

12. Addressing the learning crisis: an emergent consensus

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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 not 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.

I. Introduction

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, Williamson 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.’¹ Government expenditure in education was deemed particularly useful when focused on primary school.

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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 it is long-standing and broad, across the globe, across the political spectrum, and across academic disciplines. Just as one example, in 1990, one year after Williamson's essay, the 1,500 assembled delegates of governmental, non-governmental, and inter-governmental organisations 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.²

Yet 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 this 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 to complete. The first consensus was successful in that it did lead to universal primary schooling (and more). The second must go deeper and improve learning systems and lead to the universal education outcomes the world needs.

This chapter is organised as follows: in the first section, I review the successes and shortcomings of the expansion of primary schools since the end of World War II. 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 became worse in recent decades, in 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 schools 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.

II. The successes and failures of the first consensus

In the past 70 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 act 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 behaviour that 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 a 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 having 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.³ 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 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 where 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 basic learning, which includes at a minimum literacy and numeracy, as 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 memorisation. 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’.⁴ 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 supporters⁵ of education, estimates that currently 70% of children are not reaching even that very modest education goal.

III. ‘Schooling ain’t learning’

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 under 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 of 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 different ages, not just a specific grade.

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 DHS 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.⁶

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; it is 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 Programme of International Student Assessment (PISA) is completed – is often far below reasonable and achievable thresholds. Table 12.1 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 to the global standard for ‘basic’ adopted in the Sustainable Development Goals), by combining a number of existing assessments.⁷ The researcher’s findings are that 94.1% of youth in Sub-Saharan Africa (SSA) are not reaching basic skills in maths and science, defined as the ability to apply maths to solve simple problems. Of the one-third of the 15-year-olds who are enrolled in school, 89.3% 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% to 89.3%.

In Latin America, learning outcomes are much better, but it is still the case that 61.2% 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 12.1: In many developing regions the majority of students enrolled in school at age 15 have not reached basic skills in maths 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 and North Africa	0.639	0.195	0.679
Latin America and 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 et al. (2022)⁸ Table 2.

Learning is too slow. Unlike in-school, late-age assessments, the ASER-style⁹ assessments pioneered by the non-governmental organisation (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 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,¹⁰ 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 3rd grade, 60% of Thai children had reached foundational numeracy, while less than 20% had in Pakistan and less than 10% in Ghana.¹¹ Even before the COVID-19 pandemic hit in 2020, more than half of children in the world were unable to read fluently by grade 4.¹²

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 memorisation to 'procedural/algorithmic' (e.g., able to do multiple digit addition following a rule, without necessarily a conceptual understanding of why the procedure produces correct answers) to 'conceptual understanding' (e.g., being able to explain 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 that 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 assessment asked children: '29×28 is more than 28×28 by how much?'¹³ 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. 29×28 is adding up 28, 29 times and 28×28 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 2-digit multiplications and subtracting. But the study found that even children who could answer the multiplications when asked in a standard way, such as: '29×28=?', 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.¹⁴ One question (not displayed here) showed a key with the base aligned on a ruler at zero and the tip on 4cm 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% of those youth enrolled in tertiary education answered this question correctly. But when the base of a pencil was displaced, and started at 2cm on the ruler, with the tip on 8cm, only 60.1% 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 12.2 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 12.2: Even rural Indian youth enrolled in tertiary education had limited skills in simple practice tasks like calculation of time or measurement with a ruler

Task: Calculating Time	
Current Level of Enrolment	Correct in %
Not enrolled	20.6
Enrolled in grade 12 or less	40.5
Enrolled in undergraduate or other	54.4
Task: Measurement (hard)	
Current Level of Enrolment	Correct in %
Not enrolled	19.0
Enrolled in grade 12 or less	41.7
Enrolled in undergraduate or other	60.1

Source: ASER (2018), Beyond Basics.¹⁵

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 low. For instance, the 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 instrument is applied in low-performing developing countries one realises the ability to answer questions that go beyond rote/procedural is almost completely absent. So, while 54% 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% reach this level – only 1.7% 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.

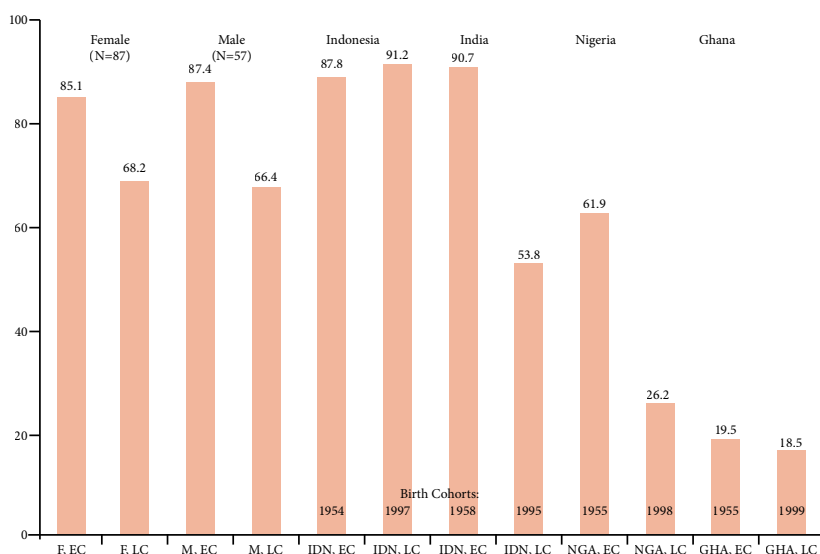
Le Nestour, Moscoviz, and Sandefur used the DHS, which surveyed people of a wide range of ages in each round and had multiple rounds to examine cohort effects in learning, allowing for age.¹⁶ Figure 12.1 shows that for the 87 countries with data on women (the DHS primary respondents are women of child-bearing 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%, whereas the women born in the last cohort (who started school in the 2000s) with five years of schooling had only a 68.2% chance 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 five years of schooling had a likelihood of 90.7% 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% 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% 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 enrolments 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-19 trends in learning in Indonesia, which showed a modest decline in learning outcomes.¹⁷ ASER results in India also showed a steep decline and then stagnation in learning outcomes pre-COVID-19.¹⁸ 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 do not take up the issue of learning losses during COVID-19 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% of the 1998 cohort in Nigeria; 18.5% of the 1999 cohort in Ghana). But this is not because the two countries have had similar trajectories, but rather because Nigeria's collapsed from quite a high level for their 1955 cohort of 61.9% of grade 5 completers able to read *downwards* towards Ghana's consistently low level.

Figure 12.1: 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: author's calculations using data from le Nestour et al. (2021),¹⁹ Table A.4.

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 improved 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.

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% (achieved near universality in schooling) and the fraction of the cohort with five or more years of schooling is also over 80% (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% to 94%, even while completion of grade 5 or higher increased from 76% to 89%. In Peru, women's completion of grade 5 or higher rose from 72% to 94% 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% to 85%. 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 policymakers 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% versus 90% 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% (and with 95% completing grade 5 or higher) – a significant improvement over its historical level of 69%. In contrast, in India for the 1995 female birth cohort reading of those with five years of schooling complete was only 51.4% in India, a significant deterioration from its historical level of 90%. Learning outcomes are a destination to be worked towards that can be achieved, not a destiny fixed by fate.

IV. 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 shortly). Second, the RISE team boiled down the research and experiences into five key principles to guide efforts to reform education systems.²⁰

I am not articulating these specific five actions as a new ‘consensus.’ Other organisations 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.²¹ And different global organisations, from large to small, will necessarily adopt their own tactics and strategies, each with their 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 can drive action not by agreement on a rigid doctrine or by complete agreement but just by moving, fluidly and adaptively, in the same direction.

1. ‘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 organisations in the field, laws, policies, and programmes 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 seem 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 used the data from the Young Lives study that tracked children aged 2 to 12 in Vietnam and Andhra Pradesh, a state in India.²² 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.²³

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.

2. *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:²⁴

- *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-old 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 et al. show that Vietnam’s success is not associated with better characteristics of students or their households.²⁵ Another study used the Young Lives data from four countries, which assessed children first in 2002 at young ages (two groups, at age 1 and age 5) with surveys in rounds every three to four years until 2017.²⁶ 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 ‘maths teacher pedagogical skills’ seemed to matter at all, and hence the upshot was that only about 10% of the enormous learning gaps 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.²⁷ 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 a one-party (Communist) state. Rather, success was the emergent result of a messy and muddy process of local contestations within provincial and federal government structures of pressures.

This is a frustrating set of outcomes as it told us what the source of Vietnam's success *wasn't*, but did not tell us what *was*. Finally, one of the key researchers on the Vietnam study 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.

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.²⁸ 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 described the process of 'isomorphism' for organisations of gaining survival (and continued flow of resources) but looking like other effective organisations, even when they were not effective, and this use of 'isomorphic mimicry' is especially for public organisations with contested and hence ill-defined purposes.²⁹ Just as weak education systems are plagued by rote learning, they also suffer from rote implementation, in which the 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 programme of school improvement in Madhya Pradesh in India illustrates what can happen in the absence of a commitment to improving learning outcomes.³⁰ In 2014–16 the state government introduced a programme, 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 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):

- Banerji 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.³¹
- de Ree et al. showing that doubling teacher wages in Indonesia has no impact on learning.³²
- Bold et al. on the failed scaling by the Kenyan government³³ of an intervention that was 'proven' to be effective of using contract teachers to reduce early grade class size (in Kenya).³⁴
- Aiyar et al. on the implementation of TaRL in Delhi.³⁵
- Bano 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.³⁶
- Siddiqi 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.³⁷
- Revina et al. 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.³⁸

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 a 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.³⁹ 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 utilised in practice.⁴⁰

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.⁴¹ 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.⁴²

Often recommendations from global actors for improving learning outcomes are based on the technocratic premise that national education ministries have sufficient authorisation to adopt and implement education reforms when they have evidence that these reforms could improve 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 shows how national, government-wide reforms pushed by the education ministry often fail because of the entrenched interests of local elites.⁴³ Studies about reforms to improve teaching practices in Ecuador⁴⁴ and in Peru⁴⁵ reveal that successful reforms cannot rely on pre-existing support but rather need to assemble and actively sustain political authorisation.⁴⁶ This is a challenge as education reforms, particularly those that affect teachers, will be contested by teacher 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.⁴⁷ 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.⁴⁸

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.⁴⁹

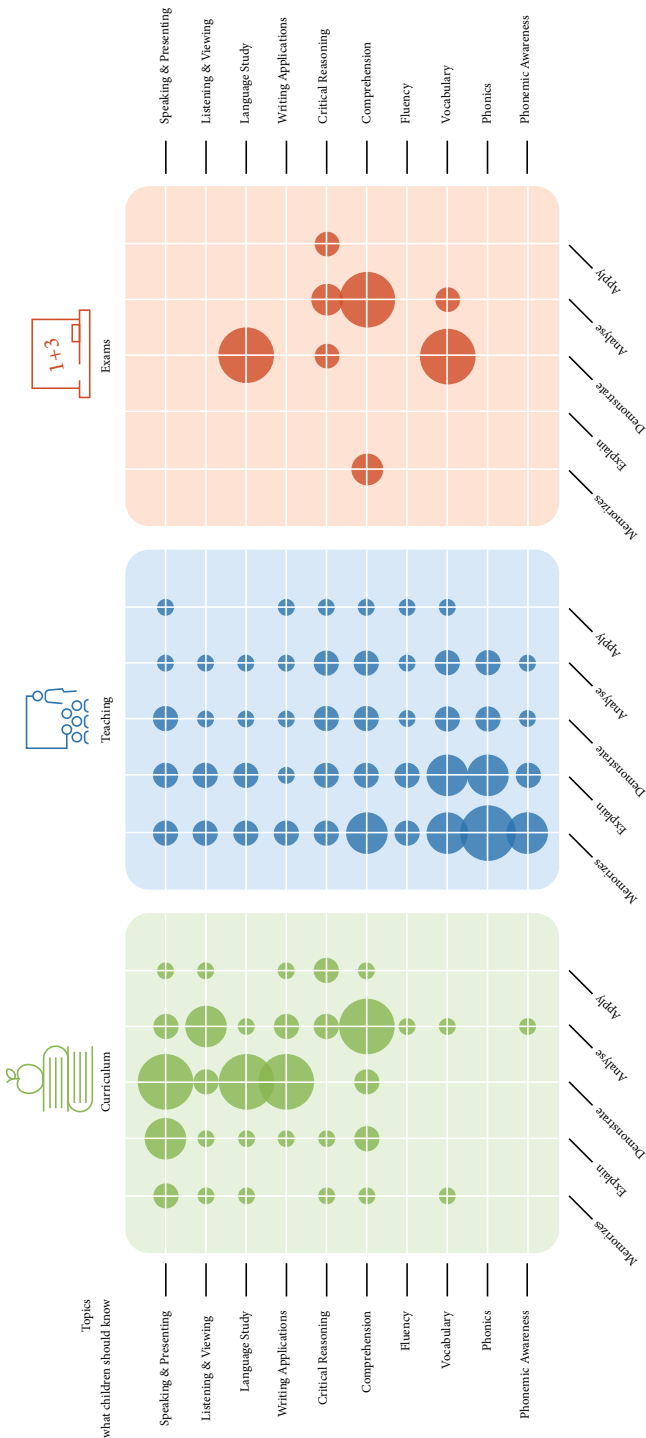
As part of Action 2, the four actions that policymakers can take to improve learning outcomes all begin with a commitment to improving these. The ‘proximate determinant’ or ‘quality schools’ approaches, reflected in the Washington Consensus, implicitly assume that the system is, broadly speaking, fit 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, 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.⁵⁰
- *Regular.* Systems should measure learning over time, beginning in the early grades of primary school. This allows decision makers 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.⁵¹ 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.⁵² Assessments must be reliable to serve as useful feedback on the system’s progress.

Figure 12.2: There is often misalignment among curricula, exams, and classroom teaching, shown here for primary school English class in Uganda



Depth
what children should be able to do

Source: adapted by the author from Atuhurra and Kaffenberger (2022).⁵³

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.⁵⁴ 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 organisations 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 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 is also technical incoherence 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 12.2, adapted from a ‘survey of the enacted curriculum’ in Uganda,⁵⁵ 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., ‘memorise’).

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.⁵⁶ Misaligned, over-ambitious curricula can lead to very low levels of learning⁵⁷ and recent efforts at TaRL and ‘structured pedagogy’ are attempts to remedy and improve student learning by addressing this mismatch.⁵⁸

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 ongoing support to build specific content and pedagogical skills associated with student learning.⁵⁹
- 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.⁶⁰

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.⁶¹ 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 keys to success. When programmes are adopted without enough adaptation to local problems and context, even a well-designed and well-implemented programme that may have improved learning elsewhere or that was successfully implemented by NGO in the same context, may have no impact at all when scaled.⁶² Alongside understanding ‘what works’, it is equally important to understand ‘how it works’ in a particular place, with its unique history, society, and politics.⁶³

V. 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 and 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 enrol 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 lack of schooling, but rather the learning crisis – 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.

Notes

- ¹ Williamson (1990).
- ² UNESCO (1990).
- ³ Pritchett et al. (2022).
- ⁴ Global Goals (2015).
- ⁵ World Bank (2022), UNESCO Institute of Statistics, UNICEF, UK Foreign, Commonwealth, and Development Office, USAID, Gates Foundation, all in partnership with UNESCO.
- ⁶ le Nestour et al. (2021).
- ⁷ Gust et al. (2022).
- ⁸ Gust et al. (2022).
- ⁹ ASER is both an acronym (Annual Status of Education Report) and means ‘impact’ in Hindi.
- ¹⁰ Kaffenberger and Pritchett (2021).
- ¹¹ Silberstein (2021).
- ¹² World Bank (2022).
- ¹³ Educational Initiatives (2009).
- ¹⁴ ASER (2018).
- ¹⁵ ASER (2018).
- ¹⁶ le Nestour et al. (2021).
- ¹⁷ Beatty et al. (2021).
- ¹⁸ ASER (2015).
- ¹⁹ Le Nestour et al. (2021).
- ²⁰ The structure of ‘five actions’ and much of the material below draws on the RISE policy brochure (Pritchett et al. 2022).
- ²¹ World Bank (2018); McKinsey (2024).
- ²² Glewwe et al. (2021).
- ²³ Pritchett (2013).
- ²⁴ Pritchett et al. (2022).
- ²⁵ Dang et al. (2020).
- ²⁶ Glewwe et al. (2021).
- ²⁷ London and Duong (2023).

- ²⁸ London and Duong (2023).
- ²⁹ DiMaggio and Powell (1983); Andrews et al. (2016).
- ³⁰ Muralidharan and Singh (2020).
- ³¹ Banerji (2015).
- ³² de Ree et al. (2017).
- ³³ Bold et al. (2018).
- ³⁴ Duflo et al. (2015).
- ³⁵ Aiyar et al. (2023).
- ³⁶ Bano (2022).
- ³⁷ Siddiqi (2022).
- ³⁸ Revina et al. (2020).
- ³⁹ Belafi et al. (2020).
- ⁴⁰ ASER (2018); Beatty et al. (2021).
- ⁴¹ Gershberg and Spindelman (2023).
- ⁴² Levy et al. (2018); Levy (2022).
- ⁴³ Rosser et al. (2022).
- ⁴⁴ Schneider et al. (2019).
- ⁴⁵ Bruns et al. (2023); Saavedra (2023).
- ⁴⁶ Schneider et al. (2019).
- ⁴⁷ Bano and Dyonisius (2022); Arif et al. (2022); Nihayah et al. (2020).
- ⁴⁸ Watkins and Kaler (2016); Watkins and Ashforth (2019).
- ⁴⁹ Bano (2022).
- ⁵⁰ Stern et al. (2022); Burdett (2017).
- ⁵¹ Bau et al. (2021); Beatty et al. (2021); Kaffenberger and Pritchett (2021); Crouch et al. (2021).
- ⁵² Johnson and Parrado (2021); Singh (2020); Berkhout et al. (2020).
- ⁵³ Atuhurra and Kaffenberger (2022)
- ⁵⁴ Banerji (2015); Crouch (2020); Pritchett (2015); Kaffenberger and Spivack (2022); Mbiti (2016); Mbiti et al. (2019).
- ⁵⁵ Atuhurra and Kaffenberger (2020).
- ⁵⁶ Muralidharan and Singh (2020).

- ⁵⁷ Pritchett and Beatty (2012).
- ⁵⁸ Piper et al. (2018).
- ⁵⁹ Cilliers et al. (2022); Yusrina et al. (2022); Filmer et al. (2021); Revina et al. (2020); DeJaeghere et al. (2021).
- ⁶⁰ Hwa and Pritchett (2021); Bau and Das (2020); Siddiqi (2022).
- ⁶¹ Crouch (2020); Stern et al. (2022); Kaffenberger (2022).
- ⁶² de Ree et al. (2017); Muralidharan and Singh (2020); Hwa and Pritchett (2021); Bold et al. (2018); Angrist and Meager (2022); Kerwin and Thornton (2021).
- ⁶³ Barjum (2022); McNaught (2022); Moore and Spivack (2023); Samji and Kapoor (2022); Matthew (2021).

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Response to Lant Pritchett by Pedro Carneiro

In this volume, Lant Pritchett paints a bleak picture of the state of learning in the developing world, in what he calls *The Learning Crisis*. The case he makes is compelling: the learning crisis is real, and its magnitude is scandalous. There is now widespread evidence from multiple data sources of staggering knowledge disparities between students of poor and rich countries. This is true even when we compare students with similar levels of schooling.

Pritchett stresses that the issue is not so much the quantity of schooling, but the quality. Across many countries in the developing world, students' learning does not improve even as they stay longer in education. Statistics based on the quantity of education, such as years of schooling, are woefully inadequate as measures of human capital in many countries because so little learning takes place in schools. Yet these statistics are still frequently used as a guide to policy.

According to Pritchett, knowing about the best practices for promoting children's learning is not really the issue. More than finding out which interventions do and do not work in schools in different settings, the central issue faced by many poor countries is one of implementation, and it is primarily a systemwide issue (or set of issues). This is important because addressing the learning crisis requires primarily addressing systemwide failures in public education.

One typical criticism of Pritchett's argument is that systemwide changes are incredibly hard to achieve, and so resources could be better suited to interventions that attempt to bypass the system, and operate at a more micro level, such as schools. Pritchett would argue that, even if apparently sensible, there is substantial evidence that such an approach is doomed to fail. It is difficult for interventions to be successful on a large scale without being fully integrated in a working public education system. He goes on to lay out a set of principles that should guide systemwide reforms in the developing world.

This is an excellent chapter. We cannot afford to continue to ignore the picture it paints and its proposals. Here I present three (modest) complementary reflections.

I. Gaps in circumstances vs gaps in learning

Learning depends on multiple factors, of which schools are only one. One reaction to Pritchett's article could be that it demonstrates that the learning

crisis is real and very serious, but not that its main determinants are in the school system. Children in poor families face multiple challenges to development, such as poor health and nutrition, home environments that are not optimal for learning and exposure to violence, among many others. Such challenges could be so overwhelming that they would severely dampen the impact even of the best school system. So, to what extent is the learning crisis a consequence of education systems, and to what extent is it a consequence of other country-level deficiencies?

Multiple non-schooling factors surely play a large role in learning, and addressing the learning crisis adequately requires engaging with them. It is difficult to know exactly how much can be changed by moving one factor alone (even a big one), in this case, the provision of public education.

Pritchett is convinced that substantial improvements can be made even if the sole intervention is on the school systems. In fact, as he points out, it is striking that the learning crisis is also evident among children from high socioeconomic status in poor countries. Such a comparison controls for many of the other barriers to learning that could be afflicting most children in the developing world, suggesting that low-quality schooling bears substantial responsibility for this problem.

In support of Pritchett's view, in a recent paper, Singh provides convincing evidence that country-level differences in student performance could be substantially driven by differences in the productivity of schools between countries. He compares the performance of students across countries in the Young Lives Study: Ethiopia, India, Peru, and Vietnam.¹ He shows that although there are some early (pre-school age) differences in children's test scores, they grow substantially during the first eight years of school. Vietnam far outperforms the other three countries in this sample, and one can attribute most of the cross-country differences in learning rates in this study to cross-country differences in school productivity. This would suggest that Pritchett is indeed right, and that although other factors matter for learning, cross-country differences in student performance could in large part be a consequence of cross-country differences in school systems. It would be important to investigate to what extent this applies beyond the comparison of Vietnam with these other three countries.

Vietnam is indeed well known for its incredible performance in PISA tests. Dang et al. document this fact, although they struggle to explain Vietnam's outstanding results relative to other countries based on student, household, and school variables observed in the dataset.² It is possible that the main difference lies in features of the school system that Pritchett emphasises, and which are not easily observed in the type of surveys that accompany the administration of PISA tests.

In spite of the learning crisis emphasised by Pritchett, returns to formal education remain large across the world, even in countries where not much learning seems to be taking place during the schooling years.³ Obviously, we do not know what counterfactual returns would be if school systems worked

better: it is likely that returns would be even higher. That said, there appears to be a substantial payoff to schooling in very poor countries with little learning, which is at least as large or even larger in percentage terms than that observed in advanced economies, where students appear to have a much higher level of knowledge. It would be interesting to further investigate why this is the case if students do not learn too much in school. It is possible that schools in places like Sub-Saharan Africa are still imparting important knowledge to students that is not easy to capture through simple standardised tests.

II. Private schools

Disappointed with the services offered by public schools, many families in developing countries are turning to low-cost private schools.⁴ The market has increased dramatically. When measured, test scores of students in private schools are as high or higher than those of students in public schools, and fees are typically low. The effectiveness of such schools has been questioned by some researchers,⁵ but there have been others who have presented much more optimistic results.⁶

Private schools may have an important role to play, especially in systems with dysfunctional public schools. Parents seem to value them substantially.⁷ Enrolment in private schools is quite high in a variety of countries, and surprisingly, in very poor contexts. For example, in Pakistan 39% of children are now enrolled in a private school. Similar levels of private enrolment are observed in several other developing countries.⁸ Therefore, it is no longer possible to discuss the issues addressed in Pritchett's chapter without considering the role of what is, in many cases, an unregulated low-cost private sector.

III. The implementation of systemwide changes

Pritchett's diagnostic and ideas are sensible, and the problem is indeed dramatic and urgent. He makes a passionate case for systemwide changes, in contrast to more micro interventions. He provides a set of principles that should guide such changes.

But how can one achieve such widescale changes? The case usually made for micro-level interventions is precisely that it is not feasible to change the whole system, but it may be feasible and worthwhile to intervene in some of its components.

This is not a problem only of poor countries. Even in rich countries systemwide changes are rare, in many cases not because they are undesirable, but because they are so difficult to implement. Pritchett's view is that systemwide changes are a necessary condition for any noticeable improvement in standards, and he is probably correct. But his proposals risk falling flat if not accompanied by a realistic discussion about implementation.

In sum, Pritchett rightly emphasises one of the most important problems in education in poor countries: the quality of schools is low, and there is little or no learning occurring in many settings. He presents a proposal for systemwide changes, which is well articulated, sensible, and has very concrete recommendations. It is hard to argue against what Pritchett writes.

In this discussion I raise three small points. First, there are many other non-school factors that are central determinants of learning. While there is evidence that the school system can in fact make a huge difference in the performance of students, as argued by Pritchett, it may not be possible to produce significant and long-lasting changes without addressing many of the other dramatic challenges faced by students and their families in the poorest countries in the world. Furthermore, while student knowledge appears to be very low in many developing countries, returns to schooling remain stubbornly high, suggesting that students are indeed getting something valuable out of their years in school.

Second, private school enrolment has exploded in the developing world. There are several countries where private enrolment accounts for almost half of total enrolment in basic education. This growth has been fuelled by an expansion of low-cost private schools, in what is often a very unregulated sector. With such high – and growing – levels of private school enrolment one cannot conceive of a plan to increase student learning in poor countries without incorporating the role of private schools.

Third, Pritchett's proposal is very ambitious, and its implementation is daunting. His ambition is understandable given the scale of the problem and the paucity of available solutions. But a subsequent discussion of the process through which one can achieve the needed reforms is required, without which it is difficult, if not impossible, to make progress.

Notes

¹ Singh (2020).

² Dang et al. (2023).

³ Patrinos and Psacharopoulos (2020).

⁴ Tooley (2021).

⁵ Akmal et al. (2019).

⁶ Andrabi et al. (2021).

⁷ Carneiro et al. (2024).

⁸ Baum et al. (2014).

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Response to Lant Pritchett by Miguel Urquiola

Research on the Economics of Education has made real strides since the days of the Washington Consensus (circa 1990). This comment reviews five lessons such research has produced. It uses these lessons to frame comments on Lant Pritchett's paper.

The lessons provide a contrast. Namely, 1990s observers would find some of them intuitive and expected; others they would find quite surprising. The lessons are:

1. Raising school value-added is crucial to educational policy.
2. One can measure (close to) causal school value-added in many settings.
3. The public sector, left to its own devices, may not improve school value-added.
4. The private sector, left to its own devices, may not improve school value-added.
5. System design can affect school value-added.

I. Lesson 1: Raising school value-added is crucial

School value-added is the impact that attending a given school has on a student's outcomes, for example, her skills. All else equal, a school with high value-added enhances a student's skills more than one with low value-added – i.e., it teaches her more.

Economists typically analyse school value-added with respect to achievement as measured by test scores. One can consider value-added with respect to other outcomes, such as labour market earnings. Research suggests that schools' value-added in different dimensions are positively correlated. For example, Chetty et al. show that value-added measured using test scores is correlated with school value-added in terms of college attendance and later earnings.¹

It is not surprising that value-added garnered attention in the economics of education – it is closely related to the concept of productivity, which is salient in all of economics. Value-added is also closely related to Pritchett's learning profiles (Figure 12.2). Countries with steep learning profiles have school systems with high average school value-added. Further, as Pritchett notes, there is enormous variation in value-added – much of it within as to opposed to between countries. The same holds regarding many countries'

public and private sectors; each can contain both high and low value-added schools, with significant overlap.²

In short, consistent with Pritchett's conclusions, raising school value-added is crucial to effective education policy.

II. Lesson 2: (Close to) causal school value-added can be observed in many settings

If one could time travel and tell 1990 education economists that value-added would gain salience in their field, they would not be surprised. However, the fact that a concept is salient does not mean it is easy to measure. What would surprise 1990 researchers is that in many settings, their successors have succeeded at estimating *causal* school value-added – that is, at capturing the impact of a school independent of other factors that influence a child's progress.

To elaborate, around 1990, pessimism about measuring school value-added arose from two sources. First, few countries had representative data on outcomes like test scores or labour market earnings.

Second, the 'credibility revolution' was getting underway – a consensus was emerging that policy should be based on causal estimates. With that came the realisation that obtaining such estimates often called for experiments or quasi-experiments. Economists realised that finding/running such experiments would be a tall order with respect to school value-added. An essential fact about education is that families do not choose schools randomly, e.g., some schools are more likely to have wealthier students than others. In the presence of such non-random sorting, it should be challenging to estimate schools causal value-added. For example, children in a given school might make good progress in reading, but that might have more to do with their household wealth than with how well that school teaches reading.

Yet, two things have happened since then. First, as researchers emphasised the importance of school value-added, many governments began to collect data on outcomes like test scores. Today, Pritchett can produce a figure like [Figure 12.1](#) covering many countries.

Economists also found that using appropriate methodologies, causal school value-added can be reasonably approximated even in the absence of true experiments or quasi-experiments.³

In short, measuring school value-added is more feasible than 1990s observers might have expected.

III. Lesson 3: The public sector, left to its own devices, may not improve school value-added

Another lesson is that the public sector left to its own devices – or, as Pritchett says, operating 'business as usual' – may not improve value-added.

A 1990 observer would not be shocked by this lesson. By then, Hanushek was making the case, albeit with non-experimental evidence, that public school spending could increase substantially with little impact on outcomes like skills.⁴ Pritchett illustrated that this finding held in multiple developed countries.⁵

Further, it was already apparent that many public schools face few incentives to improve their value-added. And that public teacher unions resist experimentation (and recently displayed a striking enthusiasm for COVID-19 school-closures, with substantial adverse impacts on children's skills).

In recent years, experimental studies in Indonesia and Tanzania confirmed that even large increases in public expenditure can fail to improve skills.⁶ Further, in Pakistani public schools, the link between parental demand and school value-added is tenuous.⁷

Nonetheless, recent studies consider US school finance reforms and find a clear link between public spending and student skills.⁸

The bottom line is that one cannot systematically rely on the public sector, operating under its usual rules, to raise school value-added. That might happen at times, but not as a general rule.

IV. Lesson 4: The private sector, left to its own devices, may not improve school value-added

Another lesson would be more surprising to 1990s observers: the private sector cannot be relied upon to raise value-added either.

To elaborate, since Friedman, many economists have argued that the way to address low public school value-added was to give families vouchers to attend private schools.⁹ This idea has natural appeal because it extends standard results from markets for consumer goods to education.¹⁰

The idea was implemented in Chile by the 'Chicago Boys,' economists partially trained by Friedman himself.¹¹ They presided over a large expansion of the private sector. Chile's average school value-added should have taken off. But Hsieh and Urquiola presented early non-experimental evidence that this had not happened.¹² The main effect of vouchers was greater student sorting (along traits like family income) rather than greater student learning.

More recent experimental studies find that vouchers' effects on skills can be highly positive,¹³ highly negative,¹⁴ or modest.¹⁵

Recent years have also seen theoretical and empirical work that helps explain why Friedman's intuition did not hold. The short story is that consumers – the source of demand and many incentives in a market system – do not always prefer higher value-added schools. This may be for two reasons. First, value-added is challenging to compute/interpret, even for researchers; thus, families may lack information on it. Second, households may rationally value school attributes other than value-added, such as peer quality, networks, and

proximity.¹⁶ If these are not highly correlated with value-added, households will not always demand/reward school productivity.

The bottom line is that one cannot systematically rely on the private sector, operating under its usual rules, to raise school value-added. That might happen at times, but not as a general rule.

V. Lesson 5: System design can affect value-added

Research since the 1990s shows that other ways in which the school system is configured (beyond the public/private division) can affect average school value-added. To cite one example, inequality was not a central concern in the Washington Consensus, but it has gained salience since then. As a result, many observers call for school systems that are less segregated by ability or income. Related, many also wish to reduce/reform the use of standardised test scores in admissions.

Yet rigorous research shows that each of these policies could lower average school value-added – it is possible that they could *reduce* almost all students' learning.¹⁷

In short, one must be mindful that as elsewhere, trade-offs rather than 'free lunches' characterise policy in education.

VI. Conclusion

Consistent with Pritchett's paper, raising school value-added is urgent but unlikely to happen without deliberate/focused attention. In particular, post-1990s research shows that school value added is central and easier to measure than expected. But that does not mean that it can be improved by 'easy' measures like increasing public funding or distributing vouchers.

Notes

¹ Chetty et al. (2014). See also Riehl et al. (2019); Ainsworth et al. (2023); Beuermann et al. (2023).

² Andrabi et al. (2023).

³ Angrist et al. (2017); Ainsworth et al. (2023); Andrabi et al. (2023).

⁴ Hanushek (2003).

⁵ Pritchett (2003).

⁶ de Ree et al. (2018); Mbiti et al. (2019).

⁷ Andrabi et al. (2023).

⁸ Jackson (2020).

⁹ Friedman (1955).

- ¹⁰ MacLeod and Urquiola (2019).
- ¹¹ Edwards (2023).
- ¹² Hsieh and Urquiola (2006).
- ¹³ Bettinger et al. (2017).
- ¹⁴ Abdulkadiroğlu et al. (2018).
- ¹⁵ Muralidharan and Sundararaman (2015).
- ¹⁶ MacLeod and Urquiola (2015); Allende (2019); Andrabi et al. (2023); Neilson (2021); Ainsworth et al. (2023).
- ¹⁷ Duflo et al. (2011); Riehl (2023).

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