



Background Paper 6:

Turning Education Systems Into Learning Systems

#SaveOurFuture

www.saveourfuture.world

About the campaign

Save Our Future is a global coalition of diverse voices - from CSOs to the private sector, youth to researchers, media to multilaterals, foundations to influencers and more - all uniting to deliver a simple, yet powerful message amidst the COVID-19 crisis: **Save Our Future**.

This campaign, supported by hundreds of organizations worldwide, is driving awareness and emphasizing the connection between education and advancing the other UN Sustainable Development goals; showcasing education solutions and innovations backed by evidence-based research; bringing together communities and diverse stakeholders to promote collaboration; and engaging people around the world in a dialogue around education to ensure all children can learn.

As part of the Save Our Future campaign, the Save Our Future white paper *[Averting an Education Catastrophe for the World's Children](#)* was developed and launched on October 22, with key actions and recommendations for global decisionmakers on protecting and prioritizing education amidst COVID-19.

For further information, please contact campaign@saveourfuture.world. To learn more about the Save Our Future campaign, please visit www.saveourfuture.world.

Background paper prepared for the Save Our Future white paper *Averting an Education Catastrophe for the World's Children*

Turning Education Systems Into Learning Systems

Authors:

Myra Khan
Celeste Carano, the Education Commission

With key contributions from:

Adedeji Adeniran, Centre for the Studies of African Economies (CSAE)
Kirsty Newman, the Education Commission
Amy Jo Dowd, LEGO Foundation
Devyani Pershad, Pratham
Marla Spivack, RISE Programme
Shinta Revina, SMERU Research Institute
Javier Gonzalez, SUMMA
Nicolas Reuge, UNICEF
Matt Brossard, UNICEF Office of Research - Innocenti
Karen Mundy, University of Toronto

Additional Acknowledgements:

With thanks to Luis Crouch for invaluable input

This paper was written to provide background information to assist in drafting the Save Our Future white paper *Averting an Education Catastrophe for the World's Children*. It has been edited for clarity and to maintain consistent style and branding in line with the Save Our Future campaign. The views and opinions expressed in this paper are those of the authors and contributors and should not be solely attributed to the organizations representing the Save Our Future campaign. Contributors and their respective organizations have expressed broad agreement on the priorities and evidence supporting these priorities set out in this paper. However, this text should not be considered as the formal policy position of any organization and some organizations may have differing views.

The paper can be cited with the following reference:

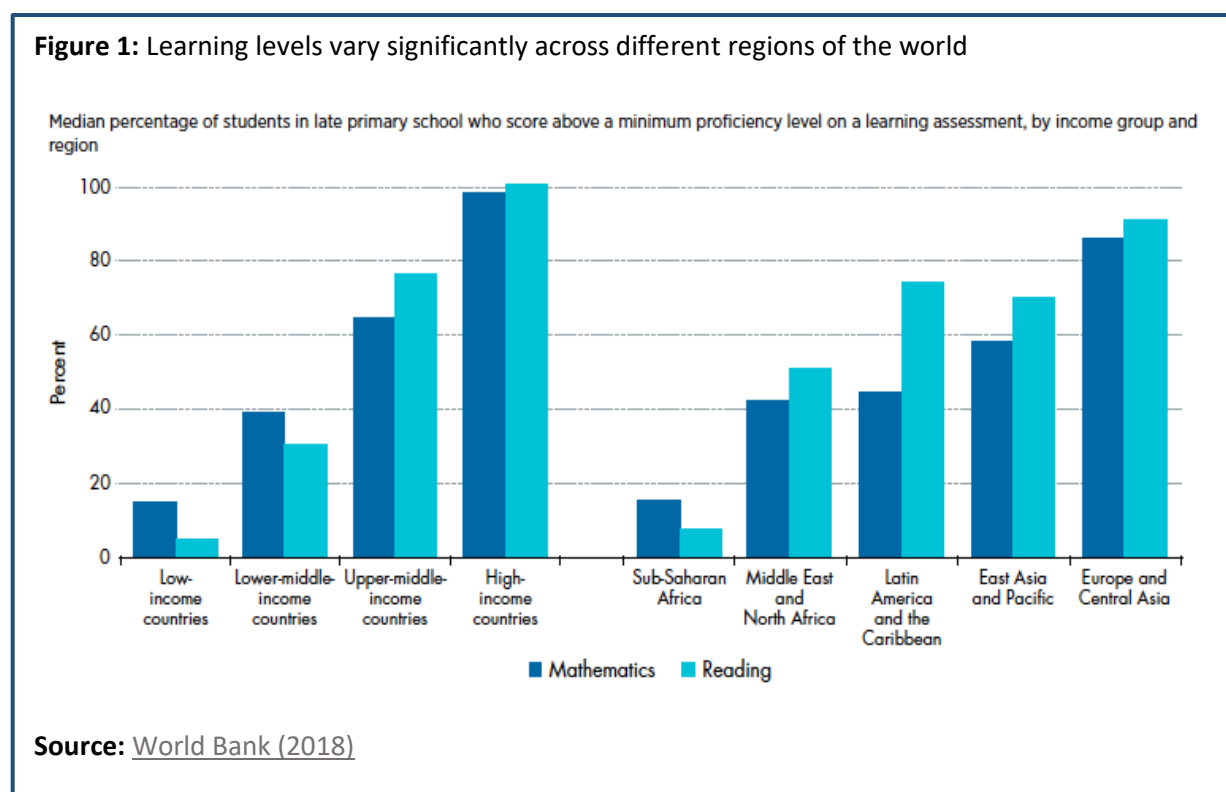
Khan, M. & Carano, C. (2020). *Turning education systems into learning systems*. Background paper prepared for the Save Our Future white paper *Averting an Education Catastrophe for the World's Children*. Save Our Future. <https://saveourfuture.world/white-paper/>

Available under [Creative Commons Attribution](#).

To view other background papers, please visit <https://saveourfuture.world/white-paper/>

Education systems are not producing student learning

Overwhelming global evidence shows that schooling does not equate to learning. Globally, it is estimated that 617 million students are not achieving minimum proficiency levels in literacy or numeracy (UIS, 2017). The 2018 World Development Report estimated that even after spending at least four years in school, 125 million children globally are not acquiring ‘functional literacy or numeracy’ (World Bank, 2018). In Africa, 202 million school-age children and adolescents do not achieve minimum proficiency levels in literacy or numeracy (UIS, 2017). The case is similar globally across low- and middle- income countries. In South Asia, data estimates that 58 percent of children in the region are in ‘learning poverty’, unable to read and understand a simple text by the age of 10 (World Bank, 2019a). In India, for example, more than half of grade 5 students have not mastered grade 2 literacy (Pratham, 2019).



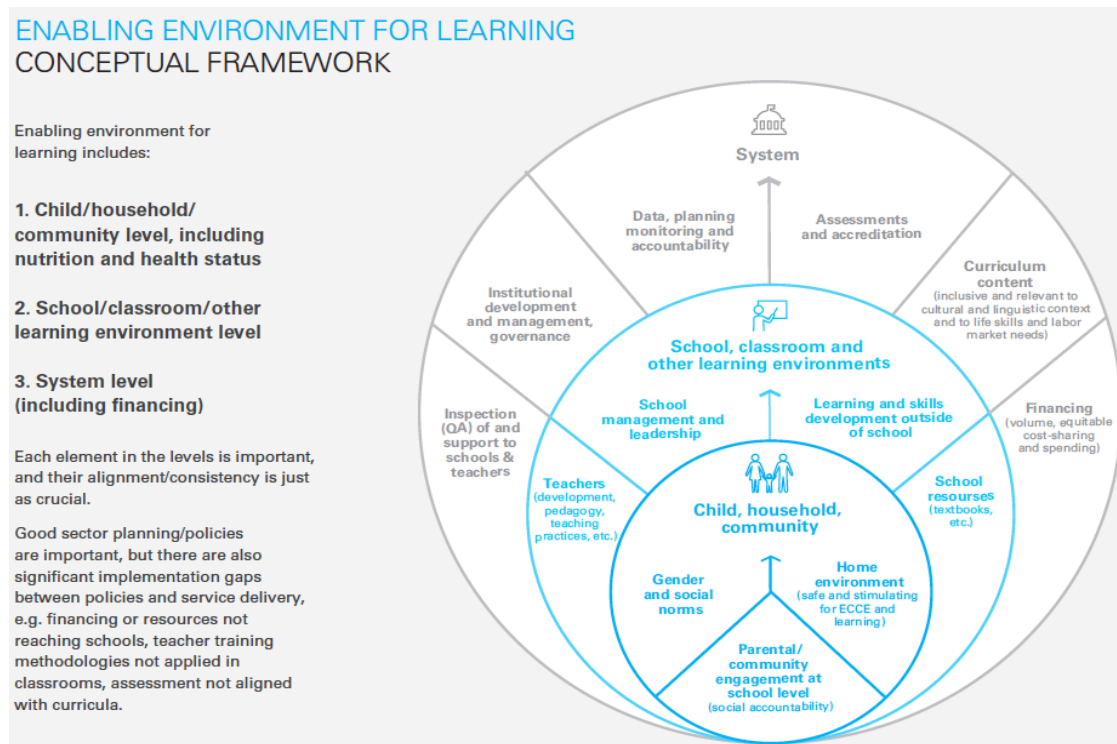
These statistics present one clear message: despite spending of billions of dollars globally, education systems are not producing desired and essential student learning outcomes. The international education community is in agreement that after a focus on enrolling children in school and improving attendance, a renewed focus is required on student learning. Global education systems and policies need to be aligned towards student learning. This is to ensure that students across the world leave education systems with

not only basic foundational literacy and numeracy skills, but the knowledge the curriculum is meant to teach. To achieve this objective, education systems must become 'learning systems' in two ways.

Firstly, the system must have a rigorous focus on student learning - also referred to as learning outcomes, student knowledge and skill attainment, or student outcomes. An education system aligned to learning will produce better results for student outcomes, as the focus shifts from input-based results (such as focusing on enrollment or attendance as a measure of success), to student learning outcomes above all else, whether the focus of a policy or intervention is improving assessments, training teachers, or enhancing participation in school management committees. This paper discusses how education systems, policies, and reforms can be aligned to achieve this, as student learning may not always take the main priority in policy or reform agenda.

Secondly, a system must build an understanding of what works to produce student results and how to deliver that to students at scale. It must continuously learn from itself to create an ecosystem which evolves on how to deliver its core priority of student learning. This evolution requires the cooperation and engagement of all system stakeholders - national and local governments, multilateral and bilateral donors, civil society and nonprofit institutions, school management bodies, and frontline education workers - for informed, cohesive action and iterative implementation to take place.

Figure 2: The UNICEF Education Strategy 2019-2030 conceptualizes the stakeholders that create the ecosystem supporting an education system



Source: [UNICEF \(2019\)](#)

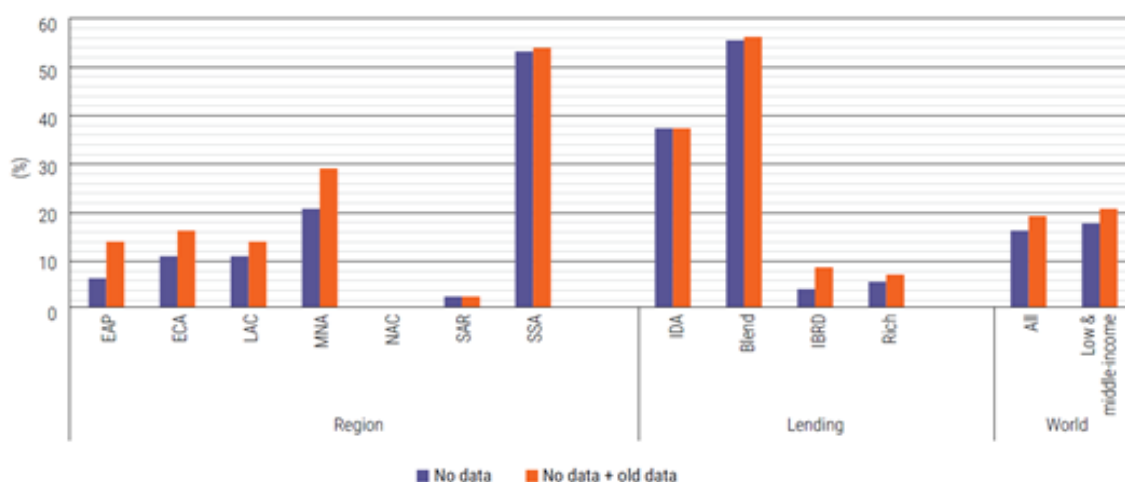
Why aren't systems aligned to student learning?

There are a number of reasons why education systems fail to become 'learning' systems in either of the aforementioned areas, including complex political economy and historical reasons unique to countries. However, experts agree on the following as being priority areas that are often common problems across regions.

Measuring learning is challenging

Many education systems struggle with measurement systems and a lack of data on student learning outcomes. Often, data on learning outcomes is of poor quality and outdated ([World Bank, 2018](#)). In Indonesia, for example, data on learning outcomes is available from the PISA international assessments every three years ([OECD, 2015](#)). International and regional assessments (PASEC, D-PISA, EGRA, EGMA) provide valid data, but in many countries the most recently collected data dates back to 2007, making it difficult to use for current decision-making ([World Bank, 2018](#)). Aside from international assessments, country-developed national assessments and sufficient school and classroom level assessments are also lacking. Even fewer systems measure holistic development of students, including socio-emotional skill development in students. Data can also often lack the granular level detail that is needed to understand progress for the most marginalized students, including those who may have disabilities, refugee or migrant populations, among others (see Save Our Future background papers [Unlock Education for All: Focus on the Furthest Behind](#) and [EdTech and COVID-19 Response](#) for further analysis on data gaps for marginalized students).

Figure 3: Data gaps in measuring learning poverty: Share of population of children in countries with no or dated learning assessment data



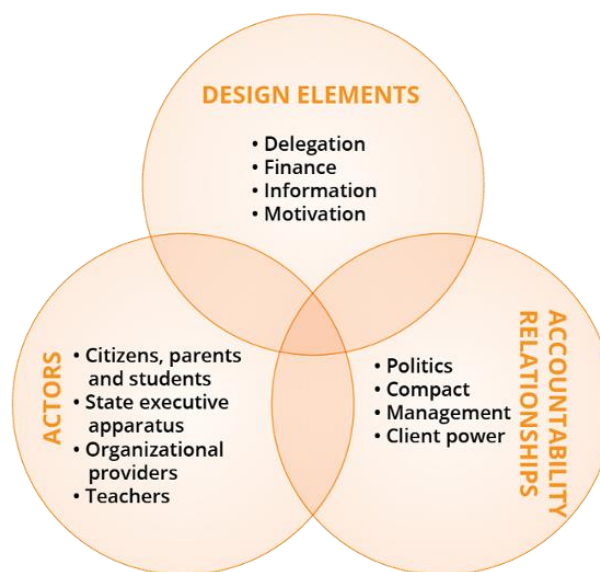
There are varied levels of data on student learning around the world, with extreme data gaps in sub-Saharan Africa.

Source: [World Bank \(2019b\)](#)

Inconsistent reform agendas

In many systems, there is often a lack of consistency between the proposed reforms, incentives for system stakeholders to execute the reform, the messaging, and leadership of the reform at school and system level. This system coherence is needed for successful reform implementation and alignment in any sector. Education reforms can often fail when the subsidiary stakeholders and offices that are needed to support the reform activities – from curriculum design and lesson plans, to textbook design, assessment tools, or teacher coaching and support – are insufficiently aligned with this reform agenda or may not be committed to the planning and implementation process ([UNICEF, 2019](#)).

Figure 4: The RISE Programme framework



The framework looks at coherence in education systems through three different lenses. The above is a synthesis of [Pritchett \(2015\)](#). Reforms can fail because the actors in the education system are not aligned with the design elements, or because the design is not aligned with the accountability mechanisms for different stakeholders.

Source: [Scur \(2016\)](#)

Varied interests of stakeholders

The fragmentation between different ‘levels’ of the system often occurs as a result of misaligned interests of system stakeholders. The education workforce, local governments, national governments, and international stakeholders are all accountable to different bodies, and with different mandates. Incorrect assumptions about the behavior of actors at multiple levels in education systems, and also how the system will react to and enact the reform can cause the reform to fail ([Prichett, 2018](#)). A starting point in realigning a system towards student learning requires understanding how different actors will react to these influences and working with - rather than against or in ignorance of - the politics of the system.

Figure 5: Table showing multiple interests that govern the actions of education stakeholders

Stakeholder	Examples of...	
	Learning-aligned interests	Competitive interests
Teachers	Student learning, professional ethic	Employment, job security, salary, private tuitions
Principals	Student learning, teacher performance	Employment, salary, good relations with staff, favoritism
Bureaucrats	Well-functioning and performing schools	Electoral gains, rent-seeking
Politicians	Well-functioning and performing schools	Electoral gains, rent-seeking
Parents and students	Student learning, employment of graduates, generational growth	Low taxes, narrowly defined self-interests
Judiciary	Meaningful right to education	Favoritism, rent-seeking
Employers	Skilled graduates	Low taxes, narrowly defined self-interests
Non-governmental schools (religious, community-run, etc.)	Innovative, responsive schooling	Profit, religious mission, funding
Suppliers of education inputs (textbooks, infrastructure, etc.)	High-quality, relevant inputs	Profit, influence
International donors	Student learning	Domestic strategic interests, taxpayer support, employment

Source: [UNICEF \(2019\)](#)

A large gap between intent and implementation

Owing to inconsistent reform implementation, messaging, and leadership, a large implementation gap often emerges between an intended policy or reform for improving student learning and the actual scope of the implementation of the policy or reform. This implementation gap is not unique to student learning

alone. Service delivery failures in education as a whole are not uncommon; when student learning becomes a priority, implementation becomes even more challenging because of the complex and at times controversial nature of learning-focused reforms and rigorous measurement required to track progress ([Bruns et al., 2011](#)). Additional shocks and externalities to the system, such as the COVID-19 pandemic, only intensify the implementation gap. Reform processes and tasks often become fragmented across varied departments within an education sector, making it hard to understand who is accountable and for what outcomes ([World Bank, 2018](#)).

While progress has been made on planning for strong implementation of learning reforms, executing the implementation itself remains a challenge. A recent evaluation of the Global Partnership for Education (GPE)'s work found that while education sector plans have strengthened under its leadership, the quality of sector planning does not guarantee strong implementation. Implementation needs, and how to monitor implementation are still insufficiently addressed in sector plans ([GPE, 2020](#)).

Box 1: Challenges faced by education systems in aligning systems towards learning: Two country examples

	<i>Country</i>	
	Indonesia	Nigeria
Education system challenges	Learning profiles of students in Indonesia have remained flat for the last two decades, indicating stagnation of student learning outcomes, despite development and implementation of several policy reforms (Beatty et al., 2018).	Approximately 10.5 million school-aged children are out-of-school (Guardian Nigeria, 2019), and among those in school, about 83 percent and 69 percent meet grade level competencies in literacy and numeracy respectively (Adeniran, et al., 2020).
System misalignment towards learning	Education stakeholders say the system is incoherent towards learning. There is a combination of a lack of delegation, information, and appropriate financing, resulting in lack of motivation for frontline providers to focus on learning. In Indonesia, there is no real imperative from the state on improving learning. Parents do not consider learning outcomes to be a priority, relative to other aspects such as student character development. Financing is largely formula-based or based on the number of students and teachers, rather than on performance-based or funding for specific programs with specific goals. Credible student performance data is available only every three years (through international surveys such as PISA and TIMSS), and only at an aggregated, national level.	An effective, pragmatic, and productive learning system is lacking in many ways. Budgetary allocation to education reflects that higher priority is given to attendance and infrastructure, rather than the education workforce. There is no nationally representative and periodic learning assessment to track progress of learning outcomes. Since learning outcomes are not tracked, there is a lack of evidence for policy formulation. Another dimension of misalignment is the focus of parents and policymakers for students to obtain certificates and complete school, rather than to knowledge and skills. Teachers then concentrate on particular subject areas that improve performance, and sometimes examination malpractices take place. There is also misalignment in the language of instruction (mostly English), and the child's mother tongue.
The way forward	Using valid information on learning, teaching, school management to create teacher, principal, and school improvement plans is key for any policy based on learning. There is an important need to use data to inform and determine where finance should be allocated, and what the focus areas of frontline education providers should be. The RISE team in Indonesia is providing policy recommendations to the Ministry of Education and Culture on teacher quality and school management to inform these decisions.	Government interventions have limited focus areas, and incorrectly rely on the assumption that fragmented interventions will eventually improve outcomes. A systems thinking is still lacking: which focuses on all actors and the interactions between them. Policy responses need to be focused on developing a robust learning system as development of a nuance learning assessment is missing. Multiple government bodies will need to align their strategies to enact change.
Source	<i>Contribution prepared by the RISE Indonesia team</i>	<i>Contribution prepared by the Centre for the Study of African Economies (CSAE) team</i>

Actions for creating an education system aligned to student learning

There are three steps which education systems can take to align towards and prioritize student learning. **The first is to measure** learning and skills attainment of students more frequently, comprehensively, and accurately, and in particular, to measure foundational skills in literacy, numeracy, and socio-emotional learning once students return to the classroom in a post-pandemic recovery period. **The second is to learn** from the results of the measurement. Deeply understanding where failures lie in the system will provide greater clarity on which sectors or stakeholders need to be better aligned to learning to make progress. **Thirdly, and perhaps most importantly, act on evidence** and ensure that national, international, and local actors are aligned towards the goal of foundational learning.

While these steps are provided as guidelines, they are not intended as a ‘one-size-fits-all’ approach for any education system that is seeking to improve learning outcomes. Each country has unique challenges, and while solutions can be shared across borders to inspire similar goals, nuances within society and different education stakeholders will mandate contextualization.

Box 2: Immediate priorities to create learning systems in the COVID-19 recovery period

1 | Measure learning and skills attainment of students

- Collect data to understand where students’ knowledge and skills lie when they return to education. It cannot be assumed that they will return at the same skill and knowledge level as they had prior to COVID-closures.

2 | Learn from the results of the measurement

- Coordinate and organize with all stakeholders (including domestic finance and donor institutions) to ensure that policies and programs are aligning towards the same goal: improving foundational student learning.
- Ensure that ‘catch-up’ educational programs, including potential accelerated learning programs, are incorporated. Existing curriculums may not necessarily be sufficient and appropriate to serve returning students (see Save Our Future background paper [*From Schooling to Learning for All: Reorienting Curriculum and Targeting Instruction*](#))

3 | Act on evidence

- Support the education workforce. Teachers are the most important factor for student learning. Ensure that there are programs that support them to safely transition back to school and operate successfully in the new environment (see Save Our Future background paper [*Strengthening the Education Workforce and Creating Learning Teams*](#))
- Empowering frontline education leaders is key. Support for the performance of para-professionals, principals, and district education leaders will be crucial to fully empower and support teachers and students in the classrooms.

1 | Measure

As education systems ease into a pandemic recovery period, gaps in student learning risk exacerbation. As students will have had varying levels of access to remote education, it cannot be assumed that students will return at the same skill level that they were when they left. Doing so could risk leaving some students further behind. **Collecting information on the new skill level of students is imperative to understanding what policies and interventions are necessary to help students catch up and progress further. A system aligned toward student learning would ensure that students are met where they currently are performing, and not fall back on prior expectations which are misaligned to the new reality of the classroom.** Due to the pressing need to respond as pandemic restrictions loosen, the best approach for any system would be to engage with frameworks and structures that already exist through provincial or local education ministries, civil society organizations, local university centers and think tanks, international organizations, and local and international development partners.

- **National governments** will need to ensure they are measuring learning at aggregated and disaggregated levels. Specifically, governments should collect data on students' foundational skill attainment at both primary and secondary levels. Most urgently, governments should also focus on enabling understanding of learning levels in schools and classrooms (rather than nationally representative samples alone) to empower and inform teachers who may have to work with remediation or accelerated learning techniques in the classroom. This data on learning levels should also be accessible to communities.
- **International organizations and development partners** should support these goals, providing technical and financial resources and global goods for measurement. Commitments should be made to supporting development and financing of these rapid assessment tools over approximately the next 6-24 months, and more broadly, to reassess and realign programming behind new learning-focused government priorities post-COVID-19.
- **Civil society organizations (CSOs)** can amplify this data on student learning to parents and the wider educational community. Advocacy is essential to ensure that data on learning reaches parents and students, and to hold governments accountable for progress and donor partners to account for their support of national priorities.

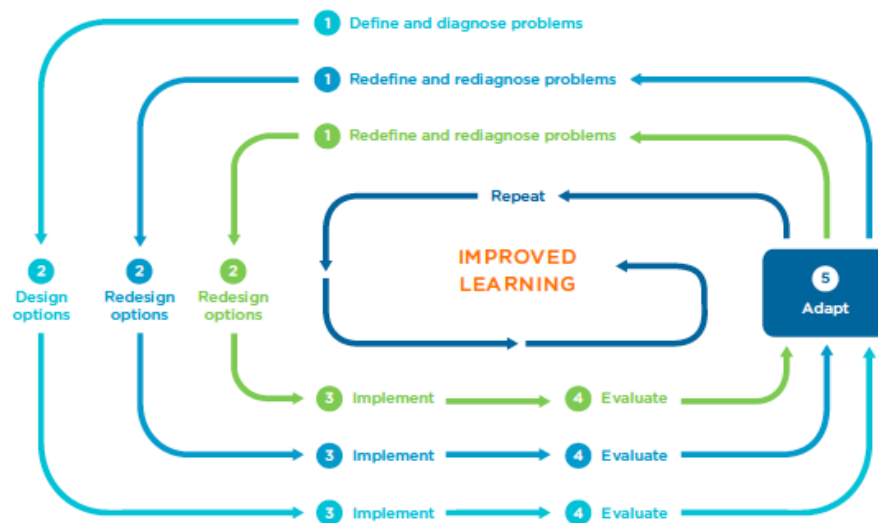
2 | Learn

In order for education systems to be learning systems, they themselves must learn continuously. Policy and reforms should be based on evidence on (1) what student learning currently is, (2) what works for improving learning, and (3) how to replicate what works at scale. As a policy or reform is implemented, continuous feedback loops should be designed within the system to see if progress is being made. Education actors with the system can also 'learn how to learn better' to better understand what is and is not working within their systems and learn how to scale practices, behaviors, interventions, and policies that are successful (see Figure 6).

Becoming a ‘learning system’ will also require actors within the system to understand where there are failures in the system - in which areas of the country and with which groups of students. Student assessment data can be used to provide greater clarity on which components of the system need support.

- **National governments** will need to analyze and address misalignment of stakeholders and prepare for additional challenges during their post-pandemic recovery. A starting point can be to analyze implementation capacity and risks to understand the probability for policies or reforms to be enacted. This can prompt honest consideration of where incentives for action are misaligned or capacity is lacking. In addition, governments can identify instances of ‘positive deviance’ from within their own schools or districts, to identify a path towards progress that is grounded in the realities of their own system and which is already adapted to their unique needs.
- **Development partners and international organizations** can help build capacity in national governments to invest in and boost their own capacity to analyze data. Many governments still lack the technical capacity to understand system data and inform policy in response. While this capacity will take time to build, the post-pandemic period provides an opportunity to start.
- **Researchers and CSOs** have an important role to play in dissecting and understanding results of student learning assessment data and creating feedback loops to inform policy implementation. They can also boost demand for data and evidence on policy which can incentivize their creation by government stakeholders.

Figure 6: Iteration loops showing problem-driven adaptation



Source: Adapted from Andrews, Pritchett, and Woolcock (2017).

The World Development Report 2018 conceptualization aligns with measure (step 1), learn (steps 2, 4, 5) and act (step 3) to ensure that the system becomes one that is ‘learning’ from itself.

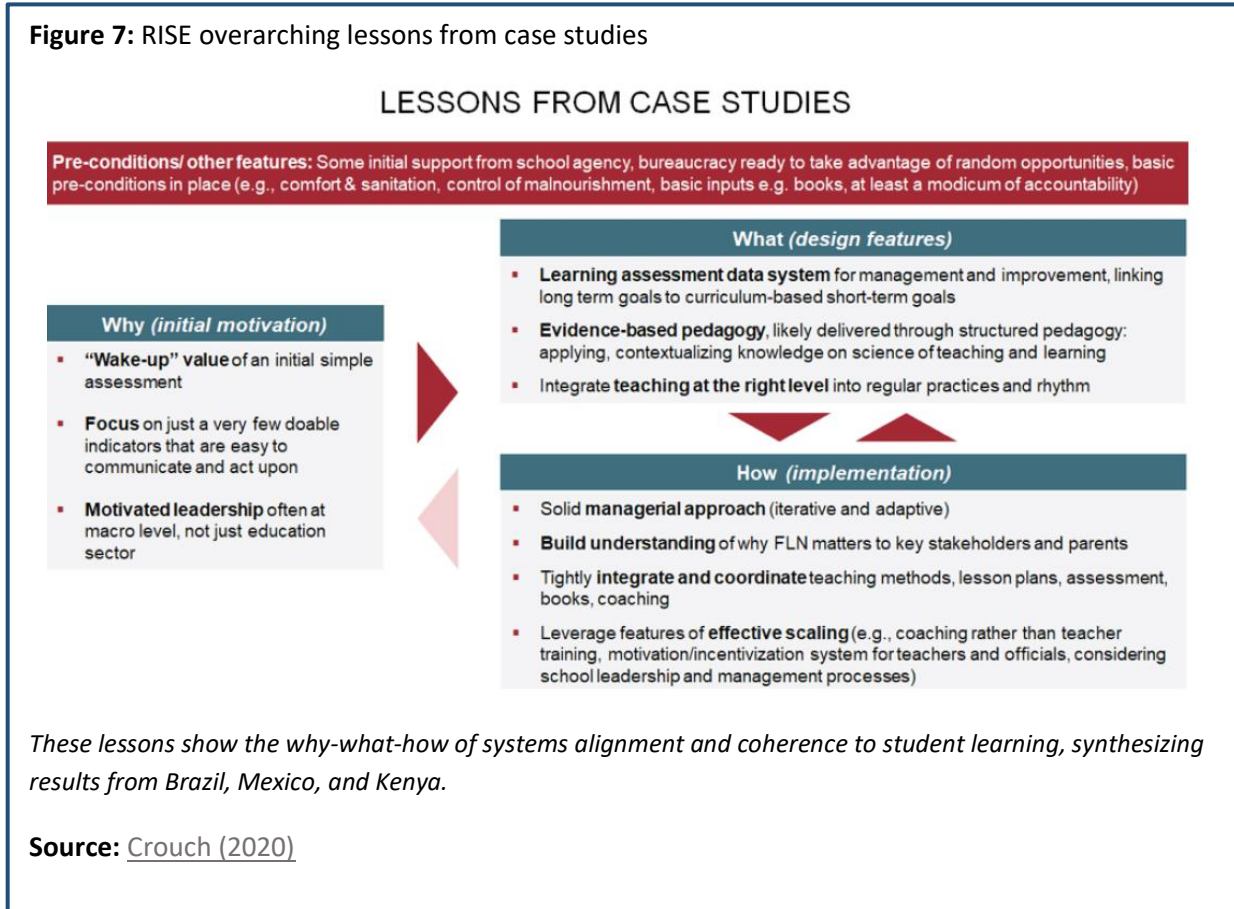
Source: [World Bank \(2018\)](#)

3 | Act

Leaders need to ensure that policies and reforms do not just stay on paper, and work to reduce the broad implementation gap.

- **All stakeholders** in the system, led by the government, will need to prioritize foundational skill acquisition in the immediate post-pandemic recovery period as schools reopen. This is most important to consider in early grades, where foundations are established for future learning. Education systems will need to be able to deliver improved student outcomes on foundational skills if there is stakeholder consensus that they need to be prioritized. While this goal is simple in theory, in practice, it will require strong leadership, messaging, and advocacy from system leaders and student learning advocates. There must be clear messaging vertically across the education system and beyond the system to have buy-in and support from finance, health, gender, and associated stakeholders.
- **Governments, development partners, and international organizations** must ensure that all inputs of their projects in the education system – such as curriculum design, teacher training design, lesson plans, textbooks, assessments – align with goals set for student learning. Education reforms and programs often fail when inputs needed to support the reform do not support the agenda laid out by the reform and are misaligned.
- **Governments** will need to encourage distributed leadership in the system to create alignment among different actors within the system. Different levels of the system should be given ownership and voice in any reform or policy implementation to ensure more buy-in from frontline stakeholders. The education system should be thought of as embodying distributed leadership, where leadership and talent within the whole system is leveraged for performance and not only enforces systems of accountability, but also of engagement. Aligning an education system to student learning at only the highest levels will likely fail to achieve the desired results. Sustained progress will require ownership from parents and teachers on the ‘frontline’ – those who interact with students day-to-day.
- **Development partners** can invest in research for global goods to inform effective implementation and scaling of programs (the ‘how-to’) that focus on increasing student learning. It is crucial that the sector builds knowledge and expertise on implementation to inform not only ‘what’ but ‘how’ policies should be enacted and scaled to more rapidly achieve outcomes for students.
- **Development partners and international organizations** should revisit how they work with country governments with an eye towards building system capacity and performance and encouraging local ownership and leadership of programs and reforms. Development partners should avoid falling into the trap of continuously creating new, externally implemented programs and creating revolving doors of programs with short-term implementation timelines that are not aligned to student learning. There will be pressure and temptation to do so in the post-pandemic period due to the urgent need to take action to address the learning crisis, but this threatens to create further system misalignment and will not support the need for local ownership to align systems to learning. Incorporating more leadership from low-income countries in decision-making structures that drive these decisions can support this action.

Figure 7: RISE overarching lessons from case studies



Appendix

Case studies of successful reform agenda aligned to learning: Lessons from Kenya, Mexico, and Brazil

In a recent paper from RISE on ‘Systems Implications for Core Instructional Support’, three case studies are explored with the mentioned ‘positive deviance’ examples. These examples, from Kenya, Puebla in Mexico, and Sobral in Brazil, examine the transformation of their education systems from as early as 1997, and how they have managed to maintain comparatively high education outcomes (Crouch, 2020).

- In the municipality of **Sobral in Brazil**, reforms were introduced and revised that had clear targets. They focused on slightly more prescriptive teaching methods, but that were made to feel more organic as their implementation was done gradually. The various materials and inputs were also targeted at the same time, such as textbooks, lesson plans, teacher development, and made to be harmonious.
- **Kenya’s** student performance results are comparatively higher than expected in their region, given their lower spending on education. After decades of reforms, focus on a few programs, such as Tusome, were scaled combined with several other instructional and stakeholder interventions, were able to perform well still at-scale.
- **The state of Puebla in Mexico** has become one of the consistently high performing states for student attainment. A series of reforms and interventions were rolled out, including a focus on literacy and numeracy in early years, and ensuring educational inputs were tailored to programs. However, there was also an emphasis on quality and not quantity, particularly when it came to teacher professional development, and a stronger focus on inclusiveness of different levels of education in the reform process with more human-centered improvements.

A summary of common themes in all case studies:

1. Focus on just a very few achievable indicators, foregrounding foundational learning, for a country emphasizing learning.
2. Use data to drive both initial “wake-up” and stock taking but also to support teaching as the process goes along.
3. Emphasis on the teaching by the teachers who are already in place.
4. Provide strong motivation through support that works.
5. Use tight management so there is some degree of centralism and prescriptiveness as to pedagogy and other inputs, but after having iterated and adapted to context.

References

- Adeniran, A., Ishaku, J., & Akanni, L. (2020). *Is Nigeria experiencing a learning crisis: Evidence from curriculum-matched learning assessment*.
<https://www.sciencedirect.com/science/article/abs/pii/S0738059320303588>
- Beatty, A., Berkhout, E., Bima, L., Coen, T., Pradhan, M., & Suryadarma, D. (2018). *Indonesia got schooled: 15 years of rising enrolment and flat learning profiles*. RISE Working Paper Series 18/026. RISE Programme.
https://riseprogramme.org/sites/default/files/publications/RISE_WP-026_Indonesia.pdf
- Bruns, B., Filmer, D., & Patrinos, H. A. (2011). *Making schools work: New evidence on accountability reforms*. World Bank Group.
<https://openknowledge.worldbank.org/bitstream/handle/10986/2270/600500PUB0ID181s0Work09780821386798.pdf?sequence=1&isAllowed=y>
- Crouch, L. (2020). *Systems implications for core instructional support lessons from Sobral (Brazil), Puebla (Mexico), and Kenya*. RISE Insight Series 2020/20. RISE Programme. https://doi.org/10.35489/BSG-RISE-RI_2020/020
- Global Partnership for Education, GPE. (2020). *Evaluations of GPE's support to sector plan development: Final report*.
<https://www.globalpartnership.org/content/evaluation-gpes-support-sector-plan-development-final-report>
- Guardian Nigeria. (2019, April 12). Out of school children's figure drops.
<https://guardian.ng/news/out-of-school-childrens-figure-drops/>
- OECD. (2015). *Country note: Programme for International Student Assessment (PISA) results from PISA 2015: Indonesia*.
<https://www.oecd.org/pisa/PISA-2015-Indonesia.pdf>
- Pratham. (2019). *Annual Status of Education Report (Rural) 2018*.
<http://img.asercentre.org/docs/ASER%202018/Release%20Material/aserreport2018.pdf>
- Pritchett, L. (2015). *Creating education systems coherent for learning outcomes: Making the transition from schooling to learning*. RISE Programme.
<https://riseprogramme.org/publications/creating-education-systems-coherent-learning-outcomes>
- Pritchett, L. (2018). *The politics of learning: Directions for future research*. RISE Working Paper Series 18/020. RISE Programme.
https://doi.org/10.35489/BSG-RISE-WP_2018/020
- Scur, D. (2016, January 15). What do we mean by "Coherent Education Systems?" *RISE Programme*.
<https://riseprogramme.org/blog/what-do-we-mean-coherent-education-systems>
- UNESCO Institute of Statistics, UIS. (2017). *More than one-half of children and adolescents are not learning worldwide*. Fact Sheet No. 46.
<http://uis.unesco.org/sites/default/files/documents/fs46-more-than-half-children-not-learning-en-2017.pdf>
- UNICEF. (2019). *Every child learns UNICEF Strategy 2019-2030: Data and analytics*.
<https://www.unicef.org/media/59921/file/UNICEF-education-strategy-2019-2030-data-analytics.pdf>
- World Bank. (2018). *World development report 2018: Learning to realize education's promise*.
<https://openknowledge.worldbank.org/bitstream/handle/10986/28340/211096ov.pdf>

World Bank. (2019a). *Learning poverty, South Asia Brief*.

<https://www.worldbank.org/en/topic/education/brief/learning-poverty>

World Bank. (2019b). *Ending learning poverty: What will it take?*

<https://openknowledge.worldbank.org/handle/10986/32553>