



Learning Poverty: How COVID-19 Reshaped Education Worldwide

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In the spring of 2020, as COVID-19 spread rapidly across borders, governments shut down schools at every level in an effort to slow transmission. Classrooms emptied, playgrounds went silent, and the most routine practices of schooling came to a halt. What many assumed would be a temporary interruption quickly became the most extensive disruption to education in modern history. Five years later, schools have reopened, but beneath the appearance of normalcy lies a global setback that is far less visible: a wave of learning loss and rising “learning poverty” among ten-year-olds worldwide. This essay examines the causes and consequences of this crisis and evaluates the effectiveness of emerging recovery strategies to help restore foundational learning and prevent long-term educational and economic harm.

EDUCATION AND LEARNING BEFORE COVID-19

Learning disparities did not suddenly emerge with the pandemic. Well before 2020, the world’s education systems were built on uneven foundations, particularly in many low- and middle-income countries where progress against illiteracy and under-education had already largely stalled.¹ According to a 2022 update from the World Bank, roughly 6 out of every 10 ten-

year-olds in those countries, about 53%, were unable to read and understand a simple text.²

This stagnation revealed a deeper structural weakness. Large shares of households were without reliable internet access or devices, leaving many millions of children without necessary tools to

1 “The State of Global Learning Poverty: 2022 Update.” 2022. <https://thedocs.worldbank.org/en/doc/e52f5322528903b27f1b7e61238e416-0200022022/original/Learning-poverty-report-2022-06-21-final-V7-0-conferenceEdition.pdf>.

2 World Bank, State of Global Learning Poverty, 7.

participate in forms of distance instruction.³ Globally, the teaching profession itself was overstretched. UNESCO estimated that 44 million teachers would be required by 2030 to meet basic education needs.⁴ As

a result, when schools closed in 2020, most systems did not have a resilient foundation; the pandemic exposed and intensified pre-existing vulnerabilities.

HOW THE PANDEMIC CREATED GLOBAL LEARNING LOSS

When COVID-19 spread across the globe in early 2020, governments responded with unprecedented school closures. By April of that year, an estimated 1.5 billion students worldwide had been affected as countries sought to protect children from the health risks of the virus.⁵ In a global snapshot published by UNICEF, researchers found that between March 2020 and February 2021, schools worldwide were closed, on average for 95 instructional days, which equates to approximately half a school year.⁶

This burden was not evenly distributed. Students in South Asia and Latin America lost significantly more instructional time than their peers in many high-income countries, with some regions experiencing year-long closures or repeated cycles of shutdowns.⁷ These extended interruptions created sharp differences in learning outcomes across regions and income levels. Entire cohorts of students suddenly lacked access to the regular instruction, interactive learning environments, and structured routines that support academic progress.

REMOTE LEARNING AND DIGITAL DIVIDES

In theory, digital platforms such as television broadcast, radio lessons, and other remote tools would be able to fill the gap left by no schools. In practice however, millions of children were without the simple prerequisites, making these tools completely unavailable. According to UNICEF out of over 1,000 million students whose countries enacted remote learning policies, at least 463 million were effectively left behind due to either lacking devices, reliable internet or access to broadcast-based instruction.⁸

For pre-primary and early childhood learners aged three to six, remote coverage was especially limited;

UNICEF reported that roughly 40 percent of countries provided no remote learning options for this age group, leaving the youngest children, those at the most critical stage of cognitive development, without any formal instruction during the pandemic.⁹ Even where remote programs did exist, they frequently failed to replicate the social, interactive and guided learning of in-person schooling. Many children lacked quiet spaces, parental support or structured routines which at best, made engagement inconsistent and at worst, it was not possible at all.¹⁰

Foundational literacy, which is the ability to read,

3 "New UNESCO Report Shows Extent of Global Inequalities in Education and Calls for Greater Inclusion as Schools Re-Open." 2020. Unesco.org. 2020. <https://www.unesco.org/en/articles/new-unesco-report-shows-extent-global-inequalities-education-and-calls-greater-inclusion-schools-re>.

4 "Global Report on Teachers Addressing Teacher Shortages and Transforming the Profession." n.d. https://teachertaskforce.org/sites/default/files/2024-02/2024_TTF-UNESCO-Global-Report-on-Teachers_EN.pdf.

5 Avanesian, Garen, Suguru Mizunoya, and Diogo Amaro. 2021. "How Many Students Could Continue Learning during COVID-19-Caused School Closures? Introducing a New Reachability Indicator for Measuring Equity of Remote Learning." *International Journal of Educational Development* 84 (July): 102421. <https://doi.org/10.1016/j.ijedudev.2021.102421>.

6 UNICEF. 2021. "COVID-19 and School Closures: One Year of Education Disruption." UNICEF DATA. March 2, 2021. <https://data.unicef.org/resources/one-year-of-covid-19-and-school-closures/>.

7 The World Bank. 2022. "Ending Learning Poverty." World Bank. October 12, 2022. <https://www.worldbank.org/en/topic/education/brief/ending-learning-poverty>.

8 UNICEF. 2020. "COVID-19: Are Children Able to Continue Learning during School Closures?" UNICEF DATA. August 26, 2020. <https://data.unicef.org/resources/remote-learning-reachability-factsheet/>.

9 UNICEF, "COVID-19: Are Children Able to Continue Learning...".

understand, and interpret text, was among the hardest-hit skills. Early reading instruction depends on teacher feedback, guided reading sessions, and structured progression, all of which are difficult to reproduce remotely. The World Bank found that early-grade learners were hurt the most by distance

education, as reading development relies heavily on in-person modeling and immediate correction.¹¹ For many countries, the pandemic did not merely erase a few months of progress, but instead it wiped out entire grade levels of learning, setting students back years in their educational trajectories.¹²

SOCIAL, EMOTIONAL AND HOUSEHOLD FACTORS

Outside of academics, COVID-19 disrupted normal childhood environments. Families faced economic hardship, adult job losses, food insecurity, and increased childhood stress; conditions that directly affected the children's ability to learn. There was a significant rise in household pressure and caregiving burdens, with many older children putting their own schooling aside to contribute to family income or to supervise younger siblings while schools and childcare centers were closed.¹³

For vulnerable students, these pressures were compounded by the pause of essential school-based

services. In many regions, closures meant the end of free school meals, counseling, disability support services, and safe learning spaces, all of which play a critical role in supporting children's wellbeing. The sudden loss of these supports disproportionately harmed children in low-income households, who were least able to compensate for them at home.¹⁴ The combination of school closures, unequal access to remote instruction, limited suitability of distance learning for young children, and significant socioeconomic strain created what experts describe as the most severe shock to global education in a century.¹⁵

LEARNING POVERTY: A KEY MEASURE OF GLOBAL LEARNING LOSS

A relatively new metric introduced by the World Bank and UNESCO in 2019, learning poverty is defined as the share of ten-year-old children who cannot read and understand a simple text: a basic benchmark for foundational literacy.¹⁶ The measure incorporates two dimensions: whether children are in school and whether they are learning effectively. It provides a powerful snapshot of how many students are being left behind, not because they lack access to a school building, but because they never acquire the most essential skill for future learning. During the pandemic, this measure rose sharply, reflecting not just temporary interruption but the erasure of critical

early progress for millions of students. Given literacy at this age is a key predictor of future educational success, rising learning poverty signals long-term risks for human development, economic mobility, and social stability.

The 2022 update to the original estimates found that 57 percent of ten-year-olds in low- and middle-income countries were unable to read and understand a simple passage, which was far higher than previous calculations had suggested.¹⁷ The disparities were stark: in 2019, learning poverty reached 91 percent in low-income countries compared to just 9 percent

10 UNESCO. 2020. "Startling Digital Divides in Distance Learning Emerge." [www.unesco.org](https://www.unesco.org/en/articles/startling-digital-divides-distance-learning-emerge). April 21, 2020. <https://www.unesco.org/en/articles/startling-digital-divides-distance-learning-emerge>.

11 UNICEF, *State of the World's Children 2021*.

12 Azevedo, João, Maryam Akmal, Marie-Helene Cloutier, Halsey Rogers, and Yi Wong. 2022. "Learning Losses during COVID-19 Global Estimates of an Invisible and Unequal Crisis." <https://documents1.worldbank.org/curated/en/099822210272215882/pdf/IDU0b17fcd5600fa404cab0be570fa1cb97ba906.pdf>.

13 UNICEF. 2021. "The State of the World's Children 2021." [www.unicef.org](https://www.unicef.org/reports/state-worlds-children-2021). UNICEF. 2021. <https://www.unicef.org/reports/state-worlds-children-2021>.

14 World Bank, "State of the Global Education Crisis."

15 World Bank, "State of Global Learning Poverty."

16 World Bank, "State of Global Learning Poverty."

in high-income countries.¹⁸ By the time the pandemic struck, the world was already confronting a profound learning crisis. COVID-19 did not create this problem, but it accelerated it dramatically. According to the World Bank's 2022 update, learning poverty in low- and middle-income countries rose by roughly one-third, leaving an estimated 70 percent of ten-year-olds unable to read with comprehension.¹⁹ In Latin America and the Caribbean, these figures are more dire: by the end of the pandemic's first years as many

as 80% of children at the end of primary school were unable to read simple text, which was a 50% increase pre-pandemic.²⁰ Crucially, the surge in learning poverty was not uniform. Children from rural areas, low-income households, marginalized groups, girls in certain regions, and students with disabilities suffered the greatest setbacks. Unequal digital access, limited remote-learning capacity, and recovery efforts that often favored older or better-resourced students worsened pre-existing disparities.²¹

THE LONG-TERM CONSEQUENCES OF LEARNING POVERTY

Children who fail to master basic reading by age 10 are unlikely to catch up later.²² Without this foundation, students struggle to keep pace with increasingly complex coursework, leading to higher rates of grade repetition, lower progression into secondary school, and greater likelihood of dropping out altogether. The pandemic's disruption threatens to reverse decades of progress in school enrollment and completion, particularly in regions that had made gains only recently.²³

The implications extend far beyond the classroom. Learning poverty is not only an academic crisis, it is an economic one. It is estimated that the learning losses accumulated during the pandemic could translate into trillions of dollars in reduced lifetime earnings for today's students, reflecting diminished productivity and lower wages across their working lives.²⁴ At the national level, a less-skilled workforce weakens a country's innovative capacity, reduces labor productivity, and slows economic growth, making it harder for governments to generate revenue and invest in services.

Lower literacy and numeracy also perpetuate intergenerational cycles of poverty. Those without foundational literacy skills face constrained access to higher-paying jobs and limited economic mobility. For many, poor early learning becomes a structural barrier that shapes their economic prospects throughout life.²⁵ On a global scale, the accumulation of millions of such individual setbacks poses a significant drag on development trajectories. These educational and economic consequences are intertwined with rising inequality. Learning poverty increased most sharply among children from rural areas, low-income households, and marginalized communities, deepening divisions between those with access to recovery resources and those without. Widening educational inequality can exacerbate broader social and economic divides, potentially fueling long-term social instability.²⁶ COVID-19 threatens to limit the futures of millions of children whose productivity, earnings, and opportunities could be permanently limited by circumstances beyond their control.

17 "70 per Cent of 10-Year-Olds in 'Learning Poverty', Unable to Read and Understand a Simple Text." 2022. Wwww.unicef.org. <https://www.unicef.org/press-releases/70-cent-10-year-olds-learning-poverty-unable-read-and-understand-simple-text>.

18 World Bank Independent Evaluation Group. *Confronting the Learning Crisis: A Background Report*. World Bank, 2023. <https://ieg.worldbankgroup.org/evaluations/confronting-learning-crisis/chapter-1-background>

19 UNICEF, "70 per Cent of 10-Year-Olds...".

20 UNICEF, "70 per Cent of 10-Year-Olds...".

21 UNICEF Middle East and North Africa Regional Office. *Learning Losses Report: Executive Summary*. UNICEF, December 13, 2021. <https://www.unicef.org/mena/media/14531/file/Executive%20Summary%20-%20Learning%20Losses%20Report-EN-131221.pdf>

22 World Bank. 2024. "Education." World Bank. March 25, 2024. <https://www.worldbank.org/en/topic/education/overview>.

23 UNICEF, *State of the World's Children 2021*.

24 World Bank. *Learning Losses from COVID-19: A Global Update (World Bank Flier, October 2022)*. <https://thedocs.worldbank.org/en/doc/e52f5322528903b27f1b7e61238e416-0200022022/related/WBG-LearningLosses-flier-10-09-22-e-version.pdf>.

25 UNESCO. 2024. "What You Need to Know about Literacy." Unesco.org. 2024. <https://www.unesco.org/en/literacy/need-know?hub=401>.

26 "Learning Losses from COVID-19 School Closures Could Impoverish a Whole Generation." 2022. Unesco.org. 2022. <https://www.unesco.org/en/articles/learning-losses-covid-19-school-closures-could-impoverish-whole-generation>.

RECOVERY EFFORTS

Recognizing the scale of the crisis, governments and international organizations have launched a wide range of initiatives to help students regain lost learning. The results, however, have been uneven. One of the most widely promoted strategies has been high-dosage tutoring which is intensive small-group or one-on-one instruction designed to accelerate progress for students who fell furthest behind. The joint World Bank–UNESCO–UNICEF report identifies structured tutoring as one of the most effective tools for reversing learning loss, particularly for children with the lowest baseline performance.²⁷ Research consistently shows that tutoring works best when sessions are frequent and group sizes are kept small, ideally between one and four students. However, scaling such programs remains a major challenge in low- and middle-income countries, where staffing and resources are limited. Some education systems have begun experimenting with context-specific adaptations, such as training

recent secondary-school graduates to serve as tutors for younger learners, an approach that could yield high returns even in low-capacity environments.

In several regions including Latin America, Europe, and parts of Asia governments have expanded summer programs, after-school sessions, and remedial classes. These initiatives extend learning time and provide structured opportunities for students to reengage with core material. As schools return to full in-person instruction, such programs offer a practical means of accelerating recovery where normal classroom hours alone are insufficient.²⁸ International bodies have supported these national efforts. UNESCO's global education response has helped countries design recovery frameworks, mobilize funding, and share promising practices; from digital learning innovations to community-based outreach and teacher training.²⁹

POLICY RECOMMENDATIONS

To meaningfully reduce learning poverty in the aftermath of COVID-19, recovery strategies need be designed for low- and middle-income countries, where capacity constraints, teacher shortages, and unequal access to digital tools are most prevalent. Governments must prioritize foundational literacy recovery in early primary grades by scaling cost-effective, high-dosage tutoring models that are possible in low-resource contexts. One promising approach is the use of para-teachers and community-based tutors, such as recent secondary school graduates or trained teaching assistants, who can deliver structured, small-group literacy instruction using scripted lesson plans and targeted remediation. Evidence from low-income settings, including a cluster-randomized trial in The Gambia, shows that

para-teacher-led interventions produced substantial gains in literacy and numeracy despite limited formal credentials.³⁰ By embedding tutoring into the school day and aligning it with national curricula, policymakers can maximize impact while minimizing administrative and financial burden.

In parallel, recovery efforts should be explicitly targeted instead of universal. Evidence from the pandemic shows that learning losses were most concentrated among children from low-income households, rural areas, and marginalized communities. As a result, governments should direct funding and instructional resources toward schools and districts with the highest measured learning poverty, using early-grade literacy assessments to guide intervention placement. This targeted approach

27 UNICEF, *State of the World's Children* 2021.

28 UNICEF, *State of the World's Children* 2021.

29 "UNESCO's Education Response to COVID-19." 2023. <https://www.unesco.org/en/covid-19/education-response/initiatives?hub=800>.

30 Alex Eble, Chris Frost, Alpha Camara, Baboucarr Bouy, Momodou Bah, Maitri Sivaraman, et al., *How Much Can We Remedy Very Low Learning Levels in Rural Parts of Low-Income Countries?* EdWorkingPaper No. 19-157. Providence, RI: Annenberg Institute for School Reform at Brown University, 2019. <https://edworkingpapers.com/sites/default/files/ai19-157.pdf>

allows education systems with limited fiscal space to concentrate resources where marginal learning gains are highest, rather than dispersing support thinly across entire populations.

Finally, policymakers must invest in teacher capacity-building as the primary means of recovery, rather than attempting to rely on digital solutions. While technology can complement instruction, foundational literacy development depends on consistent, teacher-led engagement. In low- and middle-income settings,

this investment should focus on short-cycle, in-service training programs, such as coaching-based professional development and scripted literacy modules delivered through regular school-year workshops, that equip teachers with structured literacy methods, diagnostic assessment tools, and targeted remediation strategies. Strengthening teacher capacity through focused professional development not only supports immediate learning recovery but also builds long-term system resilience against future disruptions.

CONCLUSION

The COVID-19 pandemic did not create the global learning crisis, but it exposed its depth and sharply accelerated existing inequalities. When schools closed, millions of children, already vulnerable due to structural weaknesses in education systems, lost access to instruction, widening learning poverty to historic levels. Unequal access to remote learning and heightened social and economic pressures further compounded these losses. The consequences extend well beyond the classroom. Without foundational literacy and numeracy, students face reduced

educational progression, limited economic mobility, and diminished participation in civic life. At a global scale, these individual setbacks accumulate into slower growth, lower productivity, and deepened inequality. While recovery efforts such as high-dosage tutoring and curriculum prioritization are underway, their success will depend on sustained investment, targeted support for the most affected children, and long-term commitment to strengthening education systems so that today's setbacks do not define an entire generation.



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