the best performing school systems [in Canada; Finland; Hong Kong SAR, China; Japan; the Republic of Korea; and Shanghai, China] manage to provide high-quality education to all students" rather than only to students from privileged groups.[30]

What is causing the learning crisis?

A simple framework can be used to organize the proximate (or immediate) determinants of the learning crisis.[31] Proximate determinants are those most directly linked to learning outcomes and are themselves the result of deeper determinants. The framework identifies four proximate determinants: learner preparation, teacher skills and motivation, the availability of relevant inputs, and the school management and governance that bring these together (figure 3.8). This approach provides a simple tool for

Figure 3.7 Family socioeconomic status significantly affects students' average PISA scores

Distribution of scores on PISA 2015 across 69 countries (pooled) for students from the bottom and top quintiles of socioeconomic status, by subject



Source: WDR 2018 team, using data from Programme for International Student Assessment (PISA) collected in 2015 (OECD 2016a). Data at http://bit.do/WDR2018-Fig_3-7.

Note: A year of education is assumed to equal roughly 33 points on the PISA exam in this analysis, and the gap is calculated as the difference between modal averages of the top and bottom quintiles for each subject.

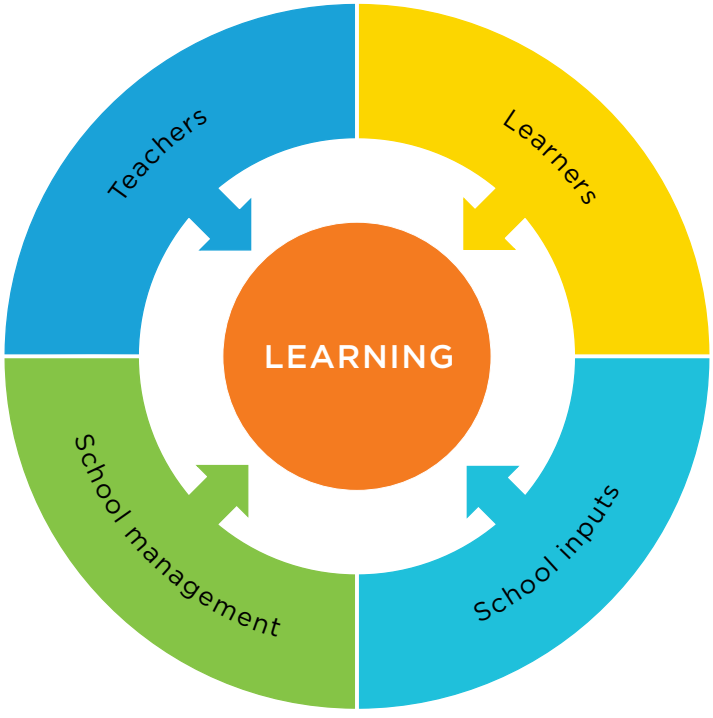
systematically integrating a wide range of actors and factors in determining the learning process.

Children do not arrive ready to learn

Children from disadvantaged backgrounds tend to exhibit learning deficits years before they start school; these deficits leave them ill-prepared for the demands of formal education. Acquiring foundational skills in early childhood is essential for learning, and robust early childhood development can launch children on higher learning trajectories (see spotlight 1). But for children from disadvantaged backgrounds, adversities begin to accumulate before they are born. Chronic malnutrition, illness, the cumulative effects of material deprivation, low parental support, and the unpredictable, chaotic, or violent environments that can be associated with poverty all undermine early childhood development learning (see spotlight 2).[32]

Steep socioeconomic gradients in cognitive, linguistic, and early literacy development help determine school outcomes. Language and cognitive gaps are evident before a child's first birthday.[33] In a wide range of countries, from the Democratic Republic of Congo to the United States,[34] children from poor households lag behind their more affluent peers by age 3, with gaps widening as children age (figure 3.9). Gaps in early

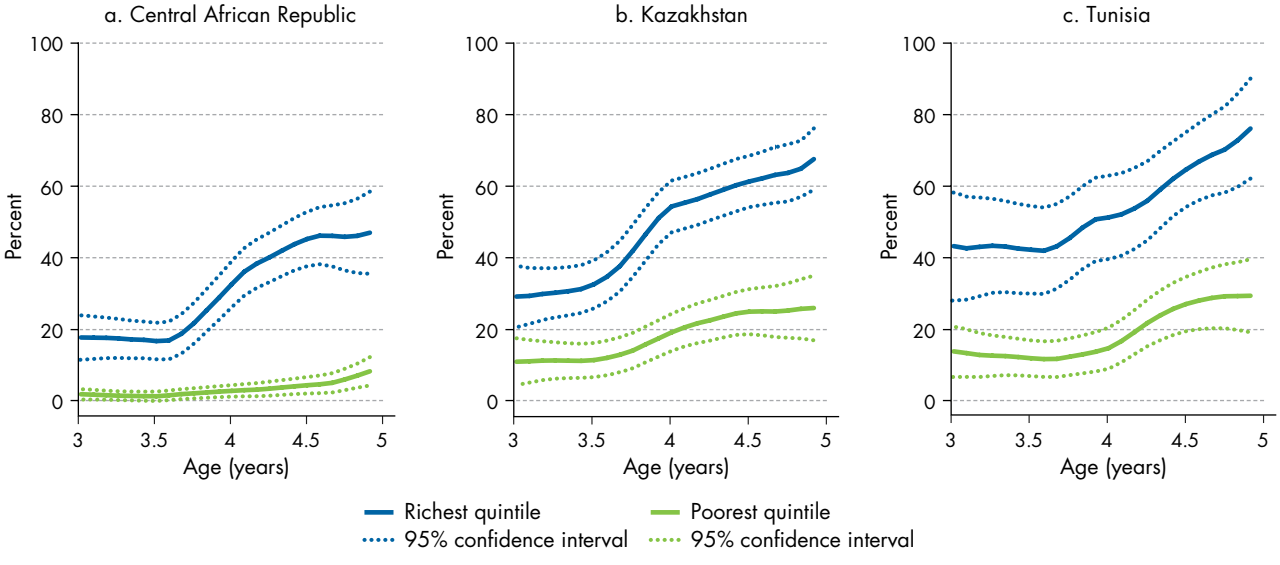
Figure 3.8 The proximate determinants of learning



Source: WDR 2018 team.

Figure 3.9 Socioeconomic gaps in cognitive achievement grow with age—even in preschool years

Percentage of children (ages 3–5) who can recognize 10 letters of the alphabet, by wealth quintile, selected countries



Source: WDR 2018 team, using data from Multiple Indicator Cluster Surveys (http://mics.unicef.org). Data are for 2010 for the Central African Republic, 2010–11 for Kazakhstan, and 2012 for Tunisia. Data at http://bit.do/WDR2018-Fig_3-9.

language and cognitive abilities are very alarming because they are important predictors of performance throughout school and into early adulthood.[35]

Poor foundations are evident in other crucial determinants of school performance such as socioemotional and executive functions. Socioemotional skills include teamwork, motivation, and confidence, while executive functions (which rely on both socioemotional and cognitive skills) include planning, organizing, implementing, and multitasking, among others.[36] The evidence on these developmental dimensions is more limited because of measurement difficulties. Still, gaps in working memory and sustained attention (executive functions) for poorer children are evident starting at 6 months of age and through the preschool years.[37] Even in Madagascar, a very poor country, wealth gradients are apparent after accounting for maternal education and household inputs—gaps that widen with age.[38] There are wealth gradients of socioemotional development as well. One in every three children between the ages of 3 and 4 in a range of countries fails to meet basic milestones in socioemotional development, such as the ability to control aggressive behaviors, avoid distractions, and get along with peers.[39]

Because learning is cumulative and skills beget skills (see spotlight 1), the cognitive and socioemotional developmental gaps that emerge at young ages worsen over time. So do learning gaps: poor developmental foundations and lower preschool skills mean disadvantaged children arrive at school late and unprepared to benefit fully from learning opportunities. As these children get older, it becomes harder and harder for them to break out of lower learning trajectories.

Teachers often lack the needed skills and motivation

Teachers are the most important determinant of student learning. Estimates suggest that in the United States, students with great teachers advance 1.5 grade levels or more over a single school year, whereas those with a poor teacher advance just 0.5 grade levels.[40] Across kindergartens in Ecuador, differences in learning outcomes for language, math, and executive function are strongly associated with differences in teacher behaviors and practices.[41] No other school-level factor has an impact nearly this large on student achievement.[42]

But high-quality teachers are in short supply in low-income countries.[43] Less than 25 percent of Sub-Saharan Africans currently complete secondary education.[44] Thus there are simply not enough qualified candidates to meet the growing demand for teachers. In some countries, teacher training colleges have had to lower their entry requirements to ensure an adequate supply of teachers. These colleges also push trainees through the programs in two years or less to try to fill the need for primary school teachers.[45] In Latin America, there is evidence that candidates entering the teaching profession are academically weaker than the pool of higher education students. Fifteen-year-olds who identified themselves as interested in a teaching career had much lower PISA math scores than students interested in engineering in every country in the region, and they scored below the national average in nearly all countries.[46] Teachers may also not always have the necessary pedagogical skills; classroom observations in six countries in Sub-Saharan Africa found that few public primary school teachers are able to assess children's abilities and evaluate students' progress, and few engage in the practices typically associated with good teaching.[47]

As a result, teachers often do not have sufficient mastery of concepts they are expected to teach. In several Sub-Saharan countries, the average teacher does not perform much better on reading tests than the highest-performing grade 6 students.[48] Across six countries in the region, 40 percent of primary school teachers are not as knowledgeable as their students should be (table 3.1).[49] In Bihar, India, only 10.5 percent

Table 3.1 Few teachers reach minimum thresholds of performance on knowledge assessments

Percentage of teachers who score at least 80 percent on a test of grade 4 material

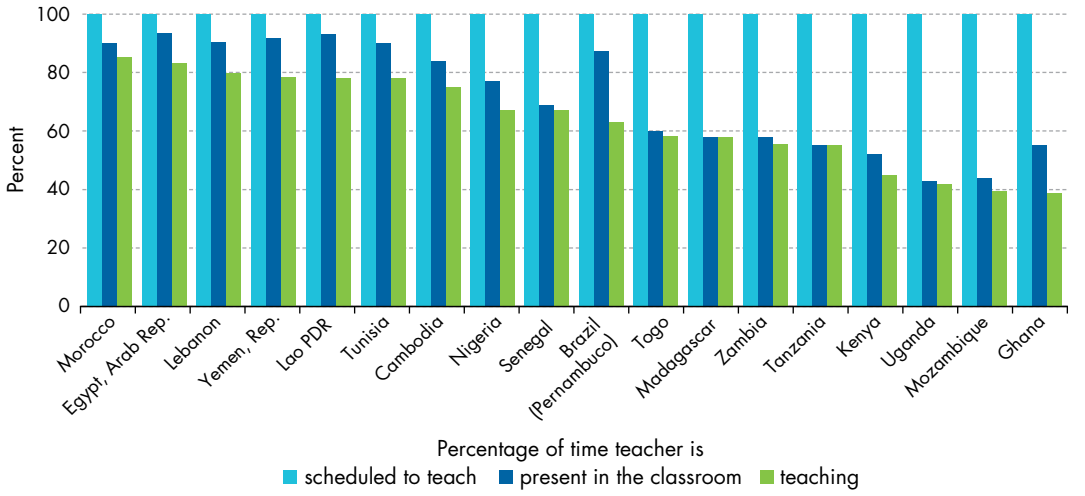
Subject	Average	Kenya (2012)	Mozambique (2014)	Nigeria (2013)[a]	Tanzania (2014)	Togo (2013)	Uganda (2013)
Equivalent to student language curriculum	61	66	77	24	41	54	90
Equivalent to student mathematics curriculum	56	82	26	31	62	24	55

Source: Bold and others (2017).

a. Data based on four states in Nigeria.

Figure 3.10 A lot of official teaching time is lost

Percentage of time officially allocated to schooling that a teacher is scheduled to teach, is present in the classroom, and is actually teaching



Sources: WDR 2018 team, using data from Abadzi (2009): Brazil (Pernambuco state), Ghana, Morocco, and Tunisia; Benveniste, Marshall, and Araujo (2008): Cambodia; Benveniste, Marshall, and Santibañez (2007): Lao People's Democratic Republic; Millot and Lane (2002): Arab Republic of Egypt, Lebanon, and Republic of Yemen; World Bank (2016a): Madagascar; World Bank (2016b): Zambia; World Bank's Service Delivery Indicators, 2012–13 (http://www.worldbank.org/sdi): Kenya, Mozambique, Nigeria, Senegal, Tanzania, Togo, and Uganda. Data at http://bit.do/WDR2018-Fig_3-10.

Note: For Brazil, Cambodia, Ghana, Lao PDR, Senegal, Tanzania, and Tunisia, data include public schools. For all other countries, data include both public and private schools.

of tested public school teachers are able to solve a three-digit by one-digit division problem and show the steps correctly.[50]

Many developing countries suffer significant losses of instructional time (figure 3.10). Unannounced visits to primary schools in six countries found that in public schools, on average, about one teacher in five was absent on a typical school day.[51] Even when teachers are present in school, they may not be teaching. In seven Sub-Saharan countries, students receive only about two and a half hours of teaching a day—less than half the scheduled time.[52] Teacher absenteeism and low time on task when in class—combined with other factors such as informal school closures or student absenteeism—mean that only about one-third of the total instructional time is used in Ethiopia, Ghana, and Guatemala.[53] Even in middle-income countries in Latin America, about 20 percent of potential instructional time is lost—the equivalent of one less day of instruction a week.[54] There are many reasons for this loss of instructional time, including poor training and other demands on teachers, and some teachers may perceive it as justified (box 3.3). But whatever the cause, lost teaching time reduces student learning.

This problem is particularly concerning because the bulk of national education budgets goes to teacher salaries. In Latin America and the Caribbean, teacher salaries absorb nearly 4 percent of the regional gross domestic product (GDP).[55] Staff compensation accounts for 80 percent of public spending on education in some countries (figure 3.11). If one in five government primary school teachers is absent from school, developing countries are wasting considerable resources.

According to recent data on 1,300 villages in India, nearly 24 percent of teachers were absent during unannounced visits, at an associated fiscal cost of US$1.5 billion a year.[56] Reducing absenteeism in these schools would be over 10 times more cost-effective at increasing student-teacher contact time than hiring additional teachers.

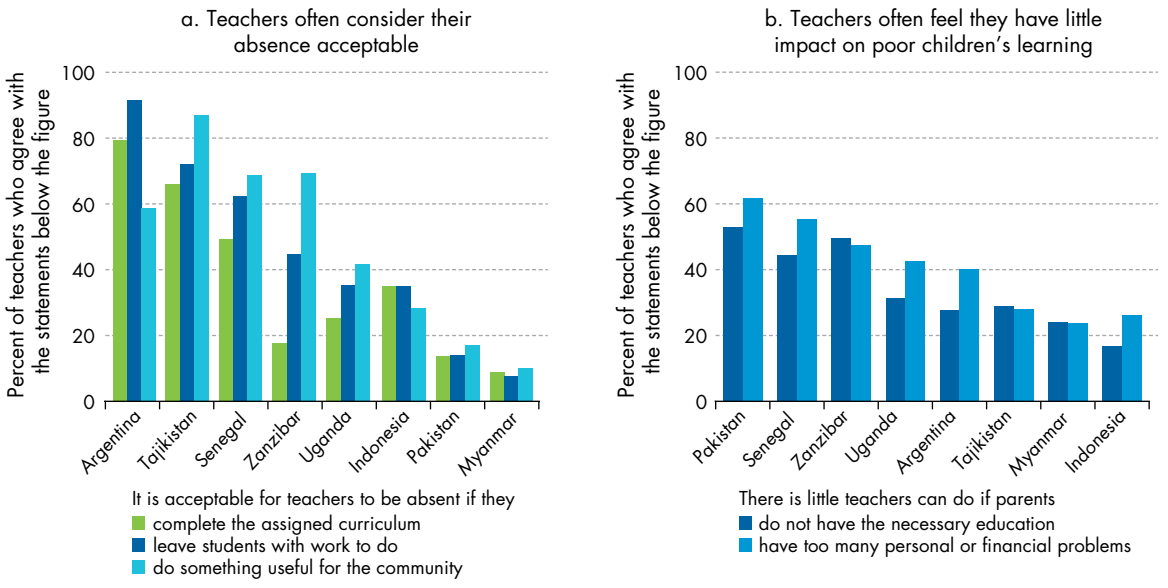
School management skills are low

The effective management of schools relies on capacity and autonomy for decision making at the school level, which are often lacking. Higher management quality[57] and school leadership are associated with better education outcomes.[58] Yet in many developing countries effective school management is missing

Box 3.3 Teachers may perceive low effort as being justified

Teachers across a variety of countries justify certain types of service delivery gaps. Consider teacher perceptions of two basic aspects of teacher performance, based on teacher surveys administered in 2017 (figure B3.3.1).

Figure B3.3.1 Teachers' beliefs about their effort and its effects

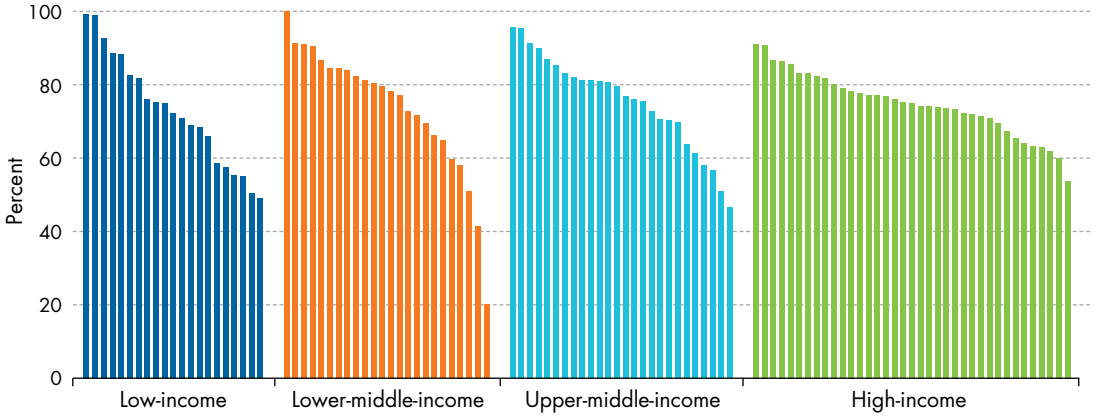


Note: Responses are not mutually exclusive. Data are from public schools, except for Senegal (private and public schools) and Uganda (private schools).

Source: Sabarwal and Abu-Jawdeh (2017). Data at http://bit.do/WDR2018-Fig_B3-3-1.

Figure 3.11 Staff compensation consumes the largest share of resources available for public education

Staff compensation as percentage of total expenditure on public education, by country and income group

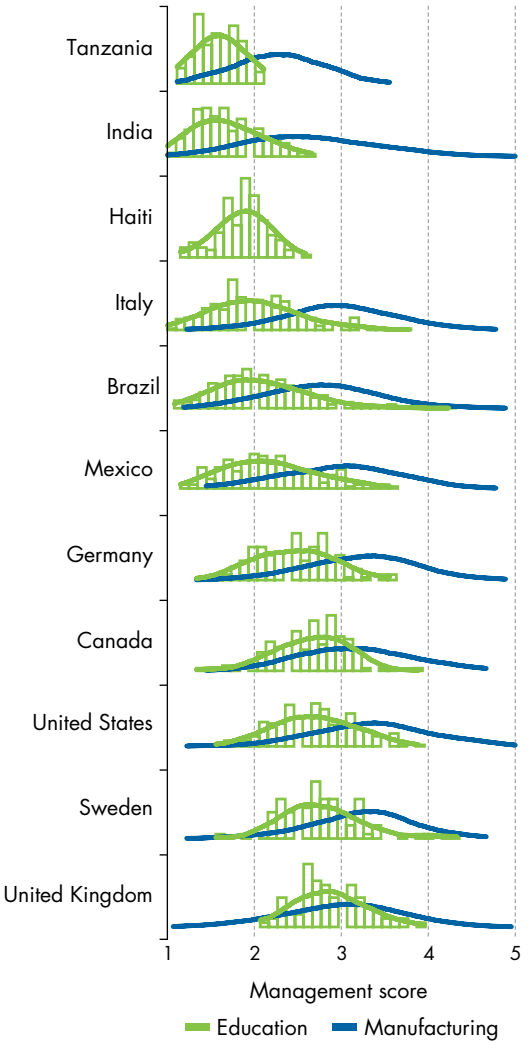


Source: WDR 2018 team, using data from UNESCO Institute for Statistics (UIS 2017). Data at http://bit.do/WDR2018-Fig_3-11.

Note: Figure includes all countries with populations of over 500,000 for which spending data are available at the primary or secondary levels. Latest data available.

Figure 3.12 Management capacity is low in schools in low- and middle-income countries

Distribution of management scores by sector, participating countries



Sources: Bloom and others (2014, 2015); Lemos and Scur (2016), with updates. Data at http://bit.do/WDR2018-Fig_3-12.

Note: The underlying distributions for the education data are shown as bars; for both sectors, the smoothed distributions are shown as curves. The indexes are constructed from the nine items that are comparable across sectors. Data on manufacturing are not available for Haiti.

(figure 3.12). Moreover, lack of autonomy prevents head teachers or school management committees from improving service delivery.[59] Even when the requisite autonomy exists, it may not be enough. Schools may choose not to exercise the provided authority or may lack the will and capacity to do so.[60] For example, a survey in Uganda found that only 57 percent of school management committee members reported having read their committee's handbook.[61] In Uttar Pradesh, India, a quarter of village education committee members surveyed did not even know they were members.[62]

School inputs have not kept pace

In many developing countries, the expansion of inputs has not kept pace with the explosion in enrollments. Governments have built classrooms and recruited teachers at unprecedented levels. But these efforts may not have kept up with rising enrollments, leading to a decline in per capita input availability. In Malawi between 2008 and 2015, as the gross enrollment rate in primary schools increased from 131 to 146 percent, the average number of students per class increased from 85 to 126.[63] Uganda introduced universal primary education in 1997. The 68 percent increase in primary school enrollment that followed increased the student-teacher ratio from 38:1 in 1996 to 80:1 in 1997 and the student-to-classroom ratio from 68:1 in 1996 to 105:1 in 1997.[64]

* * *

The learning crisis is real, but too often education systems operate as if it is not. Many policy makers do not realize how low learning levels are. Others do not acknowledge them or simply equate low learning with low resources. Still, there are reasons for optimism. First, learning is increasingly in the spotlight. Second, learning metrics are generating irrefutable evidence of the learning crisis, thereby creating pressure for action (see chapter 4).[65] Third, promising new insights on how to tackle the crisis are becoming available (see parts III and IV of this Report).

Notes

1. UNESCO (2014).
2. RTI International (2015).
3. Gove and Cvelich (2011).
4. ASER Centre (2017).
5. Muralidharan and Zieleniak (2013); Pritchett (2013).
6. Programme d'Analyse des Systèmes Éducatifs de la Confemen (PASEC) results for grade 6 students in 10 francophone countries in 2015 (PASEC 2015).
7. Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ) results for grade 6 students in 15 countries in 2007 (Hungi 2010).
8. ASER Pakistan (2015a, 2015b).
9. Pritchett and Sandefur (2017).
10. Lee and Hong (2016).
11. Dang and Glewwe (2017).
12. Filmer, Hasan, and Pritchett (2006).

13. UNESCO (2015).
14. Filmer, Hasan, and Pritchett (2006).
15. OECD (2016a).
16. Dang and Glewwe (2017).
17. Crouch and Gove (2011), which is based on the Progress in International Reading Literacy Study (PIRLS) and Trends in International Mathematics and Science Study (TIMSS).
18. Kaffenberger and Pritchett (2017).
19. The literacy skills proficiency construct covers a range of skills from the decoding of written words and sentences to the comprehension, interpretation, and evaluation of complex texts. It takes into account workplace, personal, society, and community. To facilitate the interpretation of individual scores, described proficiency scales are available to articulate the requisite skills and knowledge needed to perform specific tasks along a 500-point scale. The tasks move progressively in complexity from level 0 to level 5. See ETS (2014) and OECD (2016c).
20. Desjardins and Rubenson (2011); OECD (2016b).
21. di Gropello (2011); Fouarge, Schils, and de Grip (2013); Heckman (2000); O'Connell and Jungblut (2008); Windisch (2015).
22. WDR 2018 team estimates using literacy proficiency as a proxy for foundational skills.
23. Bruns and Luque (2015); Filmer and Pritchett (1999).
24. OECD (2016a).
25. OECD (2016a).
26. OECD (2016a).
27. Spaull and Kotze (2015).
28. Muralidharan and Zieleniak (2013).
29. Das, Pandey, and Zajonc (2006).
30. OECD (2010).
31. Hanushek (1979).
32. Lupien and others (2000); McCoy and others (2016); Walker and others (2007).
33. Rubio-Codina and others (2015).
34. Countries where these outcomes have been evaluated include Cambodia, Chile, the Democratic Republic of Congo, Ethiopia, India, Madagascar, Mozambique, Nigeria, Sierra Leone, Togo, the United States, and Vietnam.
35. Fernald, Marchman, and Weisleder (2013).
36. Galasso, Weber, and Fernald (2017); McCoy and others (2016).
37. Fernald and others (2012); Lipina and others (2005); Noble, Norman, and Farah (2005).
38. Galasso, Weber, and Fernald (2017).
39. McCoy and others (2016).
40. Hanushek (1992); Rockoff (2004).
41. Araujo and others (2016).
42. Bruns and Luque (2015).
43. UIS (2006).
44. UNESCO Institute for Statistics, 2016 (UIS 2017).
45. Mulkeen (2010).
46. Bruns and Luque (2015).
47. Bold and others (2017).
48. UIS (2006).
49. Bold and others (2017).
50. Sinha, Banerji, and Wadhwa (2016).
51. Chaudhury and others (2006).
52. Bold and others (2017).
53. Informal school closures may stem from strikes, inclement weather, or ad hoc holidays. For Ethiopia and Guatemala see EQUIP2 (2010); for Ghana, see Abadzi (2009).
54. Bruns and Luque (2015).
55. Bruns and Luque (2015).
56. Muralidharan and others (2017).
57. Bloom and others (2015); Fryer (2017).
58. Robinson, Lloyd, and Rowe (2008).
59. Bruns, Filmer, and Patrinos (2011); Orazem, Glewwe, and Patrinos (2007).
60. King, Özler, and Rawlings (1999).
61. Najjumba, Habyarimana, and Bunjo (2013).
62. Banerjee and others (2010).
63. MoEST (2008, 2015); World Bank (2016c). Gross enrollment includes students whose age exceeds the official age group for a particular education level, so the rate may exceed 100 percent.
64. Bentaouet-Kattan (2006).
65. The World Bank's 2020 sector strategy and the U.K. Department for International Development's 2010 strategy are learning for all; the U.S. Agency for International Development's strategy is opportunity through learning; and AusAID is also adopting learning goals.

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