

## Addressing the Learning Crisis: An Emergent Consensus

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*Abstract:* Success can make a previous consensus not so much wrong as just irrelevant. The Washington Consensus joined in a broader consensus that governments need to spend on education in order to reach universal schooling to create human capital. But “spend to expand access” has been so successful there is less and less space for additional improvements in education outcomes—the skills and competencies children need to acquire in school—through “access.” Global, national and local actors agree on the need to increasingly focus on improving learning outcomes. Moreover, there is an emergent consensus that improving learning will require much more than just “more spend” and that a substantial re-alignment of education systems from “expansion of access” to “increased learning” is needed. And, while there is yet a consensus on the granular details (and may never be as success tends to be home grown and adapted to context), there is increasing agreement around a set of principles that will drive sustained gains in improving learning outcomes.

### *Introduction*

I argue the world needs to move on from something many believe John Williamson’s original 1990 Washington Consensus got right. In the section under “public expenditure priorities” in Williamson’s paper, he said that “Washington” loves spending on education and health. “Education and health,” he argued, “are regarded as quintessentially proper objects of government expenditure. They have the character of investment (in human capital) as well as consumption. Moreover, they tend to help the disadvantaged.” Government expenditure in education was deemed particularly useful when focused on primary school.

The consensus that primary education is essential to development, a key governmental responsibility, and a “proper object” of spending is not new, not a consensus of economics alone, nor particular to “Washington” but rather is long-standing and broad, across the globe, across the political spectrum and across academic disciplines. Just as one example, in 1990, the same year as Williamson’s essay, the 1500 assembled delegates of governmental, non-governmental, and inter-governmental organizations at the Education For All conference in Jomtien, Thailand made a similar case for state spending on education. The Jomtien Declaration asserted that every person has the right to educational opportunities that equip them with basic literacy, numeracy, and problem-solving skills, in order “to live and work in dignity,” among other goals.

I argue, however, that this consensus did not go nearly far enough to actually achieve its objectives. Though primary education has become nearly universal, learning outcomes are poor and leaves most students badly equipped either for future education or to compete in the labour market. We need a new, post-Washington, post-Jomtien, consensus that focuses on the *quality* of education in preparing students with the learning, skills and competencies students will need in their adult lives, rather than just intermediate goals like increasing spending and expanding years of schooling complete. As the first consensus was successful and did lead to universal primary

schooling (and more), the second must go deeper and improve learning systems and lead to the universal education outcomes needed.

This paper is outlined as follows: in the first section, I review the successes and shortcomings of the expansion of primary school since the end of World War Two. Though access to education has massively increased, learning results are lacklustre, children are learning less than they should for their age, and in many developing countries learning results have either stagnated or gotten worsen in recent decades, an alarming reversal. In the second section I propose five deep and broad actions policymakers can take to improve learning systems. For years, most approaches conflated spending on school with providing a quality education. But the problem today is not a lack of access to education. Rather, learning *in* schools is radically inadequate. To solve the learning crisis, we need a new approach grounded in a new consensus.

### ***I) The successes and failures of the first consensus***

In the past seventy years the expansion of schooling, both primary and “basic” (which can be flexibly defined to include junior or full secondary), has been enormous. The completed schooling of the median youth aged 25 to 34 in the developing world increased from only 2.9 years in 1960 to 9.8 years in 2015. By 2015, nearly all children around the world had completed primary schooling--and most completed several years beyond primary. Young people in most developing countries, even very poor ones, today have more years of schooling than their counterparts in advanced countries did in 1960. By 2015, the typical 25 to 34 year old had completed 9.2 years of schooling in Bangladesh, and 7.2 years in Zambia, compared with 6.7 years of schooling completed for youth in Denmark in 1960.

Basic schooling, the physical fact of being enrolled and attending school, is a necessary condition for basic education, but schooling and education are not, even though this elision is distressingly common, synonyms. Basic education refers to outcomes, the gains in the wide variety of learning, skills, ideas, competencies, dispositions, and behaviors which are the object of schooling. Because of the impressive success of the “first consensus” in facilitating the expansion of schooling, there is increasingly limited progress possible in reaching universal basic education by further expanding schooling.

Even as basic schooling vastly expanded, there were fears that the quality of the education being provided was not fit for purpose. Education experts knew that there needed to be both *more* and *better* schooling. Yet, understandably, the priority was first to expand access. If we think of global cohort of 15-year-olds as represented by 20 youth, in 1960 only 2 out of 20 were reaching a goal of foundational learning, defined as reached modest levels of literacy and numeracy, and most of this was lack of schooling as 10 of the 18 children not getting to foundational learning were not completing primary school.<sup>1</sup> Expansion was the clear priority. In 1990 it was still the case that of the 15 children out of 20 who were not reaching foundational

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<sup>1</sup> Pritchett, L., Newman, K. and Silberstein, J. "Focus to Flourish: Five Actions to Accelerate Progress in Learning. Research on Improving Systems of Education." (2022). [https://dx.doi.org/doi.org/10.35489/BSG-RISE-Misc\\_2022/07](https://dx.doi.org/doi.org/10.35489/BSG-RISE-Misc_2022/07).

learning, 6 were not completing primary school and hence it was hard to shift away from the expansion agenda.

However, because of the success in expanding schooling we have now reached the point further expansion cannot alone lead to major gains in expanding education, hence it is now essential to focus on improving the pace of learning of those in school. In 2023 it was still the case that most of the world's youth, 12 of 20, did not reach foundational learning—but only 2 of those 12 without foundational learning are failing to complete primary schooling. The “learning crisis” is the name for the fact that in many developing countries youth are completing basic schooling without achieving even the basic learning, which includes at a minimum literacy and numeracy, articulated in 1990 at Jomtien. The pace of learning in schools is too slow (especially in the early years) and the learning acquired is too “thin”, based on rote memorization. This means that even those who complete basic schooling enter adulthood ill-equipped for the complex and changing world they face.

An understanding that basic education needs to be more focused on learning outcomes is already emerging. While in 2000 the Millennium Development Goal for education was merely “completion” of primary school, the education aspirations in Goal 4 of the Sustainable Development Goals in 2015 emphasised that all youth should achieve literacy and numeracy (a specific competence goal) as well as completing “*free, equitable and quality primary and secondary education leading to relevant and Goal-4 effective learning outcomes.*” Many global supporters of education have adopted the goal to eliminate “learning poverty” by ensuring that, at a minimum, all children can read fluently by grade 4—while *The State of Global Learning Poverty: 2022 Update*, a joint report of six major global supporters<sup>2</sup> of education, estimates that currently 70 percent of children are not reaching even that very modest education goal.

A) “*Schooling ain’t learning*”: *Why the new agenda in basic education is addressing the learning crisis*

The strong evidence that learning outcomes are insufficient is the result of an enormous expansion in assessment of student skills and capacities in previous decades. These assessments fall are of six types.

First, there are assessments of enrolled students, typically in later grades near completion of basic education, that probe students’ understanding and ability to apply curricular cognitive learning in concrete ways. These include both assessments with global participation (although participation is voluntary and much higher by richer countries) and regional assessments in Latin America and Africa.

Second, there are citizen-led assessments that assess the literacy and numeracy abilities of children through household surveys. These have the advantage of including children both in and out of school and cover children of difference ages, not just a specific grade.

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<sup>2</sup> World Bank, UNESCO Institute of Statistics, UNICEF, UK Foreign, Commonwealth, and Development Office, USAID, Gates Foundation, all in partnership with UNESCO.

Third, simple questions about literacy or numeracy have increasingly been included in large scale, multi-module, household surveys, carried out in many countries, like the Demographic and Health Surveys (DHS) and the Multiple Indicator Cluster Surveys (MICS). For instance, the Demographic and Health Surveys have implemented (nearly) identical survey instruments in over 80 developing countries, repeated in multiple rounds since the 1980s. Since 2000 the standard DHS survey instrument measures a respondent's ability to read by asking them to read a simple sentence in their preferred language. This allows direct comparisons across and large number of countries and, even more importantly, over time (le Nestour, Moscoviz, and Sandefur 2022).

Fourth, there has been a proliferation of assessments for the youngest children. These assess early skills in literacy and numeracy orally, such as Early Grade Reading Assessments and early assessments of numeracy, which have the advantage of allowing very early grade assessments without the conflation of the subject matter assessment with the ability to take a “pen and paper” test.

Fifth, there are individual country assessments of learning that happen in various grades, but which are not internationally comparable.

Sixth, there are assessments constructed as part of research endeavours such as impact evaluations of specific interventions.

The results of these various types of assessments lead to four robust conclusions about learning in many developing countries:

- learning of those near the end of basic school is too *low*,
- learning in the early years is too *slow*,
- learning is too *thin*,
- learning is (mostly) not getting better, either staying the same or getting *worse*.

*Learning is too low.* In most developing countries the levels of learning of enrolled students at age 15—the age at which the PISA is completed—is often far below reasonable and achievable thresholds. Table 1 shows the results from the most recent study of whether youth aged 15 are reaching a level of basic skills in maths and science (where the level defined as “basic” roughly corresponds roughly to the global standard for “basic” adopted in the Sustainable Development Goals), by combining a number of existing assessments (Gust, Hanushek and Woessmann 2022). The researcher's findings are that 94.1 percent of youth in Sub-Saharan Africa (SSA) are not reaching basic skill in math and science, defined as the ability to apply math to solve simple problems. Of the one-third of the 15-year-olds who are enrolled in school, 89.3 percent are not reaching these basic skills. This implies that, while almost two thirds of students in SSA are not in school at age 15, even if all those students were in school and had the same learning as those now in school, the fraction of the youth cohort lacking basic maths and science skills would only drop 5 percentage points, from 94.1 percent to 89.3 percent.

In Latin America, learning outcomes are much better, but it is still the case that 61.2 percent of enrolled students are not reaching basic skills. Again, even if all students were in school it would raise the fraction reaching basic skills at most by 4 percentage points.

Table 1: In many developing regions the majority of students enrolled in school at age 15 have not reached basic skills in math and science			
Region	Fraction of enrolled students in secondary education <i>not</i> reaching basic skills	Fraction of youth <i>not</i> enrolled in secondary education	Fraction of youth <i>not</i> reaching basic skills
Sub-Saharan Africa	0.893	0.665	0.941
South Asia	0.850	0.402	0.892
Middle East & North Africa	0.639	0.195	0.679
Latin America & Caribbean	0.612	0.210	0.652
Central Asia	0.400	0.094	0.421
East Asia & Pacific	0.252	0.219	0.291
Europe	0.259	0.102	0.284
North America	0.222	0.069	0.239

*Source: Gust, Hanushek and Woessmann (2022), Table 2*

*Learning is too slow.* Unlike in-school, late-age assessments, the ASER<sup>3</sup>-style assessments pioneered by the NGO Pratham in India, cover all children and hence can show the progress from grade to grade in achieving basic skills like the ability to read a simple story or do a simple addition. These assessments show that a proximate cause of the low learning levels in later grades, and likely the cause of much drop-out (Kaffenberger and Pritchett 2021), is that many students are arriving at grades 3 and 4 still unable to read simple stories or handle simple arithmetic operations. A recent analysis of foundational numeracy skills from UNICEF’s MICS surveys found that by 3<sup>rd</sup> grade, 60 percent of Thai children had reached foundational numeracy, while less than 20 percent had in Pakistan and less than 10 percent in Ghana (Silberstein 2021). Even before the COVID-19 pandemic hit in 2020, more than half of children in the world were unable to read fluently by grade 4 (Learning Poverty Report 2023).

*Learning is too thin.* While test scores, even in a single domain like reading or mathematics, are reported as a single number, the score has at least two dimensions. With assessment of cognitive skills there is a “breadth” of coverage but also an assessment of the “depth” of understanding. There are different ways of describing this depth of understanding, as a move from rote memorization to “procedural/algorithmic” (e.g. able to do multiple digit addition with carry following a rule, without necessarily a conceptual understanding of why the procedure produces correct answers)) to “conceptual understanding” (e.g. being able to explain

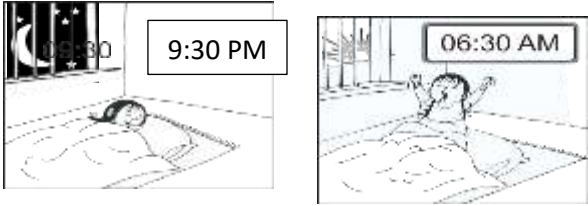
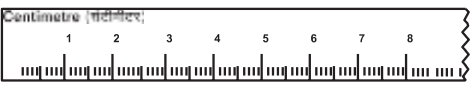
<sup>3</sup> ASER is both an acronym (Annual Status of Education Report) and means ‘impact’ in Hindi.

to others) to “non-routine application” (e.g. the ability to apply skills in new circumstances). Assessments that probe the depth of understanding often reveal that even the learning that is present is “thin”. Most students can answer questions that can be answered in a rote or purely procedural way. But they usually struggle to answer questions which probe their conceptual understanding of material. Students also generally lack the ability to apply their rote skills to novel applications.

For instance, the India Education Initiatives (2009) assessment asked children: “ $29 \times 28$  is more than  $28 \times 28$  by how much?” There are three paths to the answer to this question. One, if a person understands that multiplication is repeated addition, then the answer is easy and requires no computations  $29 \times 28$  is adding up 28 29 times and  $28 \times 28$  is adding up 28 28 times so the difference is adding up 28 one less time, hence the answer is 28. Two, if one can write the question as an equation and apply the distributive law then again the answer is easy:  $29 \times 28 - 28 \times 28 = (29 - 28) \times 28 = 1 \times 28 = 28$ . Three, even without any conceptual understanding of multiplication or the ability to apply the distributive law, one could get to the right answer by carrying out the two two-digit multiplications and subtracting. But the study found that even children who could answer the multiplications when asked in a standard way--such as: “ $29 \times 28 = ?$ ”--could not answer this question, even though with a modicum of conceptual understanding this question is actually easier.

In another example, in 2017 the Pratham/ASER study surveyed rural Indian youth aged 14 to 18 on their ability to apply literacy and numeracy to simple practical tasks. One question (not displayed here) showed a key with the base aligned on a ruler at zero and the tip on 4 cm and asked “Using the scale shown, measure the length of the key. Give the answer in centimetres.” Since this is exactly how measurement is taught in Indian textbooks, 94.1 percent of those youth enrolled in tertiary education answered this question correctly. But when the base of a pencil was displaced, and started on 2 cm of the ruler, with the tip on 8 cm, only 60.1 percent of youth enrolled in tertiary education answered correctly. It seems that about a third of students who appeared to understand measurement were actually just giving rote answers that reflected no conceptual understanding. Similarly, the results in Table 2 suggest that just over half of rural Indian youth who had successfully completed secondary education and were enrolled in tertiary education could correctly calculate the passage of time.

Table 2: Even rural Indian youth enrolled in tertiary education had limited skills in simple practice tasks like calculation of time or measurement with a ruler

	Calculating Time	
<p>If this girl sleeps at this time at night and wakes up at this time in the morning then for how many hours does she sleep</p>	Current Level of Enrollment	Percent Correct
<p>Using the scale shown, measure the length of the pencil. Give the answer in centimetres.</p>	Not enrolled	20.6
	Enrolled in grade 12 or less	40.5
	<b>Enrolled in undergraduate or other</b>	<b>54.4</b>
	Measurement (hard)	
	Current Level of Enrollment	Percent Correct
	Not enrolled	19.0
	Enrolled in grade 12 or less	41.7
	<b>Enrolled in undergraduate or other</b>	<b>60.1</b>
<p>Source: ASER 2017, Beyond Basics</p>		

The “thinness,” or lack of conceptual understanding of foundational skills, explains how and why the results of many developing country students on international assessments can be so awful. For instance, the Programme for International Student Assessment (PISA) carried out by the OECD was designed for OECD 15-year-olds and hence asks very few questions to probe purely procedural skills in arithmetic but rather asks questions that probe higher/deeper levels of understanding. But when this same PISA assessment instrument is applied in low-performing developing countries one realizes the ability to answer questions that go beyond rote/procedural is almost completely absent. So while 54 percent of OECD 15 year olds score at levels 3, 4, 5 and 6 (of a six step ladder of proficiency in mathematics)—and in a high performing system like Singapore 80 percent reach this level—only 1.7 percent of youth from six developing countries that participated in a PISA for Development exercise reached that level.

*Learning outcomes are not getting better—and in many developing countries they have been getting worse (and in some, much worse).* I recently heard a famous development economist recommend “patience” as a strategic response to the learning crisis in developing countries. This might be good advice if you are waiting for a caterpillar to emerge from a cocoon as a butterfly, or responding to a child who has asked repeatedly “are we there yet?”. But patience is good advice only if the existing dynamics are working in the right direction. There is,

however, powerful evidence that many countries' learning outcomes are headed in the wrong direction, in which case patience is terrible, and tragic, advice.

Le Nestour, Moscoviz, and Sandefur (2022) used the fact that the Demographic and Health Surveys (DHS) surveyed people of a wide range of ages in each round and had multiple rounds to examine cohort effects in learning, allowing for age. Figure 1 shows that for the 87 countries with data on woman (the DHS primary respondents are women of child-bearing age) they found that the likelihood a woman born in the first cohort (usually in the 1950s) could read if they had attended five years of schooling was 85.1 percent whereas of the women born in the last cohort (who started school in the 2000s) a woman with five years of schooling had only a 68.2 percent of being able to read. So, over a roughly 30 to 40 year period (depending on the country survey timing) there was an almost 17 percentage point decline in the likelihood that primary schooling (five years) resulted in any literacy at all. This varied massively across countries. For instance, in India a child born in 1958 (who would have reached age 6 in 1964) who attended 5 years of schooling had a likelihood of 90.7 percent of being able to read when surveyed as an adult (adjusted for age) whereas a child born in 1995 (who would have reached age 6 in 2001) and attended exactly five years of schooling had only a 53.8 percent chance of being able to read. But in Indonesia, a person born in 1997 and completing exactly five years of schooling had a 91.7 percent chance of being able to read a sentence, higher than a child born in 1954. (While the reader may raise the obvious objection that the expansion in enrollments caused those in school and completing exactly five years to have very different characteristics over time, this obvious "selection effect" does not seem to be the main cause of these observed facts as there is no correlation at all across countries between the magnitude by which schooling expanded and the extent of improvement deterioration in learning performance).

These long-term results are consistent with more recent examinations of pre-COVID trends in learning in Indonesia (Beatty et al 2021) which showed a modest decline in learning outcomes. ASER results in India also showed a steep decline and then stagnation in learning outcomes pre-COVID (ASER 2015). They are also consistent with the general tenor of the PISA results, where a comparison of results from 2000 to 2019 finds mixed outcomes, with some countries improving and others deteriorating. (I don't take up the issue of learning losses during COVID at all as I am concerned with the long-term trends).

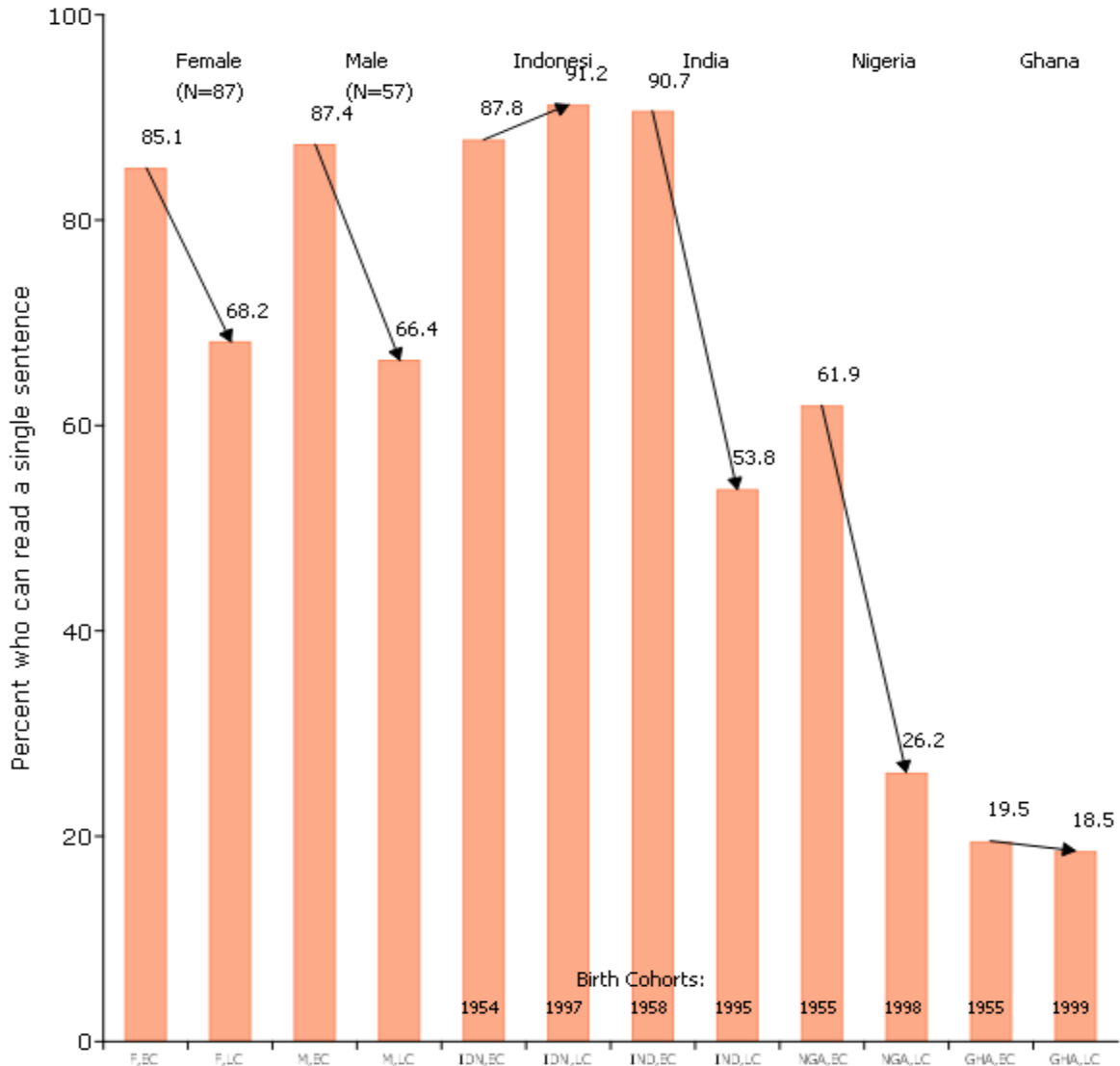
These studies are important, in three ways.

First, they reveal that the current level of low performance in producing basic skills like literacy in primary school is typically not the result of lack of progress from a low base, but rather is commonly a significant *deterioration* from a much higher level. If we only compared the current results for the most recent cohorts we would find that both Nigeria and Ghana had similarly low levels of learning in primary school (26.2 percent of the 1998 cohort in Nigeria, 18.5 percent of the 1999 cohort in Ghana). But this is not because the two countries have had similar trajectories, but rather because Nigeria collapsed from quite a high level for their 1955 cohort of 61.9 percent of grade five completers able to read *downwards* towards Ghana's consistently low level.



These facts that current low levels are the result of long-term trends of decline rule out a variety of explanations for poor performance, like a general lack of pedagogical knowledge of how to teach: both Indonesia and India achieved very high levels of reading of primary school graduates in the 1960s and so, demonstrably, had all of the technical knowledge needed to produce those learning results over 70 years ago. These trends also cast doubt on claims that better “inputs”, such as the formal qualification of teachers, class size, and expenditures per pupil, are key to improving learning *outcomes*, since most inputs have gotten much better over the same period in which learning outcomes have deteriorated. Similarly, there are many claims that technology will make education better, but access to technology has significantly improved over the period in which learning outcomes have deteriorated in many countries.

**Figure 1: The likelihood an adult in the developing world with five years of schooling could read a sentence (in any language) *declined* substantially for both men and women—with large variations across countries**



Source: Authors calculations using data from le Nestour, Moscoviz, and Sandefur (2022), Table A.4

Second, the studies reveal that maintaining very high levels of reading results of primary school leavers, even while moving to universal schooling, is possible. In the 57 countries with results for men and women, there are eight where the reading of grade 5 completers in the most recent birth cohort is over 80 percent (achieved near universality in schooling) and the fraction of the cohort with 5 or more years of schooling is also over 80 percent (achieved near universality in reading). A number of countries had significant improvements in literacy of grade 5 completers even as enrolments expanded. Vietnam has data only for women and their data shows

literacy at grade 5 increasing from 72 percent to 94 percent, even while completion of grade 5 or higher increased from 76 to 89 percent. In Peru, women's completion of grade 5 or higher rose from 72 percent to 94 percent from the birth cohort of 1952 to that of 1992, and the ability to read of those completing just grade 5 also rose from 69 percent to 85 percent. While India and Nigeria appear to be deteriorating, the success cases of Vietnam and Peru demonstrate that the learning crisis can be solved.

Third, all this data can help us understand the driving forces behind changes in learning outcomes, and how policy-makers can begin to address them. Analysts often cite cultural obstacles, the availability of resources, or the rapid expansion of schooling as reasons for poor learning results. But reading outcomes for Indian women who completed grade 5 in the early cohort were much better than in Peru. In 1952 Peru was at 69 percent versus 90 percent for the 1958 cohort in India. Superficial explanations of these learning differences might have explained Peru's poor performance as the result of the social gap between the indigenous and non-indigenous populations, or focused on Peru's mineral dependent economy, or on the heritage of Spanish colonialism, or other factors over which Peru has little control. But the difference in favour of India has been completely reversed. In the 1992 cohort in Peru those with five years of school completed who could read reached 85 percent (and with 95 percent completing grade 5 or higher)—a significant improvement over its historical level of 69 percent. In contrast, in India for the 1995 female birth cohort reading of those with five years of schooling complete was only 51.4 percent in India, a significant deterioration from its historical level of 90 percent. Learning outcomes are a destination to be worked towards which can be achieved, not a destiny fixed by fate.

## ***II) Five actions to address the learning crisis***

From 2014 to 2023 I was the research director of a large-scale, long-term, many country, multi-disciplinary, research programme called Research on Improving Systems of Education (RISE). The goal of this research programme was to understand how to address the learning crisis by reforming education systems. RISE, which finished in March of 2023, cumulatively produced over 500 written works, including over 150 research papers, many review papers, two books, and hundreds of technical blogs. The information we gleaned in the project is highly relevant to addressing the learning crisis. First, there was a consensus that global, national, and local stakeholders in education policy must move from what is known as a “proximate determinants” approach to a “system” approach (explained below). Second, the RISE team boiled down the research and experiences into are five key principles to guide efforts to reform education systems<sup>4</sup>.

I am not articulating these specific five actions as a new “consensus.” Other organizations and individuals describing paths to successful education system reform, such as the World Development Report 2018 “Learning to Realize Education’s Promise” or the 2024 McKinsey Global Institute report “Spark and Sustain” come to different lists. And different global

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<sup>4</sup> The structure of “five actions” and much of the material below draws on the RISE policy brochure (Pritchett, Newman, and Silberstein 2022).

organizations, from large to small, will necessarily adopt their own tactics and strategy, each with its own focus. My title does not declare or attempt to amalgamate the many voices into a single consensus, or even an “emerging” consensus, but something different, an “emergent” consensus. A large number of actors moving in a new and broadly similar direction are creating a wave that is driving action not by agreement on a rigid doctrine or by complete agreement but just by moving, fluidly and adaptively, in the same direction.

A) “*System*” versus “*proximate determinants*” approaches

Now that there is increasing consensus that improving learning outcomes needs to be the focus of any future educational reform, the debate hinges on what kind of reform can improve results. Researchers generally support one of two educational approaches. The “proximate determinants” approach looks at the elements that need to be in place in order for a child to have a successful learning experience in school, such as a physical space conducive to learning, adequate learning materials, enough time to complete tasks, a curriculum that specifies what is to be learned at every stage of school, and a teacher who knows what and how to teach. Researchers who subscribe to this approach believe that these proximate determinants can create quality schools. Recommendations that follow the proximate determinant approach focus on expanding children’s exposure to schools with better inputs.

The “system approach” starts from the premise that whether or not a child has access to a quality school that produces effective learning for that child is the *outcome* of the current education system. Every country already has an extensive (and expensive) education system: a collection of individuals working in and around education, public and private organizations in the field, laws, policies, and programs concerning education, and a collection of institutions that structure and condition the ways in which educational organisations behave. The system question is: “Why does the existing education system not already produce quality schools?”

Answering this question requires an understanding of how education systems currently function. While proximate determinant recommendations seems concrete and easily applicable across contexts, this is superficial as the approach has deep and significant conceptual and practical limitations as a guide to action. It cannot provide a causal explanation of the observed facts about learning outcomes, either across countries, over time within countries, or even across schools within countries. A recent study (Glewwe et al 2021) used the data from the Young Lives study that tracked children aged 2 to 12 in Vietnam and Andhra Pradesh, a state in India. With this data the researchers could observe not just their learning at a specific age (like nearly all other studies) but could also observe a child’s history, including health and nutrition outcomes as a young child and tests of cognitive ability at pre-school ages. They found massive differences between the learning of Vietnamese and Indian children at age 12, consistent with the evidence from other studies. More importantly, using detailed panel data, they found that essentially none of the differences in learning could be explained by differences in the children (including the measures of child pre-school ability—not that these were not important for explaining the learning of each child but since they were roughly equal across the countries at pre-school age they could not explain the differences across the countries). Only one of the school “proximate determinant” variables helped to explain the learning gap, namely “math

teacher pedagogical skills”. Even this is an endogenous outcome of a system rather than simply an “input” (like class size, expenditures, or formal qualifications of teachers).

This is why the facts about the cross-national differences and the evolution over time in learning outcomes is so important. Teaching children to read is something that many countries have been doing quite successfully since the 1950s or 1960s (or even earlier). Therefore, a lack of knowledge or understanding about how to teach children cannot explain why some countries are doing badly now. Moreover, many countries with low levels of reading proficiency today (e.g. India) had much higher levels of learning in the past. On standard measures of “proximate determinants” countries like India are doing much better while, at the same time, learning performance appears to be getting considerably worse. Despite the fact that the proximate determinants approach has been dominant for decades it actually does not provide an empirically adequate explanation of the main learning differences across schools, across countries, or over time (Pritchett 2013).

The system approach starts from root causes. Better trained or higher paid teachers, better textbooks, a better curriculum, and the appropriate use of technology are subsumed as the result of the outcome of a well-functioning education system, which is therefore the relevant cause of differences in learning outcomes.

#### *B) A new approach to addressing the learning crisis*

A system approach to addressing the learning crisis suggests countries need to take five actions to re-orient their existing systems and make sustained progress in improving learning (Pritchett, Newman, Silberstein 2022):

- *Commit* to learning results, and in particular, early universal conceptual and procedural mastery of foundation skills.
- *Measure* learning outcomes in ways that provide information that is regular, reliable, and relevant to the key actors within the system, including much more use of formative assessment.
- *Align* the system around learning, moving from a focus on expansion to a focus on learning.
- *Support* teaching, moving the emphasis from a bureaucratic approach to creating the possibility that teachers consistently engage in effective teaching and learning practices.
- *Adapt* what is adopted so that, even when copying lessons from successful places, these are adapted to existing contexts and capabilities.

#### **Action 1. Commit to universal, early foundational learning**

Vietnam is an outlier in learning performance. In the 2012 and 2015 rounds of PISA the 15-year-olds Vietnamese youth had astoundingly good learning results, with higher average scores in mathematics in 2015 than youth in France, the United States, or Britain. One key research question for RISE was “how and why does Vietnam achieve these learning results at levels of resources (GDP per capita) and spending per student that is so low?”

Three studies probing this question were particularly interesting. One used PISA data to see whether the factors measured in PISA (which includes many “proximate determinant” features of systems, schools, and teachers) could explain Vietnam’s performance. The clear answer was no. Dang, Glewwe, Lee and Vu (2020) show that Vietnam’s success is not associated with better characteristics of students or their households.<sup>5</sup> Another study used the Young Lives data from four countries, which assessed children first in 2002 at young ages (two groups, at age one and age five) with surveys in rounds every three to four years until 2017.<sup>6</sup> This study showed that, first, on all measures, Vietnamese children looked similar to those from Peru and India at age 5, including on measures of cognitive ability. This means that the learning gains happened because they learned more in school. Second, of the school-specific factors, only “math teacher pedagogical skills” seemed to matter at all, and hence the upshot was that only about 10 percent of the enormous learning gap between India and Vietnam could be explained by any of the available measures.

Third, a study of the politics of education in Vietnam detailed that the success in Vietnam was *not* the result of some central plan masterfully implemented by a tightly controlled, top-down, bureaucracy.<sup>7</sup> Vietnam is a federal system and the states are mainly responsible for the implementation of basic education. Local provinces compete against each other to achieve the best learning outcomes, as the central government conveys ambitious learning targets while many of the resources needed to fund the system are collected locally. Vietnam’s success is not the result of a clear, orderly, top-down, “command and control” as one might imagine from an one-party (Communist) state. Rather, success was the emergent result of a messy and muddy process of local contestations within a provincial and federal government structures of pressures.

This is a frustrating set of outcomes as it told us what *wasn’t* the source of Vietnam’s success but did not tell us what *was*. Finally, one of the key researchers on the Vietnam said “Let’s face it, Vietnam succeeded because they *wanted* to.” That answer, while perhaps seeming simplistic or naïve, is actually wise.

Creating an education system that makes sustained progress in learning outcomes requires a commitment to learning. This commitment must not only come from the education ministry but from all stakeholders involved, including the government, parents, students, the business community, and thought leaders.

The commitment that will most likely lead to progress has three elements:

*Putting learning at the centre.* Education systems must commit to learning as their central purpose, and learning must animate all decisions in the system. Practically, this means having direct, concrete, goals for learning outcomes.

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<sup>5</sup> Dang, H., Glewwe, P. Lee, J. and Vu, K. "What Explains Vietnam’s Exceptional Performance in Education Relative to Other Countries? Analysis of the 2012 and 2015 Pisa Data", *RISE Working Paper Series 20/036* (2020).

<sup>6</sup> Glewwe, P., James, Z. Lee, J., Rolleston, C. and Vu, K. "What Explains Vietnam’s Exceptional Performance in Education Relative to Other Countries? Analysis of the Young Lives Data from Ethiopia, Peru, India and Vietnam." *RISE Working Paper Series 21/078* (2021).

<sup>7</sup> London, J., and Duong, B.H. "The Politics of Education and Learning in Vietnam: Contributions to a Theory of Embedded Accountabilities." *RISE Political Economy Papers* (2023).

One way in which education systems have managed to sustain their legitimacy without actually delivering on learning, has been to set and achieve other goals, on the premise that these goals were themselves necessary and sufficient to improve learning. Many education systems have focused on (i) expanding schooling, (ii) enforced some degree of compliance with some processes, such as hiring teachers according to some criteria deemed merit-based, and (iii) expanding inputs, such as reducing class size and providing better physical infrastructure and more learning materials. These three elements of an education system are desirable, and certainly some levels of these are necessary, but, without the additional characteristic of being driven by an overarching shared *purpose* that is clearly understood as providing children with the needed skills and capabilities, these are clearly not *sufficient* to sustain effective teaching and learning practices.<sup>8</sup> Unless they are motivated by purpose, education systems can gain legitimacy through “isomorphism.” Just as many animals gain survival by camouflage that makes them look like something they are not, the sociologists DiMaggio and Powell (1983) described the process of “isomorphism” for organizations of gaining survival (and continued flow of resources) but looking like other effective organizations, even when they were not effective, and this use of “isomorphic mimicry” is especially for public organizations with contested and hence ill-defined purposes.<sup>9</sup> Just as weak education systems are plagued by rote learning, they also suffer from rote implementation, in which means (used by effective systems)—like examinations to hire teachers—are substituted for ends, and hence are disconnected from a drive for outcomes.

A recent impact evaluation of a large-scale program of school improvement in Madhya Pradesh in India illustrates what can happen in the absence of a commitment to improving learning outcomes.<sup>10</sup> In 2014-16 the state government introduced a program, modelled on one implemented in Britain, that required each school to create its own school improvement plan. The idea was that each school would do a diagnostic of its own strengths and weaknesses and then, based on that diagnostic, devise a plan for how to improve things. The state’s education bureaucracy would then support the school in the implementation of that plan. This approach was explicitly designed to avoid the defects of the one size fits all and top down approaches of previous decades. The study found that the school diagnostics were completed in detail, and that school plans were created based on those diagnostics. But that after that, nothing improved. Teacher practices did not change, supervision or support from the bureaucracy did not change, and, given that, student outcomes did not change at all.

This example is just one of a long list of studies that shows that, without a clear, system-wide (where the notion of “system” extends beyond the education ministry), commitment to the purpose of learning, it will be impossible to implement effective teaching and learning practices at scale. Here is a partial list, just from RISE research (or related researchers):

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<sup>8</sup> Kaffenberger, M. "The Role of Purpose in Education System Outcomes: A Conceptual Framework and Empirical Examples." *RISE Working Paper 2022/118* (2022).

<sup>9</sup> DiMaggio, P. J. and Powell, W.W.; "The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields ", *American Sociological Review* 48, no. 2 (April) (1983): 147-60. & Andrews, M., Pritchett, L. and Woolcock, M. *Building State Capability: Evidence, Analysis, Action*. Oxford University Press, 2016.

<sup>10</sup> Muralidharan, K., and Singh, A. "Improving Public Sector Management at Scale? Experimental Evidence on School Governance in India." *RISE Working Paper 20/056* (2020).

- Banerji (2015) on scaling the practice of “teaching at the right level” (TaRL), the adoption of teaching methods that adopt teaching to the student’s current level of competence and focus on improvements from that level, in Bihar,
- De Ree et al (2017) showing that doubling teacher wages in Indonesia has no impact on learning,
- Bold et al (2018) on the failed scaling by the Kenyan government of an intervention that was “proven” to be effective (Duflo, Dupas, and Kremer 2015) of using contract teachers to reduce early grade class size (in Kenya,
- Aiyar et al (2023) on the implementation of TaRL in Delhi,
- Bano (2022) on the government’s tactical use of isomorphism, in adopting school based management committees in Nigeria in a way designed to deflect external and donor pressure but without any commitment to success,
- Siddiqi (2022) on the contestation between bureaucracy (insisting on process compliance) and local government (wanting actual performance in practice) in defining what makes “good teachers” in Khyber Pakhtunkhwa province in Pakistan,
- Revina et al (2020) review four decades of in-service teacher training in Indonesia, detailing how contested purposes within the ministry led to the many different approaches to teacher training adopted over the decades to all fail to significantly improve teaching practices.

*Focusing first on foundational skills.* Systems must commit to building foundational skills so that children are prepared for subsequent learning. This is not advocating for “back to basics” or rote memorisation but rather the opposite: a focus on building deep, conceptual understanding of reading, mathematics, and other foundational skills in the short term so that children can achieve the high aspirations we hold for them in the long term. Children first learn to read; only then children can read to learn.<sup>11</sup> As shown above, in existing weak systems learning is often too “thin,” in that students never acquire sufficient command over ideas, concepts, and skills they are exposed to in school to apply and deploy them in concrete and novel situations. Hence even capabilities acquired are not retained or utilized in practice (ASER 2018).<sup>12</sup>

*Foundational learning needs to be a clear and urgent priority both politically and socially.* Case studies tracing out the recent history of the politics of education in a dozen countries as part of the RISE research agenda reveal that an education system actually focused on learning is far from a given, and that it is hard to shift education systems in a positive direction (Gershberg and Spindelman 2023). Moreover, political commitment is necessary, but the commitment has to go beyond politics. It must extend throughout society, encompassing a shared understanding among families, schools, bureaucracies, and different branches of government (Levy et al 2018, Levy 2022).

Often recommendations for improving learning outcomes from global actors are based on the technocratic premise that national education ministries have sufficient authorization to adopt and implement education reforms for which they have evidence that these reforms could improve

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<sup>11</sup> Belafi, C., Hwa, Y., and Kaffenberger, M. "Building on Solid Foundations: Prioritising Universal, Early, Conceptual and Procedural Mastery of Foundational Skills." *RISE Programme Insight Note*, 2020.

<sup>12</sup> Beatty, A., et al. "Schooling Progress, Learning Reversal: Indonesia’s Learning Profiles between 2000 and 2014." *International Journal of Educational Development* 85 (2021)



learning. But in reality, education ministers are often politically weak actors, the education ministry often has little or no autonomy to act, and, the ministry itself can often be focused more on educational expansion and process compliance than on learning-oriented reforms. Moreover, resistance to implementation is widespread. The case of Indonesia (Rosser, King and Widoyoko 2022) shows how national, government-wide reforms pushed by the education ministry often fail because of the entrenched interests of local elites. Studies about reforms to improve teaching practices in Ecuador (Schneider, Estarellas, and Bruns 2019) and in Peru (Bruns, Schneider, and Saavedra 2023, Saavedra 2023) reveal that successful reforms cannot rely on pre-existing support but rather need to assemble and actively sustain political authorization.<sup>13</sup> This is a challenge as education reforms, particularly those that affect teachers, will be contested by teachers unions, and, while the political costs are immediate the benefits take time to bear fruit.

Qualitative studies from contexts as different as India, Nigeria, Malawi, Pakistan, South Africa, and Indonesia all reveal that generating local support for learning is also not a given but rather depends on how local communities perceive the relationship between the school, the bureaucracy, and their own power. Studies of the local dynamics of education reform in specific districts in Indonesia found that different social and economic conditions produced very different demands from parents for the priorities of education (Bano and Dyonisius 2022; Arif, et al 2022, Nihayah et al 2020). Qualitative research in Malawi revealed that, by and large, local communities did not see the local government schools as “theirs” or as being responsive to their needs (Watkins and Kaler 2016, Watkins and Ashforth 2019). Ethnographic research in northern Nigeria revealed that the long-standing reluctance of parents to enrol their children in government schools was, in part, based on the perception that the schools were ineffective at conveying skills and yet were conveying attitudes and values hostile to their own.<sup>14</sup>

The four actions that policy-makers can take to improve learning outcomes all begin with a commitment to improving these. The “proximate determinant” or “quality schools” approaches, reflected in the Washington Consensus, implicitly assume that the system is, broadly speaking, fit for the purpose of improving learning outcomes, and that all that is needed is more money or a technocratic tweak or a best practice reform. But this approach alone, without system reform, has proven radically insufficient for decades. Doing the same thing and expecting a different outcome will not work.

## **Action 2. Measure learning regularly, reliably, and relevantly**

Many education systems around the world collect detailed data on school enrolments and inputs—yet many do not use data on student learning to inform policy and improve instruction. Educational systems should follow the “three Rs” of useful learning assessments:

- *Relevant*: Assessments must be designed to measure learning and must include measures of conceptual and procedural mastery of foundational skills. This is not current practice,

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<sup>13</sup> Schneider, B.R, Cevallos Estarellas, P. and Bruns, B. "The Politics of Transforming Education in Ecuador: Confrontation and Continuity, 2006–2017." *Comparative Education Review* 63, no. 2 (2019): 259-80.

<sup>14</sup> Bano, Masooda. "Curricula That Respond to Local Needs: Analysing Community Support for Islamic and Quranic Schools in Northern Nigeria." *RISE Working Paper* 22/103 (2022).

as many existing assessments are designed as tools for selection, and mainly measure pass rates or student rankings, and are often passable with cramming and rote learning.<sup>15</sup>

- *Regular.* Systems should measure learning over time, beginning in the early grades of primary school. This allows decisionmakers to track the pace of learning and to see when children start to fall behind and, therefore, what additional classroom or learning interventions are needed.<sup>16</sup> (Crouch, Kaffenberger and Savage 2021). Expanding the use of formative assessment is particularly important.
- *Reliable.* In many systems, especially where assessments are high-stakes for the student, widespread cheating distorts the results (Johnson and Parrado 2021, Singh 2020, Berkhout et al 2020). Assessments must be reliable to serve as useful feedback on the system's progress.

### **Action 3. Align education systems and instruction around learning commitments**

Education systems deliver learning when all of their different parts are aligned with each other. This is not typically the case as the relationships of accountability in education systems are often badly structured and incoherent for producing good learning outcomes (Pritchett 2015; Kaffenberger and Spivack 2021; Mbiti 2016, Mbiti et al 2019).<sup>17</sup> This system incoherence is both within relationships of accountability and across relationships of accountability. Even within a principal-agent relationship (say, management to employee) there can be incoherence between the elements of an accountability relationship: a disconnect between what is asked from the agent by the principal, what is measured to assess agent performance, and what actions are actually rewarded. Moreover, as the analysis above has stressed again and again, an education system is not reducible to just the primary organizations of the government, such as the education ministry) but has to include politics, the relationship between political leadership and the ministry, parents and communities. This creates realities of incoherence across these various relationships of accountability within a system (so, for instance, teachers are under very different pressures from the hierarchy of their bureaucracy than from the students and parents they work with).

There are also technical incoherences in the approach to instruction. A prominent example of a lack of alignment is that in many systems the curriculum standards, the content of examinations, and the actual instructional practices are completely out of sync. Figure 2, adapted

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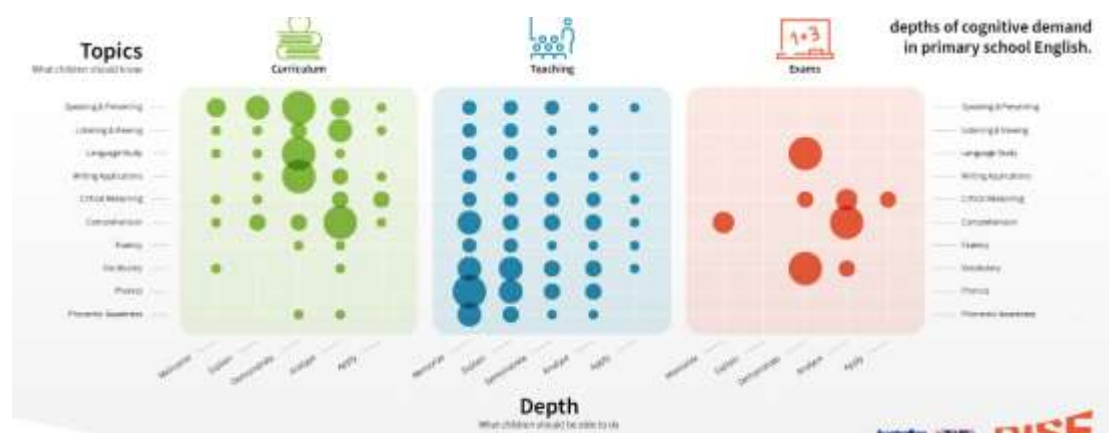
<sup>15</sup> Stern, J. et al. "Instructional Support for Effective Large-Scale Reading Interventions: Findings from the Learning at Scale Study." *RTI* (2022); Burdett, Newman. "Review of High Stakes Examination Instruments in Primary and Secondary School in Developing Countries." *RISE Working Paper WP-17/018* (2017).

<sup>16</sup> Bau, N., Das, J., and Chang, A. "New Evidence on Learning Trajectories in a Low-Income Setting." *International Journal of Educational Development* 84 (2021); Beatty, A., et al. "Schooling Progress, Learning Reversal: Indonesia's Learning Profiles between 2000 and 2014."; Kaffenberger, M., and Pritchett, L. "A Structured Model of the Dynamics of Student Learning in Developing Countries, with Applications to Policy."

<sup>17</sup> Banerji, R. "How Do Systems Respond to Disruptive Pedagogic Innovations? The Case of Pratham in Bihar." *RISE Working Paper 15/002* (2015).; Crouch, L. "Systems Implications for Core Instructional Support Lessons from Sobral (Brazil), Puebla (Mexico), and Kenya." *RISE Insight Note* (2020).

from a “survey of the enacted curriculum” in Uganda (Atuhurra and Kaffenberger 2020), shows both the expected *coverage* of topics (vertical axis) and the *depth* of mastery of those topics (horizontal axis) with the emphasis represented by the size of the circle. The curriculum (first panel) expects very sophisticated concepts to be covered and high levels of mastery of those topics to be attained, with large circles for “language study” and “writing applications” and “speaking and presenting” at the “demonstrate to others” level. In contrast, the actual classroom instruction is predominantly in the lower left (simple concepts, simple understanding (e.g. “memorize”).

**Figure 2: There is often misalignment among curricula, exams, and classroom teaching, shown here for primary school English class in Uganda**



Source: Adapted from Atuhurra & Kaffenberger, 2022

This misalignment of the curriculum, moving at a very fast pace with lack of effective instruction, often leaves children very far behind. Muralidharan and Singh show that the typical child in Rajasthan, India, in grade 8 actually only mastered the grade 4 curriculum (and at a shallow level)—with many students only at grade 2 or grade 3 comprehension. Almost no students were actually at grade 8 level.<sup>18</sup> Misaligned, over-ambitious curricula (Pritchett and Beatty 2012) can lead to very low levels of learning and recent efforts at “Teaching at the Right Level” (TaRL) and “structured pedagogy” (Piper et al 2018) are attempts to remedy and improve student learning by addressing this mismatch.

#### Action 4. Support teaching

Education systems must change their focus from *teachers*--including a narrow focus on manpower and rewards for seniority and formal qualifications—to effective *teaching*—with a focus on teaching and learning practices. At a minimum this means:

- Refocusing professional development on the craft of teaching. Teachers need to understand and experience what effective teaching looks like, and they must receive

<sup>18</sup> Muralidharan, K., and Singh, A. "Improving Public Sector Management at Scale? Experimental Evidence on School Governance in India." *RISE Working Paper 20/056* (2020).

ongoing support to build specific content and pedagogical skills associated with student learning (DeJaeghere, Duong, and Dao 2021).<sup>19</sup>

- Reforming teacher careers to attract, retain, and motivate quality teaching. For example, this could mean using more nuanced hiring criteria beyond degrees earned—which have little relationship to teacher quality—and being more selective, with offers of long-term employment during the early phases of a teacher’s career (Siddiqi 2022).<sup>20</sup>

### **Action 5. Adapt what you adopt as you implement**

A growing number of success stories show that education systems with low learning outcomes can be reoriented to deliver higher learning outcomes.<sup>21</sup> However, the transition from a low- to higher-performing system is really hard. There is no single blueprint for transforming an education system. Rather, *adaptation* and *iteration*—learning while doing and doing what you learn—are the key to success. When programmes are adopted without enough adaptation to local problems and context, even a well-designed and well-implemented program that may have improved learning elsewhere or that was successfully implemented by an NGO in the same context, may have no impact at all when scaled (e.g. de Ree et al. (2018), Muralidharan and Singh (2020), Hwa and Pritchett (2021), Bold et al (2018), Angrist and Meager (2022), Kerwin and Thornton (2021)). Alongside understanding “what works”, it is equally important to understand “how it works” in a particular place, with its unique history, society, and politics.<sup>22</sup>

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<sup>19</sup> Cilliers, J. et al, "Can Virtual Replace in-Person Coaching? Experimental Evidence on Teacher Professional Development and Student Learning." *Journal of Development Economics* 155 (2022) & Yusrina, A. et al., "Is the Game Worth the Candle? Examining the Effectiveness of Initial Teacher Education in Indonesia." *RISE Working Paper* (2022); Filmer, Deon, Vatsal Nahata, and Schwetlena Sabarwal. "Preparation, Practice, and Beliefs: A Machine Learning Approach to Understanding Teacher Effectiveness." *RISE Working Paper* (2021); Revina, S. et al. "Systemic Constraints Facing Teacher Professional Development in a Middle-Income Country: Indonesia’s Experience over Four Decades." *RISE Working Paper* (2020).

<sup>20</sup> Hwa, Y. and Pritchett, L. "Teacher Careers in Education Systems That Are Coherent for Learning: Choose and Curate toward Commitment to Capable and Committed Teachers (5cs)." *RISE Primer* (2021); Bau, N., and Das, J. "Teacher Value-Added in a Low Income Country." *American Economic Journal: Economic Policy*. vol. 12, no. 1 (2020): 62-96.

<sup>21</sup> Crouch, L. "Systems Implications for Core Instructional Support Lessons"; Stern, J. et al. "Instructional Support for Effective Large-Scale Reading Interventions."; Kaffenberger, M. "The Role of Purpose in Education System Outcomes: A Conceptual Framework and Empirical Examples." *RISE Working Paper* (2022)

<sup>22</sup> Barjum, D. "PDIA for Systems Change: Tackling the Learning Crisis in Indonesia." *RISE Insight Note* 2022/046 (2022); McNaught, T. "A Problem-Driven Approach to Education Reform: The Story of Sobral in Brazil." *RISE Insight Note* 2022/039 (2022); Moore, M., and Spivack, M. "A Public Value Approach to Analysing and Intervening in National Educational Systems." *RISE Essay* (2023); Samji, S., and Kapoor, M. "Funda Wande through the Lens of PDIA: Showcasing a Flexible and Iterative Learning Approach to Improving Educational Outcomes." *RISE Insight Note* 2022/036 (2022); Matthew, A. "Getting Real About Unknowns in Complex Policy Work." *RISE Working Paper* 2021/083 (2021).

## *Conclusion*

The goal expressed in the 1948 Universal Declaration of Human Rights that *Everyone has the right to education (Article 26.1)*, and the consensus expressed in 1990 in both the Washington Consensus the Jomtien Declaration created the basis for the expansion of education systems worldwide. This impulse was necessary, since universal schooling is a precondition for universal education. It was correct to see spending on basic education as a proper use of government funds and to acknowledge that reaching universal basic schooling would require substantial fiscal commitments. Yet precisely because of the success of the previous consensus in expanding schooling so that nearly every child does enroll in school and nearly all complete primary, and most are now completing some or all of secondary, we need a new consensus today. The main obstacle to universal education is no longer schooling, but rather the learning crisis—that children *in* school are not learning enough. Ample and compelling evidence has accumulated that simply spending more in existing education systems will not, in and of itself, solve the learning crisis. It has become clear that technocratic changes at the margin are not enough. There needs to be a shift from education systems fit for the purpose of expansion to education systems fit for the purpose of learning.

## References

- Aiyar, Yamini, Vincy Davis, Gokulnath Govindan, and Tanya Kapoor. *Rewriting the Grammar of the Education System: Delhi's Education Reform (a Tale of Creative Resistance and Creative Disruption)*: Oxford University Press (forthcoming), 2023.
- Andrews, Matthew, Lant Pritchett, and Michael Woolcock. *Building State Capability: Evidence, Analysis, Action*. Oxford, UK: Oxford University Press, 2016.
- Angrist, Noam, and Rachael Meager. "The Role of Implementation in Generalizability: A Synthesis of Evidence on Targeted Educational Instruction and a New Randomized Trial." *CEDIL Syntheses Working Paper 4* (2022). file:///C:/Users/lantp/Downloads/CEDIL-Syntheses-Working-Paper-4-Generalizable-evidence-on-targeted-instruction.pdf.
- Arif, S., R.W. Nihayah, N. Rarasati, S. Revina, and S. Usman. "Of Power and Learning: District Heads, Bureaucracy, and Education Policies in Indonesia's Decentralised Political System." *RISE Working Paper 2022/111* (2022). [https://dx.doi.org/doi.org/10.35489/BSG-RISE-WP\\_2022/111](https://dx.doi.org/doi.org/10.35489/BSG-RISE-WP_2022/111).
- ASER. *Trends over Time 2006-2014 (a Supplement to the Aser 2014 Report)*. Delhi: ASER Centre. <http://img.asercentre.org/docs/Publications/ASER%20Reports/ASER%20TOT/fullasertrendsovertime.pdf>.
- Atuhurra, Julius, and Michelle Kaffenberger. "System (in)Coherence: Quantifying the Alignment of Primary Education Curriculum Standards, Examinations, and Instruction in Two East African Countries." *RISE Working Paper 20/057* (2020). <https://dx.doi.org/https://riseprogramme.org/publications/system-incoherence-quantifying-alignment-primary-education-curriculum-standards>.
- Banerji, Rukmini. "How Do Systems Respond to Disruptive Pedagogic Innovations? The Case of Pratham in Bihar." *RISE Working Paper 15/002* (2015).
- Bano, Masooa, and Daniel Dyonisius. "The Role of District-Level Political Elites in Education Planning in Indonesia: Evidence from Two Districts." *RISE Working Paper 22/109* (2022). [https://dx.doi.org/https://doi.org/10.35489/BSG-RISE-WP\\_2022/109](https://dx.doi.org/https://doi.org/10.35489/BSG-RISE-WP_2022/109).
- Bano, Masooda. "International Push for Sbmcs and the Problem of Isomorphic Mimicry: Evidence from Nigeria." *RISE Working Paper 22/102* (2022). [https://dx.doi.org/doi.org/10.35489/BSG-RISE-WP\\_2022/102](https://dx.doi.org/doi.org/10.35489/BSG-RISE-WP_2022/102).
- Bau, Natalie, and Jishnu Das. "Teacher Value-Added in a Low Income Country." *American Economic Journal: Economic Policy* 12, no. 1 (2020): 62-96. <https://dx.doi.org/DOI:10.1257/pol.20170243>.

- Beatty, Amanda, Emilie Berkhout, Luhur Bima, Menno Pradhan, and Daniel Suryadarma. "Schooling Progress, Learning Reversal: Indonesia's Learning Profiles between 2000 and 2014." *International Journal of Educational Development* 85 (2021/09/01/ 2021): 102436. <https://dx.doi.org/https://doi.org/10.1016/j.ijedudev.2021.102436>.
- Berkhout, Emilie, Menno Pradhan, Rahmawati, Daniel Suryadarma, and Arya Swarnata. "From Cheating to Learning: An Evaluation of Fraud Prevention on National Exams in Indonesia." *RISE Working Paper* 20/046 (2020). [https://riseprogramme.org/sites/default/files/2020-11/RISE\\_WP-046\\_Berkhout\\_et al.pdf](https://riseprogramme.org/sites/default/files/2020-11/RISE_WP-046_Berkhout_et al.pdf).
- Bold, Tessa, Mwangi Kimenyi, Germano Mwabu, and Justin Sandefur. "Experimental Evidence on Scaling up Education Reforms in Kenya." *Journal of Public Economics* 168 (2018): 1-20.
- Cilliers, Jacobus, Brahm Fleisch, Janeli Kotze, Nompumelelo Mohohlwane, Stephen Taylor, and Tsegofatso Thulare. "Can Virtual Replace in-Person Coaching? Experimental Evidence on Teacher Professional Development and Student Learning." *Journal of Development Economics* 155 (2022/03/01/ 2022): 102815. <https://dx.doi.org/https://doi.org/10.1016/j.jdeveco.2021.102815>.
- Crouch, Luis, Michelle Kaffenberger, and Laura Savage. "Using Learning Profiles to Inform Education Priorities: An Editors' Overview of the Special Issue." *International Journal of Educational Development* (2021). <https://dx.doi.org/10.1016/j.ijedudev.2021.102477>.
- Dang, H., P. Glewwe, J. Lee, and K. Vu. "What Explains Vietnam's Exceptional Performance in Education Relative to Other Countries? Analysis of the 2012 and 2015 Pisa Data ", *RISE Working Paper Series* 20/036 (2020). [https://dx.doi.org/https://doi.org/10.35489/BSG-RISE-WP\\_2020/036](https://dx.doi.org/https://doi.org/10.35489/BSG-RISE-WP_2020/036).
- de Ree, Joppe, Karthik Muralidharan, Menno Pradhan, and Halsey Rogers. "Double for Nothing? Experimental Evidence on an Unconditional Teacher Salary Increase in Indonesia\*." *The Quarterly Journal of Economics* 133, no. 2 (2017): 993-1039. Accessed 4/18/2023. <https://dx.doi.org/10.1093/qje/qjx040>.
- DeJaeghere, Joan, Bich-Hang Duong, and Vu Dao. "Teaching Practices That Support Thinking and Promote Learning: Qualitative Evidence from High and Low Performing Classes in Vietnam." *RISE Insight Note* ([https://riseprogramme.org/sites/default/files/2021-01/RISE\\_Insight\\_Teaching\\_Practices\\_VN.pdf](https://riseprogramme.org/sites/default/files/2021-01/RISE_Insight_Teaching_Practices_VN.pdf)).
- DiMaggio, Paul J; Powell, Walter W.;. "The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields ", *American Sociological Review* 48, no. 2 (April) (1983): 147-60.

- Duflo, Esther, Pascaline Dupas, and Michael Kremer. "School Governance, Teacher Incentives, and Pupil–Teacher Ratios: Experimental Evidence from Kenyan Primary Schools." *Journal of Public Economics* 123 (2015/03/01/ 2015): 92-110.  
<https://dx.doi.org/https://doi.org/10.1016/j.jpubeco.2014.11.008>.
- Glewwe, P., Z. James, J. Lee, C. Rolleston, and K. Vu. "What Explains Vietnam's Exceptional Performance in Education Relative to Other Countries? Analysis of the Young Lives Data from Ethiopia, Peru, India and Vietnam." *RISE Working Paper Series* 21/078 (2021).  
[https://dx.doi.org/doi.org/10.35489/BSG-RISE-WP\\_2021/078](https://dx.doi.org/doi.org/10.35489/BSG-RISE-WP_2021/078).
- Gust, Sarah, Eric A. Hanushek, and Ludger Woessmann. "Global Universal Basic Skills: Current Deficits and Implications for World Development." *National Bureau of Economic Research Working Paper Series* 30566 (2022). <https://dx.doi.org/10.3386/w30566>.
- Hwa, Yue-Yi, and Lant Pritchett. "Teacher Careers in Education Systems That Are Coherent for Learning: Choose and Curate toward Commitment to Capable and Committed Teachers (5cs)." *RISE Primer* 2021/02 (2021). [https://dx.doi.org/doi.org/10.35489/BSG-RISE-Misc\\_2021/02](https://dx.doi.org/doi.org/10.35489/BSG-RISE-Misc_2021/02).
- Institute, McKinsey Global. *Spark and Sustain: How School Systems Can Improve Learning at Scale*. 2024.
- Johnson, Doug, and Andrés Parrado. "Assessing the Assessments: Taking Stock of Learning Outcomes Data in India." (2020). [https://riseprogramme.org/sites/default/files/inline-files/Johnson\\_Assessing%20the%20assessments\\_RISE%20version\\_v2.pdf](https://riseprogramme.org/sites/default/files/inline-files/Johnson_Assessing%20the%20assessments_RISE%20version_v2.pdf).
- Kaffenberger, Michelle, and Lant Pritchett. "A Structured Model of the Dynamics of Student Learning in Developing Countries, with Applications to Policy." *International Journal of Educational Development* 82 (2021/04/01/ 2021): 102371.  
<https://dx.doi.org/https://doi.org/10.1016/j.ijedudev.2021.102371>.
- Kaffenberger, Michelle, and Marla Spivack. "System Coherence for Learning: Applications of the Rise Education Systems Framework." *RISE Working Paper* 22/086 (2022).  
[https://riseprogramme.org/sites/default/files/2022-01/System\\_Coherence\\_Learning\\_Applications\\_RISE\\_Education\\_Systems\\_Framework.pdf](https://riseprogramme.org/sites/default/files/2022-01/System_Coherence_Learning_Applications_RISE_Education_Systems_Framework.pdf).
- Kerwin, Jason T., and Rebecca L. Thornton. "Making the Grade: The Sensitivity of Education Program Effectiveness to Input Choices and Outcome Measures." *The Review of Economics and Statistics* 103, no. 2 (2021): 251-64. Accessed 8/9/2021. [https://dx.doi.org/10.1162/rest\\_a\\_00911](https://dx.doi.org/10.1162/rest_a_00911).
- Levy, Brian. "How Political Contexts Influence Education Systems: Patterns, Constraints, Entry Points." *RISE Working Paper* 22/122 (2022). [https://dx.doi.org/10.35489/BSG-RISE-WP\\_2022/122](https://dx.doi.org/10.35489/BSG-RISE-WP_2022/122).



- Levy, Brian, Robert Cameron, Ursula Hoadley, and Vinothan Naidoo. *The Politics and Governance of Basic Education: A Tale of Two South African Provinces*: Oxford University Press, 2018.
- Mbiti, Isaac. "The Need for Accountability in Education in Developing Countries." *Journal of Economic Perspectives* 30, no. 3 (2016): 109-32. <https://dx.doi.org/10.1257/jep.30.3.109>.
- Mbiti, Isaac, Karthik Muralidharan, Mauricio Romero, Youdi Schipper, Constantine Manda, and Rakesh Rajani. "Inputs, Incentives, and Complementarities in Education: Experimental Evidence from Tanzania." *The Quarterly Journal of Economics* 134, no. 3 (2019): 1627-73.
- Nestour, Alexis Le, Laura Moscoviz, and Justin Sandefur. "The Long-Term Decline of School Quality in the Developing World." *Center for Global Development, Consultation draft* (2021). <https://www.cgdev.org/sites/default/files/consultation-draft-le-nestour-et-al-school-quality-decline.pdf>.
- Piper, Benjamin, Stephanie Simmons Zuilkowski, Margaret Dubeck, Evelyn Jepkemei, and Simon J. King. "Identifying the Essential Ingredients to Literacy and Numeracy Improvement: Teacher Professional Development and Coaching, Student Textbooks, and Structured Teachers' Guides." *World Development* 106 (2018/06/01/ 2018): 324-36. <https://dx.doi.org/https://doi.org/10.1016/j.worlddev.2018.01.018>.
- Pritchett, Lant. "Creating Education Systems Coherent for Learning Outcomes: Making the Transition from Schooling to Learning." *RISE Working Paper Series* 15/005 (2015). [https://dx.doi.org/https://riseprogramme.org/sites/default/files/inline-files/RISE\\_WP-005\\_Pritchett.pdf](https://dx.doi.org/https://riseprogramme.org/sites/default/files/inline-files/RISE_WP-005_Pritchett.pdf).
- Pritchett, Lant, and Amanda Beatty. *The Negative Consequences of Overambitious Curricula in Developing Countries*. Center for Global Development Working Paper. <https://www.cgdev.org/publication/negative-consequences-overambitious-curricula-developing-countries-working-paper-293>.
- Pritchett, Lant, Kristy Newman, and Jason Silberstein. "Focus to Flourish: Five Actions to Accelerate Progress in Learning. Research on Improving Systems of Education." (2022). [https://dx.doi.org/doi.org/10.35489/BSG-RISE-Misc\\_2022/07](https://dx.doi.org/doi.org/10.35489/BSG-RISE-Misc_2022/07).
- Revina, Shintia, Rezanti Putri Pramana, Rizki Fillaili, and Daniel Suryadarma. "Systemic Constraints Facing Teacher Professional Development in a Middle-Income Country: Indonesia's Experience over Four Decades." *RISE Working Paper* 2020/054 (2020). [https://dx.doi.org/doi.org/10.35489/BSG-RISE-WP\\_2020/054](https://dx.doi.org/doi.org/10.35489/BSG-RISE-WP_2020/054).

Rosser, A., P. King, and D. Widoyoko. "The Political Economy of the Learning Crisis in Indonesia. Research on Improving Systems of Education." *PE01* (2022).  
<https://dx.doi.org/https://doi.org/10.35489/BSG-RISE-2022/PE01>.

Saavedra, Jaime. *Estamos Tarde: Una Memoria Para Recobrar La Education En El Peru*. Lima Peru: Penguin Random House Grupo Editorial, 2023.

Schneider, Ben Ross, Pablo Cevallos Estarellas, and Barbara Bruns. "The Politics of Transforming Education in Ecuador: Confrontation and Continuity, 2006–2017." *Comparative Education Review* 63, no. 2 (2019/05/01 2019): 259-80. Accessed 2023/09/04.  
<https://dx.doi.org/10.1086/702609>.

Siddiqi, Soufia. "Contested Identities; Competing Accountabilities: The Making of a 'Good' Public Schoolteacher in Khyber Pakhtunkhwa, Pakistan." *RISE Political Economy Papers* (2022).  
<https://riseprogramme.org/publications/contested-identities-competing-accountabilities-making-good-public-schoolteacher>.

Silberstein, Jason. "Measuring, Visualising, and Simulating Solutions to the Learning Crisis: New Evidence from Learning Profiles in 18 Countries." *RISE Programme Insight Note* (2021).  
<https://dx.doi.org/https://riseprogramme.org/publications/measuring-visualising-and-simulating-solutions-learning-crisis-new-evidence-learning>.

Singh, Abhijeet. "Myths of Official Measurement: Auditing and Improving Administrative Data in Developing Countries." *RISE Working Paper* 20/042 (2020).  
[https://riseprogramme.org/sites/default/files/2020-11/RISE\\_WP-042-Singh.pdf](https://riseprogramme.org/sites/default/files/2020-11/RISE_WP-042-Singh.pdf).

Watkins, Susan, and Adam Ashforth. "An Analysis of the Political Economy of Schooling in Rural Malawi: Interactions among Parents, Teachers, Students, Chiefs and Primary Education Advisors." *RISE Working Paper* 19/031 (2019). <https://riseprogramme.org/publications/analysis-political-economy-schooling-rural-malawi-interactions-among-parents-teachers>.

Watkins, Susan, and Amy Kaler. "Pivoting to Learning: A Puzzle with Many Pieces Usan Watkins and Amy Kaler Rise-Wp-16/006." *RISE Working Paper* 16/006 (2016).  
[https://riseprogramme.org/sites/default/files/2020-11/RISE\\_WP-006-Watkins-Kaler.pdf](https://riseprogramme.org/sites/default/files/2020-11/RISE_WP-006-Watkins-Kaler.pdf).

World Bank. *World Development Report 2018: Learning to Realize Education's Promise*. Washington DC: World Bank, 2018.