

For Faster Education Progress, We Need to Know What Kids Know

4/14/17 | [Barbara Bruns](#) and Eric Hanushek

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Ahead of CGD's major [event](#) on global education funding with leaders from the Education Commission, Global Partnership for Education and UNICEF's Education Cannot Wait, CGD Visiting Fellow Barbara Bruns and Eric Hanushek, senior fellow at the Hoover Institution of Stanford University, suggest how a standard test across countries for nine-year-olds could help ensure that more financing also means more learning.

On the eve of the 2015 United Nations conference on Sustainable Development Goals (SDGs), one of us (Eric Hanushek) wrote an article in *Foreign Affairs* giving the Conference some unsolicited advice. The article, "[Teach the World](#)," urged that the global education goal, this time, focus on the right outcome. Rather than all children "attending" or "completing" school, what really counts—both for an individual child's life chances and her country's economic growth—is whether schooling equips a child with basic cognitive skills: literacy, numeracy, and the ability to think critically.

Almost two years later, there has been depressingly little progress. The education SDG does frame the 2030 goal as all girls and boys completing primary and secondary education "leading to relevant and effective learning outcomes." The Education Commission's [impressive report](#) produced under the leadership of Gordon Brown documented the learning crisis, and called for a single global measure of learning that could galvanize public attention and provide a baseline for tracking progress. But United Nations task forces are still trying to agree on the best approach. Not only is there still no baseline for tracking progress—there has been no action to develop one. Without a meaningful way to measure learning results, the record of countries across the world is that it is far easier to spend money on education—or expand enrollments—than it is to ensure that all students gain skills.

A reset on the education goal: A universal test of learning

We have an unconventional view of what needs to be done first if we are to achieve truly broad global development. Nobody can realistically improve if they do not know where they stand or what is possible. Throwing more money at the global learning crisis without solid information on the specific challenges facing individual low- and middle-income countries is unlikely to be more successful in the future than in the past. We need an international assessment that will pinpoint educational challenges by providing consistent information on the status of all youth, not just those who have somehow stayed in formal schooling into adolescence. Think of a universal test of nine-year-olds in basic math, reading, and problem solving skills.

We say this because more than a decade of [research](#) by Hanushek and Woessmann on the relationship between internationally comparable test scores and patterns of economic growth for 76 middle- and high-income countries has shown that the economic gains for countries from ensuring that everyone has basic skills are remarkable. Across the 31 middle-income countries for which data exist, the economic gains from achieving universal basic skills would average more than eight times their current GDP. Low-income countries, where education systems have the most room for improvement, have even more to gain. But two-thirds of the world's low-income countries have no consistent and comparable measures of what their students learn. How can they steer policy or track progress?

The international community needs a reset on the education goal. We need to focus—fast—on getting better metrics so we have a platform for monitoring countries' progress and the effectiveness of donor support. The [OECD's PISA test](#), designed to be a transparent and meaningful measure of whether 15 year-olds are ready for the labor market, offers a useful framework, and it is already embraced by close to 100 countries.

But a [2016 CGD policy paper](#) provides evidence that this measure is not enough—it comes too late. First, in most low-income countries, only a minority of 15-year-olds is in secondary school, meaning the in-school population is not representative, and the costs of testing out-of-school children are high.

Second, and more important, the problems start much earlier and need to be caught and addressed when they start. Education systems across the world are failing massively to impart basic literacy and numeracy skills in the early grades of primary school. Staggering numbers of children spend five or more years in school without acquiring basic skills. The UN [estimates](#) that 130 million children across the developing world have spent four years in school and remain illiterate. In India, less than half of children in grade 5 can read a grade 2 story and one in four cannot read a sentence. In Chad and Niger, over 85 percent of children in the last grade of primary school cannot read a text. The Education Commission predicted that, on current trends, by 2030 only 1 child in 10 in low-income countries would gain basic-secondary level skills (see p. 13-14 of the [report](#)). In a world short of the resources to achieve global development goals, cutting the waste—for children, parents, schools, countries, and donors—of education investments that produce no learning should be the highest priority. Countries clearly need an earlier signal that children are not learning than a test administered at age 15.

There is today no age-based test for younger children that measures a set of literacy, numeracy and reasoning skills that are relevant across all developing and developed countries, irrespective of their curriculum. Only this kind of test enables countries to gauge their own progress over time *and* how their progress compares to others. No country likes to compare poorly, but facing this reality has motivated major education improvement in both OECD and developing countries.

UNESCO's Institute for Statistics is working hard to build consensus, but so far there is no agreement on who and how to invest in the first step: developing a test. Now is the time to start. Both the technical and financial challenges of developing such a test are relatively small. With a collaborative effort among test agencies and drawing on high quality regional tests in Latin America and West Africa, in less than three years and for less than \$10 million dollars, the metrics the world needs—a transparent and meaningful test of the literacy, numeracy and reasoning skills that a nine-year-old needs for further learning in today's world—could be in our hands.

Why an age-based test, and why for nine-year-olds?

We recommend an age-based test of nine-year-olds for four reasons:

- **Neuroscience.** Defining a set of skills that should be consolidated by a certain age makes sense from the standpoint of children's brain development. Neuroscience tells us that children should be able to read texts and handle basic math operations and reasoning by age nine. If these skills are not yet consolidated, they cannot succeed while

advancing further in school.

- **Transparency.** Measuring what a country's nine-year-olds know and can do provides directly comparable data on how well school systems are developing critical skills. Countries' national assessment systems typically test children by grade, which serves some useful purposes for education policy. But there are major differences in curriculum expectations across countries and, as detailed in a [blog by Justin Sandefur](#), there is a huge dispersion in the ages of second, third and fourth grade students. Test scores for a fourth-grade population that is mainly nine-year-olds in one country but 11- and 12-year-olds in another makes results less comparable and less meaningful.
- **Benchmarking.** Results of an age-based test provide countries with important benchmarking information about the structure and functioning of their education system: do our children start primary school later than in other countries? Is our early grade repetition higher? Is our curriculum for the early grades appropriate? When Brazil's education minister saw PISA 2000 results showing that 15-year-olds in ninth grade performed as well as those in OECD countries, but because of high repetition, over half of Brazil's 15-year-olds had not reached ninth grade, he launched major efforts to reduce repetition that had big payoffs for students and system efficiency.
- **Pragmatism.** Countries' national assessment systems will, appropriately, remain grade-based. An investment by the international community in a new instrument will be most efficient if it complements, rather than duplicates, what exists at country level. A globally relevant test for nine-year-olds would provide developing countries with data on their education system performance that they cannot get from any other source today. Since age nine is the modal age of children in OECD countries who take the TIMSS and PIRLS (grade four) international assessments, benchmarking with a larger pool of countries would be possible at no additional cost. Finally, the six-year difference between ages nine and 15 is equivalent to two rounds of PISA (which is administered every three years), which offers the possibility of tracking cohorts of children over these two assessments and deepening our research understanding of how children learn.

Benefits beyond the countries tested

The most important benefits from measuring nine-year-olds' learning will be for those children, their parents, and their countries. But such a test is also a global public good and should be subsidized as such.

There has been a huge—and influential—increase in cross-country research on education over the past fifteen years, on questions ranging from the importance of skills for economic growth to the role of school autonomy in raising system performance. A major stimulus was the high quality, internationally comparable database on student learning that Hanushek and Woessmann created with PISA data. Other international and regional test score data were subsequently incorporated into this database. But directly comparable data from a high-quality, age-based test for a large set of countries was a game-changer for cross-country research.

We support the efforts of the Education Commission, the Global Partnership for Education, UNICEF and UNESCO to raise additional funding for global education. But we urge global education leaders to focus first on a meaningful measure of what kids know, so we can hold ourselves accountable for progress. Past evidence is clear that all too often just providing more funding has not led to any material increase in the skills that are needed to compete in our increasingly technological world.

We see two remedies for the global learning crisis that are more direct and powerful than massive incremental funding. The first, necessary and unavoidable step is for political leaders, education officials, and parents to recognize the depth of the problem—children's lives and public money wasted—in their country and to be motivated to seek solutions. A global measure of early learning may deliver this message more powerfully than any other channel.

The second antidote is the evidence, ideas and insights that cross-country research based on good global data can supply. All countries benefit from knowing which education systems do the best job of imparting basic skills by age nine. All countries gain from seeing which teaching methods work best to help kids read, or master arithmetic, or begin to think logically and critically. We need this knowledge yesterday. Let's develop the test that can help us today.

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