

## Step 2

### Ensuring that all students learn

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#### Problem: Many more in school—but not learning

Schools are expected to teach basic competencies that enable students to acquire the skills that would help them make informed life choices and that would later be valued by employers and useful for self-employment. In fact, the seeds of these competencies should have been planted from infancy, and schools should develop them. These competencies include (see box 1 in step 3 for definitions):

- *Problem-solving skills.*
- *Learning skills.*
- *Communication skills.*
- *Personal skills.*
- *Social skills.*

In addition to these basic competencies, skills that are more directly required for work can be developed through schooling:

- *Cognitive skills* as demonstrated by an intellectual grasp of the subject matter of various academic subjects such as language, mathematics, various pure and applied sciences, and the social sciences.
- *Psychomotor skills* for the tasks to be performed in an occupation, job or business (operating a lathe or a weaving loom, preparing architectural plans, installing equipment) and the ability to apply the skills in practice.
- *Affective skills* relating to a person's attitudes toward timeliness, accuracy, and general commitment to quality and performance, and perception of the meaning and value of work, concept of self and others.

The lists illustrate the multiple dimensions of job-relevant skills that go beyond simple book learning and

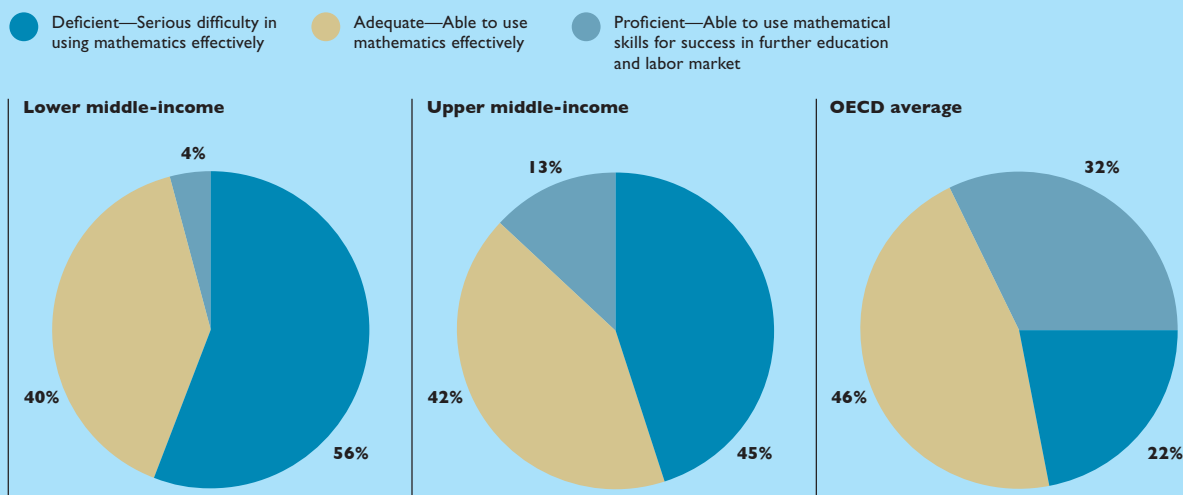
the ability to execute a specific task. But information on learning outcomes indicates that schools in many developing countries are failing to teach foundational cognitive skills, much less the “expert thinking and complex communication” and occupational skills needed to function effectively in the modern labor market.<sup>15</sup> Consider the evidence that significant numbers of students do not achieve minimum levels of learning expected. Recent early grade reading tests reveal that shockingly low proportions of primary-graders in many low-income countries can read a simple sentence with ease and comprehension, making it very difficult for these students to catch up in later grades.<sup>16</sup> In early grade reading tests given to a few anglophone African countries, second-graders performed well below the fifth percentile of U. S. norms.<sup>17</sup>

This is corroborated by evidence from other countries. Despite having been in school for 2-5 years, a significant percentage of school children in South Asia could not read (only 25% after three years) or do basic arithmetic (only 32% could solve subtraction problems).<sup>18</sup> Similarly, in many other low-income countries, fourth-graders perform only at about one-half of the minimum mastery level expected for similar cognitive functions.<sup>19</sup> And the picture is rather bleak even in middle-income countries. Only 4% of 15-year-old students in lower middle-income countries and only 13% in upper middle-income countries are proficient enough in math to succeed in further education and in work (figure 5). By contrast, 32% of OECD students are proficient.

With so many students not learning, higher enrollment rates will not necessarily translate into productivity gains for workers or economic growth. This is a huge opportunity lost. Education remains one of the most powerful instruments for improving lives, reducing poverty and ultimately laying the foundation for economic growth.<sup>20</sup> For individuals, one additional year of schooling raises earnings by 10–20% in low-income countries.<sup>21</sup> And better quality schooling raises earnings even more.<sup>22</sup> Improving the quality of education improves students' performance on tests in the short run<sup>23</sup> and labor market success in the medium run<sup>24</sup>—and contributes to sustained economic growth in the longer run.<sup>25</sup>

It would be too much to ask that most students in developing countries be at levels approaching the OECD's

Figure 5. **Roughly half the students in middle-income countries lack the math skills to succeed in further education or work — PISA 2006**



Source: Programme for International Student Assessment.

top benchmarks. But most systems should rapidly increase the number of students capable of more than the least complex reading tasks, such as locating a single piece of information, identifying the main theme of a text, or making a simple connection with everyday knowledge, and doing simple math. In fact, a young person needs far more than these basic skills. Achieving only the most basic knowledge and skills, youth may have difficulties in navigating life's challenges and performing well in the world of work. This is the case even for youth who will remain in farm work. Consider, for example, the skills required to participate successfully in recent initiatives to use cell phones to help smallholder farmers obtain on-demand, up-to-date market, production, transport and meteorological data.<sup>26</sup> These initiatives help small farmers by reducing information costs which can represent upwards of 10% of their total costs and up to 70% of their transactional costs.<sup>27</sup> Farmers who have higher skills are better able to process codified and complex information, and thus benefit more fully from innovative programs such as these.

Developing countries have made great progress in expanding supply and ensuring access to schools, including for disadvantaged children. In addition, they have used interventions, such as the abolition of school

fees and scholarships, cash transfers to compensate for the opportunity cost of school attendance, and vouchers that give poor students the choice to use privately provided services, that can strengthen demand for education, thus raising enrollments and reducing schooling inequalities.<sup>28</sup> Together, these measures account for notable increases in enrollment rates at the primary and secondary education levels. Now countries need to ensure that “schooled” youth leave school with useful, robust skills. Whether from inadequate or misused educational investment, poor teaching, or ineffective systems, poor learning wastes both public and private resources. It leads to higher repetition, failure and dropout rates, and lower completion and transition rates. Ultimately, poor learning outcomes also limit a country's potential for economic growth.

## What policies improve learning?

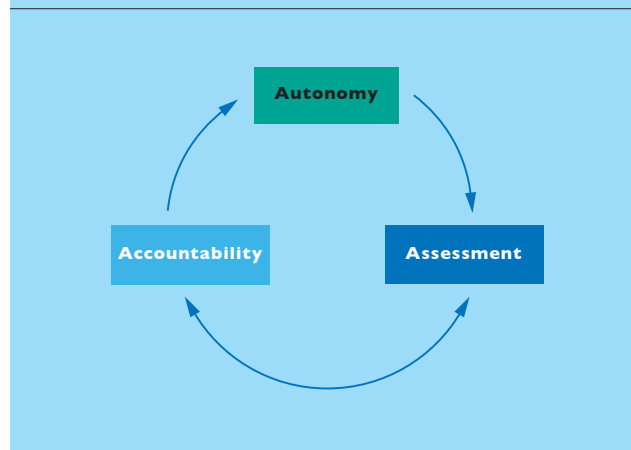
Traditional policies and programs that focus on inputs regardless of outcomes are likely to be wasteful and ineffective. In contrast, those that measure results, address systemic issues and support a long-term vision are likely to succeed. The building blocks of an education system are learning standards, good teachers, adequate resources, and

a proper regulatory environment. But to enhance system performance, these building blocks should be connected through an integrated system of incentives, rewards, and sanctions (figure 6).

- **Standards.** By defining clearly the knowledge and skills that students are expected to gain, they will better understand what is expected of them, schools will cater their programs accordingly, teachers will know what they will be held accountable for, and school managers will be challenged to seek the means to raise the level of teaching and learning.
- **Teachers.** Most teacher-related investments focus on pre- and in-service training, but to improve the teaching force, policies must not only establish and enforce proper qualifications (through training and support services) but also provide teachers the incentives for good performance.
- **Resources.** Without adequate resources for key inputs, it is hard to achieve the standards and goals set for a school system. But also as important as spending levels are the proper allocation of resources to different uses, equitable distribution across schools, and management that minimizes waste and leakage.
- **Regulatory environment.** Managing the various inputs requires monitoring and control to ensure adequate provision. This demands a regulatory environment that encourages good governance, has clear criteria for establishing schools, establishes mechanisms that allow for choice and voice, and promotes equity in financing and results.

One building block that could be added to this list is often forgotten—the physical and mental readiness of students to learn. For example, research shows that youth with disabilities are substantially less likely to start school, and in some countries have lower transition rates resulting in lower schooling attainment. This association is often larger than that with respect to characteristics such as gender, rural residence, or even economic status, and warrant policy attention.<sup>29</sup> Investments in a child's early nutritional and health status make for a good start in life, but children continue to face many health risks into their adolescence, including infectious diseases, hunger and malnutrition, violence, drug and alcohol abuse, and early

Figure 6. **Linking the 3As with incentives and consequences**



pregnancy. Schools can provide some measure of protection by teaching students about hygiene, good eating habits, the dangers of substance abuse, and safe sex. Schools are also a ready-made center for delivering child and adolescent nutrition and health services. For instance, research on the impact of a deworming program in Kenya shows a drop in school absenteeism among the deworming treatment group by approximately one-quarter (or seven percentage points), on average.<sup>30</sup> Worm infections are particularly prevalent among school-age children in many developing countries, and addressing these infections is said to be one of the most cost-effective ways of reducing student absenteeism.

How best to govern, manage and finance these building blocks present difficult challenges for decision-makers, particularly when relevant information about systems and about program impact are unreliable, late or altogether absent. Lessons from research and ground experience indicate that the key decisions about education systems can be grouped into three: how much autonomy to allow and to whom, accountability from whom and for what, and how to assess performance and results (the 3As).<sup>31</sup>

- **Autonomy.** Students and teachers perform best in a climate of high expectations supported by strong teacher-student relations so that students and their teachers are ready to invest effort. Greater autonomy can give schools the flexibility to empower teachers and parents, thus improving teacher morale. In countries that perform well, local authorities and schools have

substantial responsibility for educational content and resource use. But efforts to move more decision-making to the local level need support from the center in matters of evaluation and assistance for weaker schools.

- **Accountability.** To improve learning, school autonomy must be accompanied by an accountability framework that enhances community and parental interest.<sup>32</sup> Accountability contributes to quality by involving the stakeholders and by setting clear goals and standards for the system. If schools and students are responsible for results, they will ensure that homework is done, that students and teachers are in class, that pedagogy is appropriate, and that administrators acquire the appropriate school inputs.
- **Assessment.** If greater autonomy and accountability are to lead to policies for quality, measures of learning outcomes are essential. High-performing countries use information to constantly focus on improvements over time. Good examples are Korea and Singapore, where sustained, smart reforms and systematic use of outcome data have propelled significant achievements. To assess system performance, countries usually rely on national standardized tests, and for cross-country comparisons, on regional or international achievement tests (e.g. PIRLS, PISA, TIMSS)—although many developing countries still do not use these instruments to assess their school system. Such tests complement the easier-to-measure enrollment, repetition, dropout, and completion rates. But measurement is only half the battle. Countries should also strengthen their capacity to analyze and understand results, engage in policy debate using those results, and feed the results back as information into policymaking.

Focusing on the 3As will help improve the quality of education and increase learning, making other policy actions more effective.

## Promoting learning: A few cases of success

There is no magic bullet for achieving system-wide success, but several countries have achieved significant gains by using student assessments, implementing curricular change,

and giving schools more autonomy. Lithuania increased test scores by 34 points in mathematics and 55 points in science in the TIMSS between 1995 and 2007. During this period, it reformed its curriculum on the basis of national standards, gave teachers more autonomy in the classroom, and introduced a new system of financing education. Likewise, Poland improved its PISA scores by 25 points in math and 28 points in reading between 2000 and 2006. Its 1999 reforms focused on improvements in the quality of teaching, administration and supervision, and on curricular reform and independent assessment and examination.<sup>33</sup>

Lower-income countries with lower enrollment rates and achievement levels have also made progress by focusing on their goals for both enrollments and learning. They have adopted national and international benchmarking as a way to monitor results. For example, in India the school report cards developed by the District Information System for Education summarize school information in an easy to read format, allowing parents and stakeholders access to information not previously available to hold schools and authorities to account. The data from the report cards are available on the Web, a potentially powerful tool for local accountability.<sup>34</sup> Ghana witnessed a 34-point increase in its TIMSS score between 2003 and 2007. This large increase was accompanied by a 35% increase in the enrollment of eighth graders.<sup>35</sup> Jordan increased science scores by 30-points in the TIMSS between 1999 and 2007, at the same time that net enrollment in primary education increased by 9% and the transition rate to secondary increased by 25%. It achieved both quantity and quality improvements through a cluster of reforms that included international benchmarking, along with national testing, curricular reform, teacher training, and regular feedback between research and policy.

If effective, schools lay the foundational skills for youth to be productive and creative workers, securing for them opportunities to live well and contribute to their communities. These skills are broader than those that are currently being measured in developing countries because they include also teamwork, communication, and the ability to innovate and solve problems. But countries' efforts today to measure reading comprehension levels, arithmetic acumen, and science understanding are a step in the right direction.