Where education has failed: The scope and scale of challenges

In low- and middle-income countries, there is a scaling model for enrolling children: build schools and make education free and compulsory. However, progress has been far less successful on enrolling early, learning well, and completing secondary school, and there is a "100-year gap" between educational outcomes in developed and developing countries—both today and into the future.[3]

This 100-year gap can be seen clearly by today's low levels of learning in developing countries. Despite the large increases in children enrolling in school, research estimates that more than one-third of children around the world lack basic reading and mathematics skills—including 130 million children who are in school (see Figure 2).[4] For some countries, the situation is staggering. In 2008 in Mali, depending on their language and region, 83 to 94 percent of second graders could not read a single word.[5] In India, less than half of rural fifth graders could read a second-grade text in 2014, and just 26 percent could do division.[6] In Kenya, Tanzania, and Uganda in 2013, only one-third of third graders were at or above second-grade level literacy and numeracy skills.[7] The picture into the future is grim as well. Despite limited data, it has been estimated it could take more than 100 years for students in developing countries just to reach today's average level in developed regions when it comes to science—and they might never close the gap in math.[8]

Another aspect of the global education goal that will be hard to achieve is every child completing school from early childhood through the end of secondary school. The world's poorest countries are still 100 years behind in terms of schooling completion. In 2010, South Asian and African adults just reached average schooling levels of early 1900s Europeans and North Americans.[9] Enrollment in pre-primary school has increased 64 percent since 1999 across the world, but still less than 50 percent of children attend a pre-primary education program in most countries and few quality early childhood development programs exist for the youngest children.[10] In general, the poorest and most marginalized children are not benefiting from early childhood interventions.[11]

On the other end of the spectrum, secondary education remains a huge challenge as well. According to projections from the Wittgenstein Centre for Demography and Global Human Capital, it will be decades until all youth have completed secondary education. By 2035, five years past the deadline for the SDGs, only 63 percent of the world's 20- to 24-year-olds will have completed upper secondary school. To reach 100 percent, progress would need to be three times

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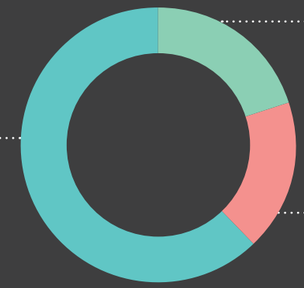
FIGURE 2.

The learning crisis:

38% of children not learning basic literacy and numeracy



400 million
children complete four years of school and learn the basics.

130 million
children complete four years of school without learning the basics.

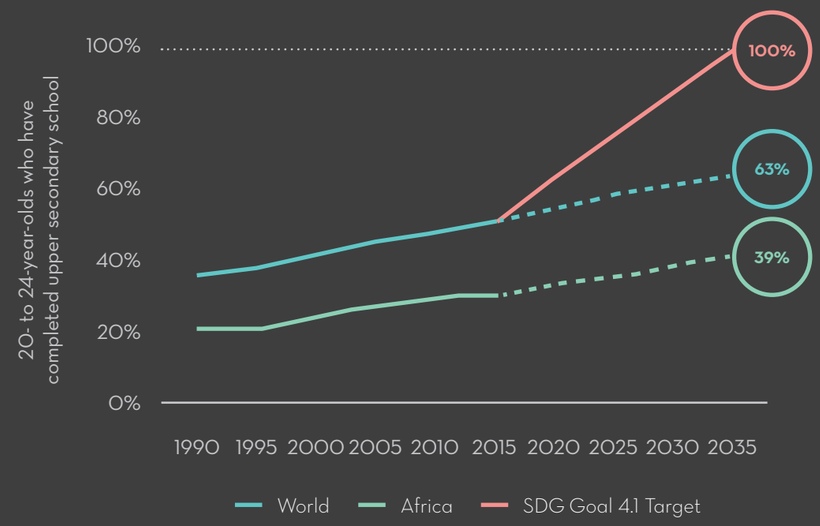
120 million
children do not complete four years of school.

Source: EFA Global Monitoring Report (2013-14)

FIGURE 3.

Reaching universal secondary education:

Projected gap[1]



Source: Wittgenstein Centre for Demography and Global Human Capital (2015)

[1] Note: This graph is motivated by the work undertaken at the Overseas Development Institute (ODI) but contains the authors' calculations for upper secondary school completion. The ODI paper made calculations for reaching universal lower secondary school attainment and used different regional definitions, explaining the discrepancy from our figures. Here the "goal" projection is merely a straight line and does attempt to project the actual acceleration needed for the trend to reach 100 percent.

as fast as current rates (see Figure 3). The challenge is concentrated in lagging regions. In Africa, for example, only 39 percent of youth will have completed secondary school if the current trajectory continues. Again, it is those who are most marginalized who are falling behind.

In addition to the 100-year gap between developed and developing regions, it is clear that it is the most marginalized populations within countries that are struggling. Massive inequality exists in many countries between the richest and poorest, between boys and girls, and between urban and rural children. In Nigeria, for example, 71 percent of the poorest children are out of school versus only 2 percent of the richest children, and 40 percent of rural children are out of school versus 9 percent of urban children.[12] Countries around the world, high-, middle-, and low-income alike, are facing these inequalities.

These challenges are further complicated by the fact that we often lack systematic data on learning that can be regularly used by educators and policymakers at a classroom or national level, referred to by the global Learning Metrics Task Force as "the global data gap" on learning outcomes.[13] A recent study by the Global Partnership for Education estimated that of the 60 poorest countries in the world, only two had the basic elements in place for a student learning assessment system.[14] Across the developing world, most countries administer annual national exams at the end of a schooling cycle. The exams frequently focus on a subset of academic subjects and are of limited use for real-time adjustments to policy and practice. In addition, countries frequently make use of a variety of assessment tools or programs that are housed outside the country and provide snapshots on specific aspects of children's learning, usually literacy and numeracy. These programs, such as the Programme for the Analysis of Education Systems (PASEC), which is administered across Francophone Africa every three years, or the Program for International Student Assessment (PISA), which is administered by the Organisation for Economic Co-operation and Development every three years, or Boston College's Trends in International Mathematics and Science Study (TIMMS) assessment for math, can be useful exercises for countries and importantly contribute to a global picture on children's learning levels. However, they are no replacement for a well-developed student learning assessment system that is run by countries themselves and gives regular feedback on how students are progressing that can be used by educators and policymakers to inform what changes are needed in policy and practice.

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Financing education is an additional challenge in achieving the SDGs. UNESCO estimates that meeting the goal of ensuring that all children acquire quality education from pre-primary through secondary school will require an additional $39 billion annually.[15] Colleagues at the Center for Universal Education (CUE) at Brookings have found that while domestic government spending is increasing and is the largest source of education finance, it remains far short of the amount needed. In addition, declining aid to education over recent years and the fragmentation between different funders will make it difficult to close the funding gaps and reach marginalized populations. They recommend better coordination among donors, an eye toward results and enhanced effectiveness of spending, and greater resources across traditional actors, including harnessing new and innovative forms of finance.[16] The International Commission on Financing Global Education Opportunity, which was established in November 2015, is tackling how to meet the needs of all the world's children by bringing together critical research to address the continuing barrier of lack of sufficient and effective financing for education.[17]

Why focus on learning?

Globally, the focus on access to primary school has led to incredible gains. But increasingly data show that it is the learning that occurs in schools, which drives many of the social and economic benefits, including healthy children, prosperous economies, and a strong workforce. Scaling education programs that improve both access and learning at the rate primary schooling access has grown will have tremendous impacts on societies and economies.

Early childhood programs lay the foundations for further development in primary school, secondary school, and beyond, largely with a focus on what are frequently called 21st-century skills. This includes teamwork and cooperation, communication, problem solving, self-control, and perseverance. In the words of Nobel Prize-winning economist James Heckman, "skill begets skill . . . learning begets learning."[18] These 21st-century skills lead to higher academic achievement including literacy and numeracy in primary and secondary school, higher wages, and lower levels of crime.[19] Perhaps this is why early childhood development programs have such high returns, by some estimations $8 for every $1 invested.[20]

Beyond individual returns, evidence abounds that the skills learned in school have a profound impact on economies and societies. While studies in many countries have shown that completing more years of school increases people's wages and improves health outcomes,[21] education economists Eric Hanushek and Ludger Woessmann have recently found that differences in skills—not schooling levels—explain differences in economic growth across countries. For instance, by comparing learning outcomes with economic growth, their work helps to

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explain why Latin America and East Asia could have similarly high levels of school completion yet drastically different levels of economic growth from 1960 to 2000. It was the high level of skills, measured by math and science assessments rather than years of schooling, that contributed to East Asia's rapid economic expansion, while Latin America's comparatively lower levels of learning contributed to stunted growth. In fact, the authors estimate that if all countries possessed the cognitive skill level of Finland, often a top scorer on international exams, global economic growth could be 8.5 to 13.8 percent higher.[22]

Learning the right balance of academic and 21st-century skills is increasingly important for success in the labor market today and into the future. Employer surveys, labor market analyses, and academic studies all find that across the board there is a significant skills gap between the capabilities of youth and the needs of the labor market, and improvements to technology will only widen this gap. Using data from the United States, economists David H. Autor, Frank Levy, and Richard Murnane found that over time, the share of jobs requiring "routine" skills in the labor market has fallen over the past half century. Those requiring analytical and interpersonal skills, however, have grown rapidly.[23] World Bank research confirms this finding globally using data from 30 developing countries.[24] The future workforce will need to be equipped with a robust skill set, including literacy and numeracy plus communication, collaboration, and critical thinking skills, to contribute to the economy and lead prosperous lives, meaning there is an urgent need for strong education systems to close the global skills gap.

Equally important as economic benefits, improved levels of education and learning can have great impacts on health and the environment. For example, research has shown that half of the decline in child mortality globally between 1970 and 2009 is due to mothers having higher levels of education.[25] Educated parents are more likely to be healthy themselves and also have well-nourished children, to get them vaccinated, and send them school.[26] Additionally, educated mothers have fewer children, which in the long run can significantly slow population growth and improve environmental sustainability.[27] Research has also shown that communities with higher levels of education are more resilient in the face of natural disasters.[28]

In the future, the benefits that education can bring to both individuals and societies will only become more and more vital. Global population growth, coupled with a demographic shift that will see an increasing share of the workforce come from developing regions, calls for more and better education for children and youth, particularly in sub-Saharan Africa and South Asia. Population growth and urbanization will pose new challenges to the environment and health, and young people will need a host of skills, including digital literacy and critical thinking to navigate an increasingly connected world. These shifts call for a deeper understanding and greater attention to the drivers behind scaling quality learning opportunities to reach every child in the world.