











LEARNING RECOVERY TO ACCELERATION

A Global Update on Country Efforts to Improve Learning and Reduce Inequalities



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1818 H Street NW

Washington DC 20433

Telephone: 202-473-1000

Internet: www.worldbank.org

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FOREWORD

The world is experiencing a deep learning crisis that long predated COVID-19. Even before the pandemic, the learning poverty rate — the share of children who cannot read and understand a simple text by age 10 — was an alarming 57 percent in low- and middle-income countries.

With the onset of COVID-19, schools were fully closed for in-person learning for 141 days on average. One billion children saw their education interrupted for more than a year, generating the worst shock to education on record and exacerbating the learning crisis. Virtually all education systems deployed remote and hybrid forms of instruction, but these were a poor substitute to in-person learning. The World Bank estimated that learning poverty could have jumped to 70 percent in low- and middle-income countries.

As countries reopened schools, some education systems jumped to action — identifying and reaching out-of-school children, applying diagnostic assessments, and launching learning recovery initiatives and remedial strategies, many of which became longer-term, comprehensive investments to accelerate learning. Unfortunately, too many countries returned to "business as usual," failing to employ coordinated policies or implementing only short-lived measures — a clear indication that societies often did not internalize the magnitude of the crisis. At the same time, financing for education decreased, evidenced by the drop in the share of public spending devoted to education since 2020.

This report, Learning Recovery to Acceleration: A Global Update on Country Efforts to Improve Learning and Reduce Inequalities, takes stock of what countries have done so far to recover and accelerate learning since reopening schools, and what we have learned from their experience. It follows the RAPID Framework for Learning Recovery and Acceleration, which we published with the Bill & Melinda Gates Foundation, U.K.'s Foreign, Commonwealth and Development Office (FCDO), UNESCO, UNICEF and USAID in 2022 as a menu of policy actions based on past evidence and on policies that many countries were already implementing. To a large extent, many of the policies and interventions needed to recover from the pandemic setbacks and accelerate learning are known.

One lesson is clear: political and financial commitment are vital for improving learning and reducing inequality. Effective education strategies require societies' determination to make education a priority and devote the necessary human and financial resources to end the learning crisis. Policymakers, schools, and communities must work urgently to recover learning, tackle deep-rooted systemic challenges, and build resilience to future disruptions.

Without decisive action, shocks to human capital could persist for decades — jeopardizing the welfare and productivity of multiple generations. The time to act is now.

Jaime Saavedra

Global Director for Education. The World Bank

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ABBREVIATIONS

ABEP Accelerated Basic Education Programme (Nigeria)

ADB Asian Development Bank

ADEA Association for the Development of Education in Africa

AEP accelerated education program

AEWG Accelerated Education Working Group

Al artificial intelligence

ALEKS Plataforma Adaptativa de Matemática (formerly PAM)

APHRC African Population and Health Research Center

ARED Associates in Research and Education for Development

ASER Annual Status Education Report/Pakistan

AU/CIEFFA African Union's International Center for Girls' and Women's Education in Africa

BE2 Building Evidence in Education (UK)

BEEP Basic Education Equivalency Program (Cambodia)

CAR Central African Republic

CBT cognitive behavioral therapy

CCT conditional cash transfer

CON BASE National Building the Foundations for Learning Program (Dominican Republic)

CONFEMEN Conférence des ministres de l'Éducation des États et gouvernements de la

Francophonie

COVID-19 coronavirus disease of 2019

CTP cash transfer program
CWD children with disabilities

CTITICIEN WILL AISOUTHLES

DBE Department of Basic Education (South Africa)

DMS Data Must Speak (UNICEF)

ECE early childhood education

EGMA early grade mathematics assessment

EGRA early grade reading assessment

EMIS education management information system

EpB Educar para el Bienestar, Mexico

EWM Early Warning Mechanism (Romania)

EWS early warning system

4T's Track, Trace, Talk and reTurn (Kenya)

FCDO Foreign, Commonwealth and Development Office (UK)

FCV fragile, conflict, or violence affected
FLS Foundational Learning Study (India)
GEMR Global Education Monitoring Report

GOAL Gujarat Outcomes for Accelerated Learning (India)

GPE Global Partnership for Education
GST Good School Toolkit (Uganda)

INEE Inter-agency Network for Education in Emergencies

J-PAL Abdul Latif Jameel Poverty Action Lab

JUNAEB National Board for Student Aid and Scholarships (Chile)

KAPE Kampuchea Action to Promote Education (Cambodia)

LaNA Literacy and Numeracy Assessment

LLECE Laboratorio Latinoamericano de Evaluación de la Calidad de la Educación

LRP Learning Recovery Plan (India)

LSCE Life Skills and Citizenship Education

M&E monitoring and evaluation

MELC Most Essential Learning Competencies (The Philippines)

MHPSS mental health and psychosocial support

MIC middle-income countries

MINEDUC Ministry of Education (Chile)

MOE ministry of education

MOGE Ministry of General Education (Zambia)

MOEYS Ministry of Education, Youth and Sport (Cambodia)

MPSS mental health and psychosocial support services

n.d. no date

NGEU Next Generation European Union

NGSA Next Generation Science Assessment for grades 5, 8, and 11

National Initiative for Proficiency in Reading with Understanding and Numeracy

(Bharat, India)

NIDS-CRAM National Income Dynamics Study Coronavirus Rapid Mobile Survey (South Africa)

NLAS national learning assessment system(s)

NSGA National Grade Six Assessment (Guyana)

OOS out-of-school

ORF Observer Research Foundation (India)

PAM Plataforma Adaptativa de Matemática (now ALEKS)

PAPSE Projet d'Amélioration des Prestations de Services Educatifs (Côte d'Ivoire)

PASEC Program for the Analysis of Educational Systems of CONFEMEN

PEC Programme d'Enseignement Ciblé

PIRLS Progress in International Reading Literacy Study
PISA Programme for International Student Assessment

PPP purchasing power parity
PROF Romania MOE project

PTA Programa Todos a Aprender

RAISE Recovering for Academic Achievement by Improving Instruction through

Sustainable Evidence-Based Learning Programs (The Philippines)

RAMP Early Grade Reading and Mathematics Initiatives (Jordan/USAID)

RAPID Framework for Learning Recovery and Acceleration (Reach, Assess, Prioritize,

Increase, and Develop) (World Bank)

RELIT Renforcement de la Lecture Initiale Pour Tous (Senegal)

RIMA Recopilación de Información para la Mejora de los Aprendizajes (Mexico)

ROSE Romania Secondary Education Project

SACMEQ Southern and Eastern Africa Consortium for Monitoring Educational Quality

SD standard deviation

SDG Sustainable Development Goal (United Nations)

SEA-PLM Southeast Asia Primary Learning Metrics
SED District Education Secretariat (Colombia)

SEL socioemotional learning

SHIIR Integrated Information System for Education in Romania

SIMCE Sistema de Medicion de Calidad de la Educacion (Chile)

STARS Strengthening Teaching-Learning and Results for States (World Bank)

STEPCam Strengthening Teacher Education Program in Cambodia

TaRL Teaching at the Right Level

TES Transforming Education Summit (UN)

TIMSS Trends in International Mathematics and Science Study

TNTP The New Teacher Project (US)

UDL Universal Design for Learning

UNESCO United Nations Educational, Scientific and Cultural Organization

UNESCO-UIS UNESCO Institute for Statistics
UNICEF United Nations Children's Fund

USA United States of America

VSK Vidya Samiksha Kendra (India MOE centralized data systems)

WCECCE World Conference on Early Childhood Care and Education (UNESCO)

OVERVIEW

Before the COVID-19 pandemic, global learning levels were unacceptably low. In 2019, learning poverty — the share of children unable to read and understand a simple text by age 10 — had reached 57 percent in low- and middle-income countries (World Bank and others 2022b). This constituted a global learning crisis. Despite significant expansion in access to schooling in most low- and middle-income countries over the past 50 years to near-universal levels for primary school, progress in improving global learning levels had stalled.

Extended school closures during the pandemic considerably disrupted schooling and learning. The COVID-19 crisis resulted in an unprecedented global disruption of schooling and learning. At the peak of lockdowns, 1.6 billion children in 188 countries were out of school (World Bank 2021c). Between February 2020 and February 2022, on average, education systems were fully closed for in-person schooling for 141 days (World Bank and others 2022a). The length of the interruptions varied significantly by region. Schools in high-income countries managed to reopen faster than those in low- and middle-income countries, in which nearly 1 billion children missed out on at least 1 full year of in-person schooling (Schady and others 2023).

Remote learning efforts during school closures were uneven and ineffective. Nearly every country offered remote learning options (World Bank, UNICEF, and UNESCO 2021). In some countries, governments rolled out measures to continue learning at an unprecedented pace, using various channels, from online learning and take-home packages to radio and TV lessons to texting or tele-tutoring. In low- and middle-income countries, limited capacity to deliver education services under stress, a wide digital divide, and poorly constructed remote learning systems undermined the effectiveness of remote learning (Cobo, Munoz-Najra, and Ciarrusta 2021). These three factors aggravated existing inequalities in learning outcomes and disproportionately affected students from disadvantaged backgrounds (Schady and others 2023).

The pandemic is likely to have a lasting and unequal impact on global learning levels. Learning losses have been documented in countries of all income levels (World Bank, UNICEF, and UNESCO 2021). Simulated estimates suggest that the learning poverty rate has risen, on average, to 70 percent across low- and middle-income countries (World Bank and others 2022b). The long-term effect is likely to be substantial. This generation of students could lose an estimated US\$21 trillion in future earnings due to lost schooling and learning — equivalent to 17 percent of today's GDP (World Bank and others 2022b). The most vulnerable students will take the greatest hit. From early childhood to young adults, the impacts of the pandemic disproportionately hurt people from poorer backgrounds (Schady and others 2023).

The RAPID Framework for Learning Recovery and Acceleration organizes a menu of policy options for countries to return students to school and combat learning losses (World Bank and others 2022a). The framework was developed in response to the COVID-19 pandemic-related school disruptions, but it is also applicable to other shocks to education systems. The framework outlines five key policy areas: (1) Reach every child and keep them in school; (2) Assess learning levels regularly; (3) Prioritize teaching the fundamentals; (4) Increase the efficiency of instruction, including through catch-up learning; and (5) Develop psychosocial health and wellbeing (figure 0.1).

Figure 0.1 RAPID Framework for learning recovery and acceleration

R	A	P		D
Reach every child and keep them in school	Assess learning levels regularly	Prioritize teaching the fundamentals	Increase the efficiency of instruction, including through catch- up learning	Develop psychosocial health and wellbeing
To ensure no one is left behind	To meet every child where he/ she is	To ensure learning of essential missed content	To accelerate and progress beyond what was lost	To ensure every child is ready to learn
		Δ		

Source: World Bank and others 2022b.

The RAPID Framework applies to countries' efforts to (1) recover learning losses in the short term and (2) accelerate learning beyond pre-pandemic levels in the medium to long term. "Learning recovery" refers to countries' efforts, during and after the pandemic-related disruptions to education, to help schools get their student cohorts back on track by recovering essential lost learning due to limited or no instructional time and less effective modes of learning during that period. "Learning acceleration" refers to efforts to ensure that schools can efficiently and effectively support each student to acquire essential core skills and knowledge. Many countries across the world already were making investments to improve education quality and accelerate learning before the COVID-19 pandemic. Other countries may consider recovery and acceleration as one effort with the idea that pre-pandemic levels are not a sufficient goal. Figure 0.2 illustrates the trajectories represented by recovery and acceleration.

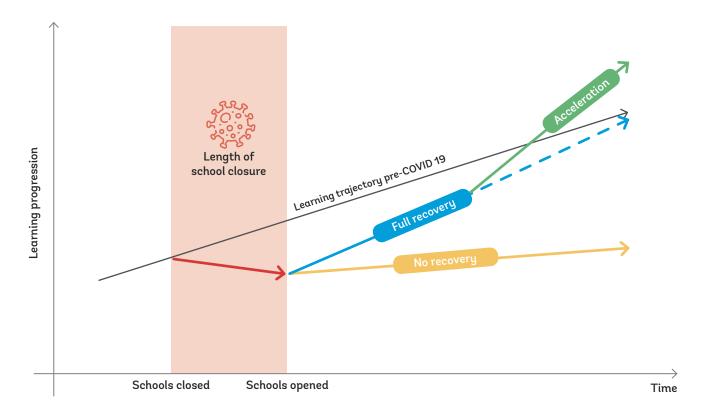


Figure 0.2 Illustration of learning recovery and acceleration trajectories

Source: World bank.

This report examines what countries are doing to recover and accelerate learning, and how they are doing it. The report aims to identify effective or promising at-scale interventions and policies to recover and accelerate learning, and to distill implementation lessons. The focus is on primary and secondary education and on the responses employed once schools reopened after pandemicrelated disruptions. A database was developed for this report that contains the details of the learning recovery and acceleration efforts of a sample of 60 low- and middle-income countries for which sufficient information was available. This report database enabled a landscape review of policy responses. From this sample of 60 countries, 7 were examined further as comprehensive case studies: Cambodia, Colombia, Côte d'Ivoire, India, Mongolia, Romania, and **Zambia**. The comprehensive case studies were selected based on their policy responses being (1) evidence-based, (2) government-led, (3) implemented at scale or with scale in mind, and (4) ongoing. A mixed-methods approach was used, relying on desk

research; analysis of the report database; existing survey data; and semi-structured interviews with government officials, development partners and World Bank staff (appendix A).

Most countries did not fully comprehend the necessity for learning recovery and acceleration.

The report database of policy responses, and the joint survey, found that relatively few countries had implemented fully evidenced-based policy measures to address learning recovery and acceleration. For example, from the report database, only 27 percent of countries had implemented targeted instruction programs, and only 15 percent supported teacher performance through structured pedagogy programs. However, some countries are investing in learning recovery and acceleration interventions that move them toward a new and improved status quo.

¹ The list of the 60 sampled countries is provided in appendix A. This database is referred to as the "report database."

0.1 REACH EVERY CHILD AND KEEP THEM IN SCHOOL

Steady worldwide progress in education access and enrollment was halted by the pandemic. The COVID-19 pandemic interrupted decades of progress on increasing educational access and raising school enrollment. In some education systems, not all students returned once schools reopened (Schady and others 2023). After the onset of COVID-19, many countries saw increased rates of children and youth dropping out of school: 6 of 9 countries in a metaanalysis saw higher rates of dropout (Moscoviz and Evans 2022). Levels of dropout are higher in lowincome countries and disproportionately affect poor and vulnerable children and youth, and those in older cohorts (Schady and others 2023). In South Africa, the highest rates of dropout were found among lowincome households and in rural areas or informal settlements (NIDS-CRAM 2021). In Pakistan, the proportion of children who dropped out during the pandemic increased with level of education (Idara-e Taleem-o-Aagahi 2021). In addition, many students who returned to school are at a heightened risk of dropout because pandemic-related disruptions exacerbated risk factors associated with dropout, such as learning levels, children's psychosocial wellbeing, and families' financial stability.

Countries identified and re-enrolled out-of-school (OOS) children through direct outreach. Several countries employed home visits and door-to-door surveys to encourage children's return to school, with positive results. In 2021, India's Ministry of Education (MOE) asked states to identify OOS children aged 6 to 18 and to prepare action plans for their enrollment. This federal action prompted several states to roll out comprehensive surveys in collaboration with teachers, school management, and counselors. Through these surveys, states gathered information on barriers to schooling and used the information to target support to children and families, including through counseling, financial support, and housing (Vijayakumar 2022). Karnataka reported reinstating 80 percent of OOS children identified through home surveys in 2022 (EdexLive 2022).

Efforts to re-enroll students relied on multidisciplinary teams, investments in datagathering and management systems, and personalized support that address children's barriers to schooling. Other countries have targeted OOS or chronically absent children with home visits. In Guyana, home visits targeted children who had been continuously absent since the beginning of the 2022 school year or who had missed the National Grade Six Assessment. The Ministry of Education reported reinstating 75 percent of these students in school within weeks (Guyana, Department of Public Information 2022). In Brazil, the Busca Ativa Escolar (Student Active Search) program is a non-formal strategy and technology-enabled tool to identify and monitor OOS and at-risk children and youth through high-quality data. City- or municipal-level supervisors receive alerts through an app about OOS children, who in turn receive in-person family visits by community agents who work to ensure re-enrollment (UNICEF n.d.).

Some countries are expanding or strengthening second chance programs. Accelerated education programs (AEPs), bridge programs, and other second chance programs offer vulnerable children a pathway into the formal school systems. These flexible programs provide access to education for disadvantaged and/or over-aged OOS children through which they can achieve a certified, equivalent level of education in a shortened time; or which serve as a bridge to guide students back into the formal system (AEWG INEE 2022). Girls and women especially benefit from accelerated education programs. For example, the VAS-Y-Fille! Project in the Democratic Republic of the Congo helped over-aged OOS children (including those who had never been to school) complete a primary education degree in three years. A subsequent evaluation found a positive impact on girls' enrollment through the end of the last school year (Randall, O'Donnell, and Botha 2020). Other countries including Ethiopia and Nigeria are taking steps to expand and strengthen AEPs. Through its 2022 Accelerated Basic Education Programme (ABEP), Nigeria produced national guidelines, teacher guides, and a standard, condensed curriculum to be used in AEPs across different states.

Countries increasingly are investing in early warning systems for identifying and tracking students at risk of dropout. Early warning systems (EWS) aim to reduce school dropout by identifying students who exhibit behaviors or academic performance that put them at risk for dropout. EWS then support them to stay in school through strategies that meet their needs (UNICEF 2018; US Department of Education 2016). EWS collect student data on predictors of early school leaving, such as attendance, behavior, and academic performance, to allocate resources toward students with the highest risk of dropout (OECD 2021a). In 2021 an estimated 43 percent of countries had an EWS in place. Several countries have ramped up EWS investments since the onset of the pandemic. Since 2020, El Salvador, Honduras, Peru, Romania, and Tanzania have invested to create or scale up these programs. In 2022 Romania adopted an Early Warning Mechanism (EWM) at the national level to identify, support, and track the progress of students at risk of dropping out of school. The EWM includes prevention, intervention, and compensation measures targeted at students at risk of dropping out (World Bank 2019a).

Some countries are using cash transfers and grants to tackle financial barriers to schooling. Of the 60 national education responses analyzed for this report, 50 percent have invested in evidence-based strategies to reduce barriers to schooling. Cash transfer programs (CTP) are the most common. Alleviating financial constraints through cash transfers or waiving school and examination fees has proved effective in enabling marginalized learners — including girls, learners with disabilities, and those from families living in poverty — to attend school. In **Türkiye**, the government expanded a program targeting refugees, increasing the beneficiaries by 19 percent between December 2019 and December 2020 and providing a one-time top-up to support families facing increased economic challenges during the pandemic (UNICEF Türkiye 2021). The program gives cash transfers to eligible families, contingent on children attending school. An impact evaluation found that the program improved children's attendance rates by five percentage points between the 2017-18 and 2018-19 school years (Ring and others 2020).

To boost attendance and learning outcomes, countries are engaging parents, families, and communities through school activities or SMS calls.

Family and community engagement has been a critical tool to improve educational participation and prevent dropout. Global evidence shows the strong and long-lasting effects of parental involvement with their children's education on a host of improved educational outcomes: school attendance and attainment, academic performance, cognitive and non-cognitive skills, and motivation. Parental involvement in children's schooling also positively influences attendance and graduation rates (Nguyen, Havard, and Otto 2022; Paul, Rashmi, and Srivastava 2021; Ross 2015). A recent longitudinal study in rural India found that students whose parents were involved in their schooling during the 2018-19 academic year were less likely to drop out during the 2020-21 school year. Approximately 6.6 percent of children whose parents visited their school prior to the pandemic dropped out after schools reopened, compared to 9.6 percent of children whose parents did not visit (Sarkar and Sabates 2022).

0.2 ASSESS LEARNING LEVELS REGULARLY

countries' ability to collect timely student learning

The COVID-19 pandemic negatively impacted

data. Limited data collection capacity and a lack of learning data have long prevented teachers, school leaders, and principals from obtaining a full picture of student learning levels. Globally, 97 countries (of 195), or 50 percent, do not have data to measure educational achievement (UNESCO, UNICEF, and World Bank 2021). Even when data are collected, the comparability and validity of the data and the capacity to use data for decision-making remain challenging (UNESCO, UNICEF, World Bank 2021). The COVID-19 pandemic further impacted countries' ability to collect timely learning data. During periods of remote learning, teachers had limited capacity to undertake assessments due to the lack of guidelines and procedures. These issues led to assessment practices

that were ill coordinated, lacked feedback mechanisms,

and were unable to reach all students (ADEA, AU/CIEFFA, and APHRC 2022). In 2020 and 2021, many countries postponed or cancelled large-scale national

assessments, leading to a dearth of timely data necessary to understand the magnitude and nature of learning losses at a system level (ADEA, AU/CIEFFA, and APHRC 2022; Tejada and others 2022).

Investing in effective student assessment has been critical for learning recovery and acceleration.

Information on student learning is needed at several levels. Teachers need daily information on student learning to plan their lessons and to identify struggling students. School leaders need information on student learning to arrange additional support for students. Authorities need information to allocate resources and design strategies for learning recovery and acceleration. Students and parents need learning information for feedback and to help keep systems accountable for results. Figure 0.3 illustrates these

functions through a framework of assessment for learning recovery and acceleration efforts.

Assessments are critical to measure learning losses and plan a response, but only 22 countries in the sample of 60 low- and middle-income countries report using them. Several countries implemented national assessments to understand the extent of learning losses and inform learning recovery plans. In September 2020, once its schools partially reopened, Kenya applied a national census-based assessment for grades 4, 8, and 12. The assessment, for which teachers administered, scored, and uploaded results to a central assessment portal, covered several subjects in the curriculum and was used to inform policies to mitigate the pandemic's impact on learning. In Mongolia, results from a sample-based assessment

Figure 0.3 Framework to assess learning recovery and acceleration

For learning recovery and acceleration efforts: Who needs student learning data? System-level **Schools Teachers** Parents/students administrations · To monitor learning · For school-level · For daily instructional · For feedback on areas levels planning decisions of strength and areas needing further work For district-level · For decisions on To identify struggling allocating resources decisions on resource students needing To keep systems for learning recovery allocation additional support accountable and acceleration For example: Questioning, Sample-based national District/School observation, Student report cards level tests assessments class tests Census-based national assessments

Source: World Bank.

conducted in September 2021 were used to inform the three-year learning recovery plan and to adjust the curriculum and teacher training. In **India**, assessment results are being used in long-term planning for learning improvements. The 2022 Foundational Learning Study (FLS), which assessed the reading fluency of 83,000 grade 3 students, helped set reading benchmarks for a national reading strategy. India's states received funding to create action plans aligned with national targets (India, MOE n.d.b)

A few countries are using results from assessments to inform school-level improvement planning beyond the pandemic-related school closures. In Chile, the SIMCE national learning outcome assessments (Sistema de Medicion de Calidad de la Educacion) were not implemented in 2020 or 2021 due to schooling disruptions. Instead, the government put forth the Diagnóstico Integral de Aprendizajes, a set of voluntary (at the school level), low-stakes assessment tools to identify specific learning gaps, assess socioemotional wellbeing, and inform teacher and school leader planning. The Diagnóstico was administered in March 2021 and used to understand trends in student proficiency levels across subjects. Since then, the assessment has been applied three times a year as a mechanism to supply continuous feedback on student results to teachers and policymakers. In Mendoza, Argentina, once schools reopened, results from the Census on Oral Reading Fluency were embedded in schools' annual improvement plans for supplemental remediation, targeted instruction, and small group tutoring.

In learning recovery efforts, building teachers' capacity for assessment-informed instruction is essential. Formative assessments, such as questioning, observation, and class tests, help teachers to pace the lesson at the right level for the class. In the report database, 58 percent of countries had invested in improving the continuous use of classroom assessment practices. A few countries are incorporating training on classroom assessment practices in the pre-service and in-service professional development of teachers, school leaders, and coaches. For example, in Colombia, a partnership between two key education programs provided assessmentspecific training to thousands of teacher coaches and tutors. In Mongolia, teachers and school leaders are receiving continuous professional development on

applying assessments with support from a new cadre of assessment specialists in each province.

Investing in the availability, reporting, and use of data are critical. Barriers such as poor-quality data, a lack of data management protocols and systems, and failure to optimize report formats for usability often prevent their effective use in decision-making. A few countries are investing in school report cards and dashboards to streamline the flow of information to schools and other stakeholders. In Mendoza, Argentina, assessment information from the new Census on Oral Reading Fluency is shared in easy-touse formats that enable directors and school cluster supervisors to identify schools in need of teacher training and students in need of support. In Gujarat, India, the recently improved Vidya Samiksha Kendra is an education management information system (EMIS) and dashboard that enables teachers and policymakers to view learning data from different types of assessments at the student, cluster, block, district, and state levels (India, Education Department, Government of Gujarat n.d.). Countries are complementing such efforts with communications strategies that clearly convey results to different audiences.

0.3 PRIORITIZE TEACHING THE FUNDAMENTALS

Overburdened, imbalanced curricula are hampering learning recovery and acceleration. Overburdened curricula threaten students' opportunities to master the fundamentals. This long-standing problem in education is especially urgent after instructional time has been lost to prolonged school closures. Once students came back to in-person schooling, missed in-person school time was found to have pushed them further behind curricular expectations, and to varying degrees. When the expected pace of learning in the curriculum is misaligned with the actual pace of learning, students may fall multiple grade levels short of curriculum expectations (Pritchett and Beatty 2012). The challenge of having wide-ranging student achievement levels in a classroom with too much content for the instructional time available can be considered an extreme case of the challenge that ordinarily affects education systems (figure 0.4)

Little flexibility is given to Minimal relevant training, guidance, adjust the or materials are pace of their provided to **help** instruction to teachers know match their how to: students' levels Manage their Assess their engage all their

Figure 0.4 Common classroom challenges affecting student learning

Source: World Bank.

With less time in schools during closures, and subsequent learning losses, countries have had to determine which core content and key skills in each grade are essential. Foundational skills, which include literacy, numeracy, and basic socioemotional skills, are the bases for developing higher level knowledge and skills and, therefore, are a key goal across primary and secondary education.

Bhutan, Ecuador, and Indonesia have focused their curricula to ensure the development of foundational skills. Reducing the scope and quantity of subjects to allow sufficient time for the development of foundational skills has been a response to the disruptions to schooling and learning caused by COVID-19. Twenty-two percent of countries in the report database had adjusted their curricula to focus on core content for at least 2 academic years. Bhutan, Ecuador, and Indonesia condensed the content of their curricula after the onset of the pandemic. Perhaps counterintuitively, slowing the pace of curriculum to align with the pace of student learning can lead to learning gains. Learning could go faster if curricula were built around the learning pace of students (Kaffenberger 2020). In Indonesia, the national curriculum was revised in 2020, reducing the content of each subject by 30 to 50 percent. Approximately 30 percent of schools adopted the streamlined curriculum. A year later, grades 1-3

students in schools using the simplified curriculum outperformed their peers in literacy and numeracy, respectively. The Indonesian government is rolling out the revised curriculum for national use to expedite learning recovery and improve learning levels (Aditomo 2022).

Chile and the Philippines have adjusted the quantity and distribution of instructional time to reinforce curricular priorities. Student mastery of foundational skills can be promoted by adjusting school timetables and calendars. When the quality of instruction is high, extending the school or extending the school calendar (by even 10 days) can positively impact student learning (Holland, Alfaro, and Evans 2015; Hincapie 2016; Novicoff and Kraft 2022; OECD 2020b; Parinduri 2014; Patall, Cooper, and Allen 2010). Countries have taken several approaches to increase overall instructional time and build more space for prioritized subjects or content. These approaches have included reallocating instructional time among subjects, reducing school holidays, condensing recess blocks or breaks between classes, shifting instructional time among tasks within subject periods, and hosting additional classes before or after school for targeted student groups. As part of their learning recovery efforts, some countries, including Chile and the Philippines, combined curricular modifications with adjustments to instructional time.

Both countries condensed their curricula and adjusted the instructional time dedicated to priority subjects by reducing instructional time in other subjects or increasing overall learning time.

Côte d'Ivoire and Indonesia have strengthened curricular adjustments by aligning teaching and learning materials. In curriculum reform efforts, teaching and learning materials need to be aligned. An important element of Côte d'Ivoire's early grade reading program implementation was the new textbook that focused on phonics instruction. This new textbook was more explicit and better structured (Zafeirakou 2020). Changes to curriculum also can be reinforced through revised teacher training. In Côte d'Ivoire, teachers were trained in using phonics: a cumulative, step-by-step model of instruction with ample student practice. Curricular changes require associated changes to existing assessments. With Indonesia's "Emancipated Curriculum," the outdated national high-stakes examinations were eliminated and a new National Assessment was introduced.

Commitments to foundational skills also have been advanced without curricular reforms. Reforms to curricula, big or small, tend to be intensive, drawn out, and politically entrenched (Gouëdard and others 2020). Countries will face context-specific challenges in making curricular adjustments and will need to develop their unique path toward prioritizing teaching the fundamentals. Chile and Indonesia offered modified curricula as optional tools for schools. Some states in India used versions of learning materials that offered many opportunities to practice key skills. Benin, Côte d'Ivoire, and Saudi Arabia implemented smaller interventions, such as teacher guides, that temporarily shift classroom curricular priorities and gradually may introduce larger curricular adjustments.

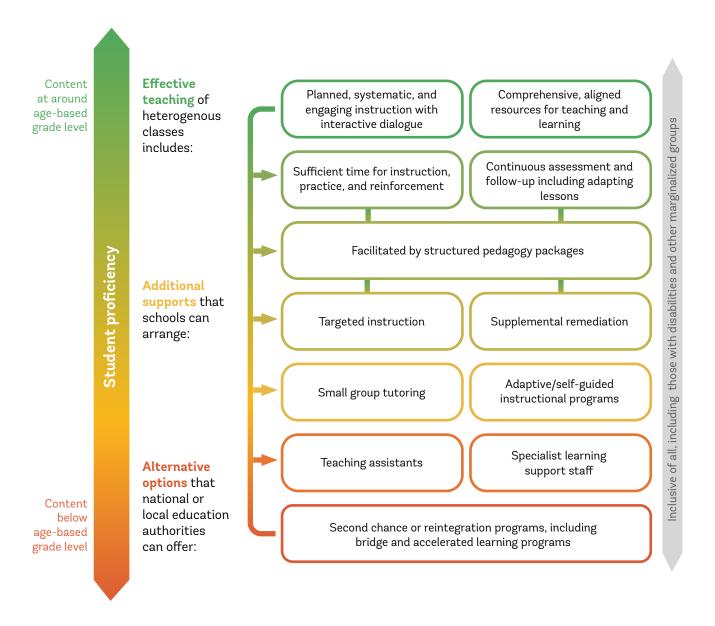
0.4 INCREASE THE EFFICIENCY OF INSTRUCTION, INCLUDING THROUGH CATCH-UP LEARNING

Existing inefficiencies in education were exacerbated by the pandemic. School systems have had to become more efficient and effective to enable student learning within expected times, with catch-up opportunities to help keep all children on track.

Education systems are using many approaches to advance learning. For efficient and effective learning, teachers need the right tools and training, and schools need to be empowered to appropriately respond to learning gaps. Figure 0.5 provides a framework of approaches to support all students with effective teaching, while providing additional and alternative supports for struggling students.

- » For classes to move through the curriculum at the expected rate, regular teaching needs to include a set of elements that work together to enable learning for all. These include instruction that is carefully planned, systematic, and engaging for all students. Sufficient time is needed for instruction, and for students to practice and reinforce their skills and knowledge. A comprehensive suite of teacher-facing and learner-facing materials should be well aligned to the learning objectives. Teachers' continuous assessment during lessons enables them to understand how well students are grasping the content and how ready they are to move on. Structured pedagogy packages can help scaffold regular teaching (Angrist and others 2020; Piper and Dubeck n.d.; Snilstveit and others 2015).
- » Where groups of students or individuals have not been able to keep up with the content, schools can arrange a variety of additional supports such as targeted instruction, supplemental remediation, or small group tutoring. In the report database, only 58 percent of countries had invested in such practices. Such investments also are important in the context of disability inclusion in education, whereby additional support and adaptation of teaching and learning aim to meet the diverse needs of all learners.
- » When children have missed enough content to make it impossible for them to stay within their approximate age-based grade level, second chance or reintegration programs, including bridge and AEPs, are often provided. Cambodia's Basic Education Equivalency Program (BEEP) and Ethiopia's Speed Schools are two examples.

Figure 0.5 Framework of approaches to support all students with effective teaching while providing additional and alternative supports for struggling students



Source: World Bank.

Note: The approaches shown in the framework are neither mutually exclusive nor sufficient on their own. Repeating a grade is not included in this framework because doing so may be appropriate for only a very small number of students.

To recover and accelerate learning, countries are providing inputs to scaffold teaching. Teaching is a complex and challenging job. School closures and learning losses further complicated teachers' roles. Greater heterogeneity of student proficiency within classrooms and wider learning gaps due to the pandemic have highlighted the critical role of effective

teaching. Many education systems have provided scaffolds to help teachers move toward more effective practices. Scaffolding teaching means providing support, guidance, and resources to better plan and deliver effective teaching. In the 2021-22 school year, 73 percent of respondent countries in fourth round of the Survey on National Education Responses

to COVID-19 School Closures² (hereafter, "joint survey") reported implementing programs to improve instruction either through teaching materials, learning resources, or teacher training. A similar proportion expect to continue these programs post-pandemic (UNESCO-UIS and others 2022).

Structured pedagogy packages are designed to scaffold teaching and accelerate learning by maximizing instructional time and effectiveness.

These are packages of coherent investments that work synergistically to improve classroom teaching (RTI International 2021). They provide a clear framework for teachers to follow, with varying degrees of scaffolding: from fully scripted lesson plans for contexts for which most teachers have little training to lists of suggested classroom activities for contexts in which teachers are well trained. Structured pedagogy programs have been supporting effective teaching at scale in Benin, Jordan, and Timor-Leste. In the report database, only 15 percent of countries had implemented structured pedagogy programs during or after the pandemic-related school closures. Studies of the use of structured pedagogy packages, such as in the Gambia and Guinea-Bissau, indicate that these packages are particularly impactful in contexts in which initial teaching levels are low (Eble and others 2021; Fazzio and others 2021).

Structured pedagogy programs are cost effective and are the intervention with the largest and most consistent impacts on student learning in low- and middle-income countries (Angrist and others 2020; Snilstveit and others 2015). In Jordan, the Learning Bridges program is in its third year of national adoption. The program was designed as an emergency response to the pandemic to enable Jordan's 500,000 grades 4-9 students to continue learning Arabic, English, mathematics, and science. Each week, the package delivered printed activity packs to students that were aligned with the curriculum, with guidance to parents on how they could support their children, a QR code to further web-based resources, and training for teachers. The activities introduced new ways of learning, building core foundational skills through studying their application, thus generating an integrated curriculum experience that continued to be useful once schools reopened (UNICEF Jordan 2022).

Targeted instruction provides additional support for struggling students. For students who fall behind, a range of additional and alternative supports such as supplemental remediation, small group tutoring, adaptive/self-quided instructional programs, teaching assistants, and specialist learning support staff can help these students get back on track as quickly as possible. Where there is large heterogeneity within classes, periods of targeted instruction in which students are grouped and regrouped according to achievement levels for all or part of the school day or year, has been found to be cost-effective across different contexts (World Bank and others 2020). A particular model of targeted instruction has been implemented in Ghana, India, and Zambia with moderate success (J-PAL 2018). The Teaching at the Right Level (TaRL) model supports students to catch up their foundational learning competencies by grouping students by proficiency level, not by grade or age. When in groups, students participate in instructional, play-based activities tailored to their learning levels. The model can be distilled into three steps: assessing student learning levels, grouping them by their level of proficiency (rather than by age or grade), and tailoring instruction to the level of the group. Among the many approaches to targeted instruction, in Brazil, it is conducted during infrequent but intensive sessions by trained supervisors. In Botswana, daily instructional time is used for shorter sessions of targeted instruction.

Supplemental remediation has been used by some education systems in India and the Philippines to support struggling learners. Another support option to support them is adding learning time to supplemental remedial classes. This additional time can be particularly important to learners with disabilities. Tamil-Nadu, India implemented a statewide evening remediation program using community volunteers. Illam Thedi Kalvi (Education at Doorstep) started as a pilot in 2021 and in 2022 was rolled out in the state for 3.3 million students in grades 1-8. During the 60–90-minute sessions, students were put

² Coordinated by the Organisation for Economic Co-operation and Development (OECD), UNESCO, UNESCO Institute for Statistics (UIS), UNICEF and the World Bank.

³ If such support utilizes the principles of Universal Design for Learning, all learners can benefit. For background on the principles of Universal Design for Learning, see Murphy 2021.

in groups of 15–20 and provided with instruction by local volunteers. The remedial classes took place on school or preschool premises and in volunteers' homes. A study of the results concluded that this program contributed to accelerating recovery of learning losses within a few months of schools reopening, raising mathematics scores by 0.17SD and Tamil scores by 0.09SD (Singh, Romero, and Muralidharan 2022).

Assessments have helped identify students in most need of remedial support. In the Bicol region of the Philippines, a 3-year learning scheme was conceptualized to help the selected learners catch up and accelerate their education after 2 years of school closures (Calipay 2022). Under the 8-week Learning Recovery Curriculum program, approximately 400,000 learners participated in a series of catch-up and remedial learning opportunities designed around a condensed curriculum. Learners were identified using a rapid literacy and numeracy assessment. The program increased grade-ready learners in grades 2 and 3 by 18 percentage points each (Calipay 2022).

Small-group tutoring has helped support students in the Dominican Republic and Bangladesh. Less than one-third of respondent countries in the joint survey reported implementing or supporting tutoring programs in the 2021-22 academic year (UNESCO-UIS and others 2022). The high costs of these programs may be one reason why more countries did not employ them. However, there are some promising models. The **Dominican Republic** kept costs down by leveraging university partnerships to source high-performing motivated students as instructors for an online tutoring program. The "Tutoring Online Program" had 200 volunteer university students and provided personalized tutoring to 300 students from disadvantaged backgrounds in public secondary schools (J-PAL 2020b). During school closures, in Bangladesh, teletutoring has proved an effective and low-cost option for primary school children and their mothers. Children exposed to tele-tutoring scored 35 percent higher on a standardized test, and the involvement of mothers in their children's education increased by 22 minutes per day (26 percent). The impacts on learning gains and mothers' involvement persisted a year after the intervention. Academically weaker children benefited the most from the intervention, which cost \$20 per child (Hassan and others 2022).

Adaptive and self-guided learning tools have enabled students to tailor their own learning experiences.

Such tools are particularly beneficial for education systems that (1) need to target specialized supports for a subset of students who have fallen behind, or (2) are unable to provide enough instructional time for all students due, for example, to shortages of qualified teachers or prolonged school closures. In 2022 Uruguay launched the computerized ALEKS program for primary and secondary mathematics. Teachers work with students to establish learning goals. Then the artificial intelligence algorithm designs personalized learning paths for each student. Students work independently through the program, and teachers monitor detailed information about the use and achievement of their students through an online portal. Self-guided learning also can be used to accelerate learning for children with disabilities. In **Ghana**, 3,000 tablets were distributed nationally to children with special learning needs. These tablets were preloaded with digital versions of the curriculum and were designed to suit the needs of children with hearing or visual impairments. Now reaching over 7,000 students with disabilities, the tablets, programmed for self-paced learning, can help all children catch-up on lost learning (World Bank 2022b).

0.5 DEVELOP PSYCHOSOCIAL HEALTH AND WELLBEING

The pandemic had a detrimental impact on psychosocial health and wellbeing, with anxiety and depression cases increasing over 25 percent in the pandemic's first year (figure 0.6). Young people were hardest hit, as were women and girls. The pandemic's impacts on children and youth stretch far beyond lost learning. During school closures, many children and young people experienced heightened stress and periods of isolation, while missing opportunities to connect with peers in school and develop socioemotional skills. Risk factors that contribute to poor psychosocial health increased, including poverty and domestic violence. Mental health and psychosocial support (MHPSS) were the most disrupted among all essential health services during much of the pandemic. Improving children's psychosocial health and wellbeing is central to learning recovery and acceleration because they have significant implications for school

374 400 350 350 298 246 300 193 Millions 200 150 100 50 0 Depression Anxiety 2020 2021

Figure 0.6 Global cases of anxiety and depression, before and during the pandemic, 2020-21 (millions)

Source: World Bank, based on data from Santomauro and others 2021.

attendance and learning.

Countries are investing in socioemotional learning for students — and teachers — to foster psychosocial health. A meta-analysis of 82 schoolbased socioemotional learning (SEL) programs found that participants faired significantly better on outcomes measuring the development of socioemotional skills, attitudes, and wellbeing 6-18 months after the intervention (Taylor and others 2017). Several countries are supporting the psychosocial wellbeing of students and made investments in SEL during the pandemic. Ecuador prioritized curricula for the 2022-23 school year that emphasized socioemotional competencies. Other countries built on pre-pandemic success. In Colombia, the program Emotions for Life (Emociones para la Vida) was piloted in 4,500 schools serving roughly 2.0 million primary students and helped students build empathy and self-regulation (World Bank 2019b). The program was scaled nationally in 2021. Teacher wellbeing matters as well. Early data from multiple countries, although limited, suggests rising levels of teacher burnout, stress, and depression (Algassim and others 2022; Bartosiewicz and others 2022; Pellerone 2021). Countries are investing in teacher wellbeing, resilience, and socioemotional learning. In Honduras, a pre-pandemic teacher wellbeing program that focused on reducing educator stress transitioned into a virtual program focused on restorative practices (Davis and Payna-Luna 2022).

Schools can play a preventive role by screening students for psychosocial health issues and strengthening referral systems. Given the significant amount of time students spend in school, staff are uniquely placed to detect whether a student is struggling with psychosocial health issues and to refer the student for help. Many countries have referral systems in place: 57 percent of countries responding to the joint survey reported offering referrals for students in need of specialized services (UNESCO-UIS 2022). In Romania, the government recommends that all schools screen students 11 years and above for wellbeing. The results are used as part of the EWM to prevent student dropout, which launched at scale in 2022. At the school level, an education services plan for students at risk of dropout is established, outlining the type of support services and benefits the student should receive (World Bank 2019a). Another example of comprehensive screening of students' psychosocial functioning is under Chile's Skills for Life program, which includes an assessment of students' social-emotional status. The government disseminated resources for students and families and distributed workbooks to help teachers develop their own socialemotional skills and foster SEL skills in their classes.

Countries are building MHPSS capacity at the school level by bringing in qualified professionals or by training school staff to provide support.

Schools are promising settings for mental health and psychosocial support interventions (Kocher and others 2021). They also are cost effective: every US\$1 invested in scaled-up treatment for common mental health disorders leads to a return of US\$5 in improved health and productivity (World Health Organization 2022c). In Mongolia, the government has invested in a multipronged strategy to improve adolescent mental health, including deploying mobile psychologists who cover several schools in an area. However, for many countries, such initiatives are too costly. Training teachers or school staff to provide basic MHPSS services is a low-cost alternative, which an estimated 60 percent of respondent countries in the above survey reported using. One example is Mozambique, in which 83,000 primary school teachers in 6 provinces were trained in using an MHPSS training manual (UNESCO-UIS 2022; UNICEF 2021a). Another low-cost way to support psychosocial wellbeing is through telecounselling, which many countries scaled during the pandemic (World Bank and others 2022).

0.6 PUTTING IT ALL TOGETHER

The urgency of the learning crisis is not yet reflected in country actions. According to the joint survey of a sample of 34 Sub-Saharan African countries, only 3 were implementing long-term remedial measures to protect learning (Acasus 2022; UNESCO-UIS and others 2022). After safely reopening schools, too many

countries returned to "business-as-usual," including resuming packed curricula and inefficient instructional practices. While the negative impacts that prolonged school closures have had on student learning are clear, not everyone has accepted their significance and long-term consequences.

Some countries have committed to recover and accelerate learning with comprehensive actions.

These governments realized the imperative of acting and rose to the challenge by pursuing the steps described in section 0.4.

Political commitment to improve educational opportunities for all promotes a comprehensive strategy that recognizes a complex set of new and old challenges and articulates a multifaceted solution to directly address learning recovery and acceleration. Countries with such political commitment were able to direct and sustain coherent responses toward a shared vision that prioritized learning. National strategies or comprehensive packages for learning recovery and acceleration tend to have followed most of the steps outlined in figure 0.7.

Countries that are implementing comprehensive packages often have fostered political commitment and public support behind a plan for learning recovery and acceleration. A key element was to have learning data about the magnitude of the learning crisis either before or during the pandemic. The origin of many of the robust learning recovery and acceleration programs was the recognition of the learning crisis. The learning acceleration

Figure 0.7 Steps for learning recovery and acceleration

Learning recovery and acceleration: From design to implementation		
Build support	By fostering political and public commitment behind a long-term vision and plan	
Prepare	By identifying opportunities and constraints in resources and capacity	
Develop an enabling environment	By aligning the education system toward learning recovery and acceleration	

Source: World Bank.

efforts of Edo, Nigeria, Côte d'Ivoire, and Zambia preceded the pandemic. Their efforts were motivated by shockingly low pre-pandemic learning results. The efforts of Mendoza, Argentina and Mongolia, were bolstered once pandemic-related learning losses were better understood and publicized. In Mendoza, Argentina and India, formal learning assessments of foundational learning found children to be lagging compared to previous cohorts. These findings motivated the governments' comprehensive responses. Also showing what can be done are Romania's National Recovery and Resilience Plan, which contained substantial reforms and investments for the education sector; Guyana's rollout of a threeyear prioritized curriculum; and Brazil's legal action that solidified a national prioritization of learning recovery and acceleration.

Investments to expand implementation and management capacity were an important feature of comprehensive learning recovery and acceleration packages. The ambitious goals of learning recovery and acceleration likely will fail if governments do not first consider whether the ministry of education and other education stakeholders have the institutional, organizational, technical, and operational capacities to execute with fidelity. Armed with a greater understanding of the challenge ahead and the tools required, countries with promising learning recovery and acceleration plans have invested in building capacity and fostering strong education ecosystems. Feedback channels and robust assessments have proved instrumental in countries' responses by assessing capacity gaps, assets and identifying system bottlenecks. Edo, Nigeria conducted a capacity assessment of its education system and found major roadblocks to improving learning outcomes. These roadblocks included teacher absenteeism and poor teacher capacity, insights that informed their EdoBEST and EdoSTAR programs. The needs of Zambia's Ministry of Education are being evaluated to identify areas of future capacity-building, including in project management and monitoring and evaluation (M&E). From training in interdisciplinary content creation in Jordan to psychometrics in Mendoza, Argentina, building up specialized expertise in education ministries and related entities equips countries with the skills to pursue ambitious and innovative learning recovery and acceleration

programs. India scheduled an assessment of teacher training needs into the fifth month of their National Learning Recovery Plan. In the third phase of Mongolia's Comprehensive Learning Recovery Plan, substantial resources were dedicated to build capacity for schools to independently devise and monitor student support programs.

Some countries recognized the need to engage a diverse set of partners toward a shared goal.

Partners such as other government ministries, development agencies, and civil society organizations (CSOs) played a crucial role in supporting the planning of faster and more robust education responses. During the height of the pandemic, actors in the education landscape prioritized quick, frequent, and unstructured partnerships to investigate, share, and envisage what needed to be done. Early in the pandemic, Kenya convened a new coordination unit, the COVID-19 National Education Response Committee, to engage a range of constituencies in the decision-making for and development of the education response (Gichuhi and Kalista 2022). Prior to the Philippines' Learning Recovery Plan's launch, the Department of Education hosted the National Planning Conference, which gathered government representatives to develop multiyear learning recovery and acceleration programs (Philippines, DepEd 2022b).

Commitment often was built through consultation with education stakeholders to create a shared vision and build support behind plans for learning recovery and acceleration. Broad stakeholder consensus around a problem can reduce the political costs to change. A clear understanding of the learning crisis through global metrics such as learning poverty or assessments of learning losses can unite public interests and heighten pressure on government actors. Côte d'Ivoire and Zambia took active roles in guiding and streamlining the efforts of education partners, ensuring that all the sector's resources were committed to learning recovery and acceleration.

Chile, India, and Romania have invested in efforts to align the education system toward learning recovery and acceleration. The resulting responses must be compatible with and reinforced by other components of the education system. Given the need for coherence among the parts of an education system, careful

consideration should be given when applying policies that were successful in other countries. During the pandemic, many countries supported innovative education programs by ensuring that they were supported by subsequent modifications elsewhere in the sector. Both Chile and Indonesia modified national learning assessment programs to complement their prioritized curricula. Romania ensured that teachers were encouraged to devote time to remediation by counting time for catch-up learning toward their mandated weekly hours of instruction. Programs also had to be adapted for (1) teacher and system capacity; (2) political dynamics around education service delivery; (3) relevance to country and regional culture; and (4) considerations for vulnerable groups. In Brazil, Colombia, India, and Indonesia, federal education units sought to discover how to influence classroomlevel practices appropriately.

Different approaches to monitoring, iterating, and adapting have strengthened policy alignment toward learning in Botswana, Indonesia, and Edo, Nigeria. Countries with resilient plans for learning recovery and acceleration anticipated and responded to implementation challenges and changes in the external environment; and used feedback loops to determine what was working. Such countries have focused their monitoring on outcomes of learning, alongside a select number of process indicators. Côte d'Ivoire's Projet d'Amélioration des Prestations de Services Educatifs (PAPSE) program and Edo, Nigeria's EdoBEST programs systematically gathered feedback through regular tablet-enabled assessments and classroom observations. Indonesia launched its prioritized curriculum among volunteering schools (30 percent of all primary schools). Before scaling up, the country garnered feedback from school surveys and student assessment data and allowed for adjustments (Aditomo 2022). In Botswana, teacher-led targeted instruction is being implemented at scale, while select schools experiment with targeted instruction practices to identify and share best practices with greater agility.

Political commitment to a comprehensive strategy that aligns actors has driven strong learning recovery and acceleration responses in Brazil,

Cambodia, and other contexts. Evidence of successful interventions and education champions have

supported countries in building political commitment. Assessments of learning losses and system strengths and weaknesses have guided country efforts toward targeting capacity-building efforts and capitalizing on interventions with the greatest potential and feasibility. Strong country visions have ensured that education partners operate synchronously toward a focused set of learning objectives. Such visions can be seen in education systems in Brazil, Cambodia, Gujarat, India, Indonesia, and Sierra Leone, and other countries in which national leadership and other government leaders, such as those in the ministry of finance, have clearly supported long-term commitments toward recovering and accelerating learning. Various mechanisms for feedback have been leveraged to support successful implementation of complex and multifaceted responses.

Efforts to address the learning crisis have not been enough; nevertheless, more opportunities exist.

The learning crisis, exacerbated by the pandemic, was a global phenomenon, but international action toward addressing it has remained inconsistent, heterogeneous, and somewhat limited. This less-than-ideal response is attributed largely to governments' underestimation of the severity of the learning crisis and the extent to which countries must change how education is delivered. The future productivity and wellbeing of the current student generation, and those to come, depend on how governments act now. On the positive side, and as documented in this report, education stakeholders can build on encouraging country responses to recover learning losses, focus on acceleration, and ultimately improve learning and reduce inequalities.



1. INTRODUCTION

This report examines what low- and middle-income countries are doing to recover and accelerate learning and how they are doing it. As students have returned to in-person schooling after the COVID-19 pandemic, it is useful to examine what countries are doing and how they can move from learning recovery to acceleration and build resilience to cope with future shocks. This report documents and analyzes individual countries' promising and effective at-scale interventions and policies to recover and accelerate learning, with a focus on primary and secondary education. Building on the RAPID Framework for Learning Recovery and Acceleration, the report distills lessons on how countries have piloted efforts to (1) Reach every child and keep them in school; (2) Assess learning levels regularly; (3) Prioritize teaching the fundamentals; (4) Increase the efficiency of instruction, including through catch-up learning; and (5) Develop psychosocial health and wellbeing (World Bank and others 2022a).

1.1 URGENT NEED TO RECOVER AND ACCELERATE LEARNING

Over the past 50 years, access to schooling in almost all low- and middle-income countries has expanded significantly. Near-universal primary school enrollment has been achieved. However, in 2021, an estimated 244 million children and youth were still out of school: 67 million children of primary school age, 57 million of lower secondary school age, and 121 million of upper secondary age (World Bank and UNESCO 2022a).

The quality of education has not improved with increased access. Before the COVID-19 pandemic, learning poverty — being unable to read and understand a simple text — affected 57 percent of 10-year-old children across low- and middle-income countries (World Bank and others 2022b).

Concerningly, progress in the quality of education had stalled prior to the pandemic (World Bank and others 2022b).

The COVID-19 crisis caused an unprecedented global disruption of schooling and learning. At the peak of lockdowns, 1.6 billion children in 188 countries were out of school (World Bank 2021c). For the first 2 years of the pandemic, education systems, on average, were fully closed for in-person schooling for 141 days (World Bank and others 2022b). Figure 1.1 shows the considerable heterogeneity in the length of school closures across regions, with South Asia and Latin America and the Caribbean tending to have the lengthiest closures, and high-income economies managing to open faster. Nearly 1 billion children missed out on at least 1 full year of in-person schooling (Schady and others 2023).

Efforts to continue learning during prolonged school closures were uneven and largely ineffective. Nearly every country offered remote learning options (World Bank, UNESCO, and UNICEF 2021). In some countries, governments rolled out measures to continue learning at an unprecedented pace to provide learning continuity. Governments used various channels for remote learning, from online learning and take-home packages to radio and TV lessons to texting or teletutoring (Cobo, Munoz-Najar, and Sanchez Ciarrusta 2021). Student achievement data confirm that remote learning was a poor substitute for in-person schooling (Patrinos, Vegas, and Carter-Rau 2022). Limitations of remote learning were particularly felt by learners with disabilities, many unable to access solutions such as radio- or tele-learning.4 In many countries, particularly low- and middle-income countries, limited capacity to deliver education services under stress, a wide digital divide, and poorly constructed remote learning systems undermined remote learning (Cobo, Munoz-Najra, and Ciarrusta 2021). These conditions

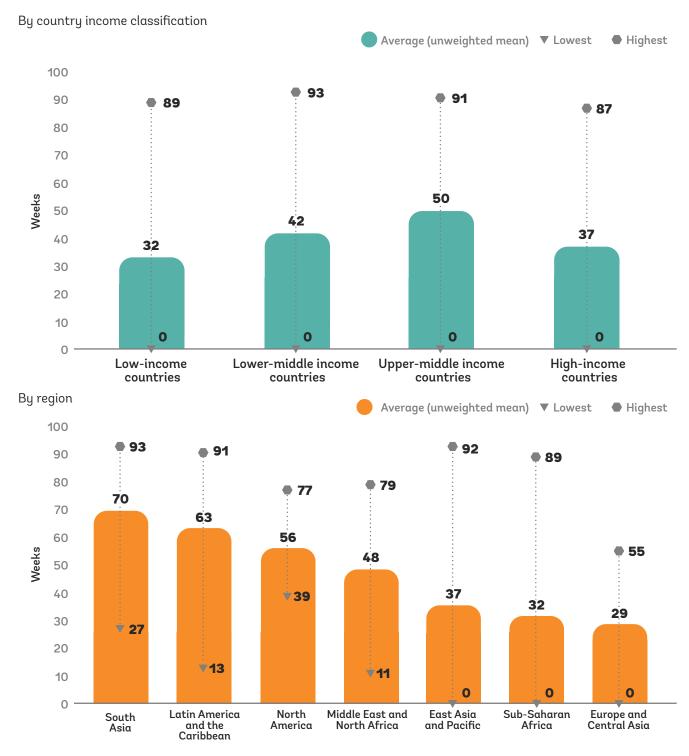
⁴ Disability is both a cause and a consequence of poverty. Learners with disabilities and their families were less likely to be able to afford necessary equipment, such as radios or televisions.

aggravated the existing inequalities in schooling and learning outcomes, and disproportionately affected

students from disadvantaged backgrounds (Schady and others 2023).

Figure 1.1 Duration of school closures, March 2020 — March 2022

Number of weeks of full and partial closure

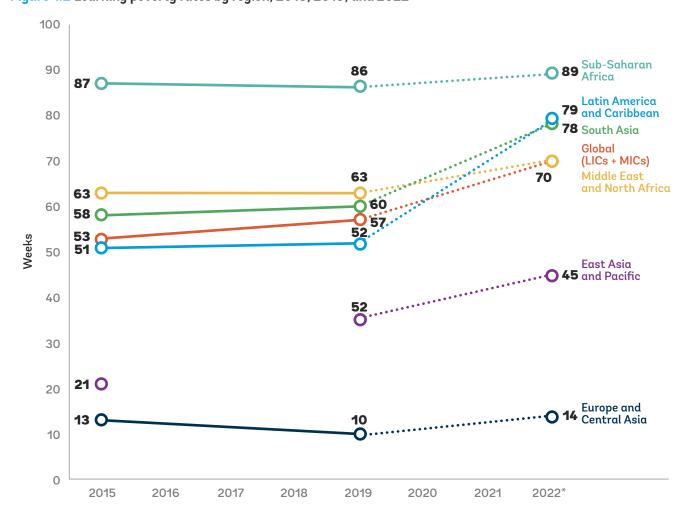


Source: Based on data from the UNESCO Global Dataset on the Duration of School Closures.

Shocks to education systems resulting from the COVID-19 pandemic have exacerbated the learning crisis and may have lasting effects. Learning losses have been documented in countries of all income levels (World Bank, UNESCO, and UNICEF 2021). Simulated estimates suggest that the average learning poverty rate across low- and middle-income countries rose to 70 percent in 2022 (figure 1.2). This rise means an additional 1 in 8 children in low- and middle-income countries has reached age 10 without being able to read and understand a simple text. The long-term effect is likely to be substantial. Due to lost schooling, this generation of students is estimated to lose as

much as US\$21 trillion in future earnings — equivalent to 17 percent of today's GDP (World Bank and others 2022b). The most vulnerable students will take the greatest hit: from early childhood to young adults, the impacts of the pandemic disproportionately hurt people from poorer backgrounds (Schady and others 2023). Marginalized groups, such as learners with disabilities, girls, displaced people, and ethnic minorities; or those facing discrimination because of their gender, beliefs, or language, also have been disproportionately affected by the pandemic. Even prior to school closures, these groups faced high rates of exclusion. The COVID-19 crisis only widened pre-existing gaps.

Figure 1.2 Learning poverty rates by region, 2015, 2019, and 2022*



Source: Based on World Bank and others 2022b.

Note: *2022 rates are simulations. The global figure is for all low- and middle-income countries. Regional and global figures are population-weighted averages. For the East Asia and Pacific region, the 2015 and 2019 averages are not directly comparable due to major improvements in data quality and availability and the recently available new assessments for the two years.

1.2 RAPID: FRAMEWORK OF EDUCATION PRIORITIES DURING THE PANDEMIC AND BEYOND

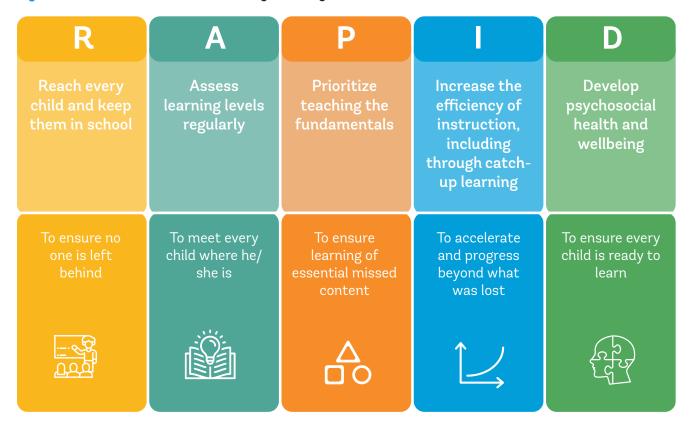
The RAPID Framework for Learning Recovery and Acceleration organizes a menu of policy options for countries to return students to school and combat learning losses (World Bank and others 2022a). Although the framework was developed in response to COVID-19, it is applicable to other shocks to education systems. The framework outlines five key areas (figure 1.3).

The RAPID Framework applies to countries' efforts to recover learning losses in the short term. "Learning recovery" refers to countries' efforts to help schools get their student cohorts back on track during and

after pandemic-related disruptions by recovering essential learning lost to limited or no instructional time and less effective modes of learning during that period (figure 1.4).

The RAPID Framework also applies to countries' efforts to accelerate learning in the medium-to-long term. "Learning acceleration" refers to efforts to ensure that schools can efficiently and effectively support each student to acquire essential core skills and knowledge. Many countries across the world already were making investments to improve education quality and accelerate learning before the pandemic. Others may consider recovery and acceleration as one effort with the idea that pre-pandemic levels are not a sufficient goal. Table 1.1 distinguishes between the two complementary concepts.

Figure 1.3 RAPID Framework for Learning Recovery and Acceleration



Source: World Bank and others 2022a.

Table 1.1 Learning recovery and acceleration definitions

	Recovery	Acceleration
Objective	Address COVID-19 learning losses and other education challenges by returning to pre-pandemic learning levels and expectations	Address the learning and COVID-19 crises to surpass pre-pandemic learning levels and sustaining learning gains by improving overall quality
Time horizon	Short- to medium-term	Medium- and long-term
Scope	Discrete policy actions in the form of interventions and strategies	Coordinated policy responses that focus on structural reforms of the education system and are part of a strategic plan
Example policy responses	Reach: Re-enrollment campaigns Assess: One-off learning assessments Prioritize: Short-term curricular adjustments Increase: Remedial learning sessions upon school re-openings Develop: Mental health screenings upon school re-openings	Reach: Early warning systems Assess: Support to teachers to improve their skills in checking for understanding Prioritize: Increased instructional time to develop foundational skills Increase: Improved teacher guides and training Develop: Embedding socioemotional learning in curricula

Source: World Bank.

The RAPID Framework is relevant to future shocks to education. Such shocks have occurred in many countries before and since the onset of the COVID-19 pandemic. These shocks have closed schools due to, for example, natural or climate change disasters, humanitarian crises, or teacher strikes. In many cases, these shocks have had significant effects. The efforts

required to make education systems more resilient—to enable continuity of education through shocks—vary by country, depending on factors such as level of resourcing, key constraints to quality education, and countries' education priorities. The RAPID Framework can support planning for building education system resilience.

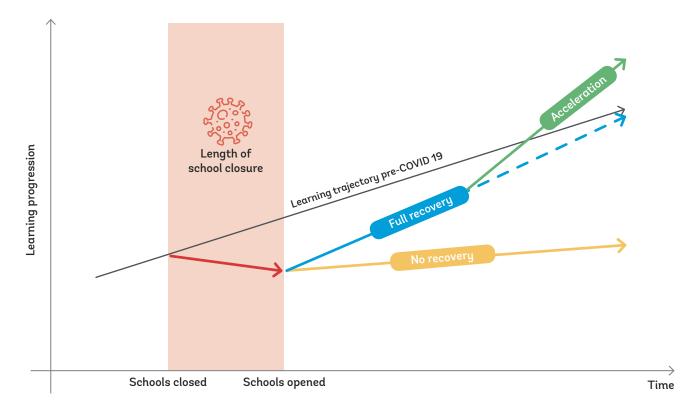


Figure 1.4 Illustration of learning recovery and acceleration definitions

Source: World bank.

1.3 OBJECTIVES, SCOPE, AND METHODOLOGY: THE WHAT AND THE HOW

This report examines what countries are doing to recover and accelerate learning, and how they are doing it. The report aims to identify effective or promising at-scale interventions and policies to recover and accelerate learning and to distill implementation lessons. The focus is on primary and secondary education and on the responses employed once schools reopened after pandemic-related disruptions.

The research questions were:

- » What types of policies and interventions have countries employed to recover and accelerate learning and reduce inequalities?
- » What opportunities and constraints have countries experienced in their efforts to raise learning and reduce inequalities?

» How can countries implement policies and initiatives to recover and accelerate learning in ways that raise learning and reduce inequalities at scale?

A mixed-methods research approach was used to analyze the education policies and interventions in 60 low- and middle-income countries. A database was developed for this report containing details of the learning recovery and acceleration efforts of a sample of 60 low- and middle-income countries for which sufficient information was available (figure 1.5).5 The report database included information from a review of available evidence and research, enabling a landscape review of policy responses. From this sample of 60 countries, 7 were examined further as comprehensive case studies: Cambodia, Colombia, Côte d'Ivoire, India, Mongolia, Romania, and Zambia. The comprehensive case studies were selected based on their policy responses and initiatives being (a) evidence based; (b) government led; (c) implemented at scale or with scale in mind; and (d) ongoing. A mixed-methods approach was used, which relied on desk research;

⁵ The list of 60 non-random sampled countries is provided in appendix A. This database is referred to as the "report database."

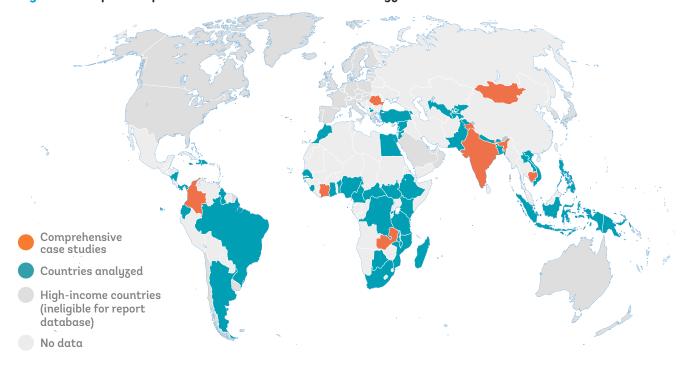


Figure 1.5 Map of comprehensive case studies and other analyzed countries

Source: World Bank. See appendix A for a full list of countries.

analysis of the report database; existing survey data; and semi-structured interviews with government officials, development partners, and World Bank staff (appendix A).

Most countries did not fully comprehend the need for learning recovery and acceleration. The report database and joint survey indicate that relatively few countries had implemented fully evidenced based policy measures to address learning recovery and acceleration. For example, only 27 percent of countries in the report database used targeted instruction programs, and only 15 percent supported teacher performance through structured pedagogy programs. However, some countries are investing in learning recovery and acceleration interventions that move them toward a new and improved status quo.

The availability of outcome data from countries' policies and interventions is a key limitation of the analyses. Outcome data are lacking due in part to the relatively short periods of implementation but also to a general lack of robust monitoring and evaluating capacities. As a result, although this report provides an update on what countries are doing in their attempts to recover and accelerate learning and how they are doing it, it does not analyze how well these

attempts have worked. The analyses and examples provided in this report will be updated once additional information on results and evaluations is available.

1.4 SUMMARY OF EFFORTS TO RECOVER AND ACCELERATE LEARNING

Many of the 60 sampled countries did not undertake comprehensive learning recovery and acceleration efforts. Return to business-as-usual was common. Relatively few countries in the sample had coordinated a policy response or implemented evidence-based initiatives. For example, only 27 percent had implemented targeted instruction — one of the most cost-effective tools for improving learning — as a national policy (World Bank, FCDO, and Building Evidence in Education 2020) (box 1.1). This business-as-usual approach is likely to lead to the "no recovery" trajectory presented in the lower line of figure 1.4.

Box 1.1 National efforts to recover and accelerate learning: Selected findings

Countries have implemented a range of policies and interventions within each of the RAPID Framework areas. However, relatively few have implemented evidence-based policies and interventions. Table B1.1 highlights selected findings from the report database of 60 low- and middle-income countries.

Table B1.1 Selected findings on national efforts to recover and accelerate learning in low- and middle-income countries (%)

RAPID category	Results from report database (% of countries)
REACH every child and keep them in school	25 percent expanded social protection services
ACCECC learning levels	37 percent conducted assessments of the extent of learning losses
ASSESS learning levels regularly	35 percent sought to make classroom-based formative assessment more regular
• PRIORITIZE teaching the fundamentals	• 22 percent focused curricula on the essential knowledge and skills for subjects/grades for at least 2 academic years
	27 percent implemented targeted instruction programs
	• 25 percent implemented tutoring programs
INCREASE the efficiency of instruction, including through	 20 percent implemented individualized self-guided learning programs
catch-up learning	 25 percent supported teacher performance through continuous classroom-based coaching
	 15 percent supported teacher performance through structured pedagogy programs
	• 57 percent increased school-based MPHSS services for students
 DEVELOP psychosocial health and wellbeing 	• 27 percent strengthened or expanded school feeding programs
neater and wellbeing	33 percent invested in school safety measures

Learning recovery and acceleration efforts were constrained by underfinanced education. The COVID-19 pandemic strained education budgets across many countries, threatening the feasibility of launching and maintaining at-scale interventions. Approximately 40 percent of low- and middle-income countries reduced their spending on education, with an average decline in real spending of 13.5 percent (World Bank and UNESCO 2022a). Political commitment to accelerate learning past pre-pandemic levels also has been driven by decreasing education budgets (World Bank and UNESCO 2022a).

A number of countries already have embarked on comprehensive agendas toward learning recovery and acceleration. Now, more than three years since the start of the pandemic, countries are faced with the dual task of addressing its impacts on enrollment and learning while tackling deep-rooted systemic education issues. The pandemic has revealed weaknesses in education systems and highlighted urgent needs to accelerate learning and reduce inequalities. On the positive side, some countries are investing in learning recovery and acceleration interventions that move them toward a new and improved status quo.





2. REACH

every child and keep them in school

The problem

• Steady worldwide progress in education access and enrollment was halted by the COVID-19 pandemic. Many students — particularly those from low-income households and older students — failed to return to school. Meanwhile, many students who did return to school are now at greater risk of dropping out.

Policy responses

- Identifying and re-enrolling out-of-school (OOS) children through direct outreach, including
 home visits, house-to-house surveys, and technologies aimed at identifying out-of-school
 children and providing support to integrate them in school.
- Providing second chance and reintegration education opportunities for over-aged children and youth, including by strengthening and expanding accelerated education programs and bridging programs that provide an alternative path to certification or integration in formal schooling for chronically OOS, vulnerable populations.
- Identifying and tracking at-risk students through early warning systems (EWS) and investing in education management information systems (EMIS) that make EWS possible. Building schools' capacity to use data for targeted interventions to prevent dropout.
- Using cash transfers and grants to tackle financial barriers to schooling and improve retention, including conditional and unconditional cash transfers targeted at families with students at greatest risk of dropout.
- Engaging parents, families, and communities through mobile technologies or in-school events aimed at improving their involvement in children's education, a positive predictor of educational attendance, attainment, and achievement.

Countries used direct outreach, technologies, and personal support to reach and keep children in school after school closures. The COVID-19 pandemic interrupted decades of progress in increasing educational access and raising school enrollment. In several countries, dropout rates increased during the pandemic, and many students failed to return to school. The increased risk of dropout was greater in low-income countries, and disproportionately affected students from low-income or vulnerable families and students in higher grades. Chapter 2 reviews which policies and interventions countries have employed

to counter the problem and how these policies have been operationalized (table 2.1). To bring OOS children to school, countries have used direct outreach (home visits, door-to-door surveys) and technologies to identify and bring children to school and have expanded second chance education programs. To prevent dropout, countries have identified at-risk students through EWS, provided personalized supports, used cash transfers and grants, and engaged families and communities. Successful efforts have involved intersectoral coordination, efficient data management, and targeting the most vulnerable students.

Table 2.1 Select policies for reaching and retaining every child in school

Bringing out-of-school children to school		Keeping all children in school and preventing dropout		
Identify and re-enroll OOS children through direct outreach	Provide second chance opportunities for over-aged children and youth	Identify and track at-risk students through EWS	Use cash transfers and grants to address financial barriers to schooling	Engage parents, families, and communities

Source: World Bank.

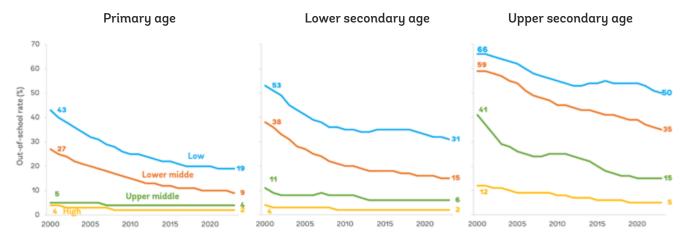
2.1 HALTED PROGRESS IN EDUCATION ACCESS AND ENROLLMENT

The pandemic halted worldwide progress in access to schooling. Prior to the pandemic, countries were making slow yet steady improvements in expanding access to schooling at all levels of education. The global share of children and youth who were out of school declined significantly from 2000 to 2021; the global OOS rate had declined from 19 percent to 9 percent in primary, from 25 percent to 14 percent in lower secondary, and from 48 percent to 30 percent in upper secondary (UNESCO-UIS 2022). However, improving enrollment in primary, lower secondary, and especially upper secondary continues to be a challenge for low- and lower-middle-income countries (figure 2.1).

The COVID-19 pandemic disrupted these trends. Prolonged school closures and unequal access to remote learning opportunities have had four negative effects on school access.

Some students failed to return to school. In several countries, enrollment levels were lower after schools reopened compared to pre-pandemic levels, with largest impacts in low-income countries. In a meta-analysis, 6 of 9 countries in the sample exhibited increases in the rate of dropout after the onset of COVID-19: ranging from -46 percent in **Uganda** to 258 percent in Malawi (Moscoviz and Evans 2022). In Mexico, because of the pandemic, 97,000 primary school students (0.7 percent of the student body) and 173,000 secondary school students (2.7 percent of the student body) did not return to school by early 2022 (Gaceta del Senado de México 2022). In India, the dropout rate in primary education increased from 0.8 percent to 1.5 percent between 2021 and 2022 (India, MOE 2022b). Similarly, in Colombia, from 2020 to 2021, the rate of intraannual dropout (students leaving school before completing a school year) increased from 2.4 percent to 3.6 percent (Colombia, Ministerio de Educación 2021).

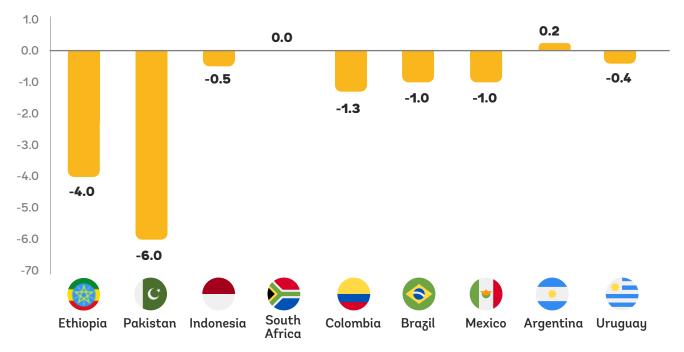
Figure 2.1 Out-of-school rate, by country income group, 2000–21



Source: Based on data from UNESCO-UIS OOS database.

- 2. Low-income and older students were the least likely to return to school. Disruptions have led to higher dropout rates for low-income students. In Indonesia, Mexico, and Pakistan, decreases in school enrollment after schools reopened were larger among children whose parents had lower levels of educational attainment (Schady and others 2023). In South Africa, the highest rates of dropout were found among low-income and rural households (NIDS-CRAM 2021). Studies also show the pronounced impacts of the pandemic on attendance for older students. In Pakistan, the proportion of out-of-school children and youth who dropped out during the pandemic was highest for secondary school students. Fourteen percent of primary-aged children who dropped out did so during the pandemic. This proportion rises to 24 percent and 38 percent for lower and upper secondary students (Idara-e-Taleem-o-Aagahi 2021). In a study of three rural districts in Malawi, the share of youth who did not return to school was higher among youth aged 17-19 (54 percent) compared to 13-16 year-olds (20 percent) (Kidman and others 2022).
- 3. The trend of progress toward universal enrollment was set back. Even in countries whose enrollment levels did not decrease because of the pandemic, trends toward universal enrollment flattened. In other words, some countries failed to stay on pace to provide access to all schoolaged children. This loss of progress on enrollment was larger in low- and middle-income countries. A study showing the difference between countries' predicted school enrollment and actual school enrollment in primary education after schools reopened showed small impacts in 5 MICs and larger impacts in the 2 low-income countries. In Ethiopia and Pakistan, enrollment dropped by 4 and 6 percentage points, respectively, for children aged 6-14 (figure 2.2) (Schady and others 2023). The same study found even larger gaps in preprimary education, for which enrollment was lower than predicted levels by 15 percent in Pakistan and 13 percent in **Brazil**.

Figure 2.2 Difference between predicted school enrollment and actual student enrollment after schools reopened, for children aged 6-14 in selected countries*



Source: Based on data from Schady and others 2023.

Note: *The figure shows the difference between predicted school enrollment and observed school enrollment after schools reopened. L-r, countries are in ascending order of lowest to highest gross domestic product per capita.

4. Many students who returned to school are at greater risk of dropping out. Disruptions exacerbated three key risk factors correlated with dropout: levels of academic learning, psychosocial wellbeing, and families' financial stability. In the post-pandemic era, disengagement with learning, a dropout risk factor characterized by students' lack of interaction, interest, or investment with learning, has emerged as a concern. The pandemic saw students' levels of engagement plunge. During closures, the number of hours students spent on schoolwork and accessing remote learning dropped (Acevedo and others, 2021; Engzell and others 2021; Wu and Teets 2021). Since schools re-opened, several reports have noted higher levels of student disengagement than before the pandemic, particularly among older students (Young 2022; McMurtrie 2022; Hare 2022).

2.2 BRINGING ALL CHILDREN BACK TO SCHOOL

Two main sets of policies have been employed to bring students to school: (a) direct outreach efforts to reenroll OOS children and youth and (b) second chance programs for overaged children and youth.

Re-enroll out-of-school children through direct outreach efforts

Home visits and other direct outreach activities have been effective. Home visits and door-to-door surveys were employed widely to identify OOS children and bring them to school, including in Brazil, Guyana, India, Jamaica, and Brazil. In India in 2021, the Education Ministry asked states to identify OOS children ages 6-18 through door-to-door surveys and to prepare action plans for their enrollment (Vijayakumar 2022). Through surveys, states gathered information on children and families including barriers to schooling. The states then provided targeted supports such as counseling for parents and students, financial support, housing, and direct enrollment. Some states succeeded in re-enrolling children: in Karnataka, 80 percent of the nearly 19,000 OOS children identified through the survey were brought back within months. This comprehensive canvassing also was critical to locate children who had not had prior formal schooling (EdexLive 2022).

Targeted home visits reached the chronically absent.

Other countries have targeted home visits only to OOS or chronically absent children. In Guyana, Operation Recovery was an initiative to reach the children who had been continuously absent since the beginning of the 2022 school year or who had missed the National Grade Six Assessment (NSGA). Education officials and community activists located these students and provided targeted supports. As a result, more than 75 percent of students who had failed to appear for the NSGA were back in school within weeks (Guyana, Department of Public Information 2022). In Jamaica, the Ministry of Education implemented the Yard to Yard: Find the Child initiative, an outreach strategy carried out prior to the return to in-person schooling that targeted students who were not showing up online during remote instruction. Deploying almost 2,000 guidance counselors, social workers, and others at a cost of \$103 million, MOE reported re-engaging 72 percent of the 120,000 students who had been unaccounted for during remote learning (Anderson 2023). Globally, many successful efforts were carried out with multidisciplinary teams involving civil society and community leaders, teachers, and counselors; and were accompanied by investments in data-gathering and management systems. These efforts also were complemented by supports for re-enrollment that addressed specific barriers to schooling. Finally, many outreach efforts targeted specific vulnerable groups, such as girls who had become pregnant or become young mothers (box 2.1).

Technology can facilitate the identification and tracking of out-of-school children and youth. To

identify and re-enroll OOS children, countries also have invested in easy-to-use technologies. From the report database, 17 percent of countries had initiated tracking systems for OOS children. In **Brazil**, the *Busca Ativa Escolar* (Student Active Search), a civil society led initiative conducted in partnership with municipalities, includes tools to help identify and monitor OOS and at-risk children and youth. City- or municipal-level supervisors receive alerts about OOS children, who in turn receive in-person family visits by community agents (UNICEF Brazil n.d.). In **India** in 2021, the Ministry of Education launched an online module to track and return OOS children. School blocks uploaded data into a portal, which helped assign children to bridging courses, track their participation, and

monitor their transition to formal schooling (India, MOE n.d.a; *The Economic Times* 2021).

Intersectoral collaboration is critical to identify OOS children and bring them to school. In 2022 Thailand's Ministry of Education established the Dropout Recovery Center, which housed a collaboration center for a cross-sectoral, multilevel project to track OOS students and bring them back to school. A national tracking system was managed at the provincial

level to support schools and 12 different agencies to regularly analyze data, pursue re-entry efforts, communicate challenges, and find solutions (Namfa 2022). In the 2021–22 academic year, Thailand re-enrolled over 85 percent of students who had dropped out. In 2021, **Zambia** piloted a Case Management System to identify OOS girls and those at risk of dropout. Multisector referral networks met monthly to link at-risk girls to needed services (World Education n.d.).

Box 2.1 Equity Highlight: Re-enrolling pregnant girls and young mothers in Kenya

Pandemic-related lockdowns precipitated a surge in teenage pregnancies in several countries, particularly in in Sub-Saharan Africa. Studies from countries including Kenya, Peru, South Africa, and Uganda point to elevated rates of teenage pregnancy compared to pre-pandemic cohorts (Zulaika and others 2022; Musinguzi and others 2022; Barron and others 2022; UNFPA in Peru 2022). In Kenya, the Ministry of Education and Population Council in Homa Bay and Narok provinces supported girls' re-entry in school through the Track, Trace, Talk and reTurn (4Ts) campaign, implemented between May and August 2021.

The initiative comprised:

- 1. Identifying pregnant/parenting girls who dropped out of school by liaising with school leads
- 2. Tracing girls to the household level through house visits in collaboration with village chiefs
- 3. Talking to these girls and families about Kenya's re-entry policy and the benefits of education
- 4. Supporting girls' re-enrollment in school.

Thirty percent of girls re-entered school during the project period, and another 54 percent indicated their intention to return to school. Program leaders credit the intervention's success to (a) the use of clear, simple messaging and sensitization materials on schools' re-entry policies, the importance of returning to school, and the supports available to girls — delivered directly to families during visits; and (b) the reliance on existing MOE structures (rather than parallel structures) for implementation and monitoring (Odwe and others 2021). For instance, 4Ts activities were incorporated in MOE-organized activities such as school-based teacher coaching and training and school-parent meetings, offering additional avenues to reach stakeholders with messaging.

Sources: Odwe and others 2021; Global Education Cooperation Mechanism 2022.

Provide second chance and reintegration programs for over-aged children and youth

Second chance education programs can help OOS and overaged children and youth complete school.

For children and youth who have been out of school for extended periods or who have never attended school, second chance education programs offer them pathways to integrate in the formal school system, vocational training, or employment. These programs have existed for decades, but the impacts of the pandemic on dropout levels and the recent surge in conflict and violence in several countries have renewed interest in strengthening education options for the chronically OOS.

Accelerated education programs can facilitate enrollment in the formal education system. Some studies point to high levels of transition from accelerated education programs (AEPs) to formal education systems. In the Democratic Republic of Congo (DRC)'s VAS-Y Fille program targeted toward girls, 88 percent of girls who completed the final year in the program enrolled in secondary education the following year. An evaluation found a positive impact on girls' enrollment through the end of the last school year (AEWG INEE 2022; (Randall, O'Donnell, and Botha 2020). In Liberia, the 10-month Second Chance Program (Luminos Fund) transitions approximately 90 percent of students (aged 8-14) to mainstream schooling and reported significant gains in oral reading fluency for the 2020-21 school year (Luminos Fund 2021).

Countries are taking steps to strengthen AEP systems and expand their scale. Several countries are taking steps to strengthen and expand AEPs by integrating them in national education plans and programs, providing funding, and investing in monitoring systems. Beginning in 2017, in Ethiopia, influenced by the success of NGO-run Speed Schools, many regional education bureaus opted to fund their own Speed School classes. By the 2021-22 school year, the government was funding 65 percent of all Speed School classes and incorporating them in its annual plans and budgets (Geneva Global 2021). In 2021, the MOE launched a new Speed School Unit within the Alternative Education Program Directorate to support expanding Speed School classes to reach

2 million out-of-school children (Muskin and Kaper-Barcelata 2021). In **Nigeria**, in 2022 the federal government launched the Accelerated Basic Education Programme (ABEP) to expand accelerated education (USAID 2022b; Education.org n.d.).

Other second chance education models increasingly are used as tools to improve out-of-school children's access to education. In Madagascar, Catch-up Classes provide children and youth who have dropped out of lower-secondary school for fewer than 2 years an accelerated 2-month summer catch-up program that teaches the foundational skills. The program's rates of transition into formal schooling are as high as 99 percent, but student retention continues to be a challenge. The program is being scaled up as part of the national education plan (Valenza and Dreesen 2022). In 2019, Cambodia's Ministry of Education launched the Basic Education Equivalency Program to give grades 7-9 dropouts the chance to complete an accredited, grade 9 education certificate through a 3-month online program. The certificate enables them to pursue vocational or general secondary education. In 2022, the government announced its intention to expand the program through a national rollout (Rinith 2022). As of 2023, there are 26 centers in 15 (of the 24) provinces in which students can receive counseling and support for their online studies, which they can complete on their own schedules (UNESCO 2023).

2.3 KEEPING CHILDREN IN SCHOOL

Re-enrolled students must engage and remain in school. Getting students re-enrolled is just a first step in serving their educational needs. They also need to re-engage with their studies, persevere, and remain in school until they graduate. However, many face a greater probability of leaving school early for reasons discussed earlier. To address heightened risks of dropout, systems also have invested in keeping children in school and preventing dropout. Three common policy tools are EWS and other data tools that identify at-risk students; cash transfers and grants to tackle financial barriers to schooling; and strengthening parent, family, and community engagement.

Identify and track at-risk students through early warning systems

EWS are an effective policy tool to prevent early school leaving. EWS are mechanisms that identify students who exhibit behaviors or academic performance that puts them at risk for dropout and support them to stay in school (UNICEF 2018; US Department of Education 2016). To more efficiently allocate resources toward students who exhibit the highest risk of dropout, EWS collect student data on predictors of early school leaving under a single system (OECD 2021b). Most EWS collect data on at least three main early warning indicators that research has found to be predictive of dropout. Known as the "ABC's of school dropout," they are: attendance, behavior, and academic performance (US Department of Education 2016).

EWS systems increasingly are used to track atrisk students as part of learning recovery plans. In many countries, EWS have been in place for years; in others, the pandemic served as a catalyst for their development. Table 2.2 shows a selection of countries that recently launched an EWS. These systems are

common. In the 2021 school year, 43 percent of responding countries in the joint survey reported having an EWS to identify students at risk of dropout (in primary through upper secondary) (UNESCO-UIS and others 2022). In the 2021 school year, 67 percent of upper-middle-income countries reported implementing these systems in primary through upper secondary whereas only 27 percent of low- and lower-middle-income countries reported the same. In Romania, an Early Warning Mechanism (EWM) embedded in the country's education management information system (EMIS) uses observation sheets and self-reported screening tools to identify students at risk and tracks targeted activities and progress through student case files (box 2.2). In El Salvador, an EWS that uses predictive technologies is being developed to analyze a series of risk factors for dropout - attendance, performance, early marriage, pregnancy, child labor, and disability, among others and produce risk scores (0-100) mapped to 1 of 3 risk levels. A dashboard embedded in the country's EMIS enables stakeholders to see lists of at-risk students by risk level and by variable (Rodriguez 2020; UNICEF El Salvador 2021; Villacorta 2020).

Box 2.2 Romania's Early Warning Mechanism to prevent early school leaving

Romania has adopted a national EWM to identify, support, and track progress of students at risk of dropout. The EWM aims to decrease early school leaving, one of the most significant challenges in Romania's education system. It scales up a pilot implemented by the World Bank between 2019 and 2022 in a group of secondary schools with funding from the European Union's Technical Support Instrument and with the support and partnership of the European Commission. The EWM includes prevention, intervention, and compensation measures at the school level to target students at risk of dropping out: OOS children ages 6–17, early leavers ages 18–24, and migrant children.

The EWM is embedded in Romania's education management information system: Integrated Information System for Education in Romania (SIIIR). Students fill out a questionnaire that collects information on socioemotional and academic support from families, school belonging, classroom environment, among others, and an Observation sheet used by teachers to identify at-risk students based on attendance, grades, repetition, and behavior. Once at-risk students are identified, a case file is automatically generated, and a teacher fills out an in-depth assessment, which generates a risk score, and develops an educational services plan tailored to the student's needs and risk levels. Progress reports are developed at the student, school, county, and national levels. Since the 2022 scale-up in secondary schools, over 40,000 school staff have been trained to use the EMW module in Romania's SIIIR, and the mechanism is being adapted for use in primary education.

The EWM is complemented by the provision of school grants for 2,500 priority secondary schools with the highest dropout risk levels. These three-year grants provide approximately \$200,000 to schools to take preventative measures aimed at reducing the risk of dropout for all students, as well as targeted interventions for at-risk students. Activities include remedial education, tutoring, extracurricular activities, school meals, digital infrastructure, and socioemotional support. The EWM and school grants are both an integral part of Romania's National Recovery and Resilience Plan 2022-26 and financed through a robust funding mechanism supported by the European Commission.

Source: Interviews with Ministry of Education of Romania 2023.

Investments in education management information systems provide student-level information.

Education management information systems (EMIS) that collect information at the level of the individual student are considered key for the design and implementation of effective EWS (UNESCO 2022a). In many systems, EMIS collects relevant and dropout-predictive indicators, making it possible to integrate EWS into existing EMIS. However, it is important to strengthen EMIS to ensure the availability of relevant indicators, the timeliness of

data; and the mechanisms for utilizing indicators to identify students at risk of dropout. Several countries are investing in strengthening their EMIS and other data systems for monitoring schooling indicators and harmonizing them with other existing databases. **Brazil**, for instance, is strengthening Sistema Presença, a platform that hosts attendance information for more than 22 million students from families in the social protection program, Bolsa Familia, by integrating information from the school census, Brazil's EWS, and other data sets.

Table 2.2 Countries implementing new early warning systems as a dropout prevention tool

Country	Launch	Description
El Salvador	2020	EWM uses data from El Salvador's EMIS and machine learning to predict students' risk of dropout. Teachers can see students' risk categories through a dashboard.
Tanzania	2021	The Ministry of Education integrated the NGO-led Dropout Early Warning System in its EMIS.
Honduras	2021	EWS enables teachers to identify students at risk of dropout through questionnaires that produce risk scores and recommendations for action. A series of in-person and virtual webinars have trained teachers on strategies to prevent dropout.
Romania	2022	EWM was developed between 2019 and 2020 and piloted shortly afterward. EWM uses questionnaires and observation sheets to help identify students at risk of dropout. In the 2,500 schools with the highest dropout risk, school grants are helping to finance school learning activities to prevent dropout.
Peru	2020	Alerta Escuela uses data from Peru's education data system to produce a risk assessment for every student by using three risk levels (green, orange, yellow). The dashboard is used by directors and teachers to plan interventions for at-risk students.

Sources: Based on Information from Rodríguez 2020; UNICEF Salvador 2021; Villacorta 2022; World Education 2021, World Education 2022b; Swiss Confederation 2021; Honduras, Secretaría de Educación; Gobierno de Perú 2020; Peru, Ministerio de Educación 2020.

Use cash transfers and grants to tackle financial barriers to schooling

Post-pandemic, cash transfer programs (CTPs) are more relevant than ever. Alleviating financial constraints by providing cash transfers and/or waiving school and examination fees has proved effective in enabling marginalized learners, such as girls or learners with disabilities, to attend school. CTPs are highly effective and widely used policy tools for reducing poverty and improving social outcomes including school enrollment, attendance, and performance. CTPs generally fall into 1 of 2 categories: conditional and unconditional. Conditional cash transfer (CCT) programs provide cash assistance contingent upon behaviors such as children's regular school attendance or regular health check-ups. The success of pioneer CCT programs such as Bolsa Familia in Brazil and Oportunidades in Mexico paved the way for the rapid expansion of these programs in low- and middle-income countries. CCT programs have been shown to produce significant improvements in children's enrollment and attendance with the larger effects in secondary education (Saavedra

and Garcia 2012). Unconditional cash transfers also have produced significant improvements in schooling outcomes in **Malawi**, **South Africa**, and **Zambia** (Seidenfeld and others 2015; Handa and others 2016; Kilburn and others 2017; Mostert and Castello 2020), in many cases with education outcomes comparable to those of CCTs (Baird and others 2013).

Social assistance was a major tool to mitigate the pandemic's effects. CTPs reached an unprecedented scale during the COVID-19 pandemic. Low- and middle-income countries governments expanded social protection programs as the chief policy measure to mitigate COVID-19's socioeconomic impacts. Globally, coverage increased by more than 230 percent, reaching 1.36 billion individuals, or 1 in 6 persons (Schady and others 2023; Gentilini 2022). In addition to creating new programs, countries expanded their scope both vertically (providing larger benefits to existing beneficiaries) and horizontally (adding new beneficiaries) (Schady and others 2023). From the report database, 35 percent of countries had operated cash transfer programs to keep children in school.

Cash transfers can be conditioned on improved enrollment and attendance. In Lebanon, a new CTP will provide approximately 680,000 individuals living in extreme poverty with monthly transfers. To support retention in school, the project also will provide almost 70 percent of all students aged 13-18 years with top-up cash transfers: 1 paid directly to the school to cover school fees, and 1 paid to the household to cover related expenses (uniforms, textbooks). Disbursements are conditional on monthly school attendance. However, students who fall behind on attendance will receive intensive support and follow-up from a social worker before any disbursements are discontinued.

Refugees have benefitted from cash transfer programs. In Türkiye, the government expanded the scale of the Conditional Cash Transfer for Education Program for Refugees, increasing its cumulative number of beneficiaries by 19 percent from December 2019 to December 2020 and providing a 1-time topup to support families facing increased economic challenges during the pandemic (UNICEF Türkiye 2021). The program gives cash transfers to eligible families, contingent on children attending school at least 80 percent of school days in the month and provides child support home visits to households in which school attendance was at risk. An impact evaluation found that the program improved children's attendance rates by 5 percentage points between the 2017-18 and 2018-19 school years, with stronger results in the provinces in which home visits had taken place, highlighting the complementarity of the 2 (Ring and others 2020).

Unconditional cash transfers can be structured to promote enrollment and retention. Other countries have aimed to increase levels of enrollment and attendance through unconditional cash transfers that are designed to incentivize families' investments in their children's education. Zambia's flagship Social Cash Transfer program, which has operated since 2003, expanded its coverage during the pandemic and incorporated an additional lump-sum payment to eligible households with adolescent girls in select beneficiary households. The payments are disbursed at the start of the school year, when households have additional school-related expenses (such as uniforms and school supplies), to increase girls' enrollment in secondary education. Girls in these

beneficiary households also receive school bursaries or scholarships that cover the direct costs of schooling (such as fees). Nevertheless, the additional lump-sum payments eliminate the barrier to schooling posed by indirect expenses (World Bank 2020).

Engage parents, families, and communities

Family and community engagement is a proven dropout prevention strategy. Global research proves the strong and long-lasting effects of parental involvement with their children's education on a host of educational outcomes: school attendance and attainment, academic performance, cognitive and non-cognitive skills, and motivation. Specifically, parental involvement in their children's schooling is a positive factor that influences attendance and graduation rates (Nguyen, Havard, and Otto 2022; Paul, Rashmi, and Srivastava 2021; Ross 2015). A recent longitudinal study in rural India finds that students whose parents were involved in their schooling during the 2018-19 academic year were less likely to drop out during the 2020-21 school year. Approximately 6.6 percent of children whose parents visited their schools prior to the pandemic dropped out after the schools reopened, compared to 9.6 percent of children whose parents did not visit their schools (Sarkar and Sabates 2022). This evidence underscores the importance of working with parents, families, and communities as a policy tool to counter low attendance issues and dropout.

Text messages to parents provide low-cost nudges for retention. One low-cost mechanism to tackle dropout involves sending "nudges" to parents by text message (Winthrop and others 2021). In the United States, for instance, an evaluation of a 2017 adaptive SMS intervention found that sending parents text messages on their children's attendance reduced chronic absence rates by 3.5 to 7.3 percentage points for students with a prior history of chronic absences (Heppen, Kurki, and Brown 2020). Similar approaches were used during the pandemic at an experimental scale. In Ghana, a study sent parents SMS texts with messaging aimed to improve rates of return to in-person schooling and attendance rates (Wolf and Aurino 2021). In Pakistan, an intervention studied the effects of SMS and voice messages sent 3-4 times a week to parents of female students with facts

about the importance of schooling, among others. The messages had a positive and significant effect on enrollment outcomes after schools reopened, particularly for girls at greater risk of dropout (Geven 2023).

2.4 CONCLUSION

Policies to re-enroll students and keep them in school can mitigate disengagement and dropout. Pandemic school closures disrupted students' daily school attendance habits. Stress from social isolation and distancing, reduced contact with peers, and inefficient remote learning decreased students' engagement with school. Enrollments dropped; dropout increased; and overall student risk of dropout increased for many students. Learners with disabilities were particularly at risk because school closures widened existing gaps in society. Many governments responded with robust

efforts to find and re-enroll students, using in-person techniques, data tools, and intersectoral cooperation. AEPs tailored learning paths for the hardest to reach. Girls and young women benefitted from programs designed to meet their unique needs. Simultaneously, efforts were increased to identify those in school but at risk of dropping out. Countries used EWS and data, SMS nudges, CTPs, and family and community involvement to decrease dropout.

Additional efforts are needed by governments to reach and keep students in school. Countries have an opportunity to expand the use of these tools and use them to target learners' needs. The historical trend toward universal access to education comes from persistent efforts to enroll and retain all school-aged children. Adopting the successful measures presented in this chapter will help countries reestablish the positive trend toward education for all.





3. ASSESS

learning levels regularly

The problem

• The lack of regular and reliable student learning data is a long-standing challenge that hinders learning recovery and acceleration. The pandemic's disruptions to in-person schooling further impaired countries' abilities to collect timely learning data while heightening the need to invest in effective, resilient assessment systems.

Policy responses

- Implementing regular assessments to monitor learning at the system level and using data to plan recovery and acceleration strategies and allocate resources.
- **Providing learning data to schools** optimized for usability, such as learning dashboards and school report cards, and assessment tools to measure learning.
- Supporting teachers' use of continuous classroom assessment practices to provide feedback to all students and inform instruction through professional development.
- Investing in data systems to improve availability, reporting, and use of learning data by strengthening data portals, communicating learning data tailored to different audiences, and maintaining clarity on the purpose of assessments.

Responding to the pandemic's impacts on learning requires effective, resilient assessment systems.

Pandemic-related schooling interruptions have had large, enduring impacts on students' learning levels, exacerbating inequalities among and within schools. Regular assessment is critical to inform learning recovery and acceleration responses and monitor progress. Without assessment, policymakers and teachers are in the dark about what learning was lost, and who was most affected. Chapter 3 reviews countries' experiences in using student assessment to recover and accelerate learning in the aftermath of school closures. At the system level, countries have used assessments to understand learning levels across grades. At the classroom level, countries have provided tools and teacher professional development to enable teachers to use continuous assessment practices to adapt their instruction to students' knowledge gaps. Assessments have been most successful where they have been embedded in data systems and classroom

practices, and where countries have invested in the effective use of learning data for decision-making.

3.1. LACK OF REGULAR AND RELIABLE LEARNING DATA HINDERS LEARNING RECOVERY AND ACCELERATION

Many low- and middle-income countries have long struggled with a lack of regular and reliable data to inform decision-making in education. Limited data collection capacity and a lack of learning data have prevented teachers, school leaders, and principals from obtaining a full picture of student learning levels. In many low- and middle-income countries, large-scale student achievement data are seldom, if ever, collected (figure 3.1). In Sub-Saharan Africa, data on student reading proficiency are not available for

more than half of school-aged children. Globally, 97 countries (of 195), or 50 percent, do not have data to measure educational achievement (UNESCO, UNICEF, and World Bank 2021). Even when data are collected, the comparability and validity of the data and the capacity to use data for decision-making remain challenging (UNESCO, UNICEF, World Bank 2021). Without regular data to measure learning, countries have no way to monitor progress and determine whether their investments and policies are geared toward success.

The COVID-19 pandemic negatively impacted countries' ability to collect timely learning data.

The disruptions to in-person schooling impacted teachers' assessment practices as well as largescale assessments. During periods of remote learning, teachers had limited capacity to undertake assessments due to the lack of guidelines and procedures. These issues led to assessment practices that were ill coordinated, lacked feedback mechanisms, and were unable to reach all students (ADEA, AU/CIEFFA, and APHRC 2022). In 2020 and 2021, many countries postponed or cancelled largescale national assessments. These actions led to a dearth of timely data necessary to understand the magnitude and nature of learning losses at a system level (ADEA, AU/CIEFFA, and APHRC 2022; Tejada

and others 2022). Similarly, in the 2020-21 school year, more than 50 percent of countries modified, postponed or cancelled high-stakes examinations (for certification, graduation, and access to further education or employment) at the lower and upper secondary levels. Alternative approaches included teacher-estimated grades (Ireland), alternative assessments (Bangladesh, Norway), reduced content in the examination (Germany), and online examinations with artificial intelligence (AI) technology (Saudi Arabia). However, in 2022 and 2023, most countries reverted to pre-pandemic examinations practices (Clarke 2021; Al-Qataee and others 2020; Huong and Markus 2022).

Information on student learning is needed at several levels and by several stakeholders for different reasons. Figure 3.2 provides an assessment framework for learning recovery and acceleration efforts. Teachers need daily information on student learning to plan their lessons and to identify struggling students. Schools need information on student learning to arrange additional supports for students such as small group tutoring or remedial classes. Central and local authorities need information to allocate resources, to monitor, and to design strategies to lead learning recovery and acceleration. Students and parents need learning information

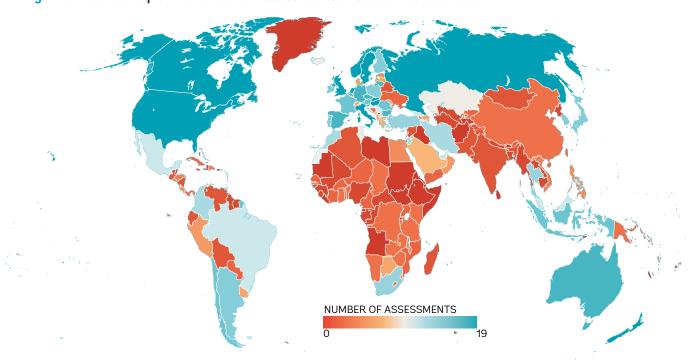


Figure 3.1 Global map of the number of assessments of student achievement

Source: World Bank, based on data from 1995 to 2022.

Figure 3.2 Framework of assessment for learning recovery and acceleration

For learning recovery and acceleration efforts:

Who needs student learning data?

System-level administrations

- To monitor learning levels
- For decisions on allocating resources for learning recovery and acceleration

Schools

- For school-level planning
- For district-level decisions on resource allocation

Teachers

- For daily instructional decisions
- To identify struggling students needing additional support

Parents/students

- For feedback on areas of strength and areas needing further work
- To keep systems accountable

For example:

Sample-based national assessments

District/School level tests

Questioning, observation, class tests

Student report cards

Census-based national assessments

Source: World Bank.

for feedback and to help keep systems accountable for results. In some countries, new assessments implemented during the pandemic recovery period were able to provide information on student learning data relevant to multiple stakeholder groups.

3.2 IMPLEMENTING REGULAR ASSESSMENTS TO MONITOR LEARNING AT THE SYSTEM LEVEL

Assessments helped countries to develop learning recovery and acceleration plans and strategies. In several systems, assessment results have directly informed policy planning for learning recovery and acceleration. In Mongolia, results from a small, sample-based assessment conducted in September 2021, just days after students returned to in-

person schooling, were used to inform the 3-year learning recovery plan, make small adjustments to the curriculum, and design new teacher training modules. In India, assessment results are being used for long-term planning of learning improvements. The 2022 Foundational Learning Study (FLS), which assessed the reading fluency of 3rd grade students of 83,000 students in 20 languages, helped set reading benchmarks as part of the NIPUN Bharat Mission — a national reading strategy launched in 2021 to reach universal literacy by 2025. Through a five-tier plan involving schools, blocks, districts, states, and the federal government, states are using FLS results to create contextualized, multiyear action plans aligned with national targets (India, MOE n.d.b). The FLS also was embedded in India's 2022-23 Learning Recovery Plan, which provided states with funding to conduct the study.

By regularly testing multiple grades, some countries gained a comprehensive understanding of learning levels across the school system. In Kenya, a largescale assessment was administered in October 2020 for students in grades 4, 8, and 12, shortly after schools partially reopened for those grades; and in March 2021 for other grades following the January full school reopening. The assessments covered several subjects in the curriculum and were used to inform policies to mitigate the pandemic's impact on learning. These assessments differed from previous national assessments in that they were considered low stakes assessments for the purpose of understanding student learning rather than higher stakes for purposes such as accountability or ranking (The Star 2020).

Other countries are investing in improving technical capacity for system-level assessment. Poor local technical capacity, insufficient staff, and limited time to devote to assessment are known common challenges in the design and implementation of national assessments (UNESCO-UIS 2017). With a heightened need for effective assessment in the post-COVID context, education systems increasingly are investing in technical capacity. This role is sometimes within ministries of education (as in India and Mongolia) or autonomous entities (as in Colombia and Saudi Arabia). Building a pipeline of technical expertise for the various stages of developing and implementing a national assessment - psychometricians, statisticians, item writers, test administrators, and communications experts, among others (Clarke and Luna-Bazaldua 2021) — is a challenge for most countries. Often, this expertise is sought from international organizations, consultants, and universities, and through regional knowledge exchanges. For example, the Measurement Center at the Pontificia Universidad Católica de Chile is a specialized unit known for its research and training to support assessment entities across Chile and the Latin America and Caribbean region (Clarke and Luna-Bazaldua 2021). In India, a new National Assessment Centre was created in 2022 to set norms, standards, and guidelines for student assessment and promote collaboration across states in India. States will be supported in setting up or strengthening State Assessment Cells and offered

specific supports such as managing state-level implementation of assessments. From the report database, only 18 percent of countries had invested in technical capacity building for central level staff in assessment.

3.3 PROVIDING LEARNING DATA TO SCHOOLS

The pandemic forced a greater focus on providing useful information to schools. In reopening after prolonged closures, schools were faced with myriad challenges, including needing to quickly understand students' learning gaps so these gaps could be addressed as a priority. Education system authorities were eager to both provide assessment data in forms that schools could use and to enable monitoring trends at the national, subnational, and local levels.

One model was an optional, low-stakes assessment for schools to identify learning gaps. From the report database, 38 percent of countries had conducted low-stakes assessments to gauge learning gaps. In Chile, where the regular national assessments were not implemented in 2020 or 2021, the government instead put forth the Diagnóstico Integral de Aprendizajes (Comprehensive Learning Diagnosis): a set of evaluation tools that schools could choose to administer to gain information on students' proficiency in key subject content and socioemotional wellbeing. The assessment was administered in March 2021 and reached 81 percent of basic education students. The assessment since has been applied three times a year as a mechanism for continuous feedback for teachers and policymakers. Reports detailing student achievement were given to schools in time for the new academic year, allowing schools to focus strategies and resources on the most crucial learning gaps (Chile MINEDUC 2021).

Another model is a nimble assessment of key foundational skills. Prior to the pandemic, quick screening checks of all students to make sure they were progressing in key foundational skills such as phonics (understanding the relationship between letters and sounds) were implemented regularly in countries including Australia, England, and Singapore.

In **Mendoza, Argentina**, the pandemic prompted the development and implementation of a *Census on Oral Reading Fluency*, a quick assessment first applied

in March 2021 to support schools in responding to students' needs after prolonged closures (box 3.1).

Box 3.1 Multiple uses of an oral reading fluency assessment in Mendoza, Argentina

In Mendoza, Argentina, the Census on Oral Reading Fluency (Censo de Fluidez Lectora) is a new state-wide classroom assessment for basic education that measures how well and how quickly students can read a short passage. The assessment is a quick, oral test that measures the number of words read aloud per minute as well as students' speech cadence. It was introduced in response to a perceived need by education stakeholders to quickly understand reading levels to inform instruction and remedial activities during the school year. It was first implemented in March 2021 shortly after schools in the province reopened following prolonged school closures.

The results of the March 2021 Census were used for the following purposes:

- **1.** To provide a school-level report for school principals and supervisors containing (a) the school's average results on the assessment against the median for the province and (b) a list of students who scored at the lowest level of proficiency (the "critically low" level).
- **2.** To embed results in schools' annual improvement plans an instrument used throughout the country as indicators to monitor targets.
- **3.** To design a new after-school program that trained 200 young adults (mostly youth pursuing education studies) to lead tutoring sessions in the 400 lowest-performing schools, targeting students in them who scored at the lowest proficiency level. These students received eight hours of additional instruction per week in the form of tutoring.
- **4.** To target teacher professional development at the teachers who had students who scored at the lowest proficiency level. Specifically, teachers were trained to use the new structured lesson plans developed to improve reading instruction.

When the assessment was applied again five months later, results showed vast improvements in oral reading fluency, particularly among those who had initially scored at the lowest level. In 4th and 7th grades, the percentage of children scoring at the "critically low" level decreased from 23 percent to 13 percent and from 36 percent to 20 percent, respectively. Since then, the assessment has been applied three times a year to monitor students' progress ongoing.



Figure B3.1 Results from Mendoza's Census on Oral Reading Fluency, March and October 2021 (%)

Source: Argentina, Province of Mondoza, General Directorate for Schools 2022.

Key to the success of efforts to provide learning data to schools is to consider usability and follow-up guidance. National assessments were implemented in Jordan in March 2022 reaching nearly all 1 million students in grades 4 to 11. The paper-based assessments were administered in schools by teachers. Results were made available to schools through an online dashboard indicating whether each student was off track (red), at risk (amber), or on track (green) in key areas of the curriculum. The assessments were accompanied by guidance to schools and teachers on how to support students (UNESCO n.d.). In Indonesia, in 2022 the Ministry of Education launched an online platform—the Rapor Pendidikan Education Report Card—to help school principals and district officials develop annual improvement plans. Learning scores are shown alongside schools' scores across different input and process-level indicators to help identify specific areas for investment (Antara News 2022a; Antara News 2022b). In addition, the platform provides databased planning recommendations (Aditomo 2022). In Colombia, results from the new, online Evaluar para Avanzar evaluations are available in a dashboard that provides useful analytics to aid teachers' interpretation of students' learning needs. By linking individual questions to specific learning competencies, teachers can see "alerts" for competencies that were answered correctly by fewer than 20 percent, or by more than 80 percent (that is, those that students have mastered). Teachers also are provided with video tutorials, guides, and rubrics to aid their analysis of results and are supported by coaches to use the assessment results to improve instruction (section 3.4).

Assessment tools are at the heart of targeted instruction programs. In targeted instruction models, students are regrouped by proficiency level during a part of the school day to provide instruction suitable to each target group (chapter 5). Regular assessment guides the continuous grouping and regrouping of students as they progress. In Brazil, Cambodia, Ghana, and Sri Lanka, new assessment practices have arisen to facilitate targeted instruction. For example, in Brazil, a new technology-enabled diagnostic assessment is applied in schools with high proportions of students from low-income families to construct student groupings for targeted instruction (box 3.2).

Box 3.2 Diagnostic assessments as a tool to implement targeted instruction in $\text{Bra}_{\overline{\delta}}\text{il}$

In October 2021, **Brazil's** Ministry of Education launched new Diagnostic and Formative Assessments as part of *Brasil Na Escola* (Brazil at School), a learning recovery and acceleration strategy. These assessments are applied in four cycles throughout the school year and are given to students in each grade of primary and secondary school.

Assessments are a key tool in the implementation of Brazil's new targeted instruction program — Acompanhamento Personalizado da Aprendizagem — which is available to schools with large proportions of students from low-income families. Through the program, using clear scoring thresholds, school facilitators or monitors group students into 1 of 4 levels (A through D) based on their scores on the assessment. The facilitators are trained and provided with structured teaching and learning materials specific to the level of each group.

The assessments are accompanied by an app and portal that automatically correct answers in the written tests, upload results to a central portal, and produce a score that can be used for student grouping. These innovations have been cited as improving teachers' reception to the new assessment scheme. By synchronizing the administration of these assessments across schools, policymakers can monitor system trends and adjust the program accordingly.

Source: Brazil, Ministry of Education 2021b.

3.4 SUPPORTING TEACHERS' USE OF CONTINUOUS CLASSROOM ASSESSMENT PRACTICES TO INFORM INSTRUCTION

Continuous classroom assessment practices help teachers understand the right level of instruction.

The use of questioning during instruction, observing student work, and short quizzes or tests provide teachers with indications of what students have understood, enabling teachers to make informed decisions about reteaching or making time for additional practice. Accelerating learning rests on two capabilities: (a) teachers' ability to gather and process this type of assessment information; and (b) the system's ability to provide an enabling environment for teachers to reflect and respond to the information with appropriate instructional decisions. From the report database, 35 percent of countries had embedded assessment practices in their classroom teaching.

Tests are not the only source of information for recovery and acceleration programs. Sri Lanka

pioneered a learning recovery initiative in Uva and Central provinces that later was scaled up across five other provinces. The initiative aimed to recover learning through a remedial program that integrated task-based assessments to check that students were learning at the expected pace. Teachers assigned a task to help students achieve a certain competency. If a student did not demonstrate the competency through completing the task, the teacher modified her or his approach by providing alternative tasks targeting the same competency and matching the level of the student, until the student attained the competency (UNICEF 2021b).

In learning acceleration efforts, building capacity for assessment-informed instruction is essential.

Several countries are incorporating training on classroom assessment practices in the preservice and in-service professional development of teachers, school leaders, and coaches. For example, in **Colombia**, a partnership between two education programs — the *Evaluar para Avanzar* assessment program and the

flagship teacher coaching program *Programa Todos* a *Aprender* (PTA) (All to Learn Program) — provided assessment-specific training to thousands of teacher coaches and tutors, who in turn supported teachers to implement the assessments, and interpret and use results. The partnership also produced new guides that mapped specific question items to specific sections/exercises in the teacher guides and student workbooks, thus helping teachers reinforce learning in the specific content areas in which students performed poorly. Similarly, in *Mongolia*, efforts to improve assessment capacity and an enabling environment included

- a. Producing methodological guides for teachers on how to develop tasks and tests aligned with assessment criteria
- Implementing a continuous professional development program to improve the skills of staff, school leaders, and teachers to apply assessments (by subjects and grades)
- c. Training a cadre of 130 national trainers in assessment
- **d. Deploying** assessment specialists to each province to support teachers and school leaders in applying reading and mathematics assessments.

3.5 INVESTING IN DATA SYSTEMS TO IMPROVE THE AVAILABILITY AND USE OF LEARNING DATA

Investments in student assessments are useful only if the data are made available and used. Over the past decades, many countries' attempts to provide learning data at the school and system levels have not informed policies and practices. The reasons include poor quality of data, lack of data management protocols and systems, frequent changes in assessment design, and failure to consult data users to understand how data reporting formats could be optimized for usability and usefulness.

School report cards or dashboards are streamlining the flow of information to schools and other stakeholders. These investments are common in high-performing education systems, but low- and middle-income countries increasingly are making such investments. When student assessment information is embedded in easy-to-use formats designed specifically for each type of user, stakeholders have ready access to the information they need. In Mendoza, Argentina, school directors and school cluster supervisors can identify schools in need of teacher training and students in need of additional supports such as tutoring. Schools can see in their report cards the proportions of students at the critical, basic, and proficient competency levels (box 3.1). In Gujarat, India, the state's Vidya Samiksha Kendra is an innovative EMIS and online dashboard for real-time tracking of education indicators and outcomes, including student assessment data for every student in the state. The dashboard enables teachers and policymakers to view learning data from national and state assessments (box 3.3).

Communications strategies pay off. To impact policymaking and national dialogue, results of national assessments must be communicated clearly in a way that is relevant and easily understood by a range of audiences, including policymakers, teachers, parents, and students. Different channels can be used, such as tailored briefs and reports, TV, radio, and internet (Clarke and Luna-Bazaldua 2021). In Guanajuato, Mexico, plans were developed to communicate assessment information through reports and briefs to schools and teachers, and an app though which parents could see their child's results. Guidance on how to interpret results helps build "assessment literacy" among stakeholders (US, National Academy of Education 2021).

Box 3.3 Vidya Samiksha Kendra in Gujarat, India: A state-of-the art education management information system and data analytics cell

Gujarat's Vidya Samiksha Kendra is an online platform for real-time monitoring of schooling activities and learning outcomes. It is an integrated dashboard for tracking the enrollment, attendance, and learning outcomes of over 7 million students in Gujarat down to the individual student level — the first of its kind in India. Through this platform, teachers and other stakeholders can view learning assessment data – from different state and national assessments—by grade, subject, and student for every school, cluster, block, and district in the state. Other features of the dashboard include tracking school vehicles and school officer site visits through geotagging; receiving feedback and complaints from teachers, students and parents; monitoring indicators of school quality; and communicating alerts and news to school staff. Big data and machine learning technologies are used to generate actionable insights and ensure that important metrics stand out and are easy to access.

Gujarat's data platform is grounded in the MOE's broader Vidya Samiksha Kendra (VSK) national initiative, an effort to support states in developing centralized data systems to track schooling indicators, and integrating various data systems, which often operate in silos (India, Press Information Bureau 2022). The dashboard shows how students scored on specific test answers, each mapped to a learning outcome. This function enabled Gujarat to produce learning outcomesbased report cards for every student in all subjects across grades 3–8. Gujarat's Vidya Samiksha Kendra, the first in the country, inspired the development of VSKs in other states, including Maharashtra and Uttarakhand (Smart 2022; India, ET Government 2022).

Sources: India, Education Department, Government of Gujarat n.d.; India, Public Information Bureau 2022; Agrawal 2023.

3.6 CONCLUSION

Assessments of student learning are key tools for learning recovery and acceleration. Pandemic-related schooling interruptions have had large, enduring impacts on student learning levels, exacerbating inequalities among and within schools. Student assessments are being used in many countries to measure the magnitude of learning losses; identify schools and students in need of support and resources; inform learning recovery and acceleration strategies; and continuously monitor the effectiveness of policies.

More can be done to improve learning assessment strategies and programs across low- and middle-income countries. In many low- and middle-income countries, large-scale student achievement data are collected only irregularly or not at all. To better use assessment data for policy planning and classroom instruction, countries cite the need for greater technical expertise on assessment within ministries of education, subnational education entities, and the teaching workforce. Countries will benefit greatly from investments to bolster learning assessment systems and embed assessment in education plans and programs.





The problem

• Overburdened and imbalanced curricula are hampering learning recovery and acceleration efforts. With the pandemic further reducing instructional time due to prolonged school closures and the need for catch-up learning, ensuring that every child and youth gains a sufficient foundation for additional learning is a challenge.

Policy responses

- Ensuring sufficient time for core content and foundational skills. Curricula can be adjusted to ensure that adequate instructional time is devoted to build the foundational skills to develop higher level knowledge and skills.
- Aligning teaching and learning materials with expected learning outcomes. Adjustments to curricula to bolster foundational skills are strengthened when reinforced in teaching and learning materials, teacher training, and assessment practices.

COVID-19 pandemic-related learning losses and recovery efforts raised a key curricula question: what is most important to learn when time is limited? Instructional time was lost during school closures. The need to master the same curricula in less time has spurred reflections about what is most important to learn and brought attention to foundational learning. Chapter 4 reviews countries' experiences in revisiting curricula to prioritize the fundamentals. Foundational skills — literacy, numeracy, and socioemotional skills, among others — are the bases for developing higher level knowledge and skills. Therefore, achieving solid foundational skills has been a key goal of primary education. Developing curricula has been most successful when taking account of assessments of student achievement; reflecting curricula priorities in the use of school time; and aligning teaching and learning materials.

4.1 OVERBURDENED AND IMBALANCED CURRICULA ARE HAMPERING LEARNING RECOVERY AND ACCELERATION

Interruptions to in-person schooling led to an urgent need to revisit curricula. Around the world, schools had to prioritize what to teach during reduced learning time and, once schools reopened, what missed material was essential to cover.

Challenging questions arose around how to get cohorts of students back on track. Mitigation measures and alternative education modes, such as remote learning, could not provide the same learning experiences or cover the usual amount of curriculum content, and were not equitably available to all

students. Once students came back to in-person schooling, their schools had to determine which key knowledge and skills they had gained and missed. The lost months and, in some cases, years broke the expected trajectory of learning in each country. When the expected pace of learning in the curriculum is misaligned with the actual pace of learning, students can fall multiple grade levels short of curriculum expectations (Pritchett and Beatty 2012).

A reflection of long-standing challenges

The COVID-19 pandemic brought to the forefront a long-standing and common challenge: inflexible and overambitious curricula. The challenge of having a broad range of student achievement levels in a classroom with too much content for the instructional time is not new (Pritchett and Beatty 2012; OECD 2020a). It is an extreme case of the challenge that ordinarily affects education systems (figure 4.1): curricula seek to cover more material than the typical student can learn in the time available.

In many countries, curricula have tended to be overburdened and imbalanced, crowding out foundational skills. Education systems must decide what students should know and be able to do and how time in schools should be used. A common tendency is to add more content without creating space in the curriculum, which leads to curriculum overload and imbalance (OECD 2020a). Teachers often are under

pressure to cover the curriculum rather than help students to master the fundamentals. According to a simulation model that demonstrated the impact of curricular pace on grade 8 results from a subset of internationally comparable assessments, overly ambitious curricula could explain *all* differences in the learning outcomes between poor-performing and OECD countries (Pritchett and Beatty 2012).

Curriculum overload leads to insufficient time for the development of foundational skills — literacy, numeracy, and socioemotional skills. A study of Uganda's pre-COVID-19 national curriculum found that very little attention and instructional time was given to the mastery of foundational literacy skills before expecting students to master higher order skills (Atuhurra and Alinda 2018). This finding revealed that "it may not be the students who are falling behind, but rather the curriculum advancing beyond students' current skills" (Preshad, Comba, and Bergmann 2020, 6). After the onset of the pandemic, the Ugandan Ministry of Education and Sports developed an abridged curriculum for all education levels based on a selection of priority competencies, emphasizing literacy and numeracy at the primary level (Mukalele 2022).

Adjusting the curriculum to account for students' achievement levels and realistic progress expectations can accelerate learning. In most contexts, teachers are expected to move through curricula faster than most of their students are learning.

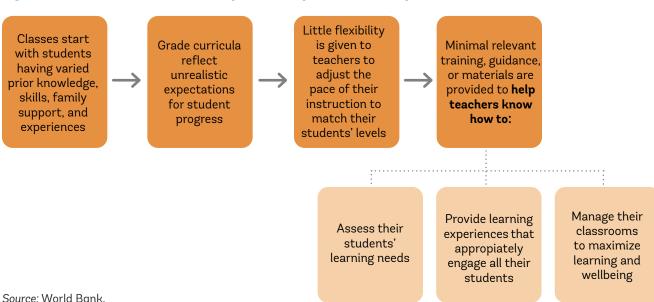


Figure 4.1 Common classroom challenges affecting student learning

Figure 4.2 Modeling long-term learning loss from school closures and mitigation strategies

Equivalent years of learning behind/ahead in grade 3 compared to no shock



Source: Based on data from Kaffenberger 2020.

Note: This figure uses a calibrated "pedagogical production function" model to estimate the potential long-term losses to children's learning from the temporary shock of COVID-19 related school closures and the gains possible from 2 mitigation strategies.

In Rajasthan, India, an evaluation of a computeraided personalized instruction program found that the curriculum was misaligned with the learning levels of all except the most advanced students! After aligning instruction with children's needs, the program improved learning outcomes (Muralidharan and Singh 2019). A simulation model (figure 4.2) illustrates the benefit of adjusting the pace of curriculum to align with the pace of student learning (Kaffenberger 2020). The simulation models more than 1 full year's worth of learning losses resulting from a 3-month school closure with no remedial interventions. While remediation alone can reduce long-term learning loss by half, remediation combined with long-term reorientation of instruction to align with children's learning levels increases learning by more than 1 full year (Kaffenberger 2020).

A response to a crisis or a longer term plan to accelerate learning

The need to adjust curricula to account for constrained time is not unique to the COVID-19 pandemic. Shortened programs often are made available to support learners who drop out of the education system or who are not able to complete basic education. Shortening programs usually involves selecting key knowledge and skills that will be the most useful to the student (AEWG 2020). Efforts to

better align curricula with students' levels also are not new. Examples abound from many contexts such as British Columbia's Curriculum Redesign, Hong Kong's Learning to Learn Reform, Tanzania's 3R Curricular Reform, and Liberia's and Sierra Leone's curricular adaptation during the Ebola outbreak. Likewise, curricular changes were not an uncommon response to COVID-induced school closures. According to the joint survey, 55 percent of responding low- and middleincome countries had plans to adjust the scope of the curriculum content to be covered in the 2022-2023 school year in any subject or grade (UNESCO-UIS and others 2022). The COVID-19 pandemic provided a window of opportunity to make quick adjustments to curricula, avoiding typically burdensome and politically charged full-scale curriculum reforms (OECD 2020a).

4.2 ENSURING SUFFICIENT TIME FOR CORE CONTENT AND FOUNDATIONAL SKILLS

Foundational skills are the basis for developing higher level knowledge and skills and are important drivers of the well-documented benefits of education (World Bank 2019b). The critical importance of achieving foundational skills is reflected in the Sustainable Development Goals (SDG) target to achieve minimum proficiencies in reading and

mathematics.⁶ The necessity to invest in foundational learning to transform education also was the focus of a Commitment to Action launched at the UN Secretary-General's Transforming Education Summit in 2022.⁷

Literacy and language

Literacy skills remain a key learning goal for school systems. Language is both a core subject in school curricula and a medium of instruction. Understanding language enables access to the whole curriculum and is the cornerstone for success in all subject areas. Definitions of literacy vary and evolve but have at their core reading, understanding, using, and reflecting on texts (Keefe and Copeland 2011). Literacy drives better nutrition and health outcomes, leads to greater participation in the labor market, reduces poverty, and enables greater life outcomes for girls and women (Berkman and others 2004; Lal 2015; World Literacy Foundation 2018). Reading is one of the most crucial "gateway skills." It enables children to gain knowledge and develop complex cognitive and socioemotional skills throughout their lives. Reading is highly correlated with skills in areas such as mathematics and science (Akbaşlı, Sahin, and Yaykiran 2016).

The literacy policy package outlined in box 4.1 summarizes the set of interventions that have successfully improved foundational literacy at scale. Findings from research on how children learn to read, and on effective teaching strategies to support reading, stress the importance of (a) sufficient time for reading instruction and practice⁸; (2) a curriculum that systematically sequences the key subskills to become an independent reader; and (3) explicit and direct instruction.⁹

Lost learning time for children in the early grades has been a considerable concern given that this is a crucial time for the development of reading skills. For

some countries, helping these children to catch up by boosting regular reading programs that optimize the use of class time has been a focus. In **Côte d'Ivoire**, a new early grade reading program is designed to optimize learning time by introducing phonics instruction. Letter sounds are taught explicitly, along with blending letters to form syllables, words,

and short sentences, with practice to increase automaticity and fluency (Zafeirakou 2020). Expected learning outcomes were redefined, and weekly school calendars were adjusted to allow for daily individual read-aloud practice. With early success emerging from this program in grades 1 and 2, the National Early Learning Support Strategy is scaling up this reform to all primary school grades.

To accelerate foundational learning, some countries are enacting policies related to mother tongue

instruction. Research supports learning to read in the mother tongue, which aligns with findings on the importance of oral language fluency and vocabulary knowledge in the development of skilled reading (World Bank 2021b).10 However, using multiple languages in curricula and procuring teaching and learning materials in local languages has proved difficult. Even so, efforts have persisted to optimize student learning through language policies. In 2022, Mauritania passed a law requiring all primary school classes to be taught in local languages, including Arabic, Poular, Soninke, and Wolof. To support the implementation of this policy, the government's national reading program will issue revised teaching and learning materials in each of these languages. Senegal's strategy for a harmonized bilingual education is built on almost 20 years of experimentation in mother tongue instruction (Benson 2020). The Renforcement de la Lecture Initiale Pour Tous (RELIT) Program is expanding efforts to improve early grade instruction and reading outcomes by introducing additional local languages of instruction — Mandinka, Soninke, and Diola — across 9 regions, with

⁶ See SDG target 4.1 at https://sdgs.un.org/goals/goal4 and the Global Proficiency Framework at https://gaml.uis.unesco.org/.

⁷ See https://www.worldbank.org/en/topic/education/brief/commitment-to-action-on-foundational-learning.

⁸ The first 3 years of formal education may require a minimum of 600 hours of optimal reading instruction for children to become fluent readers: for example, 90 minutes a day for 135 days. Some experts recommend up to 150 minutes per day (World Bank 2022c).

⁹ See, for example, the World Bank's "Tools for Improving Reading" series (World Bank 2022a, 2022c, and 2022d).

¹⁰ When children are first taught in a language that they speak and understand well, they learn more, are better placed to learn other languages, are more likely to stay in school, and enjoy a school experience appropriate to their culture and local circumstances. However, 37 percent of students in low- and middle-income countries are not being taught in the language that they speak and understand best (World Bank 2021b).

plans for future expansion. In **the Philippines**, mothertongue-based multilingual education was introduced in kindergarten and for early grade mathematics in grades 1–3, with evidence of positive impacts on students' numeracy skills (Englis and Boholano 2021; Falguera 2022).



Comprehensive efforts to bolster reading have benefited from high-level support and coordination.

For example, in September 2022, Jordan launched a National Literacy Strategy, which established an action plan to improve students' Arabic literacy skills over five years. The strategy, which includes teacher training in literacy instruction and a reading recovery program, seeks to ensure concerted and integrated national efforts toward a shared vision of a literate nation (Jordan Times 2022). The strategy builds on the success of Jordan's Early Grade Reading and Mathematics Initiatives (RAMP), an example of a structured pedagogy program, which provides students in kindergarten 2 to grade 3 with instruction in foundational skills.11 RAMP relies on high-quality teaching and learning materials, parent and community participation, differentiated instruction, and administrative classroom management. The proportion of grade 3 students who can read and understand grade-level text has increased from 29 percent in 2015 to 33 percent in 2019. The proportion of grade 2 students who meet benchmarks for reading and understanding grade-level text almost doubled, from 8 percent to 14 percent between 2015 and 2019 (RTI International 2022). Teachers are more systematically teaching phonics and phonemic awareness, thus helping children expand their vocabularies and improving their reading fluency and comprehension. RAMP also equipped teachers with rapid reading and mathematics tests to help them identify their students' needs so that they can adjust their lessons accordingly.

Numeracy and mathematics

Numeracy and mathematical knowledge are also important for children's school and life outcomes and are a core priority for schools. Studies in high-income countries have shown that early mathematics knowledge and skills are at least as predictive of later academic achievement as is reading (Duncan and others 2007). There also is significant evidence of the importance of foundational mathematics skills on secondary school completion rates and career pathways. Evidence shows that a population's numerical abilities have a positive impact on economic growth, and positively predict other life outcomes such as the economic success of migrants

and immunity to misinformation about health risks (Baten 2021).

Learning losses in numeracy have been equal to, if not greater than, learning losses in literacy. As with reading development, the COVID-19 pandemic school disruptions and efforts to continue teaching via remote learning modalities significantly challenged students' numeracy development. For example, primary school children in Ethiopia learned only 30–40 percent as much in mathematics as they would have during a normal year (Kim and others 2021). Results from Brazil, the United States, and two states in Mexico estimated greater learning losses in mathematics than in reading (Hevia and others 2022; Kuhfield, Soland, and Moron 2022; Brazil, Secretaria de Educação 2021).

Some countries have adjusted numeracy and mathematics curricula to improve learning and support remediation. Some mathematics curricula have been criticized as being too complicated with overly ambitious goals too early in the curriculum (Bethell 2016). Mathematics teacher training efforts in some parts of Africa have been found to focus too much on teacher knowledge and not enough on pedagogical practice (Pryor and others 2012). To build teachers' content knowledge and numeracyspecific pedagogical skills, Cambodia has upgraded its mathematics curriculum for initial teacher education (VVOB 2021b). The country has increased instructional time and implemented mathematicsspecific remedial learning programming for grades 2-6. The remedial education program identified 5 core numeracy competencies per grade as the foci during sessions (4 hours per day, 3 days per month), developed assessment tools for teachers to record students' progress on core competencies, and organized in-depth teacher workshops focused on core competencies for which assessment data showed poor mastery (VVOB 2021a). In 2020, Cambodia also launched the national early grade learning program, Komar Rien Komar Cheh, a mathematics package for grades 1-2 learners (Kabita and Ji 2017). As part of the program, a set of interactive, play-based teaching and learning materials were developed to make learning mathematics more fun and accessible (GPE 2022). These interventions were aided by Cambodia's

prioritization of its primary curriculum, which gave focus to both Khmer and mathematics from grades 2 to 6, increasing instructional time and reducing cognitive overload to support foundational learning.¹²

Other foundational skills

Given their importance for psychosocial health and wellbeing, fostering socioemotional skills is important (chapter 6). In many cases, socioemotional skills were fostered across subject areas through maximizing interdisciplinary opportunities (section 4.3). Opportunities to learn other foundational skills have proved particularly impactful for marginalized groups, like in **Zambia** (box 4.2).

Given the importance of gaining foundational skills on time, some countries focused investments on the kindergarten to early primary school stage. In India, a new National Curriculum Framework was published in October 2022, paving the way for 3-year-old children to be brought into the formal schooling system for the first time. Introduced in 2021, the National Initiative for Proficiency in Reading with Understanding and Numeracy (NIPUN) Bharat

requires all states to prepare an implementation plan for universal attainment of foundational literacy and numeracy. The NIPUN Bharat included the extension of a national teacher training program focused on foundational literacy and numeracy instruction and the development of a national online platform. The platform offers teachers, students, and parents engaging materials to support early learning. Based on the large-scale Foundational Learning Study, benchmarks for oral reading fluency and comprehension, as well as for numeracy, have been set for 20 languages.

4.3 LEARNING WITHIN A LIMITED TIME

Within limited teaching time, a focused curriculum is intended to focus on priority learning outcomes (AEWG 2020).¹⁴ Evidence from before and after the pandemic suggests that focused curricula can have positive impacts on learning (box 4.3). Curricula can be focused by (a) removing or reducing the depth of content within subjects; (b) reducing repetition of topics that appear across different subjects; and/or

Box 4.2 Equity Highlight: Zambia's "The Ultimate Virtuous Cycle of Girls' Education" project

Life skills education can be particularly impactful to support girls' education and empowerment. Zambia has implemented a life skills curriculum, "The Ultimate Virtuous Cycle of Girls' Education" project, for approximately 4,950 girls across 3 provinces. The project is developed specifically for young women in Africa with the "My Better World" curriculum. Targeting girls in their transition from primary to secondary school, the program provides learning support and skills development; and builds self-knowledge, confidence, and problem-solving abilities.

The curriculum is delivered through a community-based model, in which recent female school graduates from the region are trained to facilitate sessions on life skills development. The program's content was adapted to integrate COVID-19 messaging and extended sexual and reproductive health and rights sessions due to the increasing rates of gender-based violence during school closures. To better reach OOS girls, the "My Better World" curriculum is aired on national radio, with plans to expand dissemination through mobile phone applications and TV.

Source: Based on Girls' Education Challenge 2021.

¹² Cambodia has also prioritized mother-tongue instruction in primary schools.

¹³ The framework covers the essential years for foundational learning from ages 3 to 8 (National Steering Committee for National Curriculum Frameworks, India 2022).

¹⁴ A condensed curriculum involves prioritizing content. In contrast, prioritizing foundational skills in the curricula (discussed in the previous section) does not necessarily involve condensing curriculum.

(c) removing subjects. **Bhutan** omitted less essential information, such as the history of concepts, while also finding opportunities to cover multiple topics with common themes in 1 or 2 lessons (Bhutan, MOE 2020). **Armenia** mandated four subjects that had to be taught across all education levels and let schools decide which other subjects from a provided list would be included (Manukyan 2020). The methods used to focus curricula, and whether such adjustments are mandated or made optional, depend on country context.

Since the onset of the pandemic, many countries instituted a focused curriculum that emphasizes foundational skills. From the report database, 37 percent of countries had instituted prioritized curricula focused on foundational skills for at least

1 academic year (figure 4.3). Chile's Ministry of Education provided guidance to primary and secondary schools on how to prioritize learning content. The quidance included advice on curricular prioritization for every subject, lists of prioritized learning objectives by subject and grade, and guides on learning progressions for each subject. Motivated by the positive results of an extensive evaluation, Chile has extended its use of the modified curriculum to 2025. The modified curriculum has given educators the flexibility and time to make connections among subjects, deepen learning, and improve learning experiences (Chile, MINEDUC 2023). Cambodia offered a focused curriculum only for the academic year immediately following school reopenings. Other countries replaced curricula for longer periods, including Vietnam (2 years), Guyana (3 years), and Bhutan (permanently).15

Box 4.3 Selected examples of curricular prioritization for foundational skills

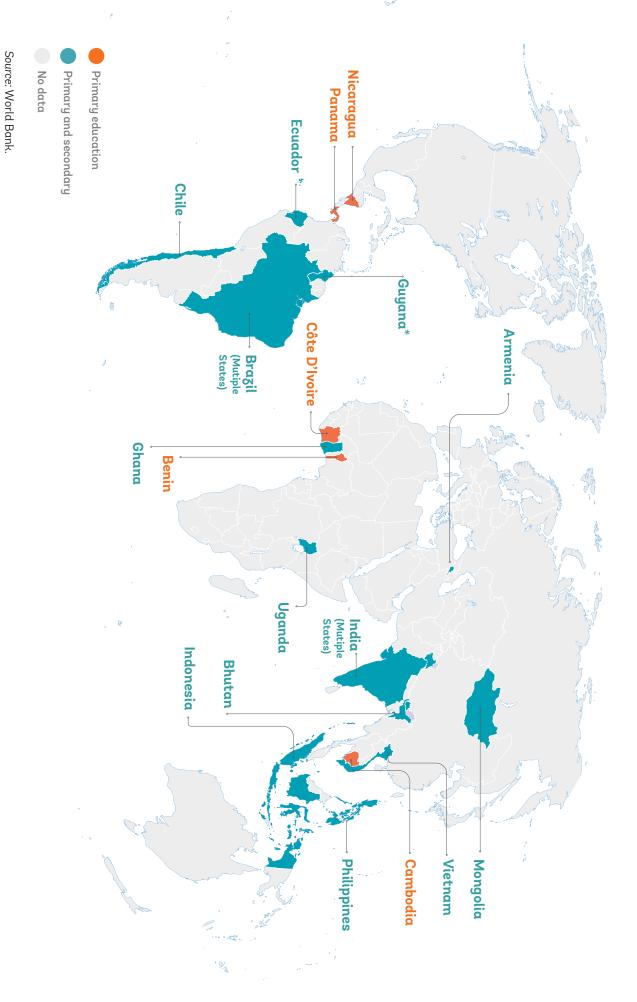
Tangania: Prior to 2015, Tangania's grade 1 and 2 curriculum was overloaded, with each grade comprising 9 subjects. Motivated to improve foundational learning outcomes, Tangania's 3R curricular reform focused on what has been deemed the "3R's: Reading, wRiting, and aRithmetic." The reform increased weekly instructional time for Kiswahili and mathematics from 6.2 to 8.6 hours, resulting in 80 percent of grade 1 and 2 instructional time being devoted to foundational literacy and numeracy, which improved student achievement. This length of instructional time aligns with expert estimates that suggest that the first 3 years of formal education may require 50–60 minutes per day of reading instruction, with 90 minutes commonly considered as a reasonable goal (World Bank 2022d).

Indonesia: Between January 2020 and April 2021, learning progress in grades 1–2 literacy and numeracy declined. As part of the Merdeka Belajar (Emancipated Learning) movement, the national curriculum framework was revised, reducing 30–50 percent of content in each subject. Approximately 30 percent of schools adopted the streamlined curriculum. One year later, a survey of grade 1–3 students found that those in schools using the simplified curriculum outperformed other students in literacy and numeracy, adding 4 months of learning in each. Based on these positive results, the government developed and is rolling out the Emancipated Curriculum for both primary and secondary levels to reverse pre-pandemic declines in learning levels and expedite learning recovery. A set of guiding principles supports the selection of prioritized learning outcomes.

Source: Rodriguez-Segura and Mbiti 2022; Aditomo 2022.

¹⁵ Some countries have attempted to recoup instructional time in the short term by transferring some curricular content from the current academic year to the following academic year. Unless education officials intend to expand instructional time for the following academic year, this tactic can provide only short-term relief and will exacerbate the already overburdened and imbalanced curricula the following year (Amin and Mahabeer 2021).

Figure 4.3 Examples of countries that introduced both short-term and long-term efforts to focus curricula on the fundamentals



Note: Guyana prioritized its primary and lower secondary curricula only after the onset of COVID-19.

Selecting priority content for focusing

Selecting priority content when there is less time to cover the curriculum has required guiding principles.

The Accelerated Education Working Group (AEWG 2020) has defined three principles to prioritize a focused curriculum.

Priority is given to learning outcomes that focus on the knowledge and skills that

1. Learners will need throughout their lives: reading comprehension, writing, mathematics, and critical thinking (section 4.2).

- 2. Learners can use across multiple subject areas. Understanding texts and identifying important information helps learners in science and social studies as well as in language arts.
- 3. Learners need to be successful in the next level of instruction and do well on required examinations.

Some countries, such as **Bhutan** (box 4.5), pursued curriculum prioritization using a variation of these quiding principles.

Box 4.5 Lessons from focusing curricula that led to long-term decisions: The case of Bhutan

Focusing the curriculum to respond to COVID-related school closures often has led countries to more permanent decisions on streamlining and prioritizing it. In Bhutan, efforts to focus the primary and secondary curricula due to COVID-19 school closures inspired the development of a "New Normal Curriculum." Implemented in the 2021–22 school year as a learning recovery mechanism, it capitalized on lessons learned from reducing content in previous years. At the start of the pandemic, the Royal Education Council of Bhutan developed and released the "Adapted Curriculum," which comprised 35 percent–40 percent of the regular school curriculum and emphasized numeracy, literacy, and life skills. This curriculum was theme based, in that some learning areas such as science and social sciences were combined in common themes. This focused curriculum was developed to be delivered remotely through video lessons, online platforms, and self-instruction manuals.

In line with experiences in many other countries, Bhutan's remote education offering was less than effective. For the return to in-person schooling in August 2020, Bhutan's Royal Education Council developed the "Prioritized Curriculum," comprising approximately 65 percent of the regular school curriculum, to accelerate learning. In this curriculum, grade- and subject-specific learning competencies were selected using the R.E.A.L Model of Prioritization of Learning Standards below. The competency-based curriculum was built on selected themes (see section 4.3 for other examples). The most essential learning objectives, fundamental for students' continuity of learning and development, were selected:

- **Readiness:** This standard provides students with essential knowledge and skills necessary for success in the next class, course, or grade level.
- **Endurance**: This standard provides students with knowledge and skills that are useful beyond a single test or unit of study.
- Assessed: This standard will be assessed on upcoming state and national examinations.
- **Leverage**: This standard will provide students with the knowledge and skills that will be of value in multiple disciplines

Source: Bhutan, MOE 2021.

The selected priority outcomes should be those that are required for subsequent learning and to prevent falling further behind. These are organized coherently into a learning sequence that ensures the frontloading of antecedents, focuses instruction on the attainment of priority outcomes, and includes revision of prerequisite knowledge and skills. Teachers also will greatly benefit from the development of pacing guides, which include the suggested number of lessons for each part of the learning sequence (AEWG 2020).

Student assessments have been used to inform curricular adjustments. Curricular adjustments prove most beneficial to students when aligned with current learning levels. Assessments of student achievement (as described in chapter 5) can provide essential information to inform curricular adjustments by identifying what students can and cannot do. Evidence shows that detrimental effects arise from asking students to complete a learning task for which they lack sufficient prior learning (Hwa, Kaffenberger, and Silberstein 2020). These negative effects include students (1) failing to complete the task, (2) completing the task superficially and remembering the new content inaccurately, or (3) completing the task superficially and not remembering any of the new content. In prioritizing curriculum, students' assessments can be used to better identify weaknesses in priority learning outcomes and ideal curricular paces for different student cohorts. Assessments in both Chile and Guyana informed the implementation of adjusted curricula to reflect students' current learning levels. Jordan, which assessed students in both their current and previous grade levels to better understand how far back learning gaps appear, is now better positioned to adjust curricula to match student learning needs.

Using school time to reflect curricular priorities

The quantity and distribution of instructional time must reinforce curricular priorities. Student mastery of the fundamentals also can be promoted by adjusting school timetables to reflect curricular priorities. Countries have taken several approaches to increase overall instructional time and build more space in the school day for prioritized subjects or content. These steps included reallocating instructional time among subjects, reducing school

holidays, condensing recess blocks or breaks between classes, shifting instructional time among tasks within subject periods, and hosting additional classes before or after school for targeted student groups.

Instructional time was increased by extending the school day and calendar as well as by protecting time for specific subjects or skills. Upon reopening, schools in **Rwanda** started one hour earlier to support vulnerable students who had experienced significant learning losses. In Côte d'Ivoire, scripted lesson plans in grades 1 and 2 now ensure time for daily individual read-aloud practice. Because Chile welcomed students back to school on a reduced timetable, under the modified curriculum, instructional time was dedicated solely to mathematics and language arts. Additional subjects were phased in gradually as overall instructional time increased. Under the Philippines' learning recovery plan, daily instructional time is planned to be extended (Republic of Philippines, DepED 2022a). In Armenia, under the new General Education Standard, schools are given the flexibility and funding, within a range provided by the government, to decide the amount of instructional time to dedicate to individual subjects to respond to their students' needs (Manukyan 2020).

Previous extensions to the school day and school calendar have proved valuable to student learning.

When the quality of instruction remains high, evidence shows that extending the school day (by even 90 minutes) and extending the school calendar (by even 10 days) can have positive (although possibly diminishing) impacts on student learning (Holland, Alfaro, and Evans 2015; Hincapie 2016; Novicoff and Kraft 2022; OECD 2020b; Parinduri 2014; Patall, Cooper, and Allen 2010). The global evidence for early childhood education also suggests that advances in the subsector are investments toward building early foundational learning (box 4.6).

Box 4.6 Maximizing instructional time for foundational learning in early childhood education (ECE)

Instructional time in early childhood also can be leveraged for foundational learning. Global progress in pre-primary enrolment has been slow and uneven. Many countries have yet to reorient the ECE programs they do have toward ambitious learning objectives. High quality ECE can jumpstart literacy and numeracy skill development and set up children to succeed in later schooling and learning. As evidenced by India's new National Education Policy, foundational learning does not need to wait for primary schooling. Early learning programs can be bolstered with strong literacy and numeracy curricula to provide a stronger foundation for foundational skills. The new National Curriculum Framework contains a newly added Foundational Stage, which includes, for the first time, children aged 3 to 5 years and seeks to build the foundation for basic literacy and numeracy skills (Chari 2020). Sierra Leone is advancing toward a more holistic early childhood development program in 4 ways: by adding a minimum of 1 year of preprimary education to the formal school system, constructing more classrooms, training teachers in play-based methodology, and developing picture books for early learning with accompanying training on how to use them (Sachdeva 2022).

Foundational learning programs designed for the primary level can be adapted and extended to include preschool learners. Jordan's Early Grade Reading and Mathematics Initiative (RAMP), Nepal's early grade reading program, and Colombia's Programa Todos a Aprender all seek to improve the reading and mathematics outcomes of kindergarten and primary school children. Following a greater call by the World Conference on Early Childhood Care and Education (WCECCE) for ECE financing, and building on Transforming Education Summit's (TES's) momentum on foundational learning, countries must balance efforts to expand access to early childhood programming with efforts to improve the quality of ECE instruction on the fundamentals.

Source: Chari 2020: Sachdeva 2022.

Despite its benefits, expanding instructional time must be approached with caution. Changes to instructional time may face practical and political barriers and has the potential to stress teacher and student wellbeing. Extensions to the school day, week, or year alone will not guarantee improved learning, especially if school staff are not adequately supported or staffed to use such time effectively. Efforts to increase instructional time must be accompanied by concrete methods to ensure that additional time is used for high-quality instruction and learning (TNTP 2018; Karamperidou and others 2020).

4.4 ALIGNING TEACHING AND LEARNING MATERIALS WITH EXPECTED LEARNING OUTCOMES

Teaching and learning materials, and assessments, were revised to ensure alignment with curricular priorities. An important element of Côte d'Ivoire's early grade reading program implementation was the new textbook. The textbook was explicit and well

structured. It progressively introduced new knowledge accompanied by opportunities for daily practice in reading aloud for fluency and comprehension. Having one such textbook per student enabled the learning to continue at home (Zafeirakou 2020). The program also restructured how teachers approached literacy instruction by introducing and training teachers in "explicit instruction": a cumulative, step-by-step model of instruction introducing very few learning items at a time, coupled with ample individual student practice. Indonesia's "Emancipated Curriculum" was complemented with concurrent adjustments to the country's national assessment system and implementation supports for both teachers and schools. As part of the implementation of the "Emancipated Curriculum," Indonesia replaced outdated national high-stakes examinations with a new national assessment (Aditomo 2022).

Changes to curricula were reinforced by revised teacher trainings and teacher-facing materials.

When aligned with the curriculum and delivered in tandem, teacher trainings and detailed teaching and learning materials are more successful in supporting desired changes in classroom instruction (Popova and others 2018; Nayuk and Sachdev 2023). Implementation of Nicaraqua's prioritized curriculum for the primary level was facilitated by the creation of didactic workbooks for both students and teachers, supplemented by additional teacher trainings on prioritized curriculum delivery (World Bank 2023a). Teachers in **Indonesia** also were equipped with a new digital platform that hosted a range of resources, and tools for understanding the new curriculum. To support implementation, questionnaires were distributed to help schools measure their readiness to implement the new curriculum. Online platforms and tools also have been used to support focused curriculum in high-income contexts. In France, learning after the pandemic was guided by an official online curriculum platform, Les Fondamentaux, focused on the fundamentals. For each level of education, priority educational objectives were identified and made available to educational teams through the website, which now is equipped with tools to assess and monitor student progress toward mastery of foundational learning outcomes (McKinsey 2020).

4.5 CONCLUSION

Focusing the curriculum to ensure sufficient development of foundational skills is critical.

Overburdened curricula crowd out the development of foundational skills and do not align with the pace of student learning. Some governments have streamlined curricula to focus on developing foundational skills. Assessments of student learning have supported curriculum redesign and implementation at both national and local levels. Curricular adjustments have been reinforced by complementary changes in other aspects of the education system, such as revisions to instructional time, teaching and learning materials, teacher training, and assessment practices.

More can be done to prioritize the fundamentals.

Ensuring the development of fundamental learning requires decisions and tradeoffs between curricular content and use of time. Some countries have leveraged curricula to reflect a commitment to universal literacy and numeracy; and to develop independent, resilient, and creative students.





5. INCREASE

the efficiency of instruction, including through catch-up learning

The problem

• Learning recovery and acceleration are unattainable in inefficient and ineffective education systems. Prolonged school closures have widened gaps in already heterogenous classrooms, disproportionately affecting the most vulnerable and increasing the challenge of supporting all children and youth in their learning.

Policy responses

- Scaffold teaching with coordinated supports to educators such as aligned guides, teaching
 and learning materials, and training. As part of a structured pedagogy package, these
 can help teachers to plan systematic and engaging instruction, to make the best use of
 instructional time, and to continually assess with appropriate follow-up.
- Providing a range of additional and alternative supports to help struggling students
 or groups of students to catch up. Supports include targeted instruction, supplemental
 remediation, and small group tutoring.

An efficient and effective school system will facilitate student learning within expected amounts of time, with catch-up opportunities to help keep all children on track. Widespread school closures exacerbated inefficiencies in schooling systems around the world. In low-performing school systems, highly structured support can help to overcome a lack of adequate teacher preparation and training. For students who fall behind, a range of supports such as remedial classes and tutoring will help them get back on track as quickly as possible. All efforts to improve classroom practices and raise student learning outcomes require continuous support to teachers through quality and relevant professional development.

5.1 RECOVERY AND ACCELERATION ARE UNATTAINABLE IN INEFFICIENT AND INEFFECTIVE EDUCATION SYSTEMS

Prior to the COVID-19 pandemic, inefficiencies in education were prevalent. The poor quality of schooling means that schooling was not leading to the expected levels of learning (World Bank 2018). This poor quality is apparent in the learning-adjusted years of school indicator (figure 5.1). The expected years of school are adjusted for the quality of education (estimated by harmonized test scores in relation to a high-achieving standard) (Filmer and others 2018).

Few countries successfully delivered the commonly expected 12 years of learning, while low- and lower-middle-income countries fell behind (figure 5.1). These failures were due to (1) fewer years of schooling and (2) relatively low levels of learning in those years. Even when children were in school, the instruction was not effective for learning. Children from low-income countries suffered the most from poor quality of education.

The poor quality of education before and during COVID-19 has left many children needing to catch up on foundational skills. At a minimum, schooling should enable all children to achieve basic levels of proficiency in literacy and numeracy. However, learning poverty rates — the percentage of 10-year-olds unable to read and understand a simple text — indicate that instruction in these basic skills is unacceptably inadequate (figure 1.2). Poor instruction has prevented gains in schooling from translating into gains in learning, with some systems struggling to equip children with basic skills despite their having spent years in school.

Learning losses were not even across and within countries. Learning losses were especially large in South Asia and in Latin America and the Caribbean, where school closures were the longest (World Bank and others 2022a). Within countries, children and youth from low-income backgrounds were disproportionately more affected by school closures, often because they were not able to access alternative remote education due to limited availability of electricity, connectivity, devices, or accessible technologies (Ahlgren and others 2022). Remote education was accessed by less than 50 percent of the student population in the countries in which it was offered and monitored (Azevedo 2020). Studies in many countries, including Ghana, the Netherlands, Mexico, and Pakistan, confirm larger learning gaps in disadvantaged groups, due primarily to uneven access to remote education during prolonged school closures (Haelermans and others 2022; Hevia and others 2022; Idara-e-Taleem-o-Aagahi 2021; Wolf and others 2021). Younger students were doubly disadvantaged, being less likely to benefit from remote education and prioritized in school reopening plans. These disadvantages are especially concerning given that they are at the pivotal stage for learning and development (Ahlgren and others 2022).

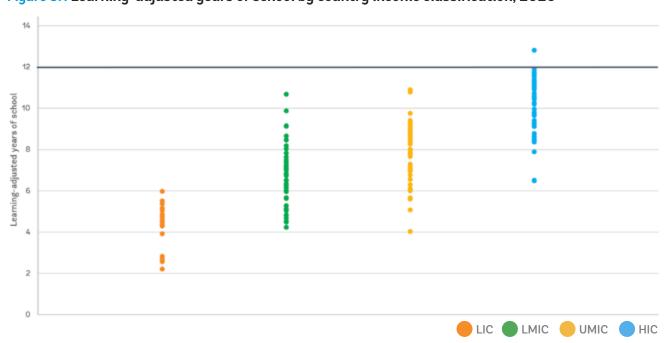


Figure 5.1 Learning-adjusted years of school by country income classification, 2020

Source: World Bank, based on data from the World Bank Human Capital Index (HCI) database 2022.

Note: Each dot represents a country. LIC=low-income countries; LMIC=lower-middle-income countries; UMIC=upper-middle-income countries; HIC=high-income countries.

Efforts to recover learning losses have shone a light on the challenge of teaching heterogenous classes effectively and efficiently so that students can progress through school as expected. In the context of existing inefficiencies in education, learning losses have intensified the need to increase the efficiency of instruction. COVID-19 pandemic-related learning losses have left countries with an urgent necessity to help students to catch up on lost learning (recovery) while improving the overall quality of instruction and learning (acceleration). In some education systems that are not well equipped to respond to students' learning needs, approaches have emerged to help make steady progress toward efficient and effective learning.

5.2 FRAMEWORK OF APPROACHES TO ENABLE EFFICIENT AND EFFECTIVE LEARNING FOR ALL

Teaching is a complex and challenging job, exacerbated by disruptions to schooling. In addition to planning and delivering engaging lessons that meet the needs of students with diverse backgrounds and prior achievement, teachers need to assess and evaluate their students' progress; have a deep understanding of the content; manage the classroom to maintain a safe and productive learning environment; support and guide students who are struggling with social, emotional, and academic issues; and keep up-to-date with changes in teaching practices, curriculum, research, and technology. School closures and learning losses add serious complexity to teachers' roles.

Poor quality and insufficient teaching and learning resources restrict teachers' ability to perform their tasks. For example, learning to read requires access to books; yet students in many low- and middle-income countries do not have sufficient access to quality reading material (Robledo and Gove 2018). Teachers require a rich set of tools to successfully balance their multiple classroom responsibilities, but in many contexts, the only instructional material they are provided are textbooks, which do not offer any instructional guidance (Nayak, Kaur, and Sachdev

2023). A lack of clarity and alignment across and within curricula, teaching, learning materials, and assessments, along with unclear expectations, often creates confusion for teachers and learners and can lead to inconsistent quality of instruction across schools. The pandemic and other disruptions have forced education systems to look closely at the tools they provide for teaching and learning.

Education systems and schools have taken an array of approaches to recover and accelerate learning. Figure 5.2 provides a framework for organizing approaches to teaching regular classes. It also illustrates a range of additional and alternative supports that schools and school systems have provided to struggling students and those with significant learning gaps. This framework is used to organize the discussion of the efforts that have been, and can be, taken to recover and accelerate learning.

For classes to move through the curriculum at the expected rate, working with content at age-based grade level, regular teaching needs to include a set of elements that work together to enable learning. These elements include instruction that is carefully planned, systematic (sequential and cumulative), and engaging for students, with sufficient quantity and quality of interactive student-teacher dialogue. Particularly in literacy instruction, direct and explicit teaching of concepts best enables all children to progress. Sufficient time is needed for instruction, and for students to practice and reinforce their skills and knowledge. A comprehensive suite of teaching and learning resources, interconnected and well aligned to the learning objectives, are the tools. These resources include teacher-facing and learner-facing materials, such as teacher guides, lesson plans, textbooks, workbooks, reading books, and manipulatives. Teachers' continuous assessment during lessons enables them to understand how well students are grasping the content and supports teachers' decisions on how to follow up, including by adapting the planned lesson.

Given the complexities of teaching, and the lack of teacher preparation in many poor-performing countries, supports are needed to scaffold teaching. Scaffolding teaching can improve teacher performance and student learning outcomes (World Bank, FCDO,

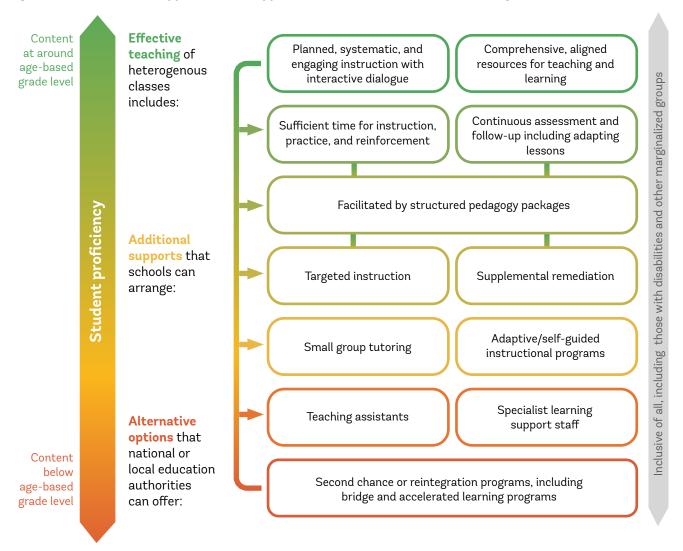
and BE2 2020; World Bank 2018; RTI International 2021). Around the world, countries are scaffolding teaching, including through **structured pedagogy packages**, which consist of student materials, teacher guides, lesson plans, teacher training, and ongoing support to teachers.

Where groups of students or individuals have not been able to keep up with the content, schools can arrange **additional supports**. Students can be regrouped temporarily for **targeted instruction** by level in various ways, such as the Teaching at the Right Level (TaRL) programs.¹⁶ During the COVID-19 pandemic and

in the recovery efforts, schools across the world have ramped up supplemental remediation, small group tutoring, and adaptive or self-guided instructional programs. In some countries, schools have additional resources such as teaching assistants and specialist learning support staff to help struggling students to keep up with their classes.

Where children and youth have missed enough content to make it impossible for them to stay in their agebased grade level, **alternative options** such as **second chance programs**, including **bridge** and **accelerated learning programs**, often are provided (chapter 2).

Figure 5.2 Framework of approaches to support all students with effective teaching



Source: World Bank.

Note: The approaches shown in the framework are neither mutually exclusive nor sufficient on their own. Repeating a grade is not included in this framework because doing so may be appropriate for only a very small number of students.

¹⁶ See, for example, TaRL Africa: https://www.teachingattherightlevel.org/tarl-in-action/.

Most countries have sought to address learning losses through short-term learning acceleration programs. More than 50 percent of countries surveyed in 2022 have increased instruction time and introduced accelerated learning programs as remedial strategies (alongside second chance or reintegration programs). Significantly fewer countries have launched tutoring schemes or adaptive, self-guided learning programs (Acasus, forthcoming).¹⁷ Furthermore, low- and lowermiddle-income countries were 42 percent less likely than upper-middle-income and high-income countries to implement at least 1 intervention for remediation (Acasus, forthcoming). Although many countries sought supports to strengthen classroom instruction, such as training teachers how to target instruction to learning levels, few countries ensured that such efforts were comprehensive and nationwide (Acasus, forthcoming).

5.3 SCAFFOLDING TEACHING TO IMPROVE EDUCATION OUTCOMES

Many education systems have provided scaffolds to help teachers in their complex roles and to move toward more effective practices. Scaffolding teaching can be defined as providing support, quidance, and resources to better plan and deliver effective teaching and learning. In the 2021-22 school year, 73 percent of responding countries reported implementing programs to improve instruction through either teaching materials, learning resources, or teacher training, with a similar proportion expecting to continue this in the 2022-23 school year (UNESCO-UIS and others 2022). In some cases, to maximize instructional time and effectiveness, efforts to coordinate and package these types of scaffolds and align them with the evidence on teaching and learning have been made. These types of packages are known as structured pedagogy.

Effective teaching of heterogenous classes

Comprehensive, aligned resources for teaching and learning have been part of the scaffolds that some countries have put in place to help teachers actively engage students with learning. Teachers' jobs become easier when the available resources are easy to follow and clearly aligned with the learning objectives and one another. Since the onset of the pandemic, various countries have invested in revising teaching and learning materials to ensure that instruction is effectively sequenced, engaging, and aligned with priority learning outcomes.

Teacher-facing materials, such as teacher guides, are accelerating learning by enhancing instructional quality. To support teacher decision-making in the classroom, helpful teacher-facing materials can include (a) scope and sequence that inform the teacher what and when to teach, (b) structured daily lesson plans with explicit directions, and (c) instructions on how to use the materials (Nayak and others 2023).18 Cambodia's efforts to bolster remedial learning for mathematics was supported by teacher packages that contained user-friendly, detailed, and contextualized lesson guides that offered low-cost, learner-centered activities. Efforts to quickly shift curricula during the pandemic also sparked improvements in teacher-facing materials, as seen in Gujarat, India. There, teachers were supported with chapter- and subject-focused weekly schedules; structured summaries of key content areas; and lesson plans to lead co-curricular activities including drawing, storytelling, and poetry. In the Dominican Republic's CON BASE (National Building the Foundations for Learning) Program, teacher guides contained six teaching sequences developed for early grade Spanish and mathematics, complemented by theoretical guides that explained how the models were created (UNICEF 2023a).

Learner-facing materials for each student, such as storybooks and workbooks, are essential elements to improve learning. A key factor in the success of the Tusome project in **Kenya** ("Let's Read" in Swahili), a national literacy program for grades 1–3, was that every child had a high-quality, age-appropriate

¹⁷ Based on data from UNESCO-UIS and others 2022.

¹⁸ These materials also can add ideas for reasonable accommodations and differentiation.

textbook for early grade literacy (Wilichowski and others 2020). Both **Benin** and **Côte d'Ivoire** upgraded student-facing materials, introducing "decodable" textbooks with engaging visuals and large text that helped students read using phonics (World Education 2022a; Zaferiukou 2022). In **Indonesia**, to support the learning of indigenous youth in more remote areas, contextualized reading books and student worksheets were developed for different reading abilities (UNICEF Indonesia 2022).

For students to stay on track, they require sufficient time for instruction, practice, and reinforcement.

These requirements mean building this time into lessons. Some countries have revisited curricula and extended instructional time to add sufficient time in lessons for instruction, practice, and reinforcement (chapter 4). Many countries saw the dedication of instructional time for recapping and reinforcement as an emergency recovery response so allocated only the first few weeks of school re-openings as the only opportunity for catch-up learning. Other countries have added regular instructional time for practice and reinforcement. By embedding changes in school timetables, Edo, Nigeria's EdoBEST Program reserved 15 minutes daily for reinforcement and remediation across all primary schools. Similarly, Brazil's Acompanhamento Personalizado de Aprendizagem protected daily instructional time for regular reinforcement. In Côte d'Ivoire's PAPSE program and Senegal's Lecture Pour Tous program, daily instructional time is reserved for individual reading practice (USAID 2022a; Zaferiukou 2022).

Teachers' continuous assessment of students and follow-up, including adapting lessons, has been a focus of some learning recovery and acceleration efforts. Supporting teachers to continuously assess as part of the instructional process through questioning, observation, checklists, and testing (chapter 2) helps to determine the appropriate level of instruction.

As a part of Jordan's accelerated learning program, the lesson plans prompt teachers to include brief checks for understanding every 20 minutes. For example, students hold up mini whiteboards with their answers, helping teachers to judge whether the class is ready to move on. In Benin's early grade learning program, teachers receive regular coaching sessions with pedagogical advisors and school directors to

review student learning data and discuss appropriate instructional responses (Zafeirakou 2022). In **South Africa**, teachers were trained in "assessment for learning" by using informal, short-item assessments to identify students' misconceptions and adjust instruction (South Africa, DBE 2020). Teachers in **Mongolia** were trained and provided guides on how to develop and adjust tasks and other learning activities in response to checks for student understanding.

Aligning scaffolds for teaching through structured pedagogy packages

Structured pedagogy is being used to accelerate learning by scaffolding teaching and maximizing instructional time. From the report database, during or after the pandemic-related school closures, only 15 percent of countries had implemented structured pedagogy programs to accelerate learning. These coherent packages of investments work together to improve classroom teaching (RTI International 2021). They provide a clear framework to guide teachers in knowing what to teach; how to teach it, how to link to previous learning; how to check that the class has the prerequisite knowledge and skills; how to determine whether most or only a few of the students have understood the new content and are ready to move on; and what to do next (box 5.1).

Box 5.1 Range of elements in structured pedagogy packages

Structured pedagogy packages scaffold teaching and often include the following elements:

Teacher-facing resources

- » Teacher guides:
 - · Aligned with curriculum scope and sequence
 - · Connecting all teacher and student-facing material
 - · Including lesson plans at varying levels of specificity
- » Training and ongoing support on the teacher guide and its strategies

Student-facing resources

- » Textbooks and workbooks/worksheets (for each student)
- » Reading books
- » Manipulatives
- » Informational posters

Progress monitoring

- » Checks for understanding included in lesson plans, with guidance on how to modify instruction
- » Screening checks to identify those expected to perform adequately in a key learning outcome as well as those at risk of failing so that additional supports can be provided
- » Assessments to evaluate student knowledge and skills; to inform instruction at the classroom level; and to be aggregated and reported at school, district, and national levels

Technology

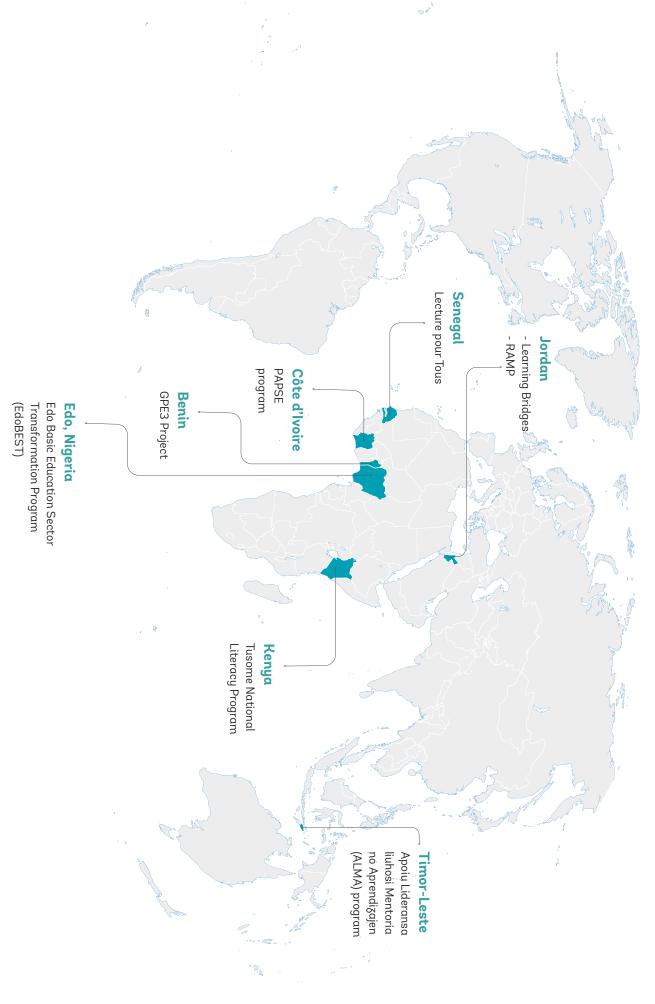
» Digital technologies sometimes are harnessed to support elements such as videoconferencing and text messaging for teacher coaching, and tablets for teacher guides

Source: Based on Piper and Dubeck n.d.; Nayak, Kaur, and Sachdev 2023; Perie and others 2007.

Evidence of the effectiveness of structured pedagogy is accumulating. Prior to COVID-19, several low- and middle-income countries had implemented large-scale structured pedagogy programs for early grade literacy and numeracy. Many of these were showing evidence of impact (figure 5.3). Studies on the use of structured pedagogy, such as in the **Gambia** and **Guinea-Bissau**, indicate that such programs are particularly impactful in contexts in which teaching levels are relatively low (Eble and others 2021; Faggio and others 2021). In such

contexts, effective structured pedagogy programs were supplemented with supports such as teacher aides, frequent classroom observations, and smaller class sizes (Eble and others 2021; Fazzio and others 2021). These programs are cost effective, and research shows that they have the largest and most consistent impact on student learning among all education interventions in low- and middle-income countries (Angrist and others 2020; Snilstveit and others 2015).

Figure 5.3 Examples of large-scale structured pedagogy programs in low- and middle-income countries



Source: World Bank.

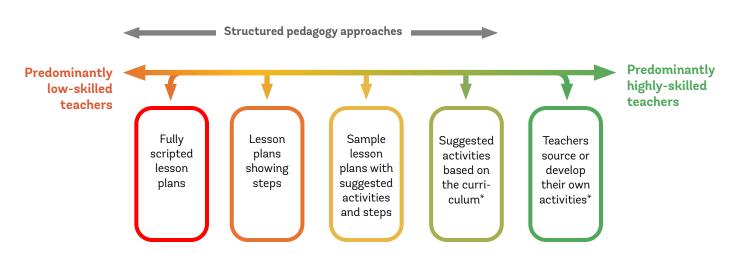
Structured pedagogy packages are not an alternative to teacher decision-making but a guide.

They support teachers to conduct effective lessons and manage classrooms by providing the planning and systematic structure, with ideas for instructional activities that engage students along with cues that promote interactive classroom dialogue and check for understanding. They also build teachers' knowledge and understanding of expected instructional practices and professional standards. Depending on the context, the amount of support and teacher autonomy can differ across structured pedagogy packages. Figure 5.4 illustrates where structured pedagogy approaches fit within the continuum of teacher skills and experience, and the corresponding types of teacherfacing resources that can be used alongside training within a structured pedagogy approach. A 2018 analysis of structured pedagogy programs across 13 countries found that the largest gains in student learning were associated with simpler teacher guides with helpful details and less scripted lesson plans, not those with word-for-word scripts (Mejía and others 2018; Evans and Piper 2020). The level of scripting in lesson plans can be gradually minimized over time as teachers gain confidence in their instructional practices (Ding 2021).

The need for remote education during the pandemic led to innovations, including a blended structured pedagogy package that has now become embedded in the curriculum. In recent years, Jordan has launched two structured pedagogy programs: the pre-pandemic RAMP program (chapter 4), launched in 2015 and the more recent Learning Bridges program, launched in 2020. Learning Bridges is in its third year of national adoption, well after schools reopened. Learning Bridges was designed as an emergency response to the pandemic to enable Jordan's 500,000 grades 4 to 9 students to continue learning Arabic, English, mathematics, and science. The package delivered printed activity packs to students each week aligned with the curriculum expected for that week. The activities introduced new ways of learning, making the most of time by building core foundational skills through studying their application, thus making for an integrated curriculum experience. An impact study indicated that Learning Bridges helped to build capacity in cross-curricula design, teacher innovation, and digital skills (UNICEF Jordan 2022).

Key to implementing a structured pedagogy package is to keep the materials simple. In Kenya, the Tusome project improved early grade literacy skills with

Figure 5.4 Continuum of teacher-facing resources by level of teacher skills



Source: Adapted from Piper and Dubeck n.d.

Note:* Based on the curriculum, which outlines what students should know and be able to do (referred to as "curriculum standards" in some countries).

impacts of 0.6–1.0 standard deviations on Kiswahili and English learning outcomes (Piper and others 2018). A key feature of the inputs to the program was the simplicity of the materials, such as the structured lesson plans, and the consistency of instructional approach, making it easy for teachers to understand and use (Wilichowski and others 2020).

Technology is being harnessed to link elements of structured pedagogy packages. In Edo State, Nigeria, the EdoBEST program leverages digital technologies to bridge various aspects of the education sector to support learning. Low-cost tablets equip teachers with scripted lesson plans and tools to check for undersanding, while enabling centralized, real-time data collection and monitoring of lesson completion; teacher and student attendance; and learning outcomes. Data collected from tablets is used to inform pedagogical coaches on how and where to target additional supports. An initial study of 30 EdoBEST pilot schools showed that pupils learned more, spent more time learning, worked harder, and experienced a more positive classroom environment (Cantrell and others 2019). The program is reaching 936 primary schools, more than 95 percent of the primary school population. Similarly, a dashboard compiled from tablet-enabled classroom observations in Kenya's Tusome program enhanced the accountability structures within the MOE and established greater links between subnational and national levels of government (Hennessey and others 2022).

Structured pedagogy packages can have substantial impact at scale. Although many education interventions have proved difficult to scale up, an increasing number of large-scale programs featuring structured pedagogy packages are apparent (figure 5.3). Evidence from Senegal's Lecture Pour Tous program suggests that the impact of structured pedagogy programs improves over time, suggesting that, if implementation is to translate into learning gains, structured pedagogy programs should be seen as long-term investments (Zafeirakou 2022). Following several successful pilot programs dating back to 2011, by 2021, Kenya's Tusome was brought to a national scale reaching over 7 million students. Scaling up the Tusome program was facilitated

by efforts to engage stakeholders from across the country's 47 counties through clear communication of the national benchmarks and expectations for implementation. These communications took place via workshops, trainings, and sensitization meetings (Piper and others 2018). In addition, making use of pre-existing government systems and assets, such as a classroom observational feedback system, helped embed the improvements expected in instructional quality across the system.

5.4 PROVIDING A RANGE OF ADDITIONAL AND ALTERNATIVE SUPPORTS FOR STRUGGLING STUDENTS

Additional and alternative supports for struggling students have strengthened the recovery and acceleration phases. For any situation in which learning gaps arise among individual or groups of students, a range of additional school supports is needed. These include targeted instruction, supplemental remedial classes, tutoring, self-guided instructional programs, and accelerated education programs.

Supporting learning in heterogenous classrooms through targeted instruction

Where there is large heterogeneity within classes, periods of targeted instruction through regrouping proves effective. In targeted instruction, students are grouped and regrouped according to achievement levels for all or part of the school day or year. In 2020 the Global Education Evidence Advisory Panel identified targeted instruction as a "good buy," that is, as having good evidence of being both successful and highly cost effective across a variety of contexts (World Bank, FCDO, and BE2 2020). In 2022 the joint survey indicated that 16 percent of responding countries were implementing targeted instruction at the national level (examples are shown in figure 5.5). An additional 14 percent of countries responded that it was a decision for the local level (UNESCO-UIS and others 2022). A particular model of targeted instruction has been implemented and tested in Ghana, India, and Zambia with moderate

¹⁹ For more information, go to https://www.rti.org/impact/tusome-improving-early-grade-learning-kenya.

success (J-PAL 2018). The Teaching at the Right Level (TaRL) model, pioneered and evolved over 15 years by Pratham, supports students to catch up in foundational competencies by grouping students by proficiency level, not grade or age.²⁰ In groups, students participate in (daily) instructional, playbased activities tailored to their learning levels. Regular and simple assessments are key to targeted instruction methodologies. The former enable teachers to assess learning progress. Then, as students gradually master the required skills, the teachers adjust the groupings. The model can be distilled into three steps: assessing student learning levels, grouping them by their level of proficiency (rather than their age or grade), and tailoring instruction to the group.

Targeted instruction in crucial grades helps catchup and prevents dropout. In Zambia in 2018, a UNICEF targeted instruction program based on TaRL, known as the Catch-Up program, was rolled out, first, to address the high learning poverty rate: 99 percent in 2019 (World Bank and others 2022a). Second, Catch-Up helped grades 3 to 5 students to build foundational skills after a new language of instruction was introduced. As demonstrated by national assessments, large, heterogeneous classrooms mean that students who lack basic skills never have the chance to catch up to grade-level expectations, leading to their demotivation and dropout.²¹ The genesis of the Catch-Up program was a 2016 pilot project across 4 districts in the country's eastern and southern provinces. In 3 short years, the share of pupils who could read a simple story in 1 province increased from 22 percent to 41 percent. The Catch-Up program was designed around three pillars:

- » Capacity development to train, mentor, and coach teachers on the targeted instruction approach, and to train mentors and school leaders to support teachers during implementation
- » Continuous professional development trajectories for teachers to become skilled in using the targeted instruction methodology

» Teacher training to assess the learning level of students for grouping purposes and to track learners' progress.

Age-appropriate and effective teaching strategies are requirements of targeted instruction approaches. In Zambia, within 5 years, in 2020, over 20 percent of primary schools were employing targeted instruction and reaching approximately 240,00 students (Oba 2022). Zambia's targeted instruction program is working to improve learning by embedding ageappropriate and learner-centered teaching and learning practices in the targeted instruction methodology to ensure that group-based activities are both engaging and impactful. Learning materials are being translated into multiple local languages to enable their use across all provinces.²² Scale-up is being prioritized in provinces that are grappling with poor learner performance (Oba 2022). Targeted instruction supports educators in shifting away from traditional teacher-centered instructional practices, helping to enhance their pedagogical skills, and emphasizing the use of assessments and checks for understanding to provide greater insight into learners' progress (Oba 2022). In Zambia, Catch-Up has enabled more effective teaching plans that concentrate on the phonemic awareness, phonics, and fluency that learners may have missed in grades 1 and 2. The focus on engaging, student-centered instruction has encouraged teachers to make use of visual and practical teaching aids from resources found locally, often at little to no cost (Oba 2022). In Indonesia, shifts toward more studentcentered teaching were supported by developing locally contextualized learning materials to supplement small-group or individual instruction (UNICEF Indonesia 2022b).

Schools have many options for approaches to implement targeted instruction. Across low- and middle-income countries, targeted instruction interventions have been designed and delivered in myriad ways:

1. By teachers, volunteers, and teaching assistants

 $^{20 \ \ \}text{For details, go to} \ \underline{\text{https://www.pratham.org/about/teaching-at-the-right-level/.}}$

²¹ For details, go to https://www.vvob.org/en/programmes/zambia-catch-pilot-0.

²² For details, go to https://www.vvob.org/en/programmes/zambia-playfully-catching-lusaka.

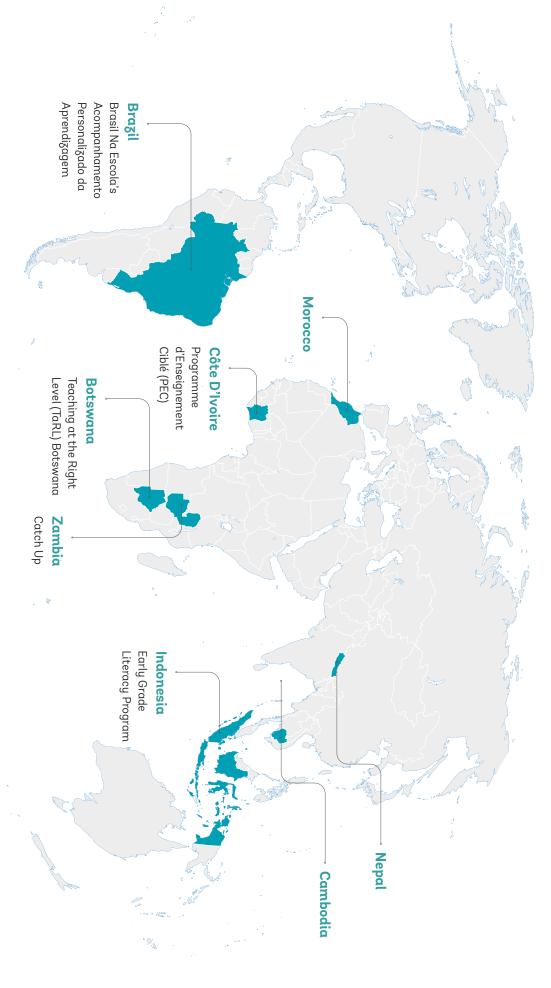
- 2. During school, after school, and during school holidays
- 3. In 1-hour, 3-hour, and whole-day sessions
- 4. Through pen and paper, SMS texts and phone calls, and computer-adaptive software.

In **Brazil**, targeted instruction sessions are conducted in infrequent but intensive sessions by trained monitors. The monitors are teachers or trained university students or volunteers. To avoid falling back into usual methods when in front of regular students, schools are discouraged from assigning teachers from the same school to serve as monitors. Conversely, Botswana reserves daily instructional time for targeted instruction but keeps the sessions to one hour maximum. In Nepal, teachers and volunteers implementing the targeted instruction pilot were mentored by trained local professionals with knowledge of the Nepali education system and curriculum, some of whom were retired teachers. Mentors supported the teachers and volunteers by providing support on data collection and interpretation and providing real-time feedback. Periodic one-to-one assessments were followed by regular monitoring and mentoring (Radhakrishnan and others 2022). In Zambia, Catch-Up is implemented using the MOE's existing teacher professional development and monitoring structures (Oba 2022).

Targeted instruction has been a key tool for some countries' responses to learning losses. From the report database, 27 percent of countries had implemented targeted instruction programs. In Botswana's second largest region, the Northeast, the Ministry of Basic Education implemented targeted instruction for all students immediately as schools reopened in 2020 and updated staff's roles and responsibilities to formalize this expectation. Teachers were trained and expected to report weekly on progress. Although no formal evaluation has yet been conducted, early data on learning outcomes suggest that learning levels in the Northeast region may be improving faster than in other regions. The table in appendix C summarizes some of the pilot and at-scale examples of targeted instruction programs that countries used to address low learning levels before and after the COVID-19 pandemic. Targeted

instruction programs have proved valuable for countries seeking to build more equitable education systems (box 5.2).

Figure 5.5 Examples of targeted instruction programs



Source: World Bank.

Note: See table C1 for the details of these targeted instruction programs.

Supporting all schools to use targeted instruction approaches has been a challenge. The promise of targeted instruction pilots in Morocco and Nepal have generated enough political support to scale the initiatives nationally. However, the experience of Botswana and Côte d'Ivoire have shown the challenges with scaling targeted instruction programs. Support for Côte d'Ivoire's Programme d'Enseignement Ciblé (PEC) program has been attributed to its simplicity, alignment with principles in the teacher education curriculum, government delivery, and convincing results. However, the longterm scaling of the program depends on its ability to resonate with local education stakeholders (namely, teachers and community members). Two of the common constraints to embed targeted instruction in every teaching and learning practice are student (and teacher) absenteeism and lack of instructional time, both of which must be adequately planned for and addressed prior to scale-up. In Indonesia, scale-up of the Early Grade Literacy program is being supported by a series of capacity building workshops to help local governments (1) build a scalability roadmap and (2) determine how to plan and budget for program costs. Costs include learning assessments, teacher training, and establishing reading corners in every classroom (UNICEF Indonesia 2022).

One key to ensure the success of targeted instruction programs is to minimize the additional workload placed on teachers. In Pakistan, the deployment of a targeted instruction program was supported by a low-cost software that eased the administrative burden on teachers by automating activities such as grading, sorting, and tracking students. The software could be used on smartphones and tablets. It centralized all training resources, assessment tools, and teaching and learning materials related to the program. To ensure its use, teachers were trained in how to effectively use the software.

Recovering forgotten and forgone learning through supplemental remediation

Time in supplemental remedial classes is another option to support struggling learners. This time can be particularly important for learners with disabilities. However, if such support uses the principles of

Universal Design for Learning, all learners can benefit.23 These classes may be held during the school day or before or after school or over school breaks. Examples from low- and middle-income countries of supplemental remedial classes being initiated due to COVID-19 pandemic learning losses, which do not fall under the targeted instruction or small group tutoring categories, are few. The reason may be due to the recent evidence of success of these other interventions, making them more appealing, or due to lower reporting as a more traditional response at the local level as opposed to a major government intervention. However, several national and subnational education systems have been able to design, staff, and obtain space for supplemental remedial classes for vulnerable student populations to combat learning losses.

Off-hours remediation classes with volunteer leaders, linked closely with regular schooling, proved effective in COVID learning recovery. A state-wide evening remediation program was implemented in Tamil-Nadu, India. Illam Thedi Kalvi (Education at Doorstep) started as a pilot in November 2021 and was rolled out in the state in January 2022. The program reached 3.3 million students in grades 1-8. During the 60-90-minute sessions, students were put in groups of 15-20 and provided with instruction by local volunteers. The volunteers were paid a small monthly stipend to cover incidental expenses. The remedial classes took place on school or preschool premises and in volunteers' homes. The focus of the curriculum was on play-based activities to build basic literacy and numeracy to re-introduce students to education and remediate learning losses. A detailed curriculum manual assisted the volunteers, directing them to specific teaching and learning materials. A key feature of the program was the close link and alignment with the regular school system. The program raised mathematics scores by 0.17SD and Tamil scores by 0.09SD (Singh, Romero, and Muralidharan 2022). Lessons included that compensating for learning losses is possible at scale.

After-school remedial learning clubs have been used to target girls and students at risk of dropout. In Rwanda, the learning clubs aim to improve basic literacy outcomes by providing teachers with tablets

preloaded with remedial lessons plans and learning materials. The program operates based on an adjusted remediation curriculum (Getachew 2021). Reports indicate that participating teachers acquire additional remedial teaching skills that then, unintentionally, bolster regular classroom instruction. Since January 2018, more than 150 schools and 5 youth centers have benefitted from learning clubs, and more than 11,500 girls have been reached (Getachew 2021). In Senegal, the Ndaw Wune remediation program targets children who have reached second or third grade but have not yet learned to read. Within each session, a group of 20 students is divided in 3 groups depending on learning levels. While 1 group receives tailored instruction from a teacher (who rotates among groups), the other 2 work independently on workbooks with the assistance of a teacher's aide (ARED 2022). Sierra Leone expanded the use of "Learning Circles," a remedial learning program that long has been used in the country by Street Child of Sierra Leone (Wurie, Mondiwa, and Karqbo 2023). Since 2020, across 16 districts, the Learning Circles program was used to advance the foundational literacy and numeracy skills of nearly 35,000 children through targeted instruction. An assessment of their learning outcomes from 2020 to 2022 found significant improvements in literacy and numeracy performance (Wurie, Mondiwa, and Kargbo 2023). The learning circles have been adopted as a "non-emergency period" method for remedial learning for least performing students nationwide.

Teachers have benefited from additional supports to ensure that remedial sessions are tailored to the needs of struggling students. Remedial sessions do not lead to greater learning when they repeat the same classroom experience for learners who were unable to grasp concepts the first time. Governments have provided teachers additional supports, trainings, and incentives to ensure that remedial sessions are more effective learning experiences for students with significant learning gaps. Romania implemented a national program that was prefaced by intensive trainings with teachers on remedial teaching. The government also encouraged teachers to build opportunities for remediation by enabling them to count remedial sessions toward their mandated weekly instructional hours. In the state of Gujarat,

India, a 12-week after-school remedial education program was implemented for 20 percent of the state's 9th grade students, selected based on their performance in a baseline assessment.²⁴ New workbooks were designed that mapped content to desired learning outcomes, and teachers were given workshops on how to use the material (UNESCO 2022).

Assessments can help identify students in most need of remedial support. In the Bicol region of the Philippines, a learning recovery plan known as Recovering for Academic Achievement by Improving Instruction through Sustainable Evidence-Based Learning Programs (RAISE) was a 3-year learning scheme to help the selected learners catch up and accelerate their education after 2 years of school closures (Calipay 2022). Under the 8-week Learning Recovery Curriculum program, approximately 400,000 learners participated in a series of catch-up and remedial learning opportunities designed around a condensed curriculum. The state Department of Education identified learners based on the results of the end-of-the-school-year rapid literacy and numeracy assessment (Calipay 2022). An initial assessment and evaluation of the program was conducted using the national Department of Education's Comprehensive Rapid Literacy Assessment. A post-assessment in October of 2022 showed that the number of grade-ready learners in grades 2 and 3 had increased by 18 percentage points each (Calipay 2022).

Tailoring catch-up learning through small-group tutoring

Tutoring rose in prominence during the COVID-19 pandemic. There is evidence of the effectiveness of high-dosage, small-group (2–6 students) tutoring, but the evidence depends greatly on the program's design and implementation (Education Endowment Foundation n.d.; J-PAL 2020a). Preferably, tutoring programs are (1) embedded in the school day; (2) facilitated by a teacher, paraprofessional, or trained volunteer; (3) targeted to smaller groups (of 6 or fewer); and (4) offered at least 3 times a week for 50 hours a semester. However, meeting all these recommendations may not be financially

or operationally feasible in all contexts (Education Endowment Foundation n.d.; Fryer 2017).

The high costs of tutoring programs may have curtailed their use as a COVID-19 recovery approach.

Of the 60 national education responses since the onset of the pandemic analyzed for this report, 25 percent implemented small group tutoring programs to combat learning losses. The high costs of these programs and staffing shortages may be one reason why more countries did not initiate them during the COVID-19 school closures and immediately on return to school. In some countries such as **Mozambique** and **Romania**, tutoring was reserved for students with the largest learning losses. Similarly, in **Mendoza**, **Argentina**, an additional eight hours of tutoring was provided per week to students with the poorest performance on the aforementioned Reading Fluency Census.

Innovative ways to keep down the costs of tutoring programs emerged during the pandemic. The **Dominican Republic** kept down costs by partnering with universities for a program based on a successful model implemented in Italy. In the pilot phase, the Tutoring Online Program recruited 200 volunteer university students and randomly matched them with 300 students from disadvantaged backgrounds in public secondary schools for personalized tutoring (J-PAL 2020b). Plans are underway to extend the program following the first implementation phase and to develop an open-access platform with resources for other interested agencies and governments. In Bangladesh, costs were minimized by using telephone tutoring. The program involved primary school children and their mothers during COVID-19 school closures. Children exposed to telephone tutoring scored 35 percent higher on a standardized test, and the homeschooling involvement of mothers increased by 22 minutes per day (an increase of 26 percent compared to a control group). Evidence from 1 year later shows that impacts on learning and homeschooling persisted. Academically weaker children benefited the most from the intervention, which cost \$20 per child (Hassan and others 2022).

The identification, training, and continuous support for tutors matters. The success of tutoring programs depends on the appropriate selection

of tutors and the adequacy of training and other supports. While volunteers can be beneficial, teachers and paraprofessionals with training, coaching, and compensation yield the greatest improvements in learning (Nickow, Oreopoulos, and Quan 2020). Countries that choose qualified teachers to serve as tutors have seen positive results but also had to bear greater compensation costs compared to programs that utilize volunteers; and ensure that the additional tutoring responsibilities on such teachers did not lead to burnout. In Spain, a secondary mathematics tutoring program targeting disadvantaged students in the regions of Catalonia and Madrid, called Mennores, selected qualified mathematics teachers as tutors. Unlike for Italy's Tutoring Online Program, there was not enough demand from university students to serve as volunteer tutors. Tutoring sessions were delivered online in groups of 2 students per tutor for three 50-minute sessions per week over 8 weeks. Mathematics performance of participating students improved by 0.26SDs (Gortazar, Hupkau, and Roldán 2023).

Individualizing learning through adaptive and self-quided instructional programs

Self-guided learning programs provide students with more tailored learning independent of extensive teacher interventions. Some countries had begun exploring technology-supported self-quided and adaptive approaches prior to the pandemic and invested additional efforts in them during school closures. An example is Uruguay's Plataforma Adaptativa de Matemática (PAM) now named ALEKS). To ensure that all students could access these materials, other countries, such as Cambodia and the **Dominican Republic**, developed home learning packages focused on paper-and-pen-based approaches. From the report database, 20 percent of countries had implemented adaptive and selfquided learning programs. Adaptive and self-quided instructional programs also have shown promise in supporting vulnerable student groups (box 5.2).

Self-guided instructional programs using adaptive technologies can target learning activities to students' levels. A review of 67 experimental or quasi-experimental studies to date on edtech in developing countries found self-led learning software

programs have consistent medium-to-large effects on learning (Rodriguez-Segura and Crawfurd 2020). The comparative advantage of technology-enabled adaptive learning programs is their ability to modify learning material in response to individual student performance (Muralidharan, Singh, and Ganimian 2017). In Nicaragua, rural multi-grade classrooms are receiving more age- and grade-appropriate instruction through an adaptive learning program, delivered via Mobile Digital Classrooms, which customizes content for students based on their current learning level (World Bank 2023a). In Uruguay, the digital ALEKS program, launched in 2022 for primary and secondary mathematics, has been availed to all secondary school classes and the Universidad del Trabajo del Uruquay, with resources for teachers on how to integrate its use into everyday instruction. The program's artificial intelligence (AI) algorithm designs personalized learning paths for each student. ALEKS uses adaptive questioning to determine a student's current learning level and construct a tailored set of activities, periodically assessing comprehension and progress. Students work independently through the

program, and teachers monitor the achievement of their students through an online portal.

Data from adaptive learning technologies has motivated student learning. In 2019 the Dominican Republic launched the Prográmate (in English, Educate Yourself) program, an adaptive learning technology for secondary-level mathematics. The platform was adapted for the national curriculum, and teachers were provided various pedagogical supports. Reaching nearly 12,000 high school students, Programáte adapted its content and lessons to the learning level of each student. Although various implementation challenges arose due to issues with digital literacy and broadband access, Programáte equipped teachers and students with beneficial learning data. Data from the adaptive learning program enabled teachers to monitor their students' progress. Moreover, students reported that such information also motivated them to keep learning and identify their own strengths and weaknesses (D'Angelo, Baron, and Polanco Santos 2023).

Box 5.2 Equity Highlight: Self-paced learning for children with disabilities in Ghana and the Dominican Republic

In **Ghana**, approximately 1 in every 5 children between the ages of 2 and 17 years has a form of disability or functional difficulty. Ghana's initial remote learning systems, including radio and television programs, were not accessible to children with disabilities (Agbe and Sefa-Nyarko 2020). However, later efforts to support children with disabilities included the national distribution of 3,000 tablets to children with special learning needs. These tablets were pre-loaded with digital versions of the curriculum and were designed to suit the needs of children with hearing or visual impairments. Now reaching over 7,000 students with disabilities, the tablets, programmed for self-paced learning, are ensuring that all children are able to catch up on lost learning (World Bank 2022b).

In the **Dominican Republic**, a single, integrated, and accessible set of home-based, low-technology learning materials was created and distributed during prolonged school closures to ensure accessibility to children with disabilities beyond audio-visual impairment, such as those with autism and intellectual disabilities (UNICEF 2022a). Two accessible education kits for students from preprimary through secondary included easy-to-use guides for both teachers and parents. Furthermore, a national study on teacher training needs regarding inclusive education was conducted and subsequent inclusive pedagogical plans and resources developed (UNICEF 2022a).

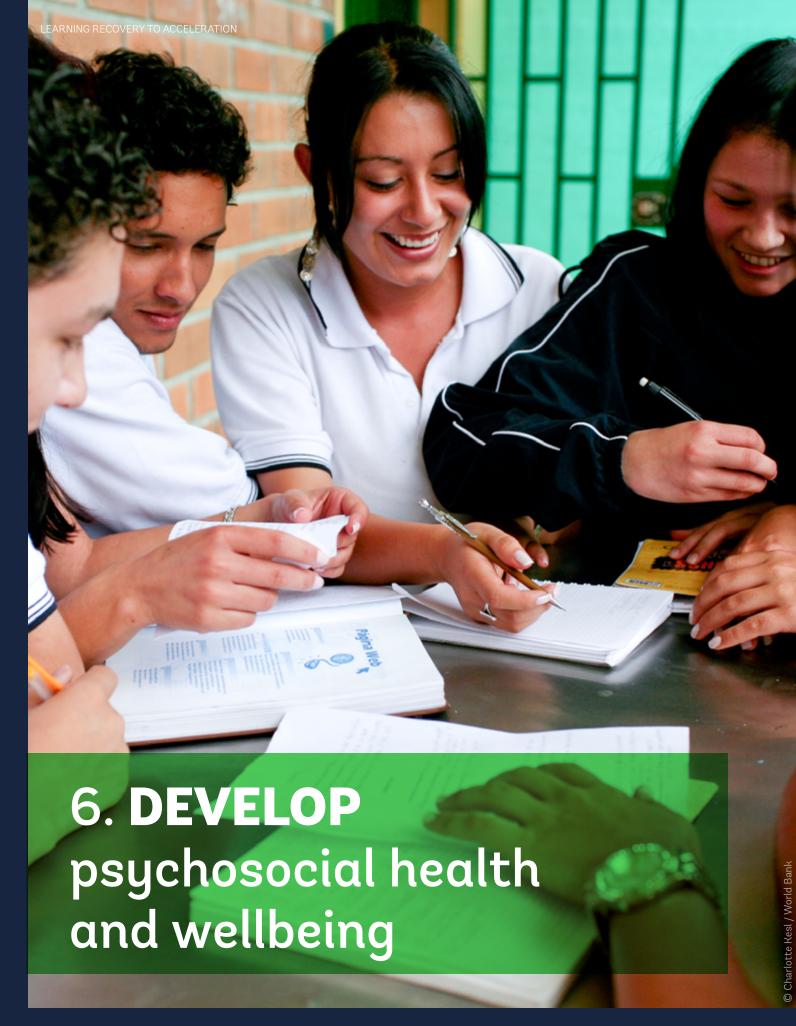
Source: World Bank 2022b, UNICEF 2022a.

Production of self-guided learning materials ramped up during the pandemic and, in some cases, are still being used. In Zambia, teachers were trained on how to prepare materials that learners could use without a teacher present (World Bank 2020b). The goal of the training was to produce low-cost, self-instructional materials that could be distributed to schools to share with students (USAID 2021). In Papua New Guinea, solar-powered Spark Kit tablets are being used to catch up students on lost learning through learning software programs and resources. The latter include short stories, textbooks, encyclopedias, educational games, and up-to-date lesson plans designed by the students' teachers (Kana 2022). The tablet program helps tailor learning to individual student needs and has been a positive supplement to both traditional classroom instruction and at-home learning.

5.5 CONCLUSION

Various policy options are available to countries to increase the efficiency of instruction and reduce learning inequalities that have widened during the pandemic. Many countries have used various approaches to combat learning losses and accelerate the pace of learning beyond pre-pandemic levels. Interventions to increase the efficiency of instruction by bolstering effective classroom teaching and providing additional supports or alternative options for struggling students depend greatly on country context. Changes to instruction and education supports require concurrent changes in the most crucial input for student learning: how education systems train and support teachers.

The low and slow pace of learning can be expected to continue unless teaching and learning approaches change to better match how children and youth learn. Current instruction methods tend to target higher performing students and are inflexible vis-a-vis accommodating students' needs. If such methods remain unaltered, learning will continue to be out of reach for millions of students around the world.





The problem

• The pandemic detrimentally impacted the psychosocial health and wellbeing of children and young people, increasing their levels of anxiety and depression. Many children and youth also report suffering psychosocial distress, including feeling worried, depressed, or having little interest in doing things.

Policy responses

- Fostering psychosocial health to prevent problems. Schools can play a vital role in youth's psychosocial health. They can prevent issues from escalating by (a) reducing the stigma around psychosocial health, (b) communicating about available resources, and (c) fostering students' socioemotional skills.
- Screening for early detection of psychosocial health issues. By regularly screening to detect whether a student is struggling with psychosocial health issues, schools can help prevent these issues from escalating.
- Intervening to help students with psychosocial health issues. Education systems can help students who are dealing with psychosocial health issues by (a) building mental health and psychosocial support (MHPSS) capacity at the school level, (b) putting in place referral systems, and (c) investing in teachers' socioemotional competencies.

Addressing the deteriorating psychosocial health and wellbeing of students is necessary for learning recovery. The pandemic's impacts on children and young people stretch beyond lost learning. During school closures, many children and young people experienced heightened stress and periods of isolation due to missing opportunities to connect with peers and develop socioemotional skills. Risk factors that contribute to poor psychosocial health increased, including poverty and domestic violence. The most disrupted among all essential health services during much of the pandemic were mental health and

psychosocial support (MHPSS). Improving children's psychosocial health and wellbeing is central for learning recovery and acceleration because they have profound implications for school attendance and learning. Schools cannot foster psychosocial health and wellbeing on their own. They need to strengthen partnerships with health and social protection institutions to meet the more complex needs of young people and engage with parents and the wider community. However, schools can promote student wellbeing by building students' and teachers' socioemotional skills. They also can help students

who are struggling with psychosocial issues through screening and early detection, referrals, and offering MHPSS services. Chapter 6 reviews countries' education policy responses to develop psychosocial health and wellbeing of students and teachers.

6.1 PANDEMIC'S DETRIMENTAL IMPACT ON PSYCHOSOCIAL HEALTH AND WELLBEING

The pandemic exacerbated the problem of poor psychosocial health by causing severe spikes in the global prevalence of anxiety and depression. Poor psychosocial health can interfere with children and youth staying in school and learning.

Rising global challenge of psychosocial health issues experienced by children and youth

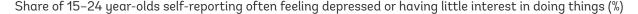
Children and youth were struggling with psychosocial health issues before the COVID-19 pandemic. Psychosocial health exists on a continuum. Most people experience periods of wellbeing and distress. However, even before the pandemic, a significant share of youth experienced often overlooked psychosocial health issues. Estimates

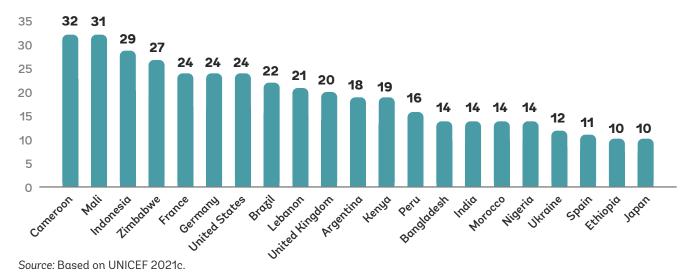
from 2019 suggested that 1 in 7 adolescents aged 10–19 lived with a psychosocial health condition, the most common being anxiety and depression (UNICEF 2021c). These estimates are based on limited data, particularly in low- and middle-income countries (Carvajal, Requejo, and Irwin 2021). Many of these conditions went undiagnosed and untreated due to significant gaps in MHPSS (WHO 2021).

Beyond diagnosed disorders, many children also reported frequently experiencing psychosocial distress. In a recent survey of 21 countries, 1 in 5 15–24-year-olds self-reported often feeling depressed or having little interest in doing things (figure 6.1). Over a third said they frequently experienced worry, anxiety, or nervousness (see figure 6.2) (UNICEF 2021c). Psychosocial distress is a normal part of life, and in the face of a global disaster that caused stress and isolation, spikes in distress are to be expected. Nevertheless, the high prevalence of psychosocial distress in young people was and is concerning because it can harm their development.

The pandemic triggered an increase in the prevalence of anxiety and depression (figure 6.3). Early evidence paints a concerning picture of

Figure 6.1 Self-reported feelings of depression in youth





Note: The data are based on phone interviews with 21,000 people in 21 countries. The samples are probability based and nationally representative of 2 distinct population groups in each country: people aged 15–24 and people aged 40 and older. These are self-reported feelings. Note that a loss of interest in doing things is a common symptom of depression.

Share of people who agree with the statement, by age group (%) 15-24 +40 59 Believe children today face more 56 pressure to succeed 36 Often feel worried, nervous, or anxious 30 19 Often feel depressed or have little interest in doing things 15 0 70 10 20 30 40 50 60

Figure 6.2 Attitudes and beliefs about psychosocial health

Source: Based on data from UNICEF 2021c.

Note: The data are based on phone interviews with 21,000 people in 21 countries. The samples are probability based and nationally representative of 2 distinct population groups in each country; people aged 15–24 and people aged 40 and older.

worsening psychosocial health issues among children and youth. The World Health Organization (WHO) estimates that the pandemic triggered at least a 25 percent increase in the global prevalence of anxiety and depression in the first year of the pandemic, with young people disproportionately affected (WHO 2022b). The negative impact of the pandemic on children and youth's psychosocial health and wellbeing is linked to several factors: isolation due to social distancing; experiencing violence; death and illness among family members; and concerns for family income loss and health. Estimates suggest that at least 7.5 million children were orphaned due to the pandemic (Hillis and others 2022). Children living in poverty were found to be at greater risk of stress and depressive syndromes, and there has been an increase in poverty during the pandemic, which pushed an additional 70 million people into extreme poverty in 2020 alone (Sharma and others 2021; World Bank 2022e).

Women and girls and youth were the hardest

hit. In the first year of the pandemic, global cases of depression and anxiety are estimated to have increased by 53 million and 76 million, respectively (COVID-19 Mental Disorders Collaborators 2021). Women and girls, who already were overrepresented in the global mental health disease burden, saw the greatest increases. Youth also were disproportionally affected, with the age group 20–25 experiencing the largest increases in anxiety and depression. Services linked to mental, neurological and substance use conditions were the most disrupted among all essential health services (WHO 2022b). To prepare for future shocks, these three areas are those for which greater resilience and continuation of services are most crucial.

374 400 350 350 298 246 300 193 Millions 200 150 100 50 0 Depression Anxiety 2020 2021

Figure 6.3 Global cases of anxiety and depression before and during the pandemic, 2020-2021 (millions)

Source: Based on data from COVID-19 Mental Disorders Collaborators 2021.

Link among psychosocial health, learning, and schooling

Addressing the psychosocial needs of children and youth matters in its own right – and for learning.

A growing body of evidence shows that psychosocial wellbeing is strongly related to better academic performance whereas poor psychosocial health negatively impacts a child's ability to concentrate and learn (Murphy and others 2015; Agnafors, Barmark, and Sydsjö 2021; Bas 2020; Woolf and Digby n.d.). Robust longitudinal evidence also exists that wellbeing is associated with positive student outcomes such as education engagement and success (Woolf and Digby n.d.). Poor psychosocial health is associated with aggressive and other disruptive behaviors, which can negatively impact the learning environment and the amount of learning that takes effect in the classroom (Carrell, Hoekstra, and Kuka 2016). Furthermore, psychosocial health problems increase the risk of repeating a grade as well as dropping out of school (Schulte-Körne 2016). Given these strong links between psychosocial health, learning, and schooling, it is important that, in their learning recovery and

acceleration plans, education systems include activities to safeguard children's psychosocial health and wellbeing. Responses to the joint survey suggest that 62 percent of responding countries provide psychosocial and mental health support to students (UNESCO-UIS and others 2022). The following section reviews education policy responses to develop the psychosocial health and wellbeing of children and youth.

6.2 FOSTERING PSYCHOSOCIAL HEALTH AND WELLBEING

Schools can play an important role in improving children and youth's psychosocial health and wellbeing and prevent issues from escalating in three ways: by reducing the stigma around psychosocial health, communicating about available resources, and fostering students' socioemotional skills.

Reduce the stigma around psychosocial health issues

Schools can reduce the stigma around psychosocial health issues. Despite the worldwide prevalence of psychosocial issues and the increasing awareness of the importance of psychosocial health, the stigma persists. Stigma can lower individuals' self-esteem, lead to shame, and prevent children and young people from speaking out and seeking treatment for fear of rejection (UNICEF 2021c). Education systems can play an important role in preventing stigma and thereby reducing its negative consequences. Communications campaigns around psychosocial health can help raise awareness about available resources and reduce stigma. Psychosocial health should be an integral part of wellbeing, enabling children and youth to think, learn, work, cope with stress, connect with others, and participate in society (UNICEF 2021c).

In **Jamaica**, the Ministry of Education has taken steps to mainstream MHPSS throughout the system, developing a System of Care to help children at risk of emotional, and behavioral challenges. Student support teams develop intervention plans and collaborate with general counsellors or teachers to implement, manage, evaluate, and refer students (World Bank and others 2022). During COVID-19, Jamaica built out this system,

implementing subnational plans and mandating schools to develop their own psychosocial response plans. In addition, in October 2022, the School Mental Health Literacy program was launched to train 500 school staff, including the educators, school nurses, and quidance counselors in Jamaica's 177 secondary schools. The intended beneficiaries are the country's 21,000 grade 9 students. The aim of the training is to increase staff and student awareness and competencies in four areas: how to maintain mental health, understand mental disorders and their treatments, decrease stigma, and enhance knowledge of available resources and when and where to get help (Jamaica, Ministry of Health and Wellness 2022). In Ethiopia, the Speed Schools program incorporates activities to support the psychosocial health and wellbeing of students and teachers affected by conflict-related trauma (see box 6.1)

Prevent mental health issues by fostering socioemotional skills

School-based socioemotional learning (SEL) programs have successfully improved student wellbeing. Social skills enable interaction and connection with other people, while emotional skills enable people to deal with emotions. SEL can be defined as "the process through which all young people and adults acquire and apply the knowledge,

Box 6.1 Equity Highlight: Addressing trauma and destigmatizing psychosocial health in Ethiopia

In Ethiopia, started in 2011, the Speed Schools model being implemented nationally is an accelerated learning program for children aged 9-14 that delivers the first 3 years of the Ethiopian government's primary school curriculum in just 10 months (Muskin and Kaper-Barcleta 2021). In Northern Ethiopia, conflict broke out in 2021 and continues to affect the population, including through a displacement and refugee crisis. As a result, teachers, families, and students were, and are, coping with loss, stress, and trauma. Many children have missed schooling. Therefore, in the northern state of Amhara, the Speed School program was adjusted to provide remediation and incorporate activities to develop the psychosocial health and wellbeing of teachers and students. Before training the students, teachers were given specific activities to help them recover. These activities included expressing deep sympathy for one another, having a moment of silence and tears for the war-time losses they experienced, a moment of hope to regain resilience, and a moment of outspoken emotions during which teachers could speak freely. Teachers then were trained in MHPSS on how to support students through activity-based learning drills focused on healing and how to make school a safe space.

Source: Wollie 2023.

skills, and attitudes to develop healthy identities, manage emotions and achieve personal and collective goals, feel and show empathy for others, establish and maintain supportive relationships, and make responsible and caring decisions" (Collaborative for Academic, Social, and Emotional Learning n.d.). Research has consistently demonstrated the value of SEL (Durlak and others 2011; Taylor and others 2017). A meta-analysis of 82 school-based SEL programs found that participants faired significantly better on outcomes measuring the development of socioemotional skills, attitudes, and wellbeing 6–18 months after the intervention (Taylor and others 2017).

Socioemotional skills can prevent mental health issues from escalating and help students manage them. It is important to emphasize that SEL is not a substitute for treatment for mental health disorders. For example, children and youth struggling with depression should be treated. However, SEL can

have a positive effect on mental health, including through reducing stress (Durlak and others 2011). It can be a helpful tool in managing symptoms of mental disorders. SEL also can help create safe and supportive environments for all children, help students build relationships, reduce the stigma of mental health difficulties, and encourage children to seek help when they need it. Investing in school-based socioemotional programming can help children and youth build these critical SEL skills, improve their own wellbeing, prevent issues from developing, and help them manage them if they arise. For example, for the 2022-23 school year, **Ecuador** unveiled a new prioritized curriculum that emphasizes socioemotional competencies as an essential component. In Colombia, a successful program (box 6.2) helped primary school students build empathy, providinglessons for other SEL programs. Of the 60 national education responses in this study's sample, 25 percent increased the amount of instructional time given to socio-emotional learning.

Box 6.2 Colombia: Investing in school-based programming for socioemotional skills

The program Emotions for Life (Emociones para la Vida) has been implemented in 4,500 schools in **Colombia**, serving approximately 2.0 million primary students. The overall objective of the program is to strengthen students' socioemotional skills. The key program strategies are to raise teachers' awareness of socioemotional skills, strengthen teachers' capacities to build students' socioemotional skills, and motivate teachers to teach socioemotional skills in the classroom. The program prioritizes three dimensions: (a) knowing and managing one's own emotions, (b) understanding the points of view of others, and (c) resolving conflicts through creative and peaceful means.

Designed in 2017 by the District Education Secretariat (SED), the program was piloted and evaluated in 2 phases in a group of official schools in Bogotá. In the first phase, implemented in August 2018, a group of SED officials received training and subsequently trained, accompanied, and provided feedback to program teachers. The teachers were trained on program objectives, managing sessions, and using materials while utilizing positive discipline and managing student behavior in line with SEL principles.

According to surveys, teachers found the program to be highly relevant. It sensitized them to the importance of SEL and increased their SEL skills. Challenges to implementation included insufficient program materials and lack of school time in the calendar to implement the program. The second phase in 2019 incorporated teacher feedback, added schools, extended the implementation period to a full school year, brought school counselors into the program, and provided additional materials.

An impact evaluation of the pilot program showed that that the program had positive effects on empathy among the student body and increased the frequency with which students reported witnessing bullying. Among students who self-reported generating bullying in 2018, the program significantly improved their emotional regulation.

The findings of the impact evaluation revealed the following key lessons: (a) continue with socioemotional development strategies throughout the educational trajectory; (b) develop the SEL of teachers and their capacity to develop students' SEL; (c) make socioemotional development a whole-school strategy; (d) include the participation of families; and (e) strengthen attention to vulnerable populations. The program was scaled nationally in 2021.

Source: World Bank 2019c.

6.3 SCREENING FOR EARLY DETECTION OF PSYCHOSOCIAL HEALTH ISSUES

Given the great deal of time children and youth spend in school, teachers and other adults in school are uniquely placed to detect whether a student is struggling with psychosocial health issues. Regular screenings can help systemize detections and help school staff pick up any warning signs and thereby prevent students from falling through the cracks.

Importance of regular screening and early detection

Many children and adolescents suffering with mental health issues never receive treatment. Due to limited access to MHPSS services, there is a great gap between those who need help and care available (WHO n.d.). In 2020 governments around the world spent on average just over 2 percent of their health budgets on mental health (WHO 2022a). Many low-income countries have fewer than 1 mental health worker per 100,000 people. Given the large gaps in services, schools can play a crucial role in identifying students struggling with their mental health and providing them with appropriate resources.

Schools can identify students in need of help, but most countries do not screen for psychosocial issues. Compared to hospitals and medical offices, schools can be a less threatening environment for students in need of help. The support can take various shapes; for example, offering mental health and psychosocial support from a health practitioner or trained professional such as a school counsellor; establishing a process for teachers, students, and staff concerned about the mental health of a school peer (a care network for a specific peer); and having readily available information about in-person or telecounselling services. Perhaps one of the most important roles schools can play is through early detection: identifying students at risk of developing psychosocial health problems. However, the joint survey indicates that fewer than half of responding countries reported assessing the pandemic's impact on students' psychosocial health and wellbeing (UNESCO-UIS and others 2022).

Some countries stand out for strong psychosocial screening practices. In Romania, the government recommends that all schools screen students aged 11 years and above using the SASAT.ro, a robust questionnaire to screen for student wellbeing, adapted to the Romanian context. Schools are recommended by the government to use SASAT.ro biannually, at the beginning of each semester (World Bank 2019a). Each student fills out the form in the company of a trusted supervisor such as the school counselor. The questionnaire takes approximately 15 minutes and has 3 sections: you and your family; at school; and your future plans and aspirations. The 3 sections cover 9 characteristics linked to dropout and earlyschool-leaving such as parental engagement and students' sense of belonging at school. Research has shown that, for vulnerable schools in Romania (often with a high share of Roma students), not perceiving school as a place where one enjoys going is one of the strongest predictors of school dropout and school performance (Jasińska-Maciążeka and Tomaszewska-Pekała 2017). The results from this screening are used along with other analytics as part of the EWM (chapter 2) to prevent dropout. At the school level, an education services plan for a student at risk of dropout is established, that outlines the type of support services and benefits the student should receive. Measures include tutoring, after-school programming, school supplies, and special needs support or counselling (World Bank 2019a). Another example of comprehensive screening of students' psychosocial functioning is under Chile's Skills for Life program (box 6.3).

Box 6.3 Chile's approach to students' psychosocial wellbeing

As part of the comprehensive plan for learning recovery, "Let's Be Community" (Seamos Comunidad), Chile's Ministry of Education is providing specialized teacher training in the 60 priority districts (comunas) that are experiencing the highest levels of school violence to empower teachers to support mental wellbeing and socioemotional learning. MOE also is expanding the school-based mental health program, Skills for Life (Habilidades para la Vida), which provides mental health support to at-risk students through programming that fosters wellbeing and socioemotional skills development.

Skills for Life includes mental health screenings and interventions for elementary, middle, and high-school students in the participating schools. Each year, some 676,000 students participate at the 3 levels. The program includes a screening of students' psychosocial functioning completed by teachers and parents. Students whose psychosocial wellbeing was identified as "at-risk" by these instruments are referred to a 10-session workshop-based intervention. In addition, the interventionist held 3 workshops with the students' parents, and 2 with their teacher. Led by a psychologist, these workshops take 1.5–2.0 hours of regular class time and center on discussions and activities that promote self-esteem and develop skills for coexisting with others. Research has shown that participation in workshops for at-risk students in second grade improved behavioral and academic outcomes, including classroom adaptation, mental health, and school attendance. Workshop attendance in sixth grade correlated significantly with improvements in school attendance and peer relationships in eighth grade. During 2023, the program is expected to grow by 25 percent, to reach 3,250 schools in the country.

Source: Avitable and others 2022; Chile, Ministerio de Educación 2022; Chile Attiende 2023; Canenguez and others 2022; Guzmán and others 2015.

6.4 INTERVENING TO SUPPORT PSYCHOSOCIAL HEALTH

Schools can intervene to help students who are dealing with psychosocial health issues by building MHPSS capacity at the school level, investing in referral systems and building teachers' SEL competencies.

School-based MHPSS interventions can be cost effective

School-based MHPSS interventions can effectively treat children for psychosocial health issues. Schools can be places for support, care, and connectedness in a child's life. Schools are important platforms to reach students who have mental disorders and increase access to services that otherwise would be inaccessible to many adolescents from low- and middle-income countries. Schools are promising

settings for mental health interventions and psychosocial support (Kocher and others 2021). Cognitive behavioral therapy (CBT) interventions have improved socioemotional skills and mental health in low-income countries (Barker and others 2022).

School-based mental health programs are cost effective (UNICEF 2021c; Kocher and others 2021). Beyond the devastation to individuals of untreated mental health disorders, they are a large cost to countries' economies. The annual loss of human capital due to mental health conditions is estimated at US\$387 billion (PPP) (UNICEF 2021c; McDaid and Evans-Lacko 2021). Every US\$1 invested in scaled-up treatment for common mental health issues leads to a return of US\$5 in improved health and productivity (WHO 2022c). The returns to a country's economy over time are significant, especially in MICs, in which every US\$1 spent on mental health care in schools can generate up to US\$89 in returns over 80 years (Kocher and others 2021). Figure 6.4 shows an

estimate of the long-term return on investment over time in school-based mental health interventions focused on the prevention of anxiety, depression, and suicide.

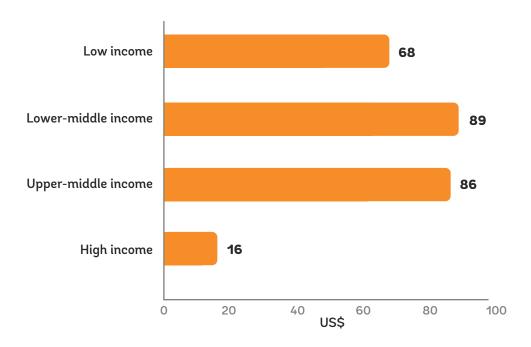
Build capacity at the school level and establish referral systems

Some education systems brought in professional MHPSS staff at the school or district levels. At the school level, MHPSS professional staff may include school psychologists, school counselors, or other qualified service providers. Bringing in relevant professionals was not a common response, likely due to resource constraints. In the 2021-2022 school year, only an estimated 27 percent of lowand middle-income countries reported recruiting specific personnel such as counselors to support students' wellbeing (figure 6.5). In the state of São Paulo in Brazil, the Secretary of Education

launched a program aimed at 5,100 public schools in the state's 645 municipalities. One thousand psychologists are available to support students, teachers, and other workers of the state educational network. The program provides a 40,000 weeklyhours counseling package. Depending on the school's demand, each school has 2 to 20 weekly hours of counseling, (Avitabile and others 2022). In Mongolia, the government has deployed mobile psychologists to schools (box 6.4). Similarly, Romania has invested in approximately 1,200 additional school counsellors, bringing the ratio of school counsellors to students to 1:800. Systems also prioritized sending professionals to schools with the highest need. In Ecuador, once schools reopened, school administrators were required to complete a SEL evaluation of their student body. Schools with high rates of SEL issues gained access to a district-level psychologist.

Figure 6.4 Return on investment in school-based mental health interventions (US\$)



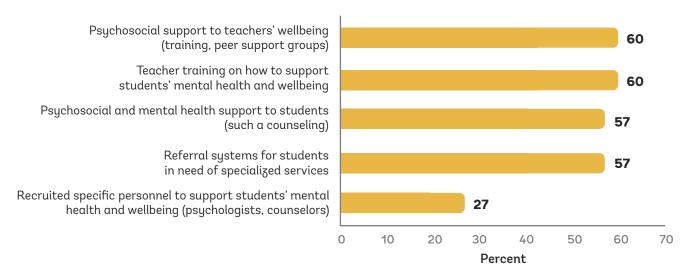


Source: Based on data from Kocher and others 2021.

Note: The figure shows an estimated long-term return on countries' investments in school-based mental health interventions focused on preventing anxiety, depression, and suicide in adolescents over 80 years. For each US\$1 invested in low-income countries, the economy could see returns of US\$68.

Figure 6.5 Low- and middle-income countries' MHPSS policy responses, 2021–22

Share of LMICs reporting offering specific MHPSS services (%)



Source: Based on data from the joint survey (UNESCO-UIS and others 2022).

Note: Results are based on responses from ministries of education. For each question, only low- and middle-income countries with valid responses are included (this varies from 45 to 48 countries depending on the survey question).

Box 6.4 Mongolia: Comprehensive response to improve adolescent mental health and wellbeing

The Government of **Mongolia** has invested in a multipronged approach to improve adolescent mental health and wellbeing. The approach involves students, teachers, school staff, and parents. The government also has invested in training and deploying school psychologists.

After Mongolia closed schools in response to COVID-19, the Ministry of Education and Science organized virtual trainings for education professionals on how to support the mental health and psychosocial wellbeing of students. Mental health counselling was introduced in secondary schools in two provinces. Capacity building for school doctors and social workers also was introduced. The national teacher in-service training now includes some counselling training. In total, 1,130 school social workers, doctors, and teachers have participated in training on school counselling.

As part of their learning recovery response, the Government of Mongolia deployed mobile psychologists to schools to help provide MHPSS services. There is now 1 psychologist for every 3 schools in Mongolia. Hiring these mobile psychologists has been a significant investment for the country, and one that is understood to have been welcomed by teachers and school leaders.

In addition, 57,000 adolescents in 7 provinces have benefitted from the life skills programs My Family for ages 10–14 and My World for ages 15–18. The programs focus on practical life skills and promote communication with families, peers, and teachers. The efforts include parents and caregivers through parents' evenings in school communities and education modules for parents that seek to reduce stigma around mental health.

Source: UNICEF 2022e.

Training teachers to give basic MHPSS services and offering tele-counselling are low-cost alternatives.

If, due to capacity and resource constraints, bringing in professional staff is not feasible, schools may train teachers or other staff to provide a baseline of support. For example, in **Mozambique**, since 2021, 83,000 primary school teachers in 6 provinces have been trained to use an MHPSS training manual (UNICEF 2021a). The MOE has integrated this manual in on-the-job teacher training. To the extent that services are available at the national or regional level, schools can implement referral systems for students who need additional support beyond what schools can offer. Estimates suggest that approximately 57 percent of LMICs indicated implementing such referral systems (UNESCO-UIS and others 2022).

Another low-cost way to support psychosocial wellbeing is through tele-counselling, which many countries scaled during the pandemic. In India, the Ministry of Education launched a toll-free national helpline that students can call to seek counseling support, and a web portal that since has been expanded to include a range of psychosocial health resources, as well as an interactive chat system that students can use to receive support from trained first responders. In Jamaica, the Ministry of Education deployed a tele-counselling service in which 36 psychosocial helplines were made available for parents throughout the country, and more recently, ParentText, a mobile texting service that provides parenting advice. In the Dominican Republic, the Contigo Family Hotline is a tool for psychosocial support for children, adolescents, and their families to mitigate the mental health impacts of the pandemic. This free hotline is offered via landline, WhatsApp calls, WhatsApp chats, web chat, and videocalls (World Bank and others 2022).

Invest in teachers' socioemotional competencies and resilience

- 66 Research shows that teaching is one of the most stressful occupations; moreover, stress in the classroom is contagious—simply put, stressed-out teachers tend to have stressed-out students. ??
 - -Kimberly Schonert-Reichl, developmental psychologist (Schonert-Reichl 2017).

Teachers experienced increased stress during the pandemic and are at increased risk of burnout.

Because of personal stress, uncertainty surrounding school closures, and increasing job demands, teachers experienced additional stress during the pandemic. Overnight, teachers were tasked with delivering remote learning through new modalities, often with inadequate training, preparation, and infrastructure. Many teachers needed to provide additional socioemotional and psychosocial support to students. Although limited, early data from multiple countries suggests rising levels of teacher burnout, stress, and depression (Algassim and others 2022; Bartosiewicz and others 2022; Pellerone 2021). Burnout can result in absenteeism and even lead teachers to leave their jobs (Pellerone 2021). There is some indication that the problem with teacher absence grew during the pandemic (2020-2022): in the joint survey, about 50 percent of responding countries reported increased teacher absences (UNESCO-UIS and others 2022).

Teachers' wellbeing matters, including for students' social, emotional, and cognitive development.

There is a strong relationship between teacher wellbeing and student development. Jennings and Greenberg (2009) developed a prosocial model of the classroom that highlights the impact of teachers' socioemotional wellbeing on students' academic and behavioral outcomes. Teachers with higher levels of socioemotional competence create more supportive relationships with students, more effectively manage classrooms, and more effectively teach socioemotional skills to students (Jennings 2016). Teachers with higher levels of emotional intelligence are better able to constructively manage conflict in the classroom (Valente and Lourenço 2020). These higher levels of emotional intelligence feed back into teachers' relationships with students, stress, and socioemotional skills; and can help establish a positive cycle. However, the relationship between teachers' wellbeing and socio-emotional skills and the classroom climate can also turn negative—what authors call a "burnout cascade" — a deteriorating classroom climate that leads to increased burnout as the teacher tries to manage it (Jennings and Greenberg 2009). Given teachers' crucial role in recovering and accelerating learning, supporting teachers and investing in their socioemotional competency and resilience are paramount.

There are promising initiatives to reduce teacher stress and build their socioemotional skills. Despite documentation of teacher stress and burnout during the pandemic, the evidence available on interventions to reduce it and build teacher resilience is nascent. However, education systems around the world innovated during the pandemic, and several new programs are showing potential. According to the joint survey, an estimated 60 percent of low- and middle-income countries responded that they offered psychosocial support to teachers to support their wellbeing through training and peer support groups (UNESCO-UIS and others 2022). One example was

Honduras, in which a pre-pandemic teacher wellbeing program, initially focused on reducing educator stress that was negatively affecting students' motivation, wellbeing, and academic performance, transitioned into a virtual program that prioritized restorative practices. These included peer circles for educators and promising self-care and resilience training (Davis and Páyan-Luna 2022). Nongovernmental organizations, including in India, Mexico, and Uganda, also have provided programming for teachers with promising results (see box 6.5 for details on an intervention in Mexico).

Box 6.5 Mexico: Promising socioemotional learning program for educators

Educating for Wellbeing, or *Educar para el Bienestar* (EpB), is a socioemotional learning program training educational professionals to promote the wellbeing of early childhood and preschool children. Developed and implemented by AtentaMente Consultores, the program trains teachers and managers to (a) develop their own socioemotional competencies to improve their own wellbeing, performance in the classroom, relationships with students, and classroom climate; (b) implement strategies to promote students' SEL in the classroom; and (c) implement strategies to systemically integrate SEL into school culture.

Specifically, the program consists of four training stages, a classroom curriculum designed to develop and model socioemotional competencies in the student body, and a mobile application. Additionally, a leadership group is formed to plan and implement strategies to systematically promote SEL in the school and community. Throughout the process, teachers receive tools, strategies, and ongoing support from tutors and mentors.

A randomized controlled trial evaluated the impacts of EpB programming on educators and students. Results found that the program improves emotional regulation, prosociality, self-efficacy, and self-knowledge among educators; and yields increases in prosocial behavior and emotional regulation among students. Results were stronger for students of educators who implemented more of the recommended strategies and classroom accompaniments.

Between 2018 and 2022, EpB has been implemented in 14 states in Mexico, and the program has benefitted over 15,000 educators and managers and 450,000 preschool, primary, and secondary school students.

Source: Chernicoff-Minsberg, forthcoming.

6.5 CONCLUSION

Investing in children and youth's psychosocial health is crucial to recover and accelerate learning.

The pandemic and related school closures worsened the psychosocial health of children and youth. To successfully recover and accelerate learning, countries are incorporating activities in their policy responses to develop the psychosocial health and wellbeing of students and teachers. Schools are using preventive socioemotional programming to safeguard students' psychosocial health. Some countries have invested in school counsellors and psychologists. Others mainstreamed MHPSS services across the education system. These countries also are building awareness about psychosocial health in schools to reduce stigma and training staff to strengthen competencies at the school level. Promising initiatives are underway to support the socioemotional competence and resilience of teachers to enable them to support students.

Despite promising individual initiatives, in the sample of 60 low-and-middle income countries explored, MHPSS capacity in many schools remains low, and screenings for psychosocial health issues are rare. Providing teachers with basic training to help identify and support students who are struggling is an important first step in building school-level capacity to improve student wellbeing. More education systems should consider investing in low-cost mental health programming at the school level, which has proved effective in improving students' wellbeing and can bring great returns to students over their lifetimes. It is especially important for countries to build students' and teachers' resilience to better prepare for potential future shocks and interruptions to education.



7. Putting it all together and concluding remarks

The problem

• The urgency of the learning crisis is not yet reflected in country actions. With education budgets falling in low- and lower-middle-income countries and the systematic underestimation of the learning crisis, government actions are not measuring up to its severity.

Policy responses

- Fostering political and public commitment behind a long-term vision and plan. Political commitment to combat the learning crisis after the onset of the COVID-19 pandemic has been shown through broad recognition of the severity of the learning crisis and the development of a multiyear, multi-initiative response.
- Identifying opportunities and constraints in resources and capacity. Once they had developed
 their plans for learning recovery and acceleration, countries assessed the unique needs of their
 education systems, alongside their resources and capacity, and acted to fill gaps.
- Aligning the education system toward learning recovery and acceleration. Efforts to pull
 education systems out of the learning crisis exist within broader systems that, typically, are
 poorly aligned with learning. Sustainable recovery and acceleration programs have been built
 around a coalition of aligned actors, coherent with other components of the education system,
 and have enabled continuous iteration during implementation.

Chapter 7 has 2 distinct parts:

- a. Putting it all together. Outlines the key steps countries have taken to design, build support for, and implement learning recovery and acceleration plans, in addition to efforts made to ensure that education systems build resilience toward future shocks (sections 7.1 to 7.4).
- b. Conclusion. Offers concluding remarks and recommendations for countries as they advance toward recovering and accelerating learning (section 7.5).

Learning recovery and acceleration require a package of mutually reinforcing policies driven by committed governments and unified coalitions.

Recovering learning losses and accelerating learning in an education system require more than a few

quick evidence-based ideas with a budget and a handful of committed actors who can implement them. The complexity of improving learning requires a comprehensive, multi-pronged approach: a package of coherent learning recovery and acceleration policies. To generate public support and political commitment, these plans usually start with building awareness of the severity of the learning losses and the multifaceted nature of the problem facing children and youth. Given their available resources and capacity, countries that had a clear understanding of their opportunities and constraints acted quickly. Their understanding enabled them to quickly select feasible policy responses and mobilize their assets and capacities, including partnerships when needed. The characteristics of successful learning recovery and acceleration plans have been (a) understanding the severity of the crisis and their opportunities and

constraints, (b) coordinating a diverse set of actors, (c) ensuring that the various policy responses are aligned, and (d) continually iterating to improve.

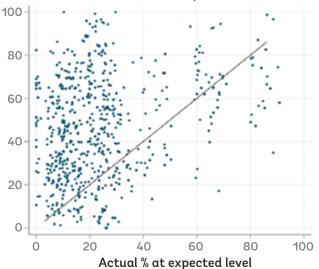
7.1 URGENCY OF THE LEARNING CRISIS NOT YET REFLECTED IN COUNTRY ACTIONS

Some countries have yet to internalize the magnitude of the learning crisis and the depth and complexity of the response required. A 2020 survey of 35 low- and middle-income countries found that education officials tended to underestimate the severity of the learning crisis and the education sector's role in addressing it (figure 7.1). An analysis of national commitments resulting from the 2022 Transforming Education Summit reveals that foundational learning and the learning crisis were remarkably absent from national education priorities (Crawfurd, Hares, and Oyewande 2022). From the report database, only 18 percent of countries had an explicit strategy, plan, and program for recovering and accelerating learning.

Figure 7.1 Officials underestimate the severity of the learning crisis

Bureaucrats' estimated share of students in their country who could read by age 10, compared to actual share

Bureaucrat estimates of % at expected level



Source: Crawfurd, Hares, and Sandefur 2021.

A decline in education budgets indicates a lack of governments' commitment to combat the learning crisis. After the onset of the COVID-19 pandemic, 40 percent of low- and lower-middle-income countries reduced their spending on education by an average of 13.5 percent. Whereas most spending for education was recovered in higher income countries, in 2022 education budgets in low- and lower-middle incomes countries continued to decline (World Bank and UNESCO 2022). An adequate response to the situation requires public awareness of the severity of the learning crisis and a political commitment to address it.

Narrow, short-term activities will not lead to learning recovery and acceleration

The magnitude of change required to combat the learning crisis has not been realized by many countries. Governments in many countries have attempted to move past the pandemic without fully addressing its repercussions. Of a sample of 34 Sub-Saharan African countries, only 3 had implemented long-term remedial measures to protect learning during the pandemic (Acasus, forthcoming). Eleven countries did not implement any remedial learning programs, as of 2022 (figure 7.2). After reopening schools safely, many education systems returned to "business-as-usual." Failing to appreciate the magnitude of learning losses, their long-term consequences, and the changes required obstruct governments' ability to recover and accelerate learning.

Note: Across 35 countries, 900 officials were asked to estimate the share of students in their countries who could read by age 10. Compared to estimates of the actual shares of students who could read by age 10, calculated using the World Bank Learning Poverty indicator, officials systematically, and in some cases dramatically, overestimated the share of pupils who could read.

25

sal 40

15

10

Not implementing remedial measures short-term remedial long-term remedial

measures

Figure 7.2 Remedial learning measures reported by 34 Sub-Saharan African countries

Source: Based on data from Acasus, forthcoming; UNESCO-UIS and others 2022.

If unaddressed, the long-term impacts of current learning losses could be substantial. Available evidence suggests pandemic-related learning losses likely will affect current students throughout their lives unless significant preventive actions are taken. Students marginalized prior to the pandemic have been disproportionately affected by school closures and likely will feel the effects of the crisis more keenly throughout their lives. Without sustained policy action, today's students could lose as much as 25 percent of their potential lifetime earnings due to COVID-related learning losses (Schady and others 2023). This percentage could amount to US\$21 trillion in present value, equivalent to 17 percent of today's global GDP (World Bank and others 2022b).

Some countries have implemented comprehensive and multiyear initiatives to recover and accelerate

learning. Governments that recognize the severity of the learning crisis have accepted the necessity to make significant changes. These governments have implemented a set of well-coordinated policies and interventions, such as adding instructional time, focusing the curricula on the most crucial content, and introducing remedial programs. Successful responses often have developed multistage plans to recover learning over a longer period. They often were supported by a coalition of stakeholders who recognized the many facets of the learning crisis and committed themselves to a multidimensional response. Countries with such strategies could direct a coherent package of programs toward a shared vision in which learning was prioritized. Although such learning recovery and acceleration packages discussed in this report are still perfectible, successful countries followed most of the steps outlined in figure 7.3.

measures

Figure 7.3 Steps for learning recovery and acceleration, from design to implementation

Learning recovery and acceleration: From design to implementation	
Build support	By fostering political and public commitment behind a long-term vision and plan
Prepare	By identifying opportunities and constraints in resources and capacity
Develop an enabling environment	By aligning the education system toward learning recovery and acceleration

Source: World Bank.

The COVID-19 pandemic and other disruptions have highlighted the need to build resilient education systems. The September 2022 Pakistani floods and the February 2023 earthquakes that struck Türkiye and Syria are devastating reminders of the vulnerability of today's global education systems to shocks. The increasing frequency and intensity of shocks around the globe have strengthened the case for building resilience in education systems. As defined by USAID, resilience is "...the ability of... systems to mitigate, adapt to, and recover from shocks and stresses in a manner that reduces chronic vulnerability and facilitates inclusive growth" (Shah 2019). Central to building resilience is seizing the opportunity to learn from prior disruptions and understand why certain system elements are less or more affected by disruptions (Shah 2019). The steps outlined in figure 7.3 are not specific to recovery from the COVID-19 pandemic. They also can support countries in navigating and overcoming disruptions resulting from other shocks.

7.2 FOSTERING POLITICAL AND PUBLIC COMMITMENT BEHIND A LONG-TERM VISION AND PLAN

Political commitment to an ambitious learning vision is vital to sustain at-scale learning recovery and acceleration efforts. The extent of the learning crisis requires substantial reform in education. Countries aiming to recover and accelerate learning beyond prepandemic levels require specific, concrete actions from political actors. Politicians need to commit precious time, resources, and political capital; take risks; and incur opportunity costs to challenge engrained practices and better align education systems for learning (Manor 2004). Overcoming the learning crisis requires substantial political commitment: the collective will of actors to take actions to achieve a set of objectives and to sustain the costs of these actions over time (Brinkerhoff 2010). During the pandemic, some countries demonstrated political commitment to improve education through comprehensive strategies, based on consultations with stakeholders, that recognize a complex mix of new and old challenges and articulate a multifaceted solution to directly address learning recovery.

Recognizing the learning crisis as a severe and multifaceted problem

For countries with prolonged school closures, the education-related challenges of the pandemic were numerous. After remote learning systems proved untenable, governments needed to ensure student and teacher safety before reopening schools. After prolonged school closures, some students and parents required encouragement and holistic support to return to school. Some students coming from disadvantaged backgrounds also required novel approaches to curricula, teaching and learning practices, and assessment to address learning gaps. Such changes required substantial motivation and skills from teachers, school leaders, and officials. All these efforts could be jeopardized if the rising prevalence and severity of student psychosocial health are not adequately addressed.

Even prior to the pandemic, the origin of many learning recovery and acceleration programs was the recognition of the learning crisis. Countries that committed resources to recover and accelerate learning first had recognized the low and slow pace of learning prior to the pandemic and, for those who experienced prolonged school closures, the severity of the pandemic's impact on students. Côte d'Ivoire's, Edo, Nigeria's, and Zambia's learning acceleration efforts preceded the pandemic. They were motivated by shockingly low learning assessment results. Other learning recovery and acceleration efforts, such as those of Mendoza, Argentina, and Mongolia, were bolstered once pandemic-related learning losses were better understood and publicized. Some countries took particular care to focus on the most vulnerable students in their learning recovery and acceleration efforts (see box 7.1).

Large-scale assessments of student achievement helped illuminate the magnitude of the learning crisis, both before and after the onset of the pandemic.

In past successful education reforms, education data helped drive an initial "wake-up" shock for the system and public while also serving as a baseline to benchmark progress (Crouch 2020). Effective learning recovery and acceleration strategies were founded on solid evidence of how the learning crisis in a particular national context had evolved during the pandemic

Box 7.1 Equity Highlight: Achieving equitable outcomes in learning acceleration packages

The learning crisis exacerbates the urgency to support the most vulnerable students. The pandemic's inequitable impact on student learning, and its resultant widening of learning gaps, presented countries with an opportunity to address the necessity to support the most vulnerable. In Romania, the pandemic's impact on vulnerable students catalyzed specific interventions for Roma, poor, and refugee children. During the pandemic, Mongolia undertook a series of activities to improve educational opportunities for children with disabilities and other vulnerable student groups, specifically, revising the curriculum, teaching practices, and school facilities to be more representative, inclusive, and accessible. In Kenya, the disaggregation of learning data, attendance monitoring, and the production of school-based assessment reports enabled closer monitoring of vulnerable students.

Few learning recovery and acceleration programs were designed with strategies tailored specifically for the most vulnerable students. Instead, most countries attempted to reach the most vulnerable by targeting education programs in regions with historically poor learning outcomes or significant poverty levels. Over two-thirds of low- and lower-middle-income countries surveyed in 2022 were implementing remedial measures regionally. Notable exceptions to this finding include the various programs highlighted in the report, which were not relying only on broad regional targeting but were designed with the specific needs of vulnerable student subgroups at their center.

Source: Acasus, forthcoming.

and which student groups had been most affected. Post-pandemic, India's National Achievement Survey's findings of large learning gaps motivated greater learning recovery and acceleration responses. In Guanajuato, Mexico, the results of large learning losses from the RIMA large-scale learning evaluation became the basis for a new learning recovery plan and advocacy effort. Such assessments helped build public awareness of these learning crises, target response efforts, contribute to identifying student groups who required support, and benchmark progress toward recovery.

In other cases, external actors helped highlight the costs of the crisis. In Romania, strong coordination with the European Union, including guidelines that schools should be among the last institutions in society to close when faced with a spike in cases, helped galvanize the learning recovery response.

Developing a comprehensive plan toward a vision

Beyond the recognition of the challenge, countries are well advised to respond with comprehensive, multiyear programs. The severity and multifaceted nature of the learning crisis requires robust, longterm packages of policy responses. Countries that recognized the severity of the learning losses were less likely to minimize learning recovery responses to once-off, short-term activities and instead invested in multiyear (or even permanent) learning responses that reflected the challenge. These cases include Romania's National Recovery and Resilience Plan (box 7.2), Guyana's immediate rollout of a three-year prioritized curriculum, and Brazil's legal action that solidified the national prioritization of learning recovery and acceleration.



Box 7.2 Romania's national recovery and resilience plan

Description

A general plan for socioeconomic recovery from the COVID-19 pandemic with an ambitious agenda of substantial reforms and investments for the education sector (comprising 12.4 percent of the plan's financing). The plan is to be implemented in full by 2026. School-based grants were a major delivery tool to support implementation of the plan.

Main activities

- 1. Implementing mechanisms to reduce dropout, including an early warning mechanism
- 2. Upgrading infrastructure and procuring classroom equipment for digital learning
- **3.** Implementing a large-scale national computerized learning assessment for grade 9 students and a learning loss assessment
- 4. Piloting an adapted classroom observation tool
- 5. Targeting remedial education and tutoring to vulnerable students
- 6. Providing mentoring and counseling services

Structure

Romania received funding from the European Commission under the Recovery and Resilience Facility, the largest component of Next Generation EU (NGEU), the EU's landmark instrument for recovery from the COVID-19 pandemic. The purpose of the facility is to support the EU Member States in recovering from common European challenges exacerbated by the pandemic. Romania prioritized education in its plan, allocating significant funding for learning recovery activities. Existing external financing and projects were restructured and used for activities to support learning recovery. For example, the World-Bank-financed ROSE project was restructured quickly to roll out activities such as mentoring for teachers to help them cope with the new realities of the pandemic.

Source: Mileusnic 2023; Sava, Vincelette, and Almeida 2023.

Strategies for learning recovery and acceleration were articulated through multiyear, multi-initiative plans. Once countries recognized the severity of the learning crisis, comprehensive strategies for learning recovery and acceleration were developed into plans, such as India's National Learning Recovery Plan (box 7.3). Learning recovery and acceleration

plans were comprehensive and contained multiple, complementary policy responses. Evidence suggests that multiple, complementary responses would be more likely to overcome the multifaceted learning crisis than single-strategy approaches (Sarwar and others 2021). **Ecuador**'s Aprender a Tiempo program supported learning recovery and acceleration through



Box 7.3 India's national learning recovery plan

Description

A national plan that delineates the actions to be undertaken by each stakeholder in the education sector, including an annual calendar of activities and an outline of additional funding. The plan seeks to maintain the goal of India's National Education Policy of achieving universal foundational literacy and numeracy in primary school by 2025.

Main activities

- 1. Identifying and tracking out-of-school children
- 2. Ensuring implementation of bridge courses and school readiness modules for secondary schools
- 3. Conducting oral reading and fluency tests
- 4. Developing a remedial learning program with a teacher resource package
- 5. Strengthening information and communication technology facilities at school and region level

Structure

The plan emphasizes preparing district-level strategies based on the results of the National Achievement Survey carried out in November 2021 (Express News Service 2022). It outlines the roles and expectations of states and union territories (UTs), such as implementing teacher resource packages and an oral reading fluency study, supported by a one-time provision of additional funds. The plan suggests that every student up to the secondary level be provided Rs 500 and every primary teacher be provided Rs 10,000 to buy tablets (Express News Service 2022).

Source: India, MOE 2022a.

a five-pronged approach, including a prioritized curriculum, pedagogical tutors, and socioemotional support for students. **The Philippines**' Learning Recovery Plan extended learning time, established learning support centers in schools and community-based learning spaces, hired additional learning support aides, and trained teachers in student-centered instructional practices.

Long-term strategies approached learning recovery and acceleration by organizing interventions in stages. Countries with a shared vision for learning could further leverage political commitment among

actors to articulate a plan that operationalized the vision through multiple years of programming. In **Bangladesh, Mongolia** (box 7.4), **Papua New Guinea**, and **Zambia**, such plans organized the response in phases. They included a sustained learning recovery period and a stage focused on making strategic long-term investments to strengthen resilience, accelerate the rate of learning, or both. Previous successful efforts to improve education also have sequenced different education strategies, introducing more complex programs with greater support and fidelity after the success of more simple interventions (Sarwar and others 2021; Shrestha and others 2019).



Box 7.4 Mongolia's Comprehensive Learning Recovery Plan

Description: Mongolia's Comprehensive Learning Recovery Plan highlights learning losses during COVID-19; lists the international best practices for learning recovery; lays out principles to implement the plan, including goals, strategies, and actions; and provides a budget and a strategy for monitoring and evaluation. The plan has 10 strategies within 3 objectives based on a 3-phase "3R" model.

Main activities

- 1. Assessment of students learning levels and wellbeing
- 2. Revised curriculum focused on foundational skills
- 3. Deployment of support teachers and psychologists to schools

Structure

The three phases of the plan are:

- 1. Reconnection: Defining the needs of school communities and re-engaging with learning
- 2. Recovery: Implementing an inclusive learning support system and reversing learning losses
- **3. Resilience:** Sustaining learning gains moving forward and enabling schools to implement support systems independently.

The plan has been implemented since 2021. A review of implementation suggests two successes. Segmenting response strategies has helped Mongolia plan and allocate resources and group activities by priority. Segmenting also has built sustainable learning acceleration by committing to a multiyear response. The plan has used regularly scheduled learning assessments to measure progress and assess readiness to move between the plan's three stages. An external national evaluation will be conducted in 2024. The evaluation will analyze content recovery, changes in average student performance, and schools' ability to independently implement support systems.

Source: Mongolia, Ministry of Education, Culture and Science 2021.

Building commitment by reducing the political costs of action

The political costs of taking actions toward learning recovery and acceleration can be high. As the flatness of many Programme for International Student Assessment (PISA) results has demonstrated, recognition of the problem does not guarantee action (Gomendio 2023). Even if reforms are known to produce a net benefit to society, politicians may hold back on committing to action out of fear of taking on political costs or being penalized at the ballot box by opponents to reform (Ciminelli and others 2019). Government decision-makers face substantial political

costs when efforts to improve learning conflict with stakeholders' vested interest. **Sierra Leone**'s president Julius Maada Bio acknowledged that his decision to spend almost 25 percent of the national budget on education was a "definite risk for a politician" (Collins 2022). Countries have had to take on such costs and buffer education actors from political fallout.

Broad stakeholder consensus around the problem can reduce the political costs of change. A common element of successful education reforms has been evidence-driven messaging that uses learning metrics to justify necessary changes and establishes public accountability through a more informed citizenry (Shrestha and others 2019). A clear understanding of the learning crisis through global metrics such as learning poverty or assessments of learning losses can unite public interests and heighten pressure on government actors. It is important to uncover unsatisfactory learning data to enable governments and the public to recognize the poor quality of education, especially for the disadvantaged. However, for data on learning to spur action, those who receive information must understand it, see it as actionable, and believe their actions will improve outcomes (World Bank 2018). Learning data are more likely to lead to action when presented in an easily digestible way and accompanied by clear steps on how parties can act.

» Commitment to learning recovery and acceleration was built by consulting with education stakeholders and communities. Some governments leveraged the urgency of the learning crisis to gain support for comprehensive plans from various stakeholders with whom they may not have yet found such rapid agreement. To develop its 19-point learning recovery plan, Chile launched a rigorous participatory process including a citizen consultation. The consultation obtained more than 14,000 responses and reached more than 300 town meetings held in all regions of the country (Chile, Gob.cl 2021). Côte d'Ivoire, Kenya, and Romania developed long-term education response plans with several external partners. By ensuring a shared recognition of the urgency of the learning crisis, unity was built among stakeholders toward a single vision for learning recovery and acceleration plans.

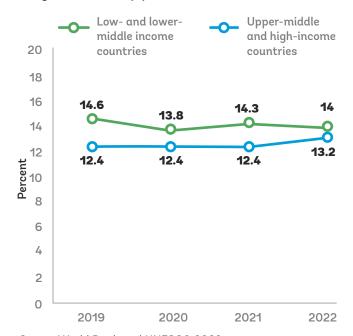
Political transitions can threaten the sustainability of education programs, but some countries have found ways to protect learning recovery and acceleration. Political commitment to robust learning recovery and acceleration programs can be inconsistent or short lived. Politics may present a common threat to sustaining long-term education strategies. For example, election cycles can result in replacing entire sectoral ministries and significantly modify or eliminate ongoing programs. Analysis of World Bank education programs between 2000 and 2017 showed that higher ministerial turnover is related to poorer project performance (Bedasso 2023). Some countries have devised strategies to maintain programs past the lifespan of their politicians' time in office. Some countries used legislation to solidify recovery and accelerate learning. In Brazil, the Brasil na Escola Program was established through an ordinance in the Constitution (Brazil, MOE 2021a). Other education systems built program ownership by increasing support among stakeholders, including teachers and school communities. For instance, the Municipal Secretary of Education of Rio de Janeiro built support for its prioritized curriculum by holding public consultations with teachers (Avitabile and others 2022).

Securing funding for comprehensive and longterm solutions to the learning crisis

COVID-19 shifted funding priorities farther from the education sector. The pandemic presented near unprecedented shocks to the world's economies and had devastating and, at the time, unclear risks to human health and wellbeing. This tumultuous period spawned some of the largest spending programs that the world has ever seen, to protect and stabilize firms, households, and individuals. As economic activities suddenly dropped, government budgets were placed under extreme pressure to launch national responses to unpredictable social, economic, and health crises. National governments and development partners reprioritized extraordinary amounts of resources to prevent a global and national health disaster and, subsequently, an economic disaster. However, data suggest that these actors have not yet spent the money required to prevent an ever-present and growing education disaster. The GEM Report recently estimated a combined annual financing gap of US\$97 billion on average in 79 low- and lower-middle-income countries between 2023 and 2030 to reach national Sustainable Development Goal number 4 (SDG4) targets by 2030 (GEMR 2023).

The pandemic has exacerbated the chronic underfinancing of education, hurting marginalized students the most. Only 1 in 10 countries allocate at least 15-20 percent of their total public budget to education, the benchmark established by the Incheon commitment (UNICEF 2022b). Emerging evidence suggests that after falling in 2020, the share of education in national budgets of low- and middleincome countries recovered but remained below their 2019 pre-pandemic level (figure 7.4). Meanwhile, manu high-income countries protected education shares since the onset of the pandemic, and some even increased resources specifically for learning recovery (Arias and Kheyfets 2023). At the same time, education aid declined in share, with direct bilateral aid to education falling by US\$359 million in 2020 (UNESCO 2021). Less than 1 percent of COVID-19 stimulus packages went to the education sector in low- and lower-middle-income countries (UNICEF, UNESCO, and World Bank 2022). Marginalized student populations suffer the most from the current state of education financing, both within and across countries. For countries whose data are available, 30 percent spend less than 15 percent of public education resources on students from the poorest quintile of households (UNICEF 2023b). Spending per school-age child averages \$US53 in low-income countries, \$US 318 in lower-middle-income countries, \$US980 in upper-middle-income countries, and \$US7,800 in high-income countries (Al-Samarrai and Benveniste 2022).

Figure 7.4 Share of education in total government budgets, 2019-22 (%)



Source: World Bank and UNESCO 2022.

Note: Fifty-four countries that had information for each year were used. Low- and lower-middle-income countries = 28; upper-middle- and high-income countries = 26.

Due to the multiyear and multi-initiative nature of learning recovery and acceleration plans, estimated costs are high. Although few countries have made costed learning recovery and acceleration plans publicly accessible, budget information from four countries has been analyzed. For over a minimum of 3 years, budgets for learning recovery and acceleration in these 4 countries have spanned US\$21 million to US\$4.6 billion, or 0.1 percent to 1.6 percent of the national GDP. Country budgets for learning recovery and acceleration vary significantly depending on the context (figure 7.5). Bangladesh, Marshall Islands, Papua New Guinea, and Zambia invested more in Reach policy actions, presumably due to their relatively large out-of-school rates. Mongolia invested more in building technology-enabled instructional supports and psychosocial services. Although a smaller share of the budget, the country secured its funding for monitoring and evaluation (M&E) and capacity development.

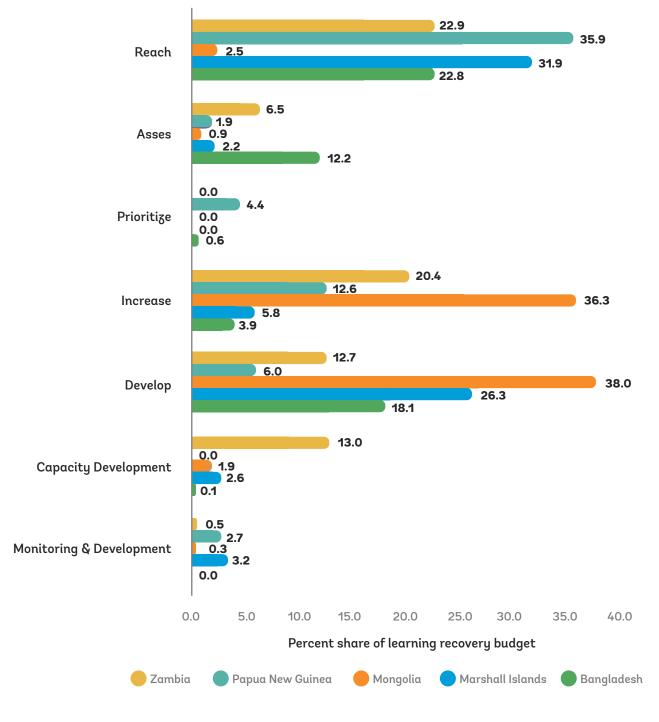


Figure 7.5 Division of exemplar COVID-19 and learning recovery program budgets

Source: Based on data from Bangladesh, Ministry of Primary and Mass Education and MOE 2020, Marshall Islands, MOE 2020, Mongolia Ministry of Education, Culture and Science 2021, PNG National Department of Education 2020, and Zambia, Ministry of General Education, forthcoming.

Note: Zambia budget information is proposed, and funding sources still are being identified and secured. Although Mongolia has outlined activities related to "prioritizing teaching of the fundamentals," these activities are not significant line budget items. The Bangladeshi budget is for only the 2021–22 academic year.

Since the onset of the pandemic, some countries have managed to significantly increase education spending. Not all countries have responded to the fiscal constraints of the pandemic by cutting education sector spending. In 2022 Sierra Leone's education budget constituted 22 percent of all public spending — double the percentage allocation in 2016 (Collins 2022). Increases in funding are being dedicated to improving girls' education and onboarding and paying new teachers. In its 2022-23 fiscal year, **Rwanda** increased the education budget by nearly 20 percent (UNICEF 2022b). The funds enabled the recruitment of over 52,000 new teachers. The majority received professional development training for digital education, mathematics and science subject knowledge and pedagogy, and English language proficiency. The funds also met school infrastructure needs in primary and lower secondary education.

Efficient spending for education is a priority. Greater spending on education does not necessarily lead to better education outcomes. Increases in public education spending in the past decade have been associated with relatively small improvements in education outcomes (World Bank 2023b). Inefficient spending does not have immediate consequences only for the education sector and its students. In fact, a history of such spending practices can reduce the likelihood that requests for larger budget allocations will be considered seriously by governments. Therefore, one avenue to increase the fiscal space for learning recovery and acceleration would be to increase the efficiency of education spending. Some countries, including Côte d'Ivoire, have pursued this route by utilizing outcomes-based financing to strengthen monitoring, iterative adaptation, and accountability for results. Other education systems, such as **Edo**, **Nigeria**, have used audits and restoration projects to ensure that all available education resources are correctly accounted for. Cambodia and others invested significantly in the education sector's most valuable resource: teachers. These nations revitalized teacher management practices to ensure that high-performing educators are brought into the sector and are thoroughly supported, equitably deployed, and justly compensated.

7.3 IDENTIFYING OPPORTUNITIES AND CONSTRAINTS IN RESOURCES AND CAPACITY

Learning recovery and acceleration plans were better positioned when supported by explicit investments to understand and expand implementation and management capacity. Learning recovery and acceleration programs are challenging and resource intensive. Long-term, comprehensive learning recovery and acceleration plans will face questions similar to those that education sector plans encountered for decades. For example, how do ambitious plans translate into concrete actions and better learning outcomes for all students? The ambitious goals of learning recovery and acceleration plans likely will fail if each country does not first consider whether its ministry of education and its coalition of education stakeholders have the institutional, technical, and operational capacities to effectively implement such plans. Armed with a greater understanding of the challenges ahead and the tools required, countries with promising learning recovery and acceleration plans have invested in building capacity and fostering a strong education ecosystem.

Assessing the education system's capacity and needs to combat the learning crisis

Strong and evidence-based plans for education improvements can be hindered by weak implementation capacity. In a recent regional survey of education officials from East Asia and the Pacific, 4 of 5 countries reported that implementation capacity is the most significant barrier to learning (Yarrow and others, forthcoming).. A failure to identify and plan around system bottlenecks in service delivery may thwart well-intentioned plans to overcome the learning crisis. Figure 7.6 shows the needs and assets for capacity development across these three levels.

Figure 7.6 Education system capacity can be developed across multiple levels

INSTITUTIONS

Institutional capacities include the rules, regulations, and practices that set the overarching contextual environment.

E.g.: Decentralizing education decision-making

ORGANIZATIONS

Organizational capacities describe the arrangements of the ministry and stakeholder organizations operating within the institutional rules and context *E.g.: Improving data usage in policy planning*

INDIVIDUALS

Individual capacities can take a variety of skills, such as technical, functional, and leadership.

E.g.: Training teachers to improve instructional practices

Supported by:

Diverse and capable partners

Operational tools and resources

Source: Adapted from UNESCO 2013 and European Commission 2020.

Understanding the education system's strengths and weaknesses will lead to more practical learning recovery and acceleration programs. Formal and informal channels of feedback, and even more robust assessments, have proved instrumental in countries' journeys to learning recovery and acceleration by assessing capacity gaps and assets and identifying system bottlenecks. Such knowledge can empower decision-makers to select and identify possible policy responses that actively tap strengths while carefully mitigating limitations (Yan and Saguin 2021). In 2020 in Papua New Guinea, a rapid needs assessment of the COVID-19 situation in the National Education System was conducted by inspectors and quidance officers via telephone interviews with the headteachers of schools and education institutions (Papua New Guinea, Department of National Education 2020). Edo, Nigeria conducted a capacity

assessment of its education system. It identified major roadblocks to improving learning outcomes including teacher absenteeism and poor teacher capacity — insights that informed their EdoBEST program. In Zambia, a comprehensive needs analysis report was conducted to understand the impact of the pandemic on the education system and chart the way forward (see box 7.5).



Box 7.5 Zambia's education sector report on COVID-19 recovery needs assessment

Description

A comprehensive needs analysis that details the impact of COVID-19 on Zambia's education sector; outlines the emergency education response; and offers a costed three-phase plan for recovery in the short, medium, and long-term (still in development). The purpose of the report was to develop a baseline assessment of the education system, which could be later used to track progress toward learning recovery and acceleration.

Main activities

The education sector report outlined a plan for learning recovery and identified the following policy response options:

- 1. Training teachers in continuous assessment
- 2. Disseminating digital devices
- 3. Sustaining the campaign to re-enroll pregnant girls
- 4. Carrying out large-scale assessments of learning continuity and gaps
- **5.** Providing school feeding that targets the districts with the worst economic shocks.

Structure

The report pursued a mixed methods approach to understand the education-related impacts of the pandemic, relying on telephone surveys, external reports, and key informant interviews. The needs assessment provided information on trends in dropout rates, learning time across regions, and gender disparities in learning and access. It included an analysis of the learning recovery responses at the time, such as the school fee suspension program and a package of remote learning modalities. The needs assessment supported Zambia's three-phase plan for learning recovery, including identifying and costing specific policy options. Each impact of the pandemic identified in the report was paired with an appropriate policy response and delegated to education stakeholders. A set of indicators was identified to monitor progress, including national assessment outcomes, gender parity of enrollment, and the presence of school-based WASH and digital infrastructure.

Source: Zambia, Ministry of General Education, forthcoming.

In some countries, decentralized educational decision-making has empowered bottom-up solutions for learning recovery and acceleration.

Localizing education responses in certain contexts has led to a more active role for school communities and frontline implementers in learning recovery and

acceleration efforts. In **Tonga**, a shared responsibility model between the Ministry of Education and school communities has built collective ownership of school maintenance and resource management (World Bank 2022f). Transitions to more decentralized decision-making have led to greater teacher innovation in

the classroom and online, such as **Saudi Arabia**'s development of a virtual school model (Boni and Gregory 2022). Global interest in learning how local innovations can lead to success has spurred UNICEF's Data Must Speak (DMS) initiative, in which 14 countries are conducting positive deviance research (UNICEF 2022f).²⁵

A trend toward decentralization requires greater delegation of authority and resources to subnational entities and schools. Some countries, such as Cambodia, Romania, and Zambia, have expanded school-based grant programs, resources provided to school leaders, and flexibility in decision-making to tailor their educational support according to local needs and demands. A shift toward more decentralized decision-making for learning recovery and acceleration has attempted to increase the localization of policy responses and accountability for results. However, delegating greater responsibilities to subnational and local education agencies must be accompanied by the authority and resources to pursue opportunities and overcome challenges as they occur (World Bank 2018).

More localized programming requires stronger and more effective partnerships among central, regional, and school-level officials. Countries that restored or maintained the balance among local, regional, and central decision-makers expedited progress toward learning recovery: well-intentioned, top-down programs offered supportive structures and resources for local decision-makers and practitioners to tackle learning needs specific to their contexts. Romania's school-based grant program enables schools to tailor their learning recovery responses to their unique needs — if they abide by a set of government initiatives, such as its EWS. In Benin, **Ecuador**, and **Mongolia**, the creation of new positions for regional pedagogical advisors helped governmentled initiatives for new teaching and learning practices change classroom instruction. Côte d'Ivoire is shifting the work culture between central and regional directorates to allow for greater communication and collaboration. Although central-level officials receive training in results-based management and monitoring, regional departments are supported

to develop tailored education plans. Strengths of **Kenya**'s education response to the pandemic were its county governance structures, existing central-to-school communication channels, and strong national oversight (Gichuhi and Kalista 2022).

Some learning recovery and acceleration efforts were driven by early and frequent communication with frontline implementers. The success of education reforms depends on how those on the frontline understand and interpret reform efforts (Aiyar and others 2021). Learning recovery and acceleration plans cannot tackle systemic problems without substantial support from stakeholders at all levels (Pritchett, Newman, and Silberstein 2022). Effective communication campaigns targeted at the public, bureaucrats, managers, and education practitioners can help justify reform efforts and garner support for action. In Indonesia, subnational education ministries are required to share their learning plans continuously while gaining and responding to stakeholder inputs (Indriani 2023). In **Timor-Leste**, a communications strategy was deployed to help teachers, parents, and students understand and accept digital education's central role in expanding learning opportunities (UNICEF Timor Leste 2020). Insights from education reform efforts in Delhi, India suggest that the communication of largescale changes must be prioritized and not crowded out by other directives (Aiyar and others 2021).

Building technical and leadership capacity for education actors at all levels

Learning recovery and acceleration plans require a highly skilled cadre of officials and practitioners across all levels of the education system. The challenge of effectively overcoming the learning crisis is unmatched for many countries. Technical and leadership capacities at all levels are essential to develop and manage such a comprehensive, multifaceted, and long-term plan to address the learning crisis exacerbated by the pandemic. Technical and leadership capacity development has three features: (a) teacher professional development, (b) technical skills for ministerial staff, and (c) leadership skills.

²⁵ The countries participating in the Data Must Speak positive deviance initiative are Brazil, Burkina Faso, Chad, Côte d'Ivoire, Ethiopia, Ghana, Lao PDR, Madagascar, Mali, Nepal, Niger, Tanzania, Togo, and Zambia.

In some countries, the pandemic has highlighted the need for stronger preservice and in-service teacher training systems. The already complex role of teachers expanded with the challenges of pandemicrelated learning losses. The shift to more innovative and student-centered pedagogical practices, such as targeted instruction and competency-based learning, required significant teacher upskilling. Such practice is particularly important for learners with disabilities or diverse needs. Teacher training was a central element of many countries' education responses to the pandemic. Over 42 of the 60 sample countries were implementing efforts to extend or strengthen preservice or in-service training systems. For example, after the onset of the pandemic, Colombia expanded its Programa Todos a Aprender program. Benin and Côte d'Ivoire chose to strengthen their continuous professional development systems and expanded their cadre of teacher coaches. Côte d'Ivoire also revised the preservice teacher training curricula to introduce targeted instruction earlier in a teacher's career. Teacher training institutes also helped overcome staffing shortages in learning recovery and acceleration plans, supplying content developers in **Jordan's** Learning Bridges program. To play an effective role in learning recovery and acceleration by providing immediate human resources and better preparing the teacher workforce, these institutions require greater resourcing and technical expertise.

Technical skill-building was embedded in program designs. Many countries ensured that education actors were supported with technical skill-building during the design and implementation phases. Technical capacity-building for ministerial staff is crucial to improve program sustainability and country ownership. From training in interdisciplinary content creation in Jordan to psychometrics in Mendoza, Argentina, building up specialized expertise in education ministries equips countries with the skills to pursue more ambitious and innovative learning recovery and acceleration programs. In Côte d'Ivoire, all curricular components of the PAPSE program were designed and implemented by a National Technical Team comprising inspectors, pedagogical advisors, and teacher trainers. Described as an informal master's-level program, the National Technical Team

received extensive training in early grade literacy and mathematics teaching (Zafeirakou 2022). The capacity-building and engagement of school-level actors also helped ensure that program elements were relevant to the classroom. In **Edo, Nigeria** and **Zambia**, teachers developed learning content for self-instructed learning and structured pedagogy programs due to their familiarity with the classroom environment.

As the demands of school leaders shifted in some contexts so did their supports and resources. The COVID-19 pandemic has highlighted the need for schools to (a) reconsider how teaching and learning is provided, (b) facilitate stronger relationships with the community, (c) reposition themselves for student wellbeing, (d) provide safe and welcoming environments for all students, with an emphasis on reducing inequalities, and (e) become more agile and resilient in the face of future disruptions (box 7.6). Such demands have required fundamental shifts in how school leaders manage and guide their schools, staff, and students. Strong school leadership is also a predictor of school resilience, as shown by evidence in Haiti (World Bank 2017). Therefore, some countries have invested in school leadership capacity-building programs. Instead of focusing only on traditional administrative processes, as in in most contexts, Haiti emphasizes instructional leadership, encourages school leaders to take risks, and provides a shared learning environment (Sampat and others 2022). Through a series of workshops through the Escuela de Liderazgo program in Colombia and in Zambia, school principals are being trained to become better stewards for instructional excellence. Under the regional Learning Recovery and Enhancement Programme (Let's REAP) in the **Caribbean**, principals are receiving dedicated training and resources to drive learning recovery locally, with an emphasis on coordinating actors (Caribbean Development Bank and others 2021).26

²⁶ Countries involved in the Let's REAP program are the Bahamas, Barbados, Belize, the Cayman Islands, Dominica, Grenada, Guyana, Jamaica, St. Lucia, St. Vincent and the Grenadines, and Turks and Caicos.

Box 7.6 Building resilient education systems

Targeted professional development can seek to increase the responsiveness capacity and resilience of a ministry of education's and subnational governments' staff. The COVID-19 pandemic has highlighted the importance of building resilient education systems that can adapt to unexpected disruptions while continuing to provide quality education. Some common elements of a resilient education system include being (a) flexible and adaptable to changing circumstances, (b) sustainable (equipped with sufficient resources and capacity to meet the needs of current and future generations), and (c) able to provide equitable and high-quality education that meets the needs of all learners.

There is no one-size-fits-all definition of a resilient education system. The concept will be interpreted and operationalized in different ways depending on country context. In some systems, investing in resilience may entail substantial infrastructure investments that close the digital divide, ensuring that the future application of distance learning methods are more equitable. In other contexts, resilience may require strengthening the core capacities of the ministry of education, including data systems, resource management, and coordination mechanisms. Other countries may find it most beneficial to invest in crisis management systems and developing a long-term emergency preparedness policy framework. **Mongolia** seeks to build resilience in the education sector by developing a digital transformation scheme that would significantly expand the country's digital infrastructure (even establishing a new ministry in charge of digital development and communications). The island nation of **Tonga** is investing in emergency EWS and climateresilient school infrastructure projects. **Burkina Faso** updated its existing multi-risk strategy, and accompanying three-year costed action plan to include measures to prevent potential health risks and crises.

Since the onset of the COVID-19 pandemic, countries have taken six approaches to build the resilience and inclusiveness of their education systems:

- » Investing in digital infrastructure to strengthen distance and blended learning approaches. Access to reliable and affordable internet and devices is essential to deliver distance education. Research has shown that, when implemented with fidelity, blended learning can help schools cope with unexpected disruptions. Such has also entailed shifting curricula to enable more individualized learning and parental engagement.
- » Strengthening teacher training and support. Teachers play a critical role in ensuring the continuity of education during crises. Providing teachers with training and support on how to use technology effectively; how to provide instruction in different formats; and how to include and support all learners have helped them adapt to changing circumstances.
- » Prioritizing student wellbeing. Education disruptions have significant impacts on students' mental health and wellbeing. If student wellbeing is not supported continuously and properly, disruptions can be major hindrances to learning. Some countries have invested in cross-sector collaboration between education, health, social and protection services, as well as building up a school-based workforce for MHPSS. Schools have also been equipped with the proper infrastructure, WASH facilities, and other services to promote the physical health of students and staff as well.

- » Investing in data and information systems. Strengthening the education system's access to timely and accurate data, such as through EMIS, can ensure students, particularly those most vulnerable, are accounted for, accessible, and prioritized during times of educational disruption. Data related to environmental and health risks, social services, and digital access can also build resilience in education systems.
- » **Fostering collaboration and partnerships**. Collaboration among schools, government agencies, and other stakeholders can help build more resilient education systems, such as by diversifying resources and providing expertise to support innovation. In many countries, the COVID-19 pandemic has advanced partnerships between education and health systems.
- » **Building in redundancy**. Some education systems have developed contingency plans to ensure that learning can continue even if traditional methods are disrupted. Redundancy has involved creating backup systems for online learning or alternative delivery models for instruction.

Efforts to build resilient education systems are investments toward student learning and wellbeing in the long term but entail shifting resources from short-term priorities. In the short time between the announcement of a global pandemic and the closing of schools in the **Marshall Islands** and **Tonga**, both governments piloted distance learning systems to make any necessary improvements before such systems needed to take effect. By investing in these areas, education systems have better prepared for future disruptions and ensured that all students will have access to quality education, no matter what challenges arise.

Source: ASEAN 2022; OECD 2021a; Tarricone and others 2021; UNESCO and UNESCO IIEP 2020; UNICEF ECA 2020; Shah 2019; World Bank 2022f.

Supporting implementation by securing and advancing operational resources

Greater resources were devoted to support the implementation capacities of ministries of education to execute at-scale learning recovery and acceleration programs. To implement learning recovery and acceleration programs effectively and at scale, adequate capacity of MOEs and schools is essential. A review of country programs shows that the following core functions received the greatest attention to support the implementation capacities of MOEs and schools.

1. Countries invested in digital infrastructure to build more resilient education systems.

The COVID-19 pandemic emphasized the key importance of digital learning methods in continuing learning during crises. However, the pandemic also exposed many countries' inability to reach all children equitably through digital means. Of the 60 countries sampled, 28 percent invested in expanding digital infrastructure and

connectivity for learning. In Romania, Tanzania, and Vietnam, interministerial coalitions and private-public partnerships (PPP) built during the development of remote learning materials were leveraged to advance digital access and infrastructure in schools. Other countries made efforts to digitize aspects of their education management information systems. Sierra Leone developed Africa's first digital school census and is using geospatial data to better inform school construction projects. Zambia shifted its EMIS online and is training specialized committees at the school and province levels in effective data management (Sengeh and Game 2021).

2. Several countries invested to improve their capacity for textbook procurement management. For example, in Côte d'Ivoire, Kenya, and Zambia, in-country textbook development, procurement, and distribution were revised and accelerated, drastically improving the availability of textbooks for foundational subjects in early grades. The Marshall Islands conducted an analysis to

identify bottlenecks in the book supply chain that prevented timely access to materials for hard-to-reach homes (BlueTree Group 2021).

- 3. Investments were made to strengthen ministries of education resource management systems. In Nicaragua, an infrastructure management system was developed to better monitor activities under the COVID-19 education response plan. In the Republic of the Congo, an interministerial working group has been convened to bolster the education sector's personnel management system. The working group's four pillars are to build staff's capacities, track teacher mobility, develop a digital school map, and assess the current incentive system for teacher placements.
- 4. A significant number of education systems invested in their national learning assessment systems (NLAS). Since the onset of the pandemic, 40 percent of the 60 countries sampled undertook activities to build or strengthen their NLAS (chapter 3). For example, in Mogambique, the NLAS is being expanded to include assessments for all levels of education, and monolingual and bilingual modalities are being developed for primary level assessments. Additional activities are building more consistent feedback loops between schools and the central level and using NLAS results to guide education policy, including specific actions related to girls' education.
- 5. Some countries also supported operational capacity at the school level. For example, during school closures, Rwanda constructed school kitchens in every school to bolster its school feeding program, now operationalized through a comprehensive, multiyear financing plan (Burbano de Lara 2023). Democratic Republic of the Congo and Vietnam invested to strengthen school-based health services.

7.4 ALIGNING THE EDUCATION SYSTEM TOWARD LEARNING RECOVERY AND ACCELERATION

Education systems often are poorly aligned with learning goals. Education systems deliver learning when all their components are aligned with the

purpose of learning and are aligned with one another (Pritchett 2015). Currently, many education systems are aligned around several goals other than learning (Pritchett, Newman, and Silberstein 2022). Internal misalignment of system components and competing stakeholder agendas are major roadblocks to improve learning at scale. Such misalignment pulls the essential elements of the education system in different directions, away from the core objective of learning (figure 7.7). Efforts to recover and accelerate learning recovery are embedded in larger systems. Therefore, learning recovery and acceleration necessitate that operating at the systems level is not only about the scale of the desired change. It also is about unpacking complex issues to focus on bottlenecks and competing priorities, checking on system components for interdependencies and alignment, and identifying levers and opportunities for change.

Convening partners to align the education ecosystem for learning

Misaligned agendas and incoherent relationships among stakeholders will hinder learning recovery and acceleration. In most countries, their education systems are among the largest and most complex government institutions. They comprise a large civil service, a mix of national and subnational bureaucratic actors, and sometimes involvement from other sectors (Education Commission 2021). This plethora of stakeholders can be a major roadblock to improvements. Reforms to improve education may not be politically advantageous, and priorities of major stakeholder groups may not align with learning for all (Shrestha and others 2019).

Partners — from other government ministries to development agencies to civil society organizations — played a crucial role in education responses.

Planning education responses to the COVID-19 pandemic varied significantly across countries. Planning largely depended on the length of school closures and the strength of the education systems' network of partners (figure 7.8). Countries with longer school closures (defined as greater than 20 weeks) were approximately twice as likely to have a nationwide learning recovery strategy compared to countries with school closures of fewer than 20 weeks (Acasus, forthcoming). Some countries that

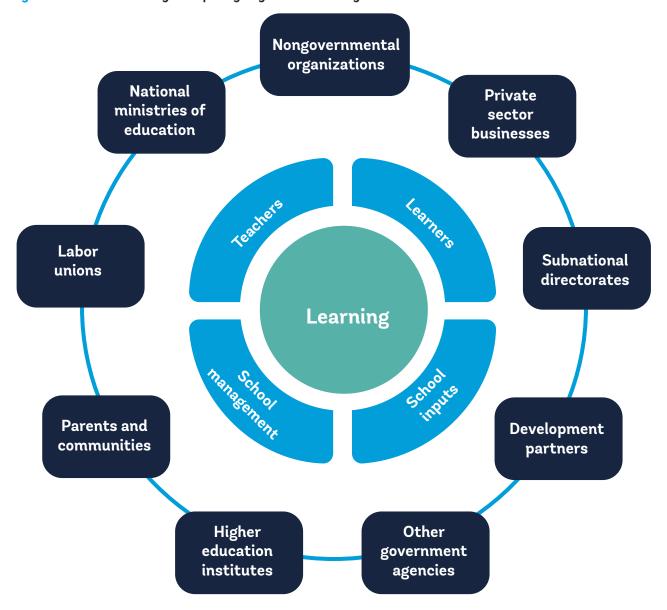


Figure 7.7 An education system poorly aligned for learning

Source: Adapted from World Bank 2018.

attempted to return to in-person learning earlier were forced to expedite the implementation of their learning recovery and acceleration plans. In those countries, the ability to convene the right partners was crucial to ensure that such speedy planning led to an effective education response. Strong coordination mechanisms continued to prove beneficial to country governments and partners as emergency learning

recovery plans, designed at the beginning of the pandemic, transitioned into longer term learning acceleration agendas. Because quicker responses led to more immediate learning recovery programs, quicker responses required greater iteration during implementation to shift program objectives from learning recovery to acceleration.

Speed of response

Delayed and collaborative response

Planning was more consultative and led to more aligned and innovative programming

Examples: Ecuador's Aprender a Tiempo, the Philippines' Learning Recovery Plan

Rapid and collaborative response

Prior programming and greater iteration was usually required

Examples: Romania National Recovery and Resilience Program, India National Learning Recovery Program

Delayed and isolated response

Rapid and isolated response

Fragmented programming among partners, mostly focused on coping and recovery, will prove harder to shift to acceleration strategies

Source: World Bank.

Level of coordination

Active coordinating bodies supported more robust (and rapid) educational responses to the pandemic. Centralized coordinating and monitoring units reduce duplication, confusion, and inefficiency among partners (Gichuhi and Kalista 2022). Countries that had active coordinating mechanisms prior to the pandemic or that prioritized creating new ones early during the pandemic were able to convene a set of relevant education actors to gather information on learning outcomes, assess what policy options existed, and chart a path forward to recover learning losses. Early in the pandemic, Kenya convened a new coordination unit, the COVID-19 National Education Response Committee, to engage different constituencies in the decision-making and development of the education response (Gichuhi and Kalista 2022). Prior to the Philippines' Learning

Recovery Plan launch, the Department of Education hosted the National Planning Conference. It convened central departmental staff, regional field offices, and select government representatives to develop multiyear learning recovery and acceleration programs (Philippines, DepEd 2022b).

Some countries took a more significant role in guiding the efforts of external partners.

Despite some programs being heavily influenced by external partners, governments have played crucial roles in promulgating learning recovery and acceleration visions. **Côte d'Ivoire**'s National Early Learning Support Strategy, a commitment to an empowered and literate future, has ensured that all learning programs in the primary sector, and their implementing partners, are not distracted by competing agendas. The plan seeks to institutionalize

targeted instruction and structured pedagogy in its education system while streamlining ministerial efforts and reducing distractions from wellintentioned, but tangential projects and initiatives. In the future, all prospective partners in Côte d'Ivoire's education landscape will need to first consult with the MOE. These prospective partners can either choose to support ongoing programs in the strategy; or, if proposing unrelated projects, must keep the scope of their involvement minimal. The **Zambian** Ministry of Education also is developing systems to better coordinate its efforts with development partners who are aligned with the sector's strategic priorities. In both cases, country governments took active measures to prioritize efforts for the ministry and its partners around a long-term learning vision. In the Caribbean Let's REAP program, actions to better coordinate actors across various levels and agencies were embedded in the design.

Build coherence with other components of the education system

The various components of the education system usually are not aligned with one another or toward learning. In applying systems thinking to education reform, the relationships among system components require as much attention and change as do the components themselves (Stroh 2015). Internal alignment among all the education system's components, commonly termed system coherence, typically is low in low- and middle-income countries contexts due to a plethora of subsystems (curricula, assessment, teacher training). Again typically, system coherence is overseen by different agencies with varying priorities and varying degrees of success in coordination (Crouch 2020). For example, in a coherent system, curricula, teaching, and examinations should cover topics at similar depths of mastery. However, research from Nepal, Tanzania, and Uganda shows that similar depth of mastery is not the case because curricula and examination "expectations" are far from classroom realities (Atuhurra and Kaffenberger 2020; Atuhurra and others 2023). This system incoherence reduces the effectiveness of education reforms that focus on learning recovery and acceleration. Coherent policy responses are compatible and coherent with one another and with other components of the education system, including its political context.

Promising policy responses for learning recovery and acceleration were aligned with the various components of the education system. During the pandemic, many countries supported innovative education programs by taking a systems approach to design and implementation, ensuring that programs were supported by subsequent modifications elsewhere in the sector. Both Chile and Indonesia modified national learning assessment programs to complement their prioritized curricula. Romania ensured that teachers were encouraged to devote time toward remediation by counting time for catchup learning toward their mandated weekly hours of instruction. Structured pedagogy programs (chapter 5) inherently enable system coherence by ensuring that changes made in classroom instruction also are reflected in the curriculum, teacher training, and assessment practices. Although resource-intensive, aligning each part of the education system toward the same objective reinforces the changes that countries wish to see in learning.

Alignment was built across policy responses to streamline country efforts toward learning recovery and acceleration. This alignment required greater coordination among implementing partners (if not centralized under the government) and strong feedback mechanisms among programs. Data from Colombia's Evaluar para Avanzar national assessment program were used in the Programa Todos a Aprender teacher training program to help inform the content of training and targeting of coaching supports. In Zambia, and some conflict-afflicted contexts as in the Central African Republic and South Sudan, interventions to support student re-enrollment and retention, including girls' re-enrollment campaigns and mentorship programs, were embedded with program elements that simultaneously fostered greater socioemotional and physical wellbeing. In Bhutan, Chile, Ecuador, and Guyana, the prioritized curriculum, primarily aimed at increasing mastery of the foundations, was also used to increase instructional time for socioemotional learning and wellbeing. Such complementarity prevents national efforts and resources from being spread thin across too many policy objectives, with minimal success.

Iterate and adapt policy responses to context through flexible implementation

Effective reforms are focused on a clear set of goals but are flexible to changes in their external environment. Countries with resilient learning recovery and acceleration plans anticipated and adequately responded to challenges in implementation and changes in the external environment. While some elements of programs are best kept centralized and prescriptive, implementers need to be enabled to respond to feedback and changing conditions in their specific contexts (Pritchett, Newman, and Silberstein 2022). A study of education reforms indicates that successful reform agendas do not adhere inflexibly to master implementation plans but are both focused and flexible: aligned toward a common goal but adaptive when necessary (Shrestha and others 2019; Pritchett, Newman, and Silberstein 2021). Separate from adapting program design to context, learning recovery programs benefit from designs that enable iteration, to ensure that emerging implementation challenges are detected and addressed early.

Differentiating delivery can enable simultaneous innovation and scaling. In Botswana, targeted instruction is being implemented via two service delivery models: government-led and direct. Under the government-led model, youth volunteers and government teachers are implementing a standard targeted instruction program at an increasingly large scale. Under the direct model, the delivery of targeted instruction is continuously experimented on, assessed, and refined in a small number of schools by a trained set of facilitators. Once validated and socialized, lessons collected from these schools are used to inform the design of the national approach to targeted instruction currently being scaled. Mongolia phased its learning recovery design to monitor progress toward learning objective goals at regular periods and to adjust according to what the evidence revealed. In September 2021, when schools reopened, a national assessment found significant learning gaps and subsequently was used as the basis for the recovery plan. In May 2022, a follow-up assessment showed a 7-10 percentage point improvement in mathematics, language, and science since the September assessment. However, a challenge faced in implementing the assessments and using their

results was that teachers and school leaders did not necessarily have the capacity to manage the evaluation process, analyze results, and respond to them. The Education Evaluation Center trained and deployed 90 teachers across the country to guide teachers on assessment. In addition, the ministry aims to dedicate time and resources in 2023 to build the capacity of school leaders.

7.5 CONCLUSION

Efforts to recover and accelerate learning must be RAPID. In many countries, the learning crisis is deepening, causing damaging economic and social repercussions to both individual students and society. As demonstrated by the learning recovery and acceleration efforts detailed above, education responses to combat the learning crisis must be coordinated, comprehensive, and multi-modal; that is, address all five policy areas of the RAPID framework as described below. Before designing learning recovery and acceleration policies, governments would benefit from first assessing the current state of their education system, asking:

- » Are all children and youth accessing high-quality learning opportunities? For children in school, are they likely to finish their required number of years?
- » Are all relevant actors being equipped with, and able to appropriately react to, data on student learning?
- » Are educators given enough instructional time, resources, and guidance to prioritize teaching the fundamentals? What constraints could be preventing the development of foundational skills?
- » Is instruction efficient? If not, what supports do teachers and students require to catch up to curricular expectations?
- » Are the students' current levels of mental, emotional, and physical wellbeing prohibiting effective learning?

After such an assessment, some countries identify priorities within the RAPID framework that require immediate attention. However, unless substantial efforts already are underway in specific policy areas or such challenges are minimal, the learning recovery and acceleration needs of most countries will require actions across all five policy areas. Within each policy area, there are various policy options depending on countries' contexts and capacities. Countries should first prioritize policy actions that are both easy to implement and have a high likelihood of success. However, simultaneously, efforts will need to be invested in longer term and resource-intensive interventions.

1. Reach every child and keep them in school.

Global progress toward improving access to education has been hampered by the COVID-19 pandemic. The return to school of many students, especially older or more marginalized students and those from lower income backgrounds, has been impeded. Meanwhile, others who managed to return to school are at a higher risk of dropping out than they were before.

- » For countries seeking to expand educational access, out-of-school children can be reached directly through home visits, house-to-house surveys, and digital tools that identify OOS children and support re-integration. Additionally, strengthening or expanding second chance education opportunities for over-aged children can provide an alternative path to certification or integration in formal schooling.
- » For countries seeking to reduce dropout, at-risk students can be identified and tracked through EWS. Such systems may require investing in education management information systems (EMIS) and equipping schools with the capacity to use data to implement targeted interventions that prevent dropout. Financial barriers and other opportunity costs to schooling can be addressed by providing cash transfers and grants.
- » Finally, countries can engage parents, families, and communities through mobile technologies or in-school events to deepen their involvement in children's education. Interest and attention from these groups positively impacts students' attendance, attainment, and performance.

2. Assess learning levels regularly.

In many countries, the lack of reliable and consistent data on student learning is an ongoing issue that hinders efforts to recover and accelerate learning. The COVID-19 pandemic further disrupted the collection of timely learning data so emphasized the need to invest in effective assessment systems.

» At the systems level, countries should prioritize implementing regular assessments to monitor learning. Countries can use the resulting data to plan and adjust recovery and acceleration strategies and allocate resources accordingly.

- » At the school level, countries can target remedial interventions and monitor progress by providing learning data, such as through classroom-level assessment tools, learning dashboards, and school report cards. To ensure that teachers can make use of assessment data to inform instruction, investment in assessment-specific professional development and resources is crucial.
- » Countries should take steps to enhance data availability, reporting, and use by strengthening data portals and communication channels that cater to different stakeholders; and by presenting learning data in a clear and accessible manner.

3. Prioritize teaching the fundamentals.

Too many students in low- and middle-income countries are not acquiring the fundamental skills and knowledge required to positively impact individual and societal outcomes. The instructional time lost to the COVID-19 pandemic exacerbated the pre-existing issue of overburdened and imbalanced curricula, which crowded out foundational skills. Countries can take different approaches to focus instruction on the fundamentals, particularly on literacy and language, and numeracy and mathematics.

- » Countries can reinforce the fundamentals by adjusting curricula to provide sufficient instructional time for foundational skills and knowledge. If curricular adjustments are made, teaching and learning materials, assessments systems, and teacher training must be adequately aligned.
- » If curricular adjustments prove difficult, countries can bolster the development of foundational skills by increasing instructional time by changing the school calendar or timetable.
- 4. Increase the efficiency of instruction, including through catch-up learning.

In most contexts, inefficient teaching and learning practices have prevented schooling from resulting in learning. After prolonged school closures or other major disruptions, children require additional supports to catch up. In parallel, education systems must become better at advancing learning efficiently and equitably.

- » Countries can increase the efficiency of wholeclassroom teaching by coordinating supports that help teachers plan systematic and engaging instruction, make the best use of instructional time, create and use aligned teaching and learning materials, and continually assess student learning with appropriate follow-up. Structured pedagogy packages are an effective tool to rollout the above scaffolds for whole-classroom teaching.
- » For students or groups of students who have fallen behind, countries should provide a range of additional and alternative supports designed to catch up learning. Evidence-based strategies include targeted instruction, supplemental remediation, small group tutoring, and adaptive or self-guided learning programs. For students with significant learning gaps or additional challenges, second chance or re-integration programs should be considered.
- » With expectations of instruction and student support shifting both in and out of the classroom, countries need to curate continuous classroomfocused training of teachers. Continuous coaching is an evidence-based method to sustain improvements in teaching.

5. Develop psychosocial health and wellbeing.

Learning after the onset of the COVID-19 pandemic was hindered by declines in or threats to the psychosocial health and wellbeing of children. Schools can be central points to prevent issues and support the psychosocial health and wellbeing of students and teachers.

» Countries should invest in preventive measures to avoid psychosocial health issues and provide immediate relief and build toward long-term resilience. Governments can guide schools in reducing the stigma around psychosocial health, making resources easily accessible, and fostering students' socioemotional skills. » Countries also should invest in the capacity of schools and teachers to detect and respond to psychosocial issues. Screening tools should be deployed to enable early detection of psychosocial health issues. School systems can be better equipped to support struggling students if investments are made in MHPSS capacity, referral systems, and teachers' socioemotional competencies.

Learning recovery and acceleration requires public and political commitment to a comprehensive, multiyear strategy that aligns the core components of the education system toward learning. The severity and multi-faceted nature of the learning crisis requires a long-term, multi-initiative response. Nevertheless, politicians almost always face significant political costs when trying to implement these responses. Furthermore, most education systems will struggle to afford; operationalize and manage; and align the education system around such responses.

- » Today, commitment to combat the learning crisis can be built through developing and implementing long-term, multi-initiative, and funded learning recovery and acceleration plans. For many countries, the emphasis in these plans may no longer be on recovery, which is more short term, but on acceleration. Many countries now choose to focus on medium- to long-term structural reforms to surpass pre-pandemic learning levels and sustain learning gains by improving the overall quality of the education system. The political costs of such plans can be reduced by generating awareness of the severe learning crisis and building public consensus around addressing it. Public consensus can be built by leveraging in-country evidence, fostering interministerial support for education champions, and planning for political turnover.
- » To address the learning crisis, an understanding of what resources and gaps exist can be revealed through both formal and informal assessments of system strengths and weaknesses. Capacitybuilding efforts, including toward resilience, should focus not solely on individual technical capacity. These efforts also should target advancing the

- institutional, organizational, and operational capacity of education actors, both inside and outside the public education sector.
- » Countries must consider that learning recovery and acceleration efforts occur within a broader system. Various education actors can be aligned around the same goals through unwavering country visions for learning and strong coordination mechanisms. Nevertheless, upfront investments will need to be made to ensure that learning recovery and acceleration programs cohere with other components of the education system. Implementation will need iterative feedback mechanisms.

Not enough is being done to address the learning crisis. Nevertheless, encouraging and effective programs are already being implemented in some countries. The learning crisis is a global phenomenon, but actions to address it have remained inconsistent and heterogeneous. These responses are attributed largely to governments' underestimation of the learning crisis and the extent to which countries must change how education is approached and delivered. Protecting the future productivity and wellbeing of the current student generation, and those to come, requires immediate action by countries and education partners. Nevertheless, as highlighted and examined in this report, hugely encouraging and effective programs already are underway in some countries. This report exists so that governments and educators worldwide can learn from and build on these successful individual country innovations to combat learning losses, improve learning, and reduce inequalities—and then share their own successes.



APPENDICES

A. METHODOLOGY

This report presents operational insights on learning recovery and acceleration. A mixed-methods research approach was used for the analyses, whereby qualitative and quantitative data was collected and analyzed to distill trends and lessons from promising efforts to recover and accelerate learning.. Concurrently, this approach allowed for key insights and transferable lessons to be shared across World Bank regional teams and with the larger global education community. Flexibility was embedded in the approach to allow for the emergence of unanticipated aspects.

Landscape review methodology

A landscape review determined what countries were doing to recover and accelerate learning.

Through desk research, national interventions aimed at recovering and accelerating learning since the onset of the COVID-19 pandemic were chronicled. The nonrandom sample of 60 countries across the 7 World Bank regions comprised over 65 percent of the total population aged 17 years and younger in low- and middle-income countries (table A1.2). These countries were identified through the literature

and consultation with World Bank regional staff for promising learning recovery and acceleration efforts. Data were informed by a review of five leading journals in global and international education using keyword searches related to pandemic-related learning recovery and acceleration. Data also were collected from national and subnational government websites, national education sector COVID-19 response plans, development partner publications, program evaluations, news articles, press releases, and other research fora. Additional documentation and information were garnered through interviews with World Bank staff and, in some cases, staff from government and nongovernmental organizations. In total, interviews were held with approximately 40 individuals. All interventions were categorized by the five policy actions of the RAPID framework (figure 1.3), which were further disaggregated to compile a menu of policy responses to recover and accelerate learning. Using these data, a learning recovery and acceleration policy responses database (the "report database") was constructed to capture the actions taken by various low- and middle-income countries education systems to recover and accelerate learning and used to approximate the prevalence of different policy interventions across this sample of countries.

Table A1.2 List of national learning recovery and acceleration interventions analyzed

Argentina (Mendoza)*	Egypt, Arab Rep.	Malawi	São Tomé and Principe
Armenia	Ethiopia	Marshall Islands	Sierra Leone
Bangladesh	Ghana	Mongolia	Senegal
Benin	Guyana	Morocco	South Africa
Bhutan	Haiti	Mozambique	South Sudan
Botswana	India	Nepal	Syrian Arab Republic
Brazil*	Indonesia*	Nicaragua	Tajikistan
Cambodia	Jamaica	Nigeria (Edo)*	Tanzania
Cameroon	Jordan*	North Macedonia	Timor-Leste
Central African Rep.	Kenya*	Pakistan	Tonga
Chile*	Kosovo	Panama	Türkiye
Colombia	Кугдуz Republic	Papua New Guinea	Uzbekistan
Congo, Dem. Rep.*	Lao PDR	Philippines	Vietnam
Côte d'Ivoire	Lebanon	Romania	West Bank and Gaza
Dominican Republic	Madagascar	Rwanda	Zambia
Ecuador*			

Note: * = Policy action case studies. Comprehensive case studies are in **bold**.

Insights from the landscape review were used to support the report's findings. However, operational insights from a select group of countries with promising policy responses related to learning recovery and acceleration also have been included. These include Chile, El Salvador, Honduras, Liberia, Mauritania, Mexico, Spain, Sri Lanka, Thailand, Togo, Uganda, the United Kingdom, the United States of America, and Uruquay.

Comparative case study methodology

Three types of case studies were leveraged to illuminate operational insights about learning recovery and acceleration. Country case studies were developed to showcase effective and promising actions to comprehensively recover and accelerate learning, particularly for the most vulnerable and marginalized. The case studies detailed country experiences using an operational viewpoint: from the planning stage to the design, implementation, and results stages. Case studies focused on learning recovery and acceleration efforts in the K-12 education sector, in both countries with ongoing education-related World Bank projects as well as countries in which the World Bank is not currently engaged. Three types of country case studies were used in this report:

- 1. Comprehensive case studies. These included countries that have implemented (or are implementing) comprehensive strategies to recover and/or to accelerate learning by addressing at least three of the policy actions under the RAPID Framework. An example of a main case study is India and the policy interventions that took place both across states and at the federal level, such as those under the Learning Recovery Plan. All selected comprehensive case studies are outlined in box A1.1. Comprehensive case studies were strengthened through interviews with World Bank staff and other stakeholders to distill operational insights for the report.
- 2. Policy action case studies. These included specific cases in which countries or education systems have implemented an initiative or program addressing one of the RAPID Framework policy actions and from which relevant lessons for that

- policy action can be drawn. An example of a policy action case study is **Jordan**, and its Learning Bridges self-guided learning program (chapter 5). Policy action case studies were strengthened through at least one interview with World Bank staff or other stakeholders to distill operational insights for the report.
- 3. Historical and broader policy action case studies. Some of the most useful lessons on how to recover and accelerate learning come from historical cases of national responses to education disruptions such as the COVID-19 pandemic. Additional COVID-19-related cases offered valuable lessons on key policy actions but did not involve an interview. An advantage of historical cases is that they are more likely to have evidence of effectiveness and impact on learning and other dimensions of student success. An example is Tanzania's 2015 3R Curricular Reform, which sought to improve foundational learning (chapter 4).

Case study selection was based on a set of predetermined criteria. Comprehensive and policy action case studies were selected through desk research and wide consultation of the 60 national education responses to the COVID-19 pandemic. Seven comprehensive cases were selected (box A1.1). Selection was based on objective criteria (as outlined in appendix B), and validated through consultation with World Bank staff.

Box A1.1 Selected successful comprehensive case studies

Cambodia. The Ministry of Education, Youth and Sport (MOEYS) acted on learning recovery and acceleration across 4 of the 5 RAPID Framework policy areas. The government organized a Joint Technical Working Group, which analyzed the results of a grade 6 National Learning Assessment conducted in March 2021 and supported a comprehensive policy package. The package sought to (1) expand and strengthen the help provided to students to catch up and (2) target the most disadvantaged students who had suffered the greatest learning losses. Specific attention was given to advancing technology-enabled learning supports, such as the BEEP Platform, which was leveraged to support out-of-school children and girls. In addition, in partnership with VVOB and Cambodian NGO Kampuchea Action to Promote Education (KAPE), Cambodia launched several pedagogical programs that lean on evidence-based practices, such as targeted instruction and adaptive self-guided learning. MOEYS has also implemented the Strengthening Teacher Education Program in Cambodia (STEPCam); with support from UNESCO and GPE, the initiative aims to improve the quality of teaching and learning in the early grades through introducing new pedagogical methods and providing in-service training to enhance teacher competencies. There is a clear focus on the foundational subjects of Khmer and mathematics, with an Early Grade Reading and Mathematics program being rolled out in 12 provinces.

- » Reach: Early warning system; data-informed remediation
- » Assess: Application of disaggregated assessment data
- » Prioritize: Condensed curriculum with focus on literacy and numeracy
- » Increase: Adaptive learning and targeted instruction program

Colombia. The Government of Colombia developed a COVID recovery plan for the education sector that embodies 3 of the 5 RAPID Framework policy areas. The plan includes a nationwide program for classroom assessments, a Leadership School (Escuela de Liderazgo) to mentor and train school principals, and the adaptation of the *Programa Todos a Aprender* to improve pedagogical practices and teaching competencies in preschool and primary education. The plan also includes the Emotions for Life (Emociones para la Vida) Program, a large-scale socioemotional learning program in 4,500 schools funded by the World Bank.

- » Assess: Strengthened classroom assessment practices
- » Prioritize: Teacher coaching prioritizing foundational skills
- » Develop: In-class socioemotional skills program at scale

Côte d'Ivoire. Making use of 3 of the Rapid Framework policy areas, Côte d'Ivoire improved foundational learning outcomes at the primary level through 2 long-standing programs. The Programme d'Enseignement Ciblé is a remedial learning program for grades 3–6 reading and mathematics, adapted from the Teaching at the Right Level (TaRL) model with technical support from TARL Africa. The Enseignement Ciblé program has an impressive history of scaling up and plans to continue scaling to the national level. It is being implemented in approximately 1,000 schools in the southwest and relies heavily on improved teacher support and targeted instruction. The My Child Learns Better in School (PAPSE) is an early grade (grades 1–3) reading and mathematics program being implemented in approximately 700 high-need and fragile schools. Financed by the GPE with the World Bank as supervising entity, PAPSE has improved Côte d'Ivoire's curricula, assessment, and teacher training, and has employed the large-scale use of structured pedagogy.

- » Assess: Strengthened classroom assessment practices
- » Prioritize: Early grade (foundational) learning program
- » Increase: Targeted instruction structured pedagogy programs

India. India has developed and advanced strategies to recover and accelerate learning across four of the RAPID policy actions. According to the 2020 National Education Policy, universal attainment of foundational literacy and numeracy skills is India's highest priority for education. To this end, in 2021 the Ministry of Education launched the National Initiative for Proficiency in Reading with Understanding and Numeracy (NIPUN Bharat), which requires all states to prepare an implementation plan to achieve this goal by 2025. In 2023 the MOE introduced a new National Learning Recovery Plan (LRP), which outlines stakeholder responsibilities and additional funding. The LRP includes a learning enhancement program, teacher resource package, and oral reading fluency study. Additionally, Samagra Shiksha is an overarching program for the education sector to improve quality and inclusion in education through equitable schooling opportunities and learning outcomes. Several components are supported at the national level by the World Bank's Strengthening Teaching-Learning and Results for States (STARS) project, which also invests in national- and state-level capacities to assess learning and enhance teacher development. Last, the World-Bank-funded Gujarat Outcomes for Accelerated Learning (GOAL) project supports the government of Gujarat's decentralized educational management system, the Gyansetu remedial learning program, and other capacity-building initiatives in the state.

- » Assess: Tablet-enabled assessment for remediation
- » Prioritize: National Observer Research Foundation (ORF) study; new curriculum for foundational skills
- » Increase: Remedial programs (Gujarat); expanded teacher training
- » Develop: National telecounseling initiative

Mongolia. Efforts to recover and accelerate learning have been led by the Ministry of Education and Science (MES) through its Comprehensive Plan for Learning Loss Recovery in Primary and Secondary Education. This three-year national remedial education plan was launched by MES and approved by Parliament to build a more resilient education system during and after the COVID-19 pandemic. Complementary projects are the (1) Support for Inclusive Education and (2) Education Quality Reform Project. Mongolia also is developing a robust set of mental health and psychosocial support services for adolescents. These services are both cross-sectoral and supportive of parental and community engagement. In-classroom assessment practices are being improved as well as national assessment systems to inform the deployment of catch-up learning programs. The Asian Development Bank (ADB), World Bank, and UNICEF provide support for these projects. Mongolia's restructuring of teacher training and the national curriculum to incorporate Universal Design for Learning (UDL) principles demonstrate the country's commitment to equity. Mongolia is implementing 4 of the 5 RAPID Framework policy areas:

- » Reach: Comprehensive inclusivity efforts for girls and children with disabilities (CWDs)
- » Assess: Teacher trainings/capacity building in assessments
- » Prioritize: Curriculum focused on literacy and numeracy
- » Develop: Multilevel, cross-sectoral mental health and psychosocial support (MHPSS) programming

Romania. Education is a high priority in Romania's 2021 National Recovery and Resilience Plan. Reforms and investments are tackling the main challenges in the education system in four areas of the RAPID Framework. The Ministry of Education is the key player in policy formation, but the response is cross-sectoral, and entities across levels implement interventions. MOE has scaled up a successful early warning mechanism to the national level to decrease early school leaving through identifying, supporting, and monitoring the progress of at-risk students. The Romania Secondary Education Project (ROSE) is increasing Romania's participation in international assessments and implementing national large-scale mathematics, reading, and language assessments for the 9th grade. Additionally, MOE's project PROF provided widespread mentoring support to teachers during the pandemic. Moreover, the TEACH classroom observation tool is being used in an impact evaluation across the country with 1,000 teachers to assess the quality of instruction and learning with technical assistance from the World Bank. Romania also is providing remedial education and tutoring, with a focus on poor, rural, and Roma students. These projects have adapted to meet the challenges of post-pandemic recovery through upgraded curriculum and pedagogies and a renewed commitment to prevent school dropout and to address inequity in education.

- » Reach: Earmarked funding to prevent dropout
- » Assess: Scaling up assessments; assessing ICT skills
- » Increase: Strengthened digital education for blended learning
- » Develop: Parental support and engagement program

Zambia. Since before the pandemic, Zambia has demonstrated strong political commitment to address learning poverty. With the Ministry of General Education (MOGE) in the lead, Zambia has implemented multiple programs and is developing long-term solutions. Catch-Up, a remedial program addressing early grade literacy and numeracy based on the TaRL methodology and supported by UNICEF, has been scaled up. Since the onset of the pandemic, Zambia has rolled out Catch-Up in another two provinces, incorporated "learning through play" principles, and translated materials into local languages. The government is focused on supporting and raising standards for teachers. The Zambia Education Enhancement Project strengthens the teacher training system and, with World Bank support, increases access to learning materials. MOGE also extended the Education for All free primary schooling policy to early childhood and secondary education. Key stakeholders and donors convene in Joint Annual Review meetings and the Cooperating Partners Group. Moreover, MOGE is finalizing a strategic plan expected to be approved in 2023.

- » Reach: Expanded social cash transfer program; free schooling
- » Increase: Targeted instruction; teacher capacity building
- » Develop: Life skills and learning support program for girls

Table A1.3 Themes and subthemes that guided case study interviews

Theme	Subtheme		
	Explicit Strategy, Plan, or Program for Learning Recovery		
	System Alignment		
Charles and and Diamerica	Policy Coherence		
Strategy and Planning	Scalability		
	Planning		
	Evidence Use		
	Across Gender		
	Across Socioeconomic Status		
Equity Promotion	Across Dis/ability Status (Inclusive Education)		
	Across Regions (Urban vs. Rural)		
	Across Levels of Education		
T D (Teacher Skills and Resilience Teacher Performance		
Workforce	Teacher Ownership		
Workforce	Operational and Managerial Capacity (Ministerial Capacity)		
	School Leadership and Management		
	Data, Monitoring and Evaluation		
Comica Deliceron	Iterative Adaptation		
Service Delivery	Accountability		
	Use of Technology		
	Flexible Spending		
Financing	Diverse and Coordinated Funding		
	Long-Term Spending		
	Duration of Political Commitment		
D. I''. 10 ''	Country Ownership of Learning Recovery Activities		
Political Commitment	Leadership		
	Financial Commitment		

Source: World Bank.

Case study data were collected through primary and secondary means. For each comprehensive case study, insights were gathered from thorough desk research into the country's national education responses since the onset of the COVID-19 pandemic. Information was collected from news articles, press releases, education sector plans and strategies, impact evaluations, and other program documents. Primary research was conducted through semi-structured interviews with government

representatives, nongovernmental actors, and World Bank staff. An interview protocol, which was used as an unofficial guide, was developed based on a conceptual framework for recovering and accelerating learning developed from a review of the literature on education disruptions, scaling, and transformation (table A1.3). The framework leaned heavily on the Brookings Institution's Millions Learning Framework and the World Bank's "Learning to Realize Education's Promise" flagship report.²⁷

²⁷ For more information on the Brookings Institution's Millions Learning Framework, see Robinson, Winthrop, and McGivney 2016.

Limitations

The main limitation of the methodology for this report is the lack of evaluations and results on key outcomes for most of the country cases reviewed

here. Systematic data on learning outcomes or impact evaluations of efforts to recover and accelerate learning due to the pandemic were rare at the time the study began and largely remain so today. Importantly, case studies and qualitative reviews can offer valuable insights into the design and implementation of promising programs and actions. Additionally, given the limited outcome data on what were or still are relatively recent national efforts, the team had to use process and activity indicators, such as evidence-based activities conducted as planned, to help identify countries to be studied. Further investigation will be needed to pursue remaining knowledge gaps on learning recovery and acceleration.

The report database is limited. Information on national education responses since the onset of the pandemic was used to construct a report database. The report database was based on a nonrandom sample of low- and middle-income countries that were investigated through desk research. Countries included in the report database were identified from the literature and through recommendations, based on their relatively robust efforts to recover and accelerate learning at scale. Therefore, it could be assumed that calculations based on this sample are overestimates of what is occurring globally. Furthermore, since the report database was constructed based on desk research and select semi-structured interviews. it is possible that not all national education interventions to recover and accelerate learning were captured if not made publicly available.

APPENDIX B. CRITERIA FOR SELECTION OF CASE STUDIES

A. General criteria for all case studies

The following six criteria will apply across the 3 types of case studies: main, supplemental, and historical.

- **1. Aligned with evidence**. The programs or strategies are aligned with the evidence on best practices to improve student learning.
- 2. Country-led or country-supported. The programs or strategies should be largely owned, led, or supported by the country or state government education agency or agencies. This guideline will be applied flexibly for countries classified as fragile, conflict, or violence affected (FCV).
- **3.** At scale or with scale in mind. The programs or strategies are being implemented at a regional or national scale or, in the case of a pilot intervention, are explicitly intended to be scaled.
- 4. Implementation broadly underway. The programs or strategies not only were planned but also have been implemented to a reasonable extent so that operational insights regarding implementation, monitoring, and iteration can be elicited.
- 5. Low-, lower-middle-, and upper-middle-income countries. The country must be classified as low-or middle- (either lower-middle- or upper-middle-) income, according to the World Bank country income classification for Fiscal Year 2021. Two exceptions were made for the analysis of high-income countries: Panama and Romania, both of which were classified as upper-middle-income countries during the first year of the pandemic.
- **6. Representation of regions and income classification**. The country selection will reflect regional and income-level diversity, covering at least three of the World Bank's recognized regions and with countries in different income levels.

B. Specific criteria

The following criteria will apply specifically to each of the main, supplemental, and historical case studies.

For comprehensive case studies:

- 1. Cover at least 3 policy actions. The country has taken action to address COVID-related impacts on learning by putting into action at least 3 key actions, strategies, or programs that cover at least 3 of the policy actions in the RAPID Framework.
- 2. Responses focused on the learning acceleration phase. Country policy responses that will be considered should be aligned with the "Improving and Accelerating" phase of the World Bank's "The COVID-19 Pandemic: Shocks to Education and Policy Responses," aiming beyond coping to return to the pre-pandemic status quo, to systems transformation within the education sector.

Preference will be given to cases that have the following:

- 1. Explicit strategy, plan, or program. Countries that have an explicit strategy, plan, or program for recovering (and accelerating) learning as a response to the effects of the COVID-19 pandemic.
- 2. Monitoring efforts and evidence generation.

 Countries that have monitored efforts toward learning recovery and acceleration, and are evaluating the use of inputs, the quality of processes and implementation, and the effectiveness (and cost-effectiveness) of strategies and programs.
- 3. Equity. Countries that host initiatives that specifically prioritize equitable outcomes for all children, with targeting or consideration of, for example, girls, children from rural areas or poorer backgrounds, children with disabilities or special learning needs, and minority language or ethnic groups.
- 4. Long-term vision. Countries that implement initiatives designed to produce long-term, sustainable impacts and are a part of a broader educational strategy of structural reforms over the long term.

For policy area case studies:

1. Alignment with at least one RAPID policy action.

The country will have implemented a program or strategy, either pre- or post-pandemic, in 1 of the 5 RAPID policy actions of consideration (Reaching every child, Assessing students regularly, Prioritizing teaching the fundamentals, Increase the efficiency of instruction, or Develop psychosocial health and wellbeing).

 Available impact data on short-term learning outcomes. Priority will be given to policy action cases with available impact data on the development of foundational skills and other metrics of interest.

For historical and other COVID-19 case studies:

1. Response to a shock or disruption to education.

These case studies will look at countries that have responded to a past shock to, or disruption of, schooling and learning. Examples include natural disasters, war or conflict, or disease outbreaks.

2. Alignment with at least one RAPID policy action.

The country will have implemented a program or strategy in at least one RAPID policy action (point 1 in policy area case studies above).

3. Available impact data on learning outcomes.

Priority will be given to cases with impact data available on the development of foundational skills and other metrics of interest.



APPENDIX C. EXAMPLES OF TARGETED INSTRUCTION PROGRAMS

Table C1. Examples of targeted instruction programs

Country Program name	Scale	Implementation information	Available evidence
Botswana Teaching at the Right Level Botswana	All primary schools (by 2025)	Sessions were facilitated for 30 days for 1 hour a day during the last school hour. Sessions were facilitated by independently hired and trained facilitators but gradually are being embedded in traditional classroom instruction.	Eighty percent of students progressed at least one level of competency in foundational learning skills. Proportion of students who could not do any basic mathematical operations dropped from 25% to 4%. Those who can now add, subtract, multiply, and divide increased from 7% to 53%.
Brazil Brasil Na Escola's Acompanhamento Personalizado de Aprendizagem	All Brasil Na Escola schools (those with at least 70% vul- nerable students)	Program devotes 1.5 hours of the school day during 2-week intensive periods (4 times a year) to regroup students based on their learning levels and implement instruction aimed at those level, led by trained monitors (teachers, trained university students or volunteers).	Not yet available.
Cambodia	10 pilot schools, but guidance avail- able nationwide	Ten pilot schools devote 12 hours (3 days for 4 hours each) per month to address learning gaps through targeted exercises in Khmer and mathematics.	Not yet available.
Côte d'Ivoire Programme d'Enseignement Ciblé (PEC) ⁶	3,000 schools	Teachers facilitate targeted instruction activities in French and mathematics for 1.5 hours every day for grade 3-6 students in formal public schools and community schools.	During pilot, proportion of children able to read a simple paragraph increased from 14% to 51%. Proportion of children able to do simple subtraction increased from 12% to 63%.
Indonesia Early Grade Literacy program	Approx. 27,221 grade 2–3 students	Sessions are facilitated by teachers; student progress is continually assessed and teaching is adjusted accordingly.	From 2015 to 2018, proportion of non-readers in lower-performing schools decreased from 62% to 26%, while the proportion of adequate readers in target schools increased from 6% to 18%.
Morocco	12,000 grade 3–5 students		Thirty-eight% of tested students were able to do a subtraction, against 26% initially. Twenty-five% of tested students were able to read a paragraph in French, against 16% initially. Forty-three% of tested students were able to read a small paragraph in Arabic, against 38% initially.
Nepal	2,163 grade 4–5 students from 64 public schools	For 10 weeks, grade 4–5 learners were grouped by performance ability and given targeted instructional activities by trained teachers or volunteers during the school day.	Proportion of children reading a story without making more than 3 mistakes has doubled in the endline from 29% to 60%. For mathematics, at baseline only 34% of children were able to solve at least one 1-digit subtraction, while at endline 80% children could solve these questions.
Zambia Catch-Up	239,663 grade 3-5 students	Grade 3 to 5 learners receive one hour per day for interactive lessons facilitated by teachers.	ا 2
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Source: Based on information from Radhakrishnan and others 2022; Brazil, Secretaria de Educação 2022; TaRL Africa 2022; UNICEF 2022c; UNICEF 2022d; VVOB 2021b; Wyss and Robinson 2021.

REFERENCES

Acasus. Forthcoming. "Landscape Analysis of Remediation Programs in LMICs." Acasus, Baar, Switzerland.

Acevedo, Ivonne, Gonzalo Almeyda, Iván Flores, Carolina Hernández, Miguel Székely, and Pablo Zoido. 2021. "Estudiantes desvinculados: los costos reales de la pandemia." Hablemos Política Educativa 10. New York: Inter-American Development Bank. https://publications.iadb.org/es/hablemos-de-politica-educativa-10-estudiantes-desvinculados-los-costos-reales-de-la-pandemia.

ADEA (Association for the Development of Education in Africa), AU/CIEFFA (African Union's International Center for Girls' and Women's Education in Africa), and APHRC (African Population and Health Research Center). 2022. "Learning Assessment during the COVID-19 Pandemic in Africa." ADEA, AU/CIEFFA, and APHRC, Abidjan, Ouagadougou, Nairobi. https://www.adeanet.org/sites/default/files/publications/learning_assessment_kix_observatory.pdf.

Aditomo, Anindito. 2022. "Recovering Education with Emancipated Learning." Paper presented at the UNESCO (United Nations Educational, Scientific and Cultural Organization)—KEDI (Korean Educational Development Institute) Asia-Pacific Regional Policy Seminar, "Learning Recovery: Saving a Generation of Learners," Bangkok, September 29. https://bangkok.unesco.org/content/2022-unesco-kedi-asia-pacific-regional-policy-seminar-learning-recovery-saving-generation.

AEWG (Accelerated Education Working Group). 2020. "COVID-19 Pathways for the Return to Learning: Guidance on Condensing a Curriculum." https://inee.org/sites/default/files/resources/AEWG_COVID19_Pathways%20for%20the%20 https://inee.org/sites/default/files/resources/AEWG_COVID19_Pathways%20for%20the%20 https://inee.org/sites/default/files/resources/AEWG_COVID19_Pathways%20for%20the%20 https://inee.org/sites/default/files/resources/AEWG_COVID19_Pathways%20for%20the%20 https://inee.org/sites/default/files/resources/AEWG_COVID19_Pathways%20for%20the%20 https://inee.org/sites/default/files/resources/AEWG_COVID19_Pathways%20for%20the%20 https://inee.org/sites/default/files/resources/AEWG_COVID19 https://inee.org/sites/AEWG_COVID19 https://inee.org/sites/AEWG_COVID19 https://inee.org/sites/AEWG_COVID19 https://inee.org/sites/AEWG_COVID19 https://inee.org/sites/AEWG_COVID19 https://inee.org/sites/AEWG_COVID19 https://inee.org/sites/AEWG_COVID19 https://inee.

AEWG (Accelerated Education Working Group) INEE (Inter Agency Network for Education in Emergencies).

2022. Accelerated Education in [the] Democratic Republic of Congo, South Sudan, Tanzania and Uganda." New York: INEE. https://inee.org/resources/accelerated-education-democratic-republic-congo-south-sudan-tanzania-and-uganda.

Agbe, E., and C. Sefa-Nyarko. 2020. "Ghana's Education Response during the COVID-19 Crisis: EdTech to the Rescue?" Case Study. EdTech Hub. https://edtechhub.org.

Agnafors, Sara, Mimmi Barmark, and Gunilla Sydsjö. 2021. "Mental Health and Academic Performance: A Study on Selection and Causation Effects from Childhood to Early Adulthood." Social Psychiatry and Psychiatric Epidemiology 56: 857–66. doi: 10.1007/s00127-020-01934-5.

Agrawal, Soniya. 2023. "After Gujarat, 14 More State and 1 UT to Set Up 'Vidya Samiksha Kendras' to Monitor Govt Schools." *The Print*, May 20. https://theprint.in/india/education/after-gujarat-14-more-states-1-ut-to-set-up-vidya-samiksha-kendras-to-monitor-govt-schools/1583842.

Ahlgren, Ellinore, Joao Pedro Azevedo, Jessica Bergmann, Matt Brossard, Gwang-Chol Chang, Borhene Chakroun, Marie-Helene Coultier, Suguru Mizunoya, Hicolas Reuge, and Halsey Rogers. 2022. "The Global Education Crisis: Even More Severe than Previously Estimated." Education for Global Development (blog), January 4, 2022. https://blogs.worldbank.org/education.

Aiyar, Y., V. Davis, G. Govindan, and T. Kapoor. 2021. "Rewriting the Grammar of the Education System: Delhi's Education Reform (A Tale of Creative Resistance and Creative Disruption)." November 25. RISE (Research on Improving Systems of Education) Programme, Oxford. https://riseprogramme.org/publication-reform-tale-creative-resistance.

Akbaşlı, S., M. Şahin, and Z. Yaykiran. 2016. "The Effect of Reading Comprehension on the Performance in Science and Mathematics." *Journal of Education and Practice* 7 (16): 108–21.

Alqassim, Ahmad Y., Mohammed O. Shami, Ahmed A. Ageeli, Mohssen H. Ageeli, Abrar A. Doweri, Zakaria I. Melaisi, Ahmed M. Wafi, Mohammed A. Muaddi, and Maged El-Setouhy. 2022. "Burnout among School Teachers during the COVID-19 Pandemic in Jazan Region, Saudi Arabia." Frontiers in Psychology 13: 849328. doi:10.3389/fpsyg.2022.849328.

Al-Qataee, Abdullah, Nayyaf Aljabri, Laura Gregory, and Amira Mohamed Ibrahim Kazem. "Saudi Arabia: Moving High-Stakes Examinations Online with Al Technology." Education Continuity Stories. World Bank Group, Washington, DC. http://documents.worldbank.org/curated/en/397621600058910355/Saudi-Arabia-Moving-High-stakes-Examinations-Online.

Al-Samarrai, Samer, and Luis Benveniste. 2022. "Financing Education at the Bottom of the Pyramid." In Daniel A. Wagner, Nathan M. Castillo, and Suzanne Grant Lewis (eds.), Learning, Marginalization, and Improving the Quality of Education in Low-income Countries. Cambridge: Open Book Publishers. https://www.openbookpublishers.com/books/10.11647/obp.0256.

Amin, N., and P. Mahabeer. 2021. "Curriculum Tinkering in Situations of Crises and Inequalities: The Case of South Africa." *Prospects* 51 (1–3): 489–501. doi: 10.1007/s11125-021-09564-8.

Anderson, Mickella. 2023. "Education Ministry Reports Success with 'Yard to Yard, Find the Child' Initiative." *Jamaica Information Service*, May 16, 2023.

Angrist, Noam, David K. Evans, Deon Filmer, Rachel Glennerster, F. Halsey Rogers, and Shwetlena Sabarwal. 2020. "How to Improve Education Outcomes Most Efficiently? A Comparison of 150 Interventions Using the New Learning-Adjusted Years of Schooling Metric." World Bank, Washington, DC. doi: 10.1596/1813-9450-9450.

Antara News. 2022a. "Education Report Card Allowing Easier Mapping of State of Education." Anatara News Indonesian News Agency, April 1, 2022. https://en.antaranews.com/news/222949/education-report-card-allowing-easier-mapping-of-state-of-education.

Antara News. 2022b. "Education Report Card Helping Schools Make Data-Driven Improvements." Anatara News Indonesian News Agency, December 15, 2022. https://en.antaranews.com/news/265811/education-report-card-helping-schools-make-data-driven-improvements.

ARED (Associates in Research and Education for Development). 2022. "The Ndaw Wune Program (Success for All)." https://ared-edu.org/index.php/ project/le-programme-ndaw-wune-reussite-pourtous.

Argentina, Province of Mendoza, General Directorate for Schools. 2022. "Gestión de la evidencia en alfabetización post-pandemia: La experiencia de Mendoza, Argentina." https://www.youtube.com/watch?v=6PK24Lod76c.

Arias, O., and I. Kheyfets. 2023. "The Adequacy of Public Expenditure on Education and the Needs Post-COVID-19." A Policy Note. World Bank, Washington, DC. https://thedocs.worldbank.org/en/doc/9b9ecb97 9e36e80ed50b1f110565f06b-0200022023/original/Adequacy-Paper-Final.pdf.

ASEAN (Association of Southeast Asian Nations). 2022. Reopen, Recover and Resilience in Education: Guidelines for ASEAN Countries. Softfile (slides). ASEAN Secretariat, Jakarta. https://asean.org/book/reopen-recover-and-resilience-in-education-guide-lines-for-asean-countries.

Atuhurra, J., and M. Kaffenberger. 2020. "System [In] Coherence: Quantifying the Alignment of Primary Education Curriculum Standards, Examinations, and Instruction in Two East African Countries." Working Paper 20/057, RISE (Research on Improving Systems of Education) Programme, Oxford. https://riseprogramme.org/publications/system-incoherence-quantifying-alignment-primary-education-curriculum-standards.

Atuhurra, J., R. Chaudhry, T. Hossain, and M. Kaffenberger. 2023. "Instructional Alignment in Nepal Using the Surveys of Enacted Curriculum." "Insight Note," May 27, RISE (Research on Improving Systems of Education) Programme, Oxford, UK. https://riseprogramme.org/publications/instructional-alignment-ne-pal-using-surveys-enacted-curriculum.

Avitabile, Ciro, Marina Bassi, Cristobal Cobo, Diego Luna-Bazaldua, Carolina Melo, Alberto Muñoz Najar, and Jake Spitz. 2022. "Systematization and Review of Chile's Experience in Educational Policies and Measures in the COVID-19 Pandemic." Chile, Ministry of Education, World Bank, Santiago, Washington, DC. https://documents1.worldbank.org/curated/en/099510005112217991/pdf/P177405011ac-9f0240af7f08768dfe39fd8.pdf.

Azevedo, J.P. 2020. "How Could COVID-19 Hinder Progress with Learning Poverty? Some Initial Simulations." Education for Global Development (blog), December 15, 2020. https://blogs.worldbank.org/education.

Baird, Sarah, Francisco H. G. Ferreira, Berk Ozler, and Michael Woolcock. 2013. "Relative Effectiveness of Conditional and Unconditional Cash Transfers for Schooling Outcomes in Developing Countries: A Systematic Review." Campbell Systematic Reviews 9 (1): 1–124. doi: 10.4073/csr.2013.8.

Bangladesh, Ministry of Primary and Mass Education and MOE (Ministry of Education). 2020. COVID-19 Response and Recovery Plan: Education Sector. Government of the People's Republic of Bangladesh. Dhaka. https://planipolis.iiep.unesco.org/sites/default/files/ressources/bangladesh_moe_covid_19_response_and_recovery_plan.pdf.

Barker, Nathan, Gharad Bryan, Dean Karlan, Angela Ofori-Atta, and Christopher Udry. 2022. "Cognitive Behavioral Therapy among Ghana's Rural Poor Is Effective Regardless of Baseline Mental Distress." American Economic Review: Insights 4 (4): 527–45. doi:10.1257/aeri.20210612.

Barron, Peter, H. Subedar, M. Letsoko, M. Makua, and Y. Pillay. 2022. "Teenage Births and Pregnancies in South Africa, 2017–2021 — A Reflection of a Troubled Country: Analysis of Public Sector Data." South African Medical Journal 112 (4): 252–58.

Bartosiewicz, Anna, Edyta Łuszczki, Lech Zaręba, Maciej Kuchciak, Gabriel Bobula, Katarzyna Dereń, and Paweł Król. 2022. "Assessment of Job Satisfaction, Self-Efficacy, and the Level of Professional Burnout of Primary and Secondary School Teachers in Poland during the COVID-19 Pandemic." PeerJ 10: e13349. doi:10.7717/peerj.13349.

Bas, Gokhan. 2021. "Relation between Student Mental Health and Academic Achievement Revisited: A Meta-Analysis." *Health and Academic Achievement - New Findings*, May. IntechOpen. doi:10.5772/intechopen.95766.

Baten, J. 2021. "Indirect Survey Estimates of Basic Numeracy among Disadvantaged Groups in Sub-Saharan Africa." Background paper for "Global Education Monitoring Report," UNESCO, Paris. https://unesdoc.unesco.org/ark:/48223/pf0000380095.

Bedasso, B. 2023. "Ministerial Musical Chairs: World Bank Education Projects Lose Momentum amidst Leadership Churn in Borrowing Governments." Center for Global Development (blog), April 25, 2023. https://cgdev.org/blog.

Benson, C. 2020. "An Innovative 'Simultaneous' Bilingual Approach in Senegal: Promoting Interlinguistic Transfer While Contributing to Policy Change." International Journal of Bilingual Education and Bilingualism 25 (4): 1399–16. doi: 10.1080/13670050.2020.1765968.

Berkman, N.D., D.A. Dewalt, M.P. Pignone, S.L. Sheridan, K.N. Lohr, S.F. Sutton, T. Swinson, and A.J. Bonito. 2004. "Literacy and Health Outcomes: Summary." In AHRQ (Agency for Healthcare Research and Quality, US) "Evidence Report Summaries." Agency for Healthcare Research and Quality, Rockville, MD. https://www.ncbi.nlm.nih.gov/books/NBK11942.

Bethell, G. 2016. "Mathematics Education in Sub-Saharan Africa: Status, Challenges, and Opportunities." World Bank, Washington DC. https://docs.edtechhub.org/lib/RLWDJUUB.

Bhutan, Ministry of Education. 2020. "Prioritized Curriculum for EiE-II Now in Implementation." Department of Curriculum and Professional Development. https://rec.gov.bt/prioritized-curriculum-for-eie-ii-now-in-im-plementation.

Bhutan, MOE (Ministry of Education). 2021. "Education in Emergency (EiE) during COVID-19 Report." https://www.unicef.org/bhutan/media/2666/file/EiE%20Report%202021.pdf.

BlueTree Group 2021. "Marshall Islands: Book Supply Chain Assessment." World Bank, Washington, DC. http://documents.worldbank.org/curated/en/099025304142229435/
P1742520673fa40190ab1e0fd78c73e26fa.

Boni, A. and L. Gregory. 2022. "Saudi Arabia's Digital and Distance Education: Experiences from the COVID-19 Pandemic and Opportunities for Educational Improvement." World Bank, Washington, DC. http://hdl.handle.net/10986/37072.

Brazil, MOE (Ministry of Education). 2021a. "Brasil na Escola: Sobre o Programa." https://www.gov.br/mec/pt-br/brasil-na-escola.

Brazil, MOE (Ministry of Education). 2021b. "Plataforma de avaliações diagnósticas e formativas." "gov.br," December 28, 2021. https://www.gov.br/mec/pt-br/acesso-a-informacao/institucional/secretarias/secretaria-de-educacao-basica/programas-e-acoes/plataforma-de-avaliacoes-diagnosticas-e-formativas.

Brazil, Secretaria de Educação. 2021. "O Impacto da Pandemia na Educação. São Paulo Governo do Estado." https://www.educacao.sp.gov.br/wp-content/uploads/2021/04/Apresenta%C3%A7%C3%A3o-Estudo-Amostral.pdf.

Brazil, Secretaria de Educacão. 2022. "Brasil Na Escola. Caderno Técnico Volume 4: Acompanhamento Personalizado Das Aprendizagens." https://www.gov.br/mec/pt-br/brasil-na-escola/caderno-tecnico-acompanhamento-personalizado-das-aprendizagens-3.pdf.

Brinkerhoff, D. 2010. "Unpacking the Concept of Political Will to Confront Corruption." "U4 Brief", May 2010. CMI Chr. Michelsen Institute. https://www.cmi.no/publications/file/3699-unpacking-the-concept-of-political-will-to.pdf.

Burbano de Lara, C. 2023. "Why All the Talk about School Meals?" *Education for All* (blog), February 13, 2023. Global Partnership for Education. https://www.globalpartnership.org/blog.

Calipay, Connie. 2022. "Bicol Educators Join Dep Ed's Learning Recovery Program." Philippines News Agency, July 20, 2022. https://www.pna.gov.ph/articles/1179348.

Canenguez, K.M., A.M. Farley, A.M. Squicciarini, A. Dutta, A. Simonsohn, J.M. Holcomb, F. Peña, L. Leiva, T.S. Benheim, J. Guzmán, M. Jellinek, and J.M. Murphy. 2022. "Implementation and Outcomes of a National School-Based Mental Health Program for Middle School Students in Chile." School Mental Health (September 20). https://doi.org/10.1007/s12310-022-09541-2.

Cantrell, Steve, Joan Oviawe, Lisa Chen, Mark Buttweiler, and Spencer Nash. 2019. "The EdoBEST Effect." NewGlobe Schools. https://newglobe.education/the-edobest-effect.

Caribbean Development Bank, CARICOM, Organization of Eastern Caribbean States, Björn Haßler, Callista Regis, Abdullah Khalayleh, Chris McBurnie, Ghislaine Megha-Bongnkar, and Tom Blower. 2021. "The CDB/CARICOM /OECS Model Learning Recovery and Enhancement Programme for Caribbean Schools: Let's REAP! — Roadmap for Principals." Let's REAP! Guide No. 3. Open Development and Education. doi: 10.5281/3enodo.4940121.

Carrell, Scott E., Mark Hoekstra, and Elira Kuka. 2016. "The Long-Run Effects of Disruptive Peers." Working Paper 22042, National Bureau of Economic Research, Cambridge, MA. doi: 10.3386/w22042.

Carvajal, Liliana, Jennifer Harris Requejo, and Charles E. Irwin. 2021. "The Measurement of Mental Health Problems among Adolescents and Young Adults throughout the World." *The Journal of Adolescent Health* 69 (3): 361–62. doi: 10.1016/j.jadohealth.2021.06.009.

Chari, Rashmi. 2020. "NEP 2020: The Foundational Stage. The Times of India." *The Times of India* (blog), December 14, 2020. https://timesofindia.indiatimes.com/blogs/edutrends-india/nep-2020-the-foundational-stage.

Chernicoff-Minsberg, Leandro Ivan. Forthcoming. "Impacts of the Educating for Well-Being Program on Preschool Principals, Teachers, and Students: An RCT for a Large-Scale SEL Intervention." University of Wisconsin. Chile Attiende. 2023. "Programa Habilidades para la Vida (HPV)." Jan 13, Chile Atiende, Santiago. https://www.chileatiende.gob.cl/fichas/2080-programa-habilidades-para-la-vida-hpv.

Chile, Gob.cl. 2021. "Juntos, Chile se recupera y aprende": Mineduc entrega 20 propuestas educativas para enfrentar efectos de la pandemia en los próximos 4 años." December 13. https://www.gob.cl/noticias/juntos-chile-se-recupera-y-aprende-mineduc-entrega-20-propuestas-educativas-para-enfrentar-efectos-de-la-pandemia-en-los-proximos-4-anos.

Chile, MINEDUC (Ministerio de Educación). 2021. "Ministros de Educación y Agricultura anuncian entrega de recursos impresos para hacer Diagnóstico Integral de Aprendizaje a más de 200 mil alumnos de escuelas rurales." Government of Chile, MINEDUC. https://www.mineduc.cl/diagnostico-integral-de-aprendizaje.

Chile, MINEDUC (Ministerio de Educación). 2022. "Ministerio de Educación presenta Política de Reactivación Educativa Integral 'Seamos Comunidad.'"May 10. https://www.mineduc.cl/politica-de-reactivacion-educativa-integral-seamos-comunidad.

Chile, MINEDUC (Ministerio de Educación). 2023. "Actualización de la Priorización Curriculuar para la Reactación Integral de Aprendizajes. Unidad de Curriculum y Evaluación, Chile Ministerio de Educación." Unidad de Curriculum y Evaluación. <a href="https://www.curriculumnacional.cl/portal/Educacion-General/Artes-visuales/Artes-Visuales-1-basico/331221:Actualizacion-de-la-Priorizacion-Curricular-para-la-reactivacion-integral-de-aprendizajes-Orientaciones-generales."

Ciminelli, G., D. Furceri, J. Ge, D. Ostry, and C. Papageorgiou. 2019. "The Political Costs of Reforms: Fear or Reality?" Staff Discussion Note. IMF (International Monetary Fund), Washington, DC. https://www.imf.org/en/Publications/Staff-Discussion-Notes/lssues/2019/10/17/The-Political-Costs-of-Reforms-Fear-or-Reality-48735.

Clarke, Marguerite. 2021. "Alternative Approaches to High-Stakes Examinations during COVID-19: Lessons from Ireland." Education for Global Development (blog), December 14, 2021. https://blogs.worldbank.org/education/alternative-approaches-high-stakes-examinations-during-covid-19-lessons-ireland.

Clarke, Marguerite, and Diego Luna-Bazaldua. 2021. Primer on Large-Scale Assessments of Educational Achievement. National Assessments of Educational Achievement. Washington, DC: World Bank. https://www.amazon.com/Large-scale-Assessments-Educational-Achievement-National/d-p/146481659X.

Cobo, C., A. Munoz-Najar, and I. Sanchez Ciarrusta. 2021. "Remote Learning during COVID-19 Pandemic: How Countries Have Faced the Challenge of Implementing Multichannel Education Delivery Strategies." Education for Global Development (blog), January 14, 2021. https://blogs.worldbank.org/education.

Collaborative for Academic, Social, and Emotional Learning. 2023. "Fundamentals of SEL." CASEL. Accessed March 24. https://casel.org/fundamentals-of-sel.

Collins, T. 2022. "Sierra Leone's President Defends Large Education Budget as 'Necessary Risk." *The Guardian*, November 23.

Colombia, Ministerio de Educación Nacional. 2021. "Deserción escolar en Colombia: análisis, determinantes y políticas de acogida, bienestar y permanencia: nota técnica." https://www.mineducacion.gov.co/1780/articles-363488_recurso_34.pdf.

COVID-19 Mental Disorders Collaborators. 2021. "Global Prevalence and Burden of Depressive and Anxiety Disorders in 204 Countries and Territories in 2020 due to the COVID-19 Pandemic." *The Lancet* 398 (10312): 1700–1712. doi: 10.1016/S0140-6736(21)02143-7.

Crawfurd, L., S. Hares, and O. Oyewande. 2022. "What Do Countries Prioritise in Education? An Analysis of the 'Statements of Commitment' at the Transforming Education Summit." Center for Global Development (blog), April 25. https://cgdev.org/blog.

Crawfurd, L., S. Hares, and J. Sandefur. 2021. "A Poll of Education Officials in 35 Countries: Three Reasons the Idea of a 'Learning Crisis' Isn't Getting Traction." Center for Global Development (blog), April 25, 2023. https://cgdev.org/blog.

Crouch, L. 2020. "Systems Implications for Core Instructional Support Lessons from Sobral (Brazil), Puebla (Mexico), and Kenya." "Insight Note," July 8, 2020, RISE (Research on Improving Systems of Education) Programme, Oxford.

D'Angelo, S., J. Baron, and P.P. Polanco Santos. 2023. "Teachers and Technology—Together—Improve Student Learning." World Economic Forum, March 24. https://www.weforum.org/agenda/2023/03/teachers-and-technology-together-improve-student-learning.

Davis, Craig, and Gustavo Páyan-Luna. 2022. "Improving Social-Emotional Health: Expansion of Teacher and Student Wellbeing during the COVID-19 Crisis in Honduras." *Journal on Education in Emergencies* 8 (3): 202–14. http://hdl.handle.net/2451/63991.

Ding, Elaine Yi Zhong. 2021. "Raising the Foundation without Lowering the Ceiling: How to Utilize Teachers' Guides to Facilitate High-Quality Instruction." Education for Global Development (blog), January 4, 2022. https://blogs.worldbank.org/education.

Duncan, G.J., A. Claessens, A.C. Huston, L.S. Pagani, M. Engel, H. Sexton, C.J. Dowsett, K. Magnuson, P. Klebanov, L. Feinstein, J. Brooks-Gunn, and K. Duckworth. 2007. "School Readiness and Later Achievement." Developmental Psychology 43 (6): 1428–46.

Durlak, Joseph A., Roger P. Weissberg, Allison B. Dymnicki, Rebecca D. Taylor, and Kriston B. Schellinger. 2011. "The Impact of Enhancing Students' Social and Emotional Learning; A Meta-Analysis of School-Based Universal Interventions." *Child Development*. 82 (1): 405–32. doi: 10.1111/j.1467-8624.2010.01564.x.

Eble, A., C. Frost, A. Camara, B. Bouy, M. Bah, M. Sivaraman, P.T.J. Hsieh, C. Jayanty, T. Brady, P. Gawron, S. Vansteelandt, P. Boone, and D. Elbourne. 2021. "How Much Can We Remedy Very Low Learning Levels in Rural Parts of Low-Income Countries? Impact and Generalizability of a Multi-Pronged Para-Teacher Intervention from a Cluster-Randomized Trial in the Gambia." Journal of Development Economics 148, 2021, 102539. doi: 10.1016/j.jdeveco.2020.102539.

EdexLive. 2022. "From Over 24k Out-of-School Children, about 18.5k Have Been Tracked: Karnataka Gov't Informs High Court." The New Indian Express EdexLive, August 12. https://www.edexlive.com/news/2022/aug/12/out-of-24k-out-of-school-children-185k-have-been-tracked-karnataka-govt-informs-high-court-30472.html.

Education Commission. 2021. "The Challenge of Delivering for Learning." Policy Brief. January. Education Commission, New York. https://educationcommission.org/wp-content/uploads/2021/01/DeliverEd_Policy-Brief_1-1.pdf.

Education Endowment Foundation. n.d. "Small Group Tuition." Teaching and Learning Toolkit. https://edu-cationendowmentfoundation.org.uk/education-evi-dence/teaching-learning-toolkit/small-group-tuition.

Englis, T.P., and H. Boholano, H. 2021. "Mother-Tongue-Based Instruction in Teaching Elementary Mathematics." Solid State Technology 64 (2): 4032–39.

European Commission. 2020. "Capacity Development for Education System Strengthening." Practical Guidance Note 4. http://publications.europa.eu/resource/cellar/707a1bcd-39d5-11eb-b27b-01aa75e-d71a1.0001.01/DOC_1.

Evans, D., and B. Piper. 2020. "Guiding Teachers Rather Than Scripting Them." Center for Global Development (blog). https://www.cgdev.org/blog/guiding-teachers-rather-scripting-them.

Express News Service. 2022. "States Urged to Ready Strategies and Scale Up Aid to Make Up for Covid Learning Loss." The Indian Express, February 4.

Falguera, R.A. 2022. "Effectiveness of Mother-Tongue-Based Instruction on Grade 1 Pupil's Performance in Mathematics." International Journal of Advanced Multi-disciplinary Studies II (10): 260–70.

Fazzio, I., A. Eble, R.L. Lumsdaine, P. Boone, B. Bouy, P.T J. Hsieh, C. Jayanty, S. Johnson, and A.F. Silva. 2021. "Large Learning Gains in Pockets of Extreme Poverty: Experimental Evidence from Guinea- Bissau." Working Paper 27799, NBER (National Bureau of Economic Research), Cambridge, MA. https://www.nber.org/system/files/working_papers/w27799/w27799.pdf.

Filmer, Deon P., F. Halsey Rogers, Noam Angrist, and Shwetlena Sabarwal. 2018. "Learning-Adjusted Years of Schooling (LAYS): Defining a New Macro Measure of Education." Policy Research Working Paper 8591, World Bank, Washington, DC. doi: 10.1016/j. econedurev.2020.101971.

Fryer, R.G. 2017. "The Production of Human Capital in Developed Countries: Evidence From 196 Randomized Field Experiments." In Handbook of Economic Field Experiments, edited by Abhijit Vinayak Banerjee and Esther Duflo, 2: 95–322. Amsterdam: North-Holland. https://www.sciencedirect.com/handbook/hand-book-of-economic-field-experiments/vol/1/suppl/C.

Gaceta del Senado de México. 2022. "Gaceta del Senado" no. LXV/1SPO-11-2981/123629. Senado de la República. https://www.senado.gob.mx/65/gaceta_del_senado/documento/123629.

GEMR (Global Education Monitoring Report). 2023. "Can Countries Afford their National SDG 4 Benchmarks?" Policy Paper 49. UNESCO, Paris. https://www.unesco.org/gem-report/en/can-countries-afford-sdg4-benchmarks.

Geneva Global. 2021. "Speed School, Ethiopia: An Education Program for Out-of-School Children." https://www.genevaglobal.com/wp-content/uploads/2021/10/Speed-School.Ethiopia.2-pager.2021-10-26-1.pdf.

Gentilini, Ugo. 2022. Cash Transfers in Pandemic Times: Evidence, Practices, and Implications from the Largest Scale-Up in History. Washington, DC: World Bank. https://openknowledge.worldbank.org/han-dle/10986/37700.

Getachew, Feven. 2021. "Providing Quality Education through Remedial Learning in Rwanda. UNICEF Rwanda, May 25. https://www.unicef.org/rwanda/stories/providing-quality-education-through-remedial-learning-rwanda.

Geven, Koen. 2023. "SMS GIRL: Sending Messages about Schooling: Gender Innovation for Re-enrollment and Learning." Presentation at the SIEF (Strategic Impact Evaluation Fund) Workshop, February 22. https://thedocs.worldbank.org/en/doc/1502894fceef79f-496042189cb2b1946-0090052023/original/5-Paki-stan-SMS-GIRL-SIEF-Impact.pdf.

Gichuhi, L., and J. Kalista. 2022. "The Kenya Ministry of Education's Response to the COVID-19 Pandemic." UNESCO-IIEP, Paris. https://unesdoc.unesco.org/ark:/48223/pf0000381092.

Girls' Education Challenge. 2021. "Country Briefing: Zambia." GEC Country Briefing, March 2021. https://girlseducationchallenge.org/media/bejn1wiy/gec_country_briefing_zambia_march-21_final.pdf.

Global Education Cooperation Mechanism. 2022. "Knowledge Hub – Collection of Best Practices: 4Ts "Track, Trace, Talk and reTurn" Initiative." United Nations Transforming Education Summit 2022 Knowledge Hub. https://knowledgehub.sdg4education2030.org/system/files/2022-08/AT2GP237.pdf.

Gobierno de Perú. 2020. "Minedu implementa 'Alerta Escuela,' un sistema de alerta temprana para identificar estudiantes con riesgo de abandonar el sistema educativo." Press Release, October 9. https://www.gob.pe/institucion/minedu/noticias/306531-minedu-implementa-alerta-escuela-un-sistema-de-alerta-temprana-para-identificar-estudiantes-con-riesgo-de-abandonar-el-sistema-educativo.

Gomendio, M. 2023. "PISA: Mission Failure." Standards, Testing, and Accountability 23 (2). https://www.educationext.org/pisa-mission-failure-with-so-much-evidence-student-testing-why-do-education-systems-struggle.

Gortazar, L., C. Hupkau, and A. Roldán. 2023. "Online Tutoring Works: Experimental Evidence from a Program with Vulnerable Children." Working Paper 2, EsadeEcPol Centre for Economic Performance, London. https://www.esade.edu/ecpol/en/publications/online-tutoring-works-experimental-evidence-from-a-program-with-vulnerable-children.

GPE (Global Partnership for Education). 2022. "Cambodia: Better Teachers Produce Better Students." https://www.globalpartnership.org/results/stories-of-change/cambodia-better-teachers-produce-better-students.

Guyana, Department of Public Information. 2022. "More than 75% of Absentee Children Back in School — Education Minister." Press Release, March 22. https://dpi.gov.gy/more-than-75-of-absentee-children-back-in-school-education-minister/.

Guzmán J, R.C. Kessler, A.M. Squicciarini, M. George, L. Baer, K.M. Cananguez, M.R. Abel, A. McCarthy, M S. Jellinek, and J.M. Murphy. 2015. "Evidence for the Effectiveness of a National School-Based Mental Health Program in Chile." *Journal of the American Academy of Child and Adolescent Psychiatry* 54 (10): 799–807.e1. doi: 10.1016/j.jaac.2015.07.005.

Haelermans, C., M. Jacobs, R. van der Velden, L. van Vugt, and S. van Wetten. 2022. "Inequality in the Effects of Primary School Closures due to the COVID-19 Pandemic: Evidence from the Netherlands." AEA (American Economic Association) Papers and Proceedings 112: 303–07. https://www.aeaweb.org/articles?id=10.1257/pandp.20221107.

Handa, Sudhanshu, David Seidenfeld, Benjamin Davis, Gelson Tembo, and Zambia Cash Transfer Evaluation Team. 2016. "The Social and Productive Impacts of Zambia's Child Grant." *Journal of Policy Analysis and Management* 35 (2): 357–87. doi:10.1002/pam.21892.

Hare, Julie. 2022. "Absenteeism on the Rise amid Falling School Performance," Australia Financial Review, September 20. https://www.afr.com/work-and-ca-reers/education/absenteeism-on-the-rise-amid-fall-ing-school-performance-20220920-p5bjey.

Hassan, Hashibul, Asad Islam, Abu Siddique, and Liang Choon Wang. 2022. "Telementoring and Homeschooling during School Closures: A Randomized Experiment in Rural Bangladesh." "Munich Papers in Political Economy" 13, Munich School of Politics and Public Policy and the School of Management at the Technical University of Munich. doi: 10.31219/osf.io/mhyq5.

Hennessy, Sara, Sophia D'Angelo, Nora McIntyre, Saalim Koomar, Adam Kreimeia, Lydia Cao, Meaghan Brugha, and Asma Zubairi. 2022. "Technology Use for Teacher Professional Development in Low- and Middle-Income Countries: A Systematic Review." Computers and Education Open 3, 100080. doi: 10.1016/j. caeo.2022.100080.

Heppen, Jessica B., Anja Kurki, and Seth Brown. 2020. Can Texting Parents Improve Attendance in Elementary School? A Test of an Adaptive Messaging Strategy. NCEE (National Center for Educational Evaluation) at US Department of Education IES (Institute of Education Sciences), 2020–006.

Hevia, Felipe J., Samana Vergara-Lope, Anabel Velásquez-Durán, and David Calderón. 2022. "Estimation of the Fundamental Learning Loss and Learning Poverty Related to COVID-19 Pandemic in Mexico." *International Journal of Educational Development* 88: 102515. doi: 10.1016/j.ijedudev.2021.102515.

Hincapie, D. 2016. "Do Longer School Days Improve Student Achievement? Evidence from Colombia." IDB (Inter-American Development Bank) Working Paper Series IDB-WP-679, IDB, Washington, DC. doi: 10.18235/0000268.

Holland, P., P. Alfaro, and D. K. Evans. 2015. "Extending the School Day in Latin America and the Caribbean." Policy Research Working Paper 7309, World Bank, Washington, DC. doi: 10.1596/1813-9450-7309.

Honduras, Secretaría de Educación. n.d. "SART – Sistema de Alerta y Respuesta Temprana." https://sart.se.gob.hn/.

Huong, Le Thu and Schawbe Markus. 2022. "High-Stakes Exams and Assessments during the COVID-19 Crisis: What is the Status at the End of the 2020–21 School Year? UNESCO, Paris. https://unesdoc.unesco.org/ark:/48223/pf0000381686.

Hwa, Y.Y., M. Kaffenberger, and J. Silberstein. 2020. "Aligning Levels of Instruction with Goals and the Needs of Students (ALIGNS): Varied Approaches, Common Principles." RISE (Research on Improving Systems of Education) Insight Series 2020/022. doi: 10.35489/BSGRISE-RI_2020/022.

Idara-e-Taleem-o-Aagahi. 2021. "Measuring the Impact of COVID-19 on Education in Pakistan." ASER (Annual Status of Education Report) Pakistan. http://aserpakistan.org/document/aser/2021/ASER_2021_Measuring_the_Impact_of_COVID_19_on_Education_in_Pakistan_FINAL_RE-PORT.pdf.

India, ETGovernment. 2022. "Uttarakhand to Monitor Schools through Vidya Samiksha Kendra Database System." Press Release, August 11, 2022. https://government.economictimes.indiatimes.com/news/education.

India, Education Department, Government of Gujarat. n.d. "Vidya Samiksha Kenra." National Conference of School Education Ministers. https://ssagujarat.org/pdf/vsk-1e.pdf.

India, MOE (Ministry of Education). 2022a. "Learning Recovery Plan (LRP) for 2022–23." https://www.education.gov.in/learning-recovery-plan-lrp2022-23.

India, MOE (Ministry of Education). 2022b. "Unified District Information System Unified Plus (UDISE+) 2021–2022: Flash Statistics." Department of School Education and Literacy. https://www.education.gov.in/sites/upload_files/mhrd/files/statistics-new/udise_21_22.pdf.

India, MOE (Ministry of Education). n.d.a. "COVID Response Initiatives by the Centre." https://www.education.gov.in/covid-campaign/docs/Covid_initiatives.pdf.

India, MOE (Ministry of Education). n.d.b. "Foundational Literacy and Numeracy: Nipun Bharat." https://static.pib.gov.in/WriteReadData/specificdocs/documents/2021/jul/doc20217531.pdf.

India, National Steering Committee for National Curriculum Frameworks. 2022. National Curriculum Framework for Foundational Stage 2022. https://ncert.nic.in/pdf/NCF_for_Foundational_Stage_20_October_2022.pdf.

India, Press Information Bureau. 2022. "Vidya Samiksha Kendra." https://pib.gov.in/PressReleaselframePage.aspx?PRID=1843168.

India, Public Information Bureau. 2022. "Vidya Samiksha Kendra." Press Release, July 20. https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1843168.

Indriani, K. 2023. "Merdeka Belajar Can Respond Quickly to Change: Expert. Antara Indonesian News Agency, January 5. https://en.antaranews.com/news/268605/merdeka-belajar-can-respond-quickly-to-change-expert.

Jamaica, Ministry of Health and Wellness. 2022. "Health Ministry Launches School Mental Health Literacy Programme – Ministry of Health and Wellness, Jamaica." October 7. https://www.moh.gov.jm/health-ministry-launches-school-mental-health-literacy-programme.

Jasińska-Maciążek, A., and H. Tomaszewska-Pękała. 2017. "Reducing Early School Leaving: Toolkit for Schools: How to Identify and Monitor Students and Schools in Need of Additional Care and Support." University of Warsaw. https://www.schooleducationgate-way.eu/files/esl/uploads/b123029.pdf.

Jennings, Patricia A. 2016. "CARE for Teachers: A Mindfulness-Based Approach to Promoting Teachers' Social and Emotional Competence and Well-Being. Handbook of Mindfulness in Education. doi:10.1007/978-1-4939-3506-2_9.

Jennings, P.A., and M.T. Greenberg. 2009. "The Prosocial Classroom: Teacher Social and Emotional Competence in Relation to Student and Classroom Outcomes." Review of Educational Research 79 (1): 491–525. https://doi.org/10.3102/0034654308325693.

Jordan Times. 2022. "Education Minister Launches National Literacy Strategy." September 8.

J-PAL (Abdul Latif Jameel Poverty Action Lab). 2018. "Teaching at the Right Level to Improve Learning." J-PAL Evidence to Policy Case Study. https://www.povertyactionlab.org/case-study/teaching-right-level-improve-learning.

J-PAL (Abdul Latif Jameel Poverty Action Lab). 2020a. "The Transformative Potential of Tutoring for Prek-12 Learning Outcomes: Lessons from Randomized Evaluations." Evidence Review. https://www.povertyaction-lab.org/sites/default/files/publication/Evidence-Review_The-Transformative-Potential-of-Tutoring.pdf.

J-PAL (Abdul Latif Jameel Poverty Action Lab). 2020b. "Tutoring Online Project in the Dominican Republic (Year 1)." https://www.povertyactionlab.org/initia-tive-project/tutoring-online-project-dominican-republic-year-1.

Kabita, D.N. and L. Ji. 2017. "The Why, What and How of Competency-Based Curriculum Reforms: The Kenyan Experience." "In-Progress Reflection" 11, IBE (International Bureau of Education)-UNESCO United Nations Educational, Scientific and Cultural Organization), Geneva. https://unesdoc.unesco.org/ark:/48223/pf0000250431.

Kaffenberger, M. 2020. "Modeling the Long-Run Learning Impact of the COVID-19 Learning Shock: Actions to (More Than) Mitigate Loss." RISE (Research on Improving Systems of Education) Insight Series 2020/017. doi: 10.35489/BSG-RISE-RI_2020/017.

Kaffenberger, M. 2021. "Aligning Education Systems for Learning: How Systems Shift." The RISE (Research on Improving Systems of Education) Programme. https://riseprogramme.org/blog/aligning-education-systems-for-learning-how-systems-shift.

Kana, J. 2022. "Digital Technology Supports Learning in Papua New Guinea." *Education for All* (blog), November 16, 2022. https://www.globalpartnership.org/blog/digital-technology-supports-learning-papua-new-guinea.

Karamperidou, D., M. Brossard, S. Peirolo, and D. Richardson. 2020. "Time to Teach: Teacher Attendance and Time on Task in Eastern and Southern Africa." UNICEF Office of Research, Innocenti. https://www.unicef-irc.org/publications/1148-time-to-teach-teacher-at-tendance-and-time-on-task-in-eastern-and-south-ern-africa.html.

Keefe, Elizabeth B., and Susan R. Copeland. 2011. "What Is Literacy? The Power of a Definition." Research and Practice for Persons with Severe Disabilities 36 (3–4): 92–99. https://pealcenter.org/wp-content/up-loads/2017/05/What_is_Literacy.pdf.

Kidman, Rachel, Etienne Breton, Jere Behrman, and Hans-Peter Kohler. 2022 "Returning to School after COVID-19 Closures: Who Is Missing in Malawi?" International Journal of Educational Development (September) 93:102645. doi: 10.1016/j.ijedudev.2022.102645.

Kilburn, Kelly, Sudhanshu Handa, Gustavo Angeles, Peter Mvula, and Maxton Tsoka. 2017. "Short-Term Impacts of an Unconditional Cash Transfer Program on Child Schooling: Experimental Evidence from Malawi." Economics of Education Review 59: 63–80. doe: 10.1016/j.econedurev.2017.06.002.

Kim, K.P., Rose, D. T. Tiruneh, R. Sabates, and T. Woldehanna. 2021. "Learning Inequalities Widen Following COVID-19 School Closures in Ethiopia." *RISE* (Research on Improving Systems of Education) (blog), May 4, 2021. https://riseprogramme.org/blog/learning-inequalities-widen-COVID-19-Ethiopia.

Kocher, Erica, Angie Jackson-Morris, Ishu Kataria, Rachel D. Stelmach, and Rachel Nugent. 2021. "The Promise of School-Based Interventions for Adolescent Mental Health Promotion." RTI International. https://www.rti.org/insights/school-based-interventions-adolescent-mental-health.

Kuhfeld, M., J. Soland, K. Lewis, and E. Morton. 2022. "The Pandemic Has Had Devastating Impacts on Learning. What Will It Take to Help Students Catch Up?" Brookings Center Chalkboard (blog), March 3, 2022. https://www.brookings.edu/blog/brown-center-chalkboard.

Lal, B. Suresh. 2015. "The Economic and Social Cost of Illiteracy: An Overview." International Journal of Advance Research and Innovative Ideas in Education 1 (5): 663–70. http://ijariie.com/AdminUploadPdf/The_Economic_and_Social_Cost_of_Illiteracy_An_Overview_ijariie1493.pdf.

Luminos Fund. 2021. "Second Chance Liberia Endline Evaluation Report: October 2021. https://luminosfund.org/wp-content/uploads/2022/03/Liberia-Endline-Assessment-Report-October-2021_Luminos-Fund.pdf.

Manor, J. 2004. "Politicking for the Poor." Final Report to the UK DfID (Department for International Development), London.

Manukyan, Narek. 2020. "Armenia's New General Education Standard: What Will It Change?" "EVN Report," August 31. https://evnreport.com/raw-unfiltered/armenias-new-general-education-stan-dard-what-will-it-change.

Marshall Islands, MOE (Ministry of Education). 2020. "Republic of Marshall Islands: COVID-19 GPE Accelerated Fund." Global Partnership for Education, Washington, DC.

McDaid, David, and Sara Evans-Lacko. 2021. "The Case for Investing in the Mental Health and Well-Being of Children." Background paper for *The State of the World's Children 2021*. New York: United Nations Children's Fund. https://www.unicef.org/reports/state-worlds-children-2021.

McKinsey. 2020. "COVID-19 Education Response Tool-kit." https://www.mckinsey.com/featured-insights/sustainable-inclusive-growth/future-of-america/covid-19-education-response-toolkit.

McMurtrie, Beth. 2022. "A 'Stunning' Level of Student Disconnection: Professors Are Reporting Record Numbers of Students Checked Out, Stressed Out, and Unsure of their Future." The Chronicle of Higher Education, April 5. https://www.chronicle.com/article/a-stunning-level-of-student-disconnection.

Mejía, J., Y. Sitabkhan, and B. Piper, B. 2018. "How Scripted Is Too Scripted? A Mixed-Methods Analysis of Literacy Teachers' Guides." Paper presented at the Comparative and International Education Society Conference, "Re-Mapping Global Education," Mexico City, March 25–29.

Mileusnic, M. 2023. "Romania's National Recovery and Resilience Plan: Latest State of Play." European Parliament, Strasbourg. https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI(2022)733641.

Mongolia, Ministry of Education, Culture and Science. 2021. "The Comprehensive Plan for Learning Loss Recovery 2021–2023." Ulaanbaatar, Mongolia.

Moscoviz, Laura, and David K. Evans. 2022. "Learning Loss and Student Dropouts during the COVID-19 Pandemic: A Review of the Evidence Two Years after Schools Shut Down." Working Paper 609, Center for Global Development, Washington, DC. https://www.cgdev.org/publication/learning-loss-and-student-dropouts-during-covid-19-pandemic-review-evidence-two-years.

Mostert, Cyprian Mcwayizeni, and Judit Vall Castello. 2020. "Long-Run Educational and Spillover Effects of Unconditional Cash Transfers: Evidence from South Africa." Economics and Human Biology 36. doi: 10.1016/j. ehb.2019.100817.

Mukalele, R. 2022. "Abridged Curriculum: NCDC Publishes Final Edited Booklet." ICT Teachers' Association of Uganda, January 10. https://www.ictteachersug.net/abridged-curriculum-ncdc-publishes-final-edit-ed-booklets-download-here.

Muralidharan, K., and A. Singh. 2019. "Improving Schooling Productivity through Computer-Aided

Instruction: Experimental Evidence from Rajasthan." Paper presented at the RISE (Research on Improving Systems of Education) Annual Conference 2019, June 20. https://www.youtube.com/watch?v=-IN3L-SRU3xA.

Muralidharan, K., A. Singh, and A.J. Ganimian. 2017. "Disrupting Education? Experimental Evidence on Technology-Aided Instruction in India." Working Paper 22923, NBER (US National Bureau of Education Research), Cambridge, MA.

Murphy, M. 2021. "Belief without Evidence? A Policy Research Note on Universal Design for Learning." *Policy Futures in Education* 19 (1): 7–12. doi: 10.1177/1478210320940206.

Murphy, J. Michael, Javier Guzmán, Alyssa McCarthy, Ana Maria Squicciarini, Myriam George, Katia Canenguez, Erin C. Dunn, Lee Baer, Ariela Simonsohn, Jordan W. Smoller, and Michael Jellinek. 2015. "Mental Health Predicts Better Academic Outcomes: A Longitudinal Study of Elementary School Students in Chile." Child Psychiatry and Human Development 46 (2):245–56. doi: 10.1007/s10578-014-0464-4. PMID: 24771270; PMCID: PMC4443903.

Musinguzi, Marvin, Edward Kumakech, Anne Grace Auma, Ruth Anne Akello, Eustes Kigongo, Raymond Tumwesigye, Bosco Opio, Amir Kabunga, and Benrard Omech. 2022. "Prevalence and Correlates of Teenage Pregnancy among In-School Teenagers during the COVID-19 Pandemic in Hoima District Western Uganda: A Cross-Sectional Community-Based Study." PLOS ONE 17 (12): e278772. doi: 10.1371/journal. pone.0278772.

Muskin, Joshua and Patrick Kaper-Barcelata. 2021. "Ethiopia Inaugurates New Speed School Unit to Reach Out-of-School Children." Geneva Global (blog), August 25, 2021. https://www.genevaglobal.com/blog/ethio-pia-inaugurates-new-speed-school-unit-to-reach-out-of-school-children.

Namfa, Benjalug. 2022. "Detailed Information on the Promotion of Equal Opportunity and Equality in School: 'Bring Students Back to School' Dropout Recovery Center." Paper presented at the Asia-Pacific Regional Policy Seminar, "Learning Recovery: Saving a Generation of Learners," Bangkok, September 29. Nayak, A., H. Kaur, and S. Sachdev. 2023. "How to Design Effective FLN Teaching Learning Materials (TLM)?" Central Square Foundation, New Delhi. January 17. https://www.centralsquarefoundation.org/articles/how-to-design-effective-fln-teaching-learning-material-tlm.

Nguyen, Giang-Nguyen T., Byron Havard, and Barbara Otto. 2022. "Parental Involvement and High School Dropout: Perspectives from Students, Parents, and Mathematics Teachers." European Journal of Educational Research 11 (1): 469–80.

Nickow, Andre Joshua, Philip Oreopoulos, and Vincent Quan. 2020. "The Impressive Effects of Tutoring on PreK-12 Learning: A Systematic Review and Meta-Analysis of the Experimental Evidence." EdWorkingPaper 20–267, Annenberg Institute at Brown University, Providence. doi: 10.26300/eh0c-pc52.

Novicoff, S., and M.A. Kraft. 2022. "The Potential Role of Instructional Time in Pandemic Recovery." *Brookings Center Chalkboard* (blog), March 3, 2022. https://www.brookings.edu/blog/brown-center-chalkboard.

Oba, Arisa. 2022. "Catch Up Learning Programme Improving Foundational Learning in Zambia." June 27. UNICEF Zambia. https://www.unicef.org/zambia/sto-ries/catch-learning-programme-improving-foundational-learning-zambia.

Odwe, George, Chi-Chi Undie, Ann Gachoya, Truphena Kirongo, Fredrick Kiiru, and Jane Njogu. 2021. "Getting Girls Back to School in Kenya: The 4Ts ("Trace, Track, Talk and reTurn") Initiative Implementation Report." Population Council Kenya. https://knowledgecom-mons.popcouncil.org/departments_sbsr-pgy/1622.

OECD (Organisation for Economic Co-operation and Development). 2020a. "Curriculum Overload: A Way Forward." OECD Publishing, Paris. https://www.oecd-ilibrary.org/education/curriculum-overload_3081ceca-en.

OECD (Organisation for Economic Co-operation and Development). 2020b. PISA 2018 Results. Vol. V: "Effective Policies, Successful Schools." Paris: OECD Publishing. https://www.oecd.org/publications/pisa-2018-results-volume-v-ca768d40-en.htm.

OECD (Organisation for Economic Co-operation and Development). 2021a. "Education Policy Outlook 2021: Shaping Responsive and Resilient Education in a Changing World." OECD, Paris. https://www.schooled-ucationgateway.eu/en/pub/resources/publications/ed-policy-outlook-2021.htm.

OECD (Organisation for Economic Co-operation and Development). 2021b. OECD Digital Outlook 2021: Pushing the Frontiers with Artificial Intelligence, Blockchain and Robots. Paris: OECD Publishing.

Papua New Guinea, Department of National Education. 2020. "Papua New Guinea COVID-19 Education Emergency Response and Recovery Plan." https://planipolis.iiep.unesco.org/en/2020/papua-new-guinea-covid-19-education-emergency-response-and-recovery-plan-4th-may-2020-6967.

Parinduri, R.A. 2014. "Do Children Spend Too Much Time in Schools? Evidence from a Long School Year in Indonesia." Economics of Education Review 41: 89–104. doi: 10.1016/j.econedurev.2014.05.001.

Patall, E.A., H. Cooper, and A. B. Allen. 2010. "Extending the School Day or School Year: A Systematic Review of Research (1985–2009)." Review of Educational Research 80 (3): 401–36.

Patrinos, Harry Anthony, Emiliana Vegas, and Rohan Carter-Rau. 2022. "An Analysis of COVID-19 Student Learning Loss." Policy Research Working Paper 10033, World Bank, Washington, DC.

Paul, R., R. Rashmi, and S. Srivastava. 2021. "Does Lack of Parental Involvement Affect School Dropout among Indian Adolescents? Evidence from a Panel Study." *PLOS One* 16 (5): e0251520. doi: 10.1371/journal.pone.0251520.

Pellerone, M. 2021. "Self-Perceived Instructional Competence, Self-Efficacy and Burnout during the Covid-19 Pandemic: A Study of a Group of Italian School Teachers." European Journal of Investigation in Health, Psychology and Education 11 (2):496–512. doi:10.3390/ejihpe11020035.

Peru, Ministerio de Educación. 2020. "Alerta Escuela: Orientaciones para promover la continuidad educativa." https://repositorio.minedu.gob.pe/handle/20.500.12799/7266.

Philippines, The, DepEd (Department of Education). 2022a. "DepEd Develops Learning Recovery Plan as More Schools Conduct Face-to-Face Classes." Press Release, March 29. https://www.deped.gov.ph/2022/03/29/deped-develops-learning-recovery-plan-as-more-schools-conduct-face-to-face-classes.

Philippines, The, DepEd (Department of Education). 2022b. "DepEd Holds 2022 National Planning Conference to Unify Efforts for Learning Recovery." Press Release, November 21, 2022. https://www.deped.gov.ph/2022/11/21/deped-holds-2022-national-planning-conference-to-unify-efforts-for-learning-recovery.

Piper, Benjamin, Joseph Destefano, Esther M. Kinyanjui, and Salome Ong'ele. 2018. "Scaling Up Successfully: Lessons from Kenya's Tusome National Literacy Program." *Journal of Educational Change* 19: 293–321. doi: 10.1007/s10833-018-9325-4.

Piper, Benjamin, and Margaret M. Dubeck. n.d. "Structured Pedagogy Literature Review." Science of Teaching for Foundational Literacy and Numeracy. https://scienceofteaching.site/wp-content/uploads/2022/11/Structured-Pedagogy-Literature-Review-1.pdf.

Popova, A., D.K. Evans, M.E. Breeding, and V. Arancibia. 2018. "Teacher Professional Development around the World: The Gap between Evidence and Practice." Policy Research Working Paper 8572, World Bank, Washington, DC. doi: 10.1093/wbro/lkab006.

Preshad, Devyani, Renaud Comba, and Jessica Bergmann. 2020. "From Schooling to Learning for All: Reorienting Curriculum and Targeted Instruction." Background paper, "Averting an Education Catastrophe for the World's Children", Save Our Future, New York. https://saveourfuture.world/wp-content/uploads/2021/03/From-Schooling-to-Learning-for-All-Reorienting-Curriculum-and-Targeting-Instruction_SOF_BP2.pdf.

Pritchett, L. 2015. "Creating Education Systems Coherent for Learning Outcomes." Working Paper 15/005, RISE (Research on Improving Systems of Education) Programme, Oxford, UK. https://riseprogramme.org/publications/creating-education-systems-coherent-learning-outcomes.

Pritchett, L., and A. Beatty. 2012. "The Negative Consequences of Overambitious Curricula in Developing Countries." Working Paper 293, Center for Global Development, Washington, DC. https://www.cgdev.org/publication/negative-consequences-overambitious-curricula-developing-countries-working-pa-per-293.

Pritchett, L., K. Newman, and J. Silberstein. 2022. "Focus to Flourish: Five Actions to Accelerate Progress in Learning." Policy Paper, December 6, RISE (Research on Improving Systems of Education) Programme, Oxford, UK. https://riseprogramme.org/publications/focus-flourish-five-actions-accelerate-progress-learning.

Pryor, J., K. Akyeampong, J. Westbrook, and K. Lussier. 2012. "Rethinking Teacher Preparation and Professional Development in Africa: An Analysis of the Curriculum of Teacher Education in the Teaching of Early Reading and Mathematics." *Curriculum Journal* 23 (4): 409–502. doi: 10.1080/09585176.2012.747725.

Radhakrishnan, K., U. Sharma, S. Gupta. 2022. "Teaching at the Right Level Experience from Nepal." World Bank, Washington, DC. https://documents1.worldbank.org/curated/en/099142101242313346/pdf/IDU055f-1b0a80f2bb04b4c0a35e0614c97f6d3e2.pdf.

Randall, J., F. O'Donnell, and S. Botha. 2020. "Accelerated Learning Programs for Out-of-School Girls: The Impact on Student Achievement and Traditional School Enrollment." FIRE: Forum for International Research in Education 6 (2). doi: 10.32865/fire20206225.

Ring, Hannah, Victoria Rothbard, David Seidenfeld, Francesca Stuer, and Kevin Kamto. 2020. "Programme Evaluation of the Conditional Cash Transfer for Education (CCTE) for Syrians and Other Refugees in Turkey: Final Evaluation Report." American Institutes for Research, Washington, DC. https://evaluationreports.unicef.org/GetDocument?fileID=14802.

Rinith, Taing. 2022. "UNESCO to Launch BEEP in 14 More Provinces." Khmer Times, October 18. https://www.khmertimeskh.com/501170010/une-sco-to-launch-beep-in-14-more-provinces/#:~:tex-t=According%20to%20UNESCO%2C%20the%20programme,gaining%20decent%20and%20productive%20employment.

Robinson, J. P., R. Wintrhop, and E. McGivney. 2016. "Millions Learning: Scaling Up Quality Education in Developing Countries." Brookings Institution, Washington, DC. https://www.brookings.edu/research/millions-learning-scaling-up-quality-education-in-developing-countries.

Robledo, Ana, and Amber Gove. 2018. "What Works in Early Reading Materials." *Knowledge and Practice in International Development* 2. Occasional Paper OP-0058-1902, RTI Press, Research Triangle Park. doi: 10.3768/rtipress.2018.op.0058.1902.

Rodríguez, Fátima. 2020. "Alerta Temprana de Deserción Escolar: Hacia una Cultura de Prevención." El Salvador, Ministerio de Educación. Presentation at Taller Internacional de Prevención y Remediación de la Exclusión y el Abandono Escolar Temprano, February 25. https://ceccsica.info/sites/default/files/inline-files/EL%20SALVADOR%20SIGES%20alerta%20temprana_012021.pdf.

Rodriguez-Segura, D., and L. Crawfurd. 2020. "What Works in EdTech?" Center for Global Development. Center for Global Development (blog), September 3. https://www.cgdev.org/blog/what-works-edtech.

Rodriguez-Segura, D., and I. Mbiti. 2022. "Back to the Basics: Curriculum Reform and Student Learning in Tanzania." RISE (Research on Improving Systems of Education) Working Paper Series 22/099. doi: 10.35489/BSG-RISE-WP_2022/099.

Ross, Terris Raiford. 2016. "The Differential Effects of Parental Involvement on High School Completion and Postsecondary Attendance." Arizona State University Education Policy Analysis Archives 24. doi: 10.14507/epaa.24.2030.

RTI (Research Triangle Institute) International. 2021. "Learning at Scale: Interim Report." October. https://shared.rti.org/content/learning-scale-interim-report.

RTI (Research Triangle Institute) International. 2022. "Improving Teaching and Early-Grade Learning in Jordan through the USAID Early Grade Reading and Mathematics Initiative (RAMP)." https://www.rti.org/impact/early-grade-reading-mathematics-program-jordan.

Saavedra, Juan Esteban, and Sandra Garcia. 2012. "Impacts of Conditional Cash Transfer Programs on Educational Outcomes in Developing Countries: A Meta-Analysis." Santa Monica, CA: RAND Corporation. https://www.rand.org/pubs/working_papers/WR921-1.html.

Sachdeva, Suman. 2022. "Early-Grade Learning Assessments Spur Sierra Leone to Strengthen Foundational Literacy and Numeracy Skills." Education Plus Development (blog), September 26, 2022. https://www.brookings.edu/blog/education-plus-development/2022/09/26/early-grade-learning-assessments-spur-sierra-leone-to-strengthen-foundational-literacy-and-numeracy-skills.

Sampat, S., A. Parasnis, S.R. Vasudevan, and J. Baron. 2022. "Will a Crisis Force Us to Rethink School Leadership? Insights from a South-South Exchange." Education for Global Development (blog), April 13, 2022. https://blogs.worldbank.org/education.

Sarkar, Subhasree and Ricardo Sabates. 2022. "Parental Involvement Continues to Be Central for Reducing School Dropout: Evidence from India during the Pandemic." UKFIET (Education and Development Forum) (blog), September 26. https://www.ukfiet.org/2022/parental-involvement-continues-to-be-central-for-reducing-school-dropout-evidence-from-india-during-the-pandemic.

Sarwar, M.B., D. Benitez Moreno, O. Homonchuk, J.M. Roche, and S. Nicolai. 2021. "Pathways towards Quality Primary Education: Improving Completion and Learning Outcomes." ODI (Overseas Development Institute), London. www.odi.org.uk/publications/en/pathways-towards-quality-primaryeducation-improving-completion-and-learning-outcomes.

Sava, Alina, Gallina Andronova Vincelette, and Rita Almeida. 2023. "Accelerating Learning Recovery for All in Romania." Eurasian Perspectives (blog), April 20. https://blogs.worldbank.org/europeandcentralasia/accelerating-learning-recovery-all-romania#:~:tex-t=Throughout%20the%20pandemic%2C%20the%20World,students%20for%20catch%2Dup%20learning.

Schady, Norbert, Alaka Holla, Shwetlena Sabarwal, Joana Silva, and Andres Yi Chang. 2023. "Collapse and Recovery: How the COVID-19 Pandemic Eroded Human Capital and What to Do about It." World Bank, Washington, DC. http://hdl.handle.net/10986/39403.

Schonert-Reichl, Kimberly A. "Social and Emotional Learning and Teachers." The Future of Children 27 (1): 137–55. doi:10.1353/foc.2017.0007.

Schulte-Körne, G. 2016. "Mental Health Problems in a School Setting in Children and Adolescents." Deutsch Arzteblatt International 113 (11):183–90. doi: 10.3238/arztebl.2016.0183.

Seidenfeld, David, Leah Prencipe, Sundhashu Handa, and Laura Hawkinson. 2015. "The Impact of an Unconditional Cash Transfer on Early Childhood Development: The Zambia Child Grant Program." SREE (Society for Research on Educational Effectiveness) Spring 2015 Conference. https://files.eric.ed.gov/fulltext/ED562535.pdf.

Sengeh, D.M., and A. Game. 2021. "Transforming Education in Sierra Leone Continues with Geospatial Data." Education for All (blog), March 4, 2021, Global Partnership for Education. https://www.globalpartnership.org/blog/transforming-education-sierra-leone-continues-geospatial-data.

Shah, R. 2019. "White Paper. Transforming Systems in Times of Adversity: Education and Resilience." USAID (United States Agency for International Development), Washington, DC. https://earlygradereadingbarometer.org/pdf/USAID_White_Paper_Transforming_Systems_in_Times_of_Adversity.pdf.

Sharma, M., P. Idele, A. Manzini, C.P. Aladro, A. Ipince, G. Olsson, P. Banati, and D. Anthony. 2021. "Life in Lockdown: Child and Adolescent Mental Health and Well-Being in the Time of COVID-19." UNICEF Office of Research – Innocenti, Florence. https://www.unicef-irc.org/publications/pdf/Life-in-Lockdown.pdf.

Shrestha, U., T.P. Williams, A. Al-Samarrai, A. Van Geldermalsen, and A. Zaidi. 2019. "What Is the Relationship between Politics, Education Reforms, and Learning? Evidence from a New Database and Nine Case Studies." World Bank, Washington, DC. https://thedocs.worldbank.org/en/doc/856881567524290888-0050022019/original/Reformstoimprovelearning30AugTPWFINAL.pdf.

Singh, Abhijeet, Mauricio Romero, and Karthik Muralidharan. 2022. "COVID-19 Learning Loss and Recovery: Panel Data Evidence from India." Working Paper 22/112, RISE (Research on Improving Systems of Education). doi: 10.35489/BSG-RISEWP_2022/112.

Smart, Pallavi. 2022. "Maharashtra to Launch Centre to Collate Data on State Schools Taking Inspiration from Gujarat's Vidya Samiksha Kendra." *Indian Express*, December 4, 2022.

Snilstveit, B., J. Stevenson, D. Phillips, M. Vojtkova, E. Gallagher, T. Schmidt, H. Jobse, M. Geelen, M. Pastorello, and J. Eyers. 2015. "Interventions for Improving Learning Outcomes and Access to Education in Lowand Middle- Income Countries: A Systematic Review." 3ie (International Initiative for Impact Evaluation) Systematic Review 24, 3ie, London. https://www.3ieimpact.org/evidence-hub/publications/systematic-reviews/interventions-improving-learning-outcomes-and-access.

South Africa, Department of Basic Education. 2020. "School Recovery Plan in Response to COVID-19." https://www.education.gov.za/Portals/0/Documents/Recovery%20plan%20page/Links%20for%20schools/school-recovery-plan-june-2020-1.pd-f?ver=2020-06-15-091102-260.

Stroh, D.P. 2015. Systems Thinking for Social Change: A Practical Guide to Solving Complex Problems, Avoiding Unintended Consequences, and Achieving Lasting Results. Chelsea, VT: Chelsea Green Publishing.

Swiss Confederation. 2021 "Juntando esfuerzos para lograr mayor retención escolar en Honduras." Press Release, November 19.

TaRL Africa. 2022. "Teaching at the Right Level Botswana." TaRL Africa. https://teachingattherightlevel.org/botswana.

Taylor, R.D., E. Oberle, J.A. Durlak, and R.P. Weissberg. 2017. "Promoting Positive Youth Development through School-Based Social and Emotional Learning Interventions: A Meta-Analysis of Follow-Up Effects." *Child Development* 88 (4): 1156–71. doi:10.1111/cdev.12864.

Tejada, Anna Herrero, Marina López Leavy, Micaela Finoli, Felipe Hevia de la Jara, Sarah Stanton, and Ariel Fiszbein. 2022. "Assessment in the Pandemic: How to Diagnose Learning Losses to Inform the Recovery Effort." World Bank and Inter-American Dialogue, Washington, DC. https://www.thedialogue.org/wp-content/uploads/2022/03/Assessment-in-the-pandemic_v02.pdf.

The Economic Times. 2021. "Education Ministry Launches Online Module to Track, Re-Enrol Out-of-School Children." "Industry," June 11. <a href="https://economictimes.indiatimes.com/industry/services/education/education-ministry-launches-online-module-to-track-re-enrol-out-of-school-children/articleshow/83435715.cms?from=mdr.

The Star. 2020. "Standard 8, Grade 4 Pupils Begin National Exams Today." The Star, October 21, 2020. https://www.the-star.co.ke/news/2020-10-20-standard-8-grade-4-pupils-begin-national-exam-today.

TNTP (The New Teacher Project). 2018. "The Opportunity Myth: What Students Can Show Us About How School Is Letting Them Down — And How to Fix It." September 25. https://opportunitymyth.tntp.org.

UNESCO (United Nations Educational, Scientific and Cultural Organization). 2013. "Towards Effective Capacity Development: Capacity Needs Assessment Methodology (CAPNAM) for Planning and Managing Education." UNESCO, Paris. https://unesdoc.unesco.org/ark:/48223/pf0000226090.

UNESCO (United Nations Educational, Scientific and Cultural Organization). 2020. "Launching Komar Rien Komar Cheh, Cambodia's National Early Grade Learning Programme." February 27. https://www.unesco.org/en/articles/launching-komar-rien-komar-cheh-cambodias-national-early-grade-learning-programme.

UNESCO (United Nations Educational, Scientific and Cultural Organization). 2021. "Uneven Global Education Stimulus Risks Widening Learning Disparities." UNESCO News, October 19. https://www.unes-co.org/en/articles/uneven-global-education-stimu-lus-risks-widening-learning-disparities.

UNESCO (United Nations Educational, Scientific, and Cultural Organization). 2022a. Early Warning Systems (EWS) Based on Education Management Information Systems (EMIS). Synthesis Report of the Regional Virtual Workshop No. 3 on the Community of Data Specialists for Education Planning. https://unesdoc.unesco.org/ark:/48223/pf0000380552_eng.

UNESCO (United Nations Educational, Scientific, and Cultural Organisation). 2022b. "Learning Recovery and Addressing the Learning Crisis in the Asia Pacific." Policy Brief, June 29. UNESCO, Bangkok, Thailand. https://bangkok.unesco.org/content/policy-brief-learning-recovery-and-addressing-learning-crisis-asia-pacific.

UNESCO (United Nations Educational, Scientific, and Cultural Organization). 2023. "Basic Education Equivalency Program (BEEP): Duration: 2018 – Present." Press Release, March 23. https://www.unesco.org/en/articles/basic-education-equivalency-programme-beep.

UNESCO (United Nations Educational, Scientific, and Cultural Organization). n.d. "Knowledge Hub Collection of Best Practices: Summary of the Best Practice" Jordan National Diagnostic Assessment, "UN Transforming Education Summit 2022". https://transformingeducationsummit.sdg4education2030.org/system/files/2022-07/AT4GP192.pdf.

UNESCO (United Nations Educational, Scientific and Cultural Organization) and UNESCO IIEP (International Institute for Educational Planning). 2020. "Building Back Resilient: How Can Education Systems Prevent, Prepare for and Respond to Health Emergencies and Pandemics?" UNESCO, Paris. https://unesdoc.unesco.org/ark:/48223/pf0000375278.

UNESCO-UIS (United Nations Educational, Scientific, and Cultural Organization Institute for Statistics). 2017. "Quick Guide No. 3: Implementing a National Learning Assessment." UNESCO-UIS, Montreal.

UNESCO-UIS (United Nations Educational, Scientific, and Cultural Organization Institute for Statistics). 2022. "New Estimation Confirms Out-of-School Population Is Growing in Sub-Saharan Africa." Factsheet 62, Policy Paper 48, September.

UNESCO-UIS (United Nations Educational, Scientific, and Cultural Organization Institute for Statistics), UNICEF (United Nations Children's Fund), and World Bank. 2021. "Improving Learning through Data: The Learning Data Compact." Presentation at the "Global Education Summit: Financing GPE 2021–25." https://tcg.uis.unesco.org/learning-data-compact/improving-learning-through-data.

UNESCO-UIS (United Nations Educational, Scientific, and Cultural Organization Institute for Statistics), UNICEF (United Nations Children's Fund), World Bank, and OECD (Organisation for Economic Co-operation and Development). 2022. From Learning Recovery to Education Transformation, Insights and Reflections from the 4th Survey of National Education Responses to COVID-19 School Closures. Montreal, New York, Washington, DC, Paris: UNESCO-UIS, UNICEF, World Bank, and OECD. http://hdl.handle.net/10986/38112.

UNFPA (United Nations Population Fund) Peru. 2022. "Se debe visibilizar el embarazo y la maternidad adolescentes para construir un mejor futuro para las niñas y adolescentes del Perú. Press Release, September 26.

UNICEF (United Nations Children's Fund). 2018. "Early Warning Systems for Students at Risk of Dropping Out." UNICEF Series on Education Participation and Dropout Prevention, vol. 2. Geneva. https://www.unicef.org/eca/sites/unicef.org.eca/files/2018-11/Early%20warning%20systems%20for%20students%20at%20risk%20of%20dropping%20out_0.pdf.

UNICEF (United Nations Children's Fund). 2021a. "Mental Health and Psychosocial Support Case Study: Mozambique." December 21. UNICEF, New York. https://www.unicef.org/media/113516/file/Responding%20 to%20multiple%20emergencies%20%E2%80%93%20 building%20teachers%E2%80%99%20capacity%20 to%20provide%20mental%20health%20and%20psychosocial%20support%20before,%20during,%20 and%20after%20crises%20(Mozambique).pdf.

UNICEF (United Nations Children's Fund). 2021b. "Sri Lanka: Minimizing Learning Gaps among Early-Grade Learners." UNICEF Education Case Study, August 19. UNICEF (United Nations Children's Fund). 2021c. The State of the World's Children 2021. On My Mind: Promoting, Protecting and Caring for Children's Mental Health. New York: UNICEF. https://www.unicef.org/reports/state-worlds-children-2021.

UNICEF (United Nations Children's Fund). 2022a. "Dominican Republic: Ensuring Inclusive Education during the Pandemic and Beyond." Education Case Study, February 1, UNICEF, Dominican Republic. https://www.unicef.org/documents/ensuring-inclusive-education-during-pandemic-and-beyond-dominican-republic.

UNICEF (United Nations International Children's Emergency Fund). 2022b. "Education Budget Brief: Investing in Child Education in Rwanda 2022/2023." https://www.unicef.org/rwanda/reports/education-budget-briefs.

UNICEF (United Nations Children's Fund). 2022c. "Improving Early Grade Reading and Numeracy through 'Catch-Up', a Remedial Learning Programme." Education Case Study, July 22. https://www.unicef.org/media/124586/file/Zambia%20case%20study%20on%20scaling%20up%20FLN.pdf.

UNICEF (United Nations Children's Fund). 2022d. "Instruction Tailored to Students' Learning Levels Improves Literacy." Education Case Study, July 20, UNICEF Indonesia, Jakarta. https://www.unicef.org/documents/instruction-tailored-students-learning-levels-improves-literacy-indonesia.

UNICEF (United Nations Children's Fund). 2022e. "Mental Health and Psychosocial Support Case Study: Mongolia." March 28. UNICEF, New York. https://www.unicef.org/media/118156/file/A%20multi-level,%20 cross-sectoral%20response%20to%20improving%20 adolescent%20mental%20health%20(Mongolia).pdf.

UNICEF (United Nations International Children's Emergency Fund). 2022f. "New Research Programme Reveals How Positive Deviance in Schools Can Improve Education for All." January 26. UNICEF Office of Research-Innocenti, Florence.

UNICEF (United Nations Children's Fund). 2023a. "The National Building the Foundations for Learning Program (CON BASE)." Case Study, March, UNICEF, Dominican Republic. https://www.unicef.org/docu-ments/national-building-foundations-learning-program-con-base-dominican-republic.

UNICEF (United Nations International Children's Emergency Fund). 2023b. "Transforming Education with Equitable Financing." UNICEF, New York. https://www.unicef.org/reports/transforming-education-equita-ble-financing.

UNICEF (United Nations Children's Fund) Brazil. n.d. "Busca Ativa Escolar." https://www.unicef.org/brazil/busca-ativa-escolar.

UNICEF (United Nations Children's Fund) El Salvador. 2021. "UNICEF apoya con equipo informático labor de monitoreo del MINED con la colaboración del Gobierno de Canadá." Press Release, March 10, 2021. https://www.unicef.org/elsalvador/comunicados-prensa/unicef-apoya-con-equipo-inform%C3%A1tico-labordel-mined.

UNICEF (United Nations Children's Fund) Indonesia. 2022. "Instruction Tailored to Students' Learning Levels Improves Literacy." "Education Case Study", July 20, UNICEF, Jakarta, Indonesia. https://ww-w.unicef.org/media/124426/file/Instruction%20tai-lored%20to%20students%E2%80%99%20learn-ing%20levels%20improves%20literacy%20(Indonesia).pdf.

UNICEF (United Nations Children's Fund) Jordan. 2022. "Learning Bridges Impact Study: Jordan's National Blended Learning Programme." UNICEF, Amman, Jordan. https://www.unicef.org/jordan/reports/learning-bridges-impact-study.

UNICEF (United Nations International Children's Emergency Fund) Timor Leste. 2020. "Timor Leste: Opening Up Better with the Learning Passport." UNICEF Education COVID-19 Case Study. October 8. https://www.corecommitments.unicef.org/kp/case-study---learning-passport-in-timor-leste-%288-october-2020%29. pdf.

UNICEF (United Nations Children's Fund) Türkiye. 2021. "COVID-19 Response End-Year Situation Report 2020." https://reliefweb.int/report/turkey/unicef-turkey-covid-19-response-end-year-situation-report-2020.

UNICEF (United Nations International Children's Emergency Fund) ECA (Europe and Central Asia). 2020. "Building Resilient Education Systems Beyond the COVID-19 Pandemic: Considerations for Education Decision-Makers at National, Local and School Levels." UNICEF ECA, Geneva. https://www.unicef.org/eca/media/13411/file.

UNICEF (United Nations International Children's Emergency Fund), UNESCO (United Nations Educational, Scientific and Cultural Organization), and World Bank. 2022. "Where Are We on Education Recovery?" UNICEF, UNESCO, and World Bank, New York, Paris, Washington, DC. https://www.unicef.org/re-ports/where-are-we-education-recovery.

US (United States) Department of Education. 2016. "Issue Brief: Early Warning Systems." Office of Planning, Evaluation and Policy Development Policy and Program Studies Service, September. https://www2.ed.gov/rschstat/eval/high-school/early-warning-systems-brief.pdf.

US (United States), National Academy of Education. 2021. "Educational Assessments in the COVID-19 Era and Beyond." National Academy of Education, Washington, DC.

USAID (United States Agency for International Development). 2021. "Resilience in Return to Learning during COVID-19: Zambia Case Study." October 19, USAID. https://www.edu-links.org/resources/resilience-return-learning-case-studies.

USAID (United States Agency for International Development). 2022a. "Lecture Pour Tous: A Revolution to Get All Children Reading in Senegal," February 14, USAID. https://chemonics.com/wp-content/uploads/2022/06/Lecture-Pour-Tous-Final-Performance-Report_FINAL_CLEAN-1.pdf.

USAID (United States Agency for International Development). 2022b. "Opportunities to Learn Quarterly Report –Year 1." https://pdf.usaid.gov/pdf_docs/PA00Z5JK.pdf.

Valenza, Marco, and Thomas Dreesen. 2022. "Let Us Learn: Making Education Work for the Most Vulnerable in Afghanistan, Bangladesh, Liberia, Madagascar and Nepal." UNICEF Office of Research – Innocenti, Florence. https://files.eric.ed.gov/fulltext/ED620299.pdf.

Valente, Sabina, and Abilio Afonso Lourenço. 2020. "Conflict in the Classroom: How Teachers' Emotional Intelligence Influences Conflict Management." Frontiers in Education 5. doi: 10.3389/feduc.2020.00005.

Vijayakumar, Subashini. 2022. "TN: Door-to-Door Survey Tracing Dropouts to Start on Dec 19." *The New Indian Express*, December 15. https://www.newindi-anexpress.com/states/tamil-nadu/2022/dec/15/tn-door-to-door-survey-tracing-dropouts-to-start-on-dec-19-2528295.html.

Villacorta, Nelson Joaquín. "Alertas Tempranas 2022: Consultoría para asistencia técnica del monitoreo del SIGES en tiempo real, en el marco del proyecto UNICEF 'Fortalecimiento para la Generación de Información Estratégica del SIGES." Ministerio de Educación de El Salvador, San Salvador.

VVOB (Flemish Association for Development Cooperation and Technical Assistance). 2021a. "Cambodia — Remedial Learning for Maths Post-COVID." https://www.vvob.org/en/programmes/cambodia-remedial-learning-maths-and-science-post-covid.

VVOB (Flemish Association for Development Cooperation and Technical Assistance). 2021b. "Cambodia — SMART: Improving Math Teaching and Learning in Primary Education." https://www.vvob.org/en/programmes/cambodia-smart.

WHO (World Health Organization). n.d. "Mental Health." https://www.who.int/health-topics/mental-health#tab=tab 1.

WHO (World Health Organization). 2021. "Adolescent Mental Health." November 17. https://www.who.in-t/news-room/fact-sheets/detail/adolescent-men-tal-health.

WHO (World Health Organization). 2022a. "COViD-19 Pandemic Triggers 25% Increase in Prevalence of Anxiety and Depression Worldwide." News release, Mar. 2. https://www.who.int/news/item/02-03-2022-covid-19-pandemic-triggers-25-increase-in-prevalence-of-anxiety-and-depression-worldwide.

WHO (World Health Organization). 2022b. "Mental Health and COVID-19: Early Evidence of the Pandemic's Impact. Scientific Brief." March 2. https://www.

who.int/publications/i/item/WHO-2019-nCoV-Sci_Brief-Mental_health-2022.1.

WHO (World Health Organization). 2022c. "World Mental Health Report: Transforming Mental Health for All." World Health Organization, Geneva. https://www.who.int/publications/i/item/9789240049338.

Wilichowski, Tracy, Adelle Pushparatnam, Elaine Ding, and Ezequiel Molina. 2020. "Building Back Better: Accelerating Learning When Schools Reopen, and What Kenya's Tusome Program Can Teach Us." Education for Global Development (blog), May 14, 2020. https://blogs.worldbank.org/education.

Winthrop, Rebecca, Adam Barton, Mahsa Ershadi, and Lauren Ziegler. 2021. "Collaborating to Transform and Improve Education Systems: A Playbook for Family-School Engagement." Brookings. https://www.brookings.edu/wp-content/uploads/2021/10/Family_School_Engagement_Playbook_FINAL.pdf.

Wolf, S., and E. Aurino. 2021. "Nudges to Improve Parental Engagement and Gender Disparity in the Return to School During COVID-19 in Ghana." Innovations for Poverty Action. https://poverty-action.org/nudges-improve-parental-engagement-and-gender-disparity-return-school-during-covid-19-ghana.

Wolf, S., E. Aurino, N. Suntheimer, E. Avornyo, and E. Tsinigo. 2021. "Learning in the Time of a Pandemic and Implications for Returning to School: Effects of COVID-19 in Ghana." CPRE (Consortium for Policy Research in Education) Working Paper 8-2021, University of Pennsylvania, Philadelphia. https://repository.upenn.edu/cpre_workingpapers/28.

Wollie, Samuel. 2023. "Remediation for Conflict-Affected Children: The Case of Amhara in Ethiopia." Webinar: "How Can Remediation Be Effectively Deployed to Lift Learning Outcomes?" March 23. "Better Purpose," RTI International and Acasus, Washington, DC, London.

Woolf, Penelope, and Jane Digby. n.d. "Student Wellbeing: An Analysis of the Evidence." Oxford Impact. https://oxfordimpact.oup.com/wp-content/uploads/2021/02/Student-wellbeing-impact-study-white-paper.pdf.

World Bank. 2017. "Rapidly Assessing the Impact of Hurricane Matthew in Haiti." "Results Briefs," October 20. https://www.worldbank.org/en/results/2017/10/20/rapidly-assessing-the-im-pact-of-hurricane-matthew-in-haiti.

World Bank. 2018. World Development Report 2018: Learning to Realize Education's Promise. Washington, DC: World Bank. doi:10.1596/978-1-4648-1096-1.

World Bank. 2019a. "A Proposed Early Warning Mechanism for Early School Leaving Prevention and Proposed Action Plan for Implementation." https://documents1.worldbank.org/curated/en/159161600839879965/pdf/A-Proposed-Early-Warning-Mechanism-for-Early-School-Leaving-Prevention-and-Proposed-Action-Plan-for-Implementation.pdf.

World Bank. 2019b. "Ending Learning Poverty: What Will It Take?" World Bank, Washington, DC. http://h-dl.handle.net/10986/32553.

World Bank. 2019c. "Impact Evaluation of the Socioemotional Strengthening Program 'Emotions for Life." World Bank, Washington, DC.

World Bank. 2020a. "Girls' Education and Women's Empowerment and Livelihood Project (GEWEL)." Report no. PAD3269. https://projects.worldbank.org/en/projects-operations/project-detail/P151451.

World Bank. 2020b. "Proposed Additional Credit for the Zambia Education Enhancement Project." World Bank, Washington, DC.

World Bank. 2021a. "Infographic: A Policy Package to Promote Literacy for All Children." September 17. https://www.worldbank.org/en/news/infographic/2021/09/17/infographic-a-policy-package-to-promote-literacy-for-all-children.

World Bank. 2021b. "Loud and Clear: Effective Language of Instruction Policies for Learning." World Bank, Washington, DC. https://www.worldbank.org/en/topic/education/publication/loud-and-clear-effective-language-of-instruction-policies-for-learning.

World Bank. 2021c. "Urgent, Effective Action Required to Quell the Impact of COVID-19 on Education World-

wide." World Bank News, October 2, 2022. https://www.worldbank.org/en/news.

World Bank. 2022a. "Early Grade Reading Rainbow: A Quick Guide to Ending Learning Poverty." World Bank, Washington, DC. http://documents.worldbank.org/curated/en/099005004212230690/P17425207894e-40fe0b6e901ebe150bd216.

World Bank. 2022b. "Ghana: Online Education for Delivering Learning Outcomes during the COVID-19 School Closure." Results Brief, May 16, World Bank, Washington, DC. https://www.worldbank.org/en/results/2022/05/16/afw-ghana-online-education-for-delivering-learning-outcomes-during-the-covid-19-school-closure.

World Bank. 2022c. "How Children Learn to Read: Towards Evidence-Aligned Lesson Planning." World Bank, Washington, DC. http://documents.world-bank.org/curated/en/099620103312232824/P-1742520c2213e0a00a7410990dbb0a2daa.

World Bank. 2022d. "How to Provide Effective Reading Instruction." World Bank, Washington, DC. http://documents.worldbank.org/curated/en/099620103312223967/P17425203c5a110520a-5c3004086a91b687.

World Bank. 2022e. Poverty and Shared Prosperity 2022: Correcting Course. Washington, DC: World Bank. doi:10.1596/978-1-4648-1893-6.

World Bank. 2022f. "Securing a Future with Safer Schools: Building Resilience in Pacific Schools." Feature Story, May 30. https://www.worldbank.org/en/news/feature/2022/05/30/securing-a-future-with-safer-schools-building-resilience-in-pacific-schools.

World Bank. 2023a. "Implementation Completion and Results Report: Nicaragua COVID-19 Education Sector Response Project." World Bank, Washington, DC. https://projects.worldbank.org/en/projects-operations/project-detail/P174677.

World Bank 2023b. "The False Dichotomy between More and More Effective Public Spending on Education: Lessons from Country Experiences." Feature Story, April 24. https://www.worldbank.org/en/news/feature/2023/04/24/the-false-dichotomy-between-more-more-effective-public-spending-on-education-lessons-from-country-experiences.

World Bank, Bill and Melinda Gates Foundation, FCDO (Foreign, Commonwealth, and Development Office, United Kingdom), UNESCO (United Nations Educational, Scientific, and Cultural Organization), UNICEF (United Nations Children's Fund), and USAID (United States Agency for International Development). 2022a. "Guide for Learning Recovery and Acceleration: Using the RAPID Framework to Address COVID-19 Learning Losses and Build Forward Better." Washington, DC: World Bank. https://www.worldbank.org/en/topic/education/publication/the-rapid-frame-work-and-a-guide-for-learning-recovery-and-acceleration.

World Bank, FCDO (Foreign, Commonwealth and Development Office, UK), and BE2 (Building Evidence in Education). 2020. "Cost-Effective Approaches to Improve Global Learning: What Does Recent Evidence Tell Us Are 'Smart Buys' for Improving Learning in LMICs? Recommendations of the Global Education Evidence Advisory Panel." World Bank, FCDO, and BE2, Washington, DC and London. https://www.worldbank.org/en/topic/teachingandlearning/publication/cost-effective-approaches-to-improve-global

World Bank and UNESCO (United Nations Educational, Scientific, and Cultural Organization). 2022. *Education Finance Watch* 2022. Washington D.C., Paris: World Bank and UNESCO.

World Bank, UNESCO (United Nations Educational, Scientific, and Cultural Organization), UNICEF (United Nations Children's Fund), USAID (United States Agency for International Development), FCDO (Foreign, Commonwealth, and Development Office, United Kingdom), and Bill and Melinda Gates Foundation. 2022b. "The State of Global Learning Poverty: 2022 Update." Conference Education, June 23, 2022. https://www.worldbank.org/en/topic/education/publication/state-of-global-learning-poverty.

World Bank, UNESCO (United Nations Educational, Scientific, and Cultural Organization), UNICEF (United Nations Children's Fund). 2021. The State of the Global Education Crisis: A Path to Recovery. Washington, DC, Paris, New York: World Bank, UNESCO, and UNICEF.

World Education. 2021. "Waache Wasome Technical Paper: Dropout Early Warning System (DEWS)." https://bantwana.org/wp-content/uploads/2022/02/WEI_WaacheWasome-TechnicalPaper-DEWS_2022.pdf.

World Education. 2022a. "World Education's Decodable Books Shaping National Curriculum in Benin." February 2, 2022. https://worlded.org/world-educations-decodable-books-shaping-national-curriculum-in-benin.

World Education. 2022b. "Waache Wasome (Let Them Learn) Tanzania Final Project Report." https://pdf.usaid.gov/pdf_docs/PA00ZPCP.pdf.

World Education. n.d. "Piloting the Case Management System for Keeping Girls in School in Zambia." https://bantwana.org/project/piloting-the-case-manage-ment-system-for-keeping-girls-in-school-in-zambia.

World Literacy Foundation. 2018. "The Economic and Social Costs of Illiteracy: A White Paper by the World Literacy Foundation." Paper prepared for the World Literacy Foundation, "World Literacy Summit." Oxford, March 24–27. https://worldliteracyfoundation.org/wp-content/uploads/2021/07/TheEconomicSocial-CostofIlliteracy-2.pdf.

Wu, Fan, and Thomas S. Teets. 2021. "Effects of the COVID-19 Pandemic on Student Engagement in a General Chemistry Course." *Journal of Chemical Education* 98 (12): 3633–44. doi: 10.1021/acs.jchemed.1c00665.

Wurie, M., K. Mondiwa, and K. Kargbo. 2023. "Emergencies Remind Us That Remedial Learning Is Key for Low-Performing Students." *Education for Global Development* (blog), February 13. https://blogs.worldbank.org/education.

Wyss, M.C. and J. P. Robinson. 2021. "Improving Children's Reading and Mathematics at Large Scale in Côte d'Ivoire: The Story of Scaling PEC." Center for

Universal Education at Brookings, October 20. https://www.brookings.edu/research/improving-childrens-reading-and-math-at-large-scale-in-cote-divoire.

Yan, Y., and K. Saguin. 2021. "Why We Must Reimagine Capacity Building to Strengthen Education after COVID-19." World Economic Forum, March 2. https://www.weforum.org/ agenda/2021/03/why-we-must-reimagine-capacity-building-to-reimagine-education-after-covid-19.

Yarrow, N., P. Cahu, M. Breeding, and R. Afkar. Forthcoming. "What I Really Want: Policymaker Views on Education in East Asia Pacific." Washington, DC: World Bank.

Young, Jeffrey. 2022. "Student Disengagement Has Soared since the Pandemic. Here's What Lectures Look Like Now." EdSurge Podcast, December 13, 2022. https://www.edsurge.com/news/2022-12-13-student-disengagement-has-soared-since-the-pandemic-here-s-what-lectures-look-like-now.

Zafeirakou, A. 2020. "Côte d'Ivoire: The Promise of Early Grade Reading Programs and How to Adjust during COVID-19." Education for All (blog), April 28, 2020. Global Partnership for Education. https://www.globalpartnership.org/blog.

Zafeirakou, A. 2022. "The Brain in the Classroom: Operationalizing Programs Supporting Improvements in Teaching and Learning Implementation in Benin, Côte d'Ivoire, and Senegal." Background paper prepared for the "Global Education Monitoring Report." UNES-CO, Paris. https://unesdoc.unesco.org/ark:/48223/pf0000383174?locale=en.

Zambia Ministry of General Education. Forthcoming. "COVID-19 Recovery Needs Assessment Education Sector Report." Zambia Ministry of General Education, Lusaka.

Zulaika, Garazi, Miriam Bulbarelli, Elizabeth Nyothach, Annemieke van Eijk, Linda Mason, Eunice Fwaya, David Obor, Daniel Kwaro, Duolao Wang, Supriya D. Mhta, and Penelope A. Phillips-Howard. 2022. "Impact of COVID-19 Lockdowns on Adolescent Pregnancy and School Dropout among Secondary Schoolgirls in Kenya." BMJ Global Health 7: e007666. https://gh.bmj.com/content/7/1/e007666.



