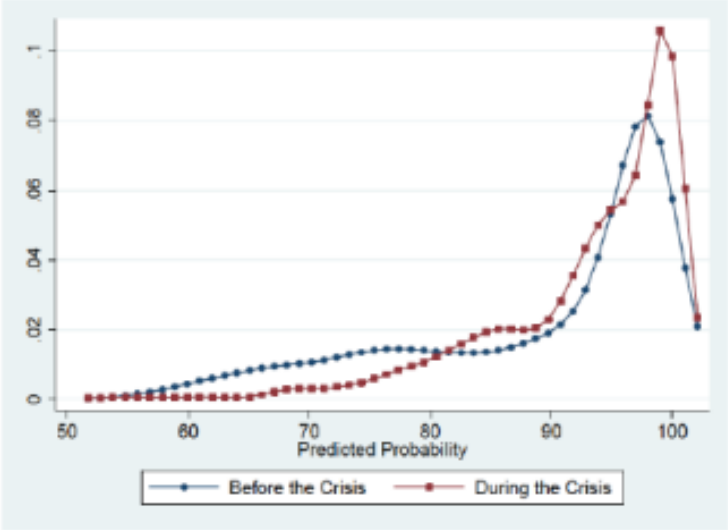
Double Burden in the Recovery

1. **Learning losses due to school closure**
2. **The economic crisis cut income and credit availability**

Figure 2 of Kang and Sawada (2008):
Kernel Density Estimates of Probability to be Credit-Constrained Before and During the Korean Crisis

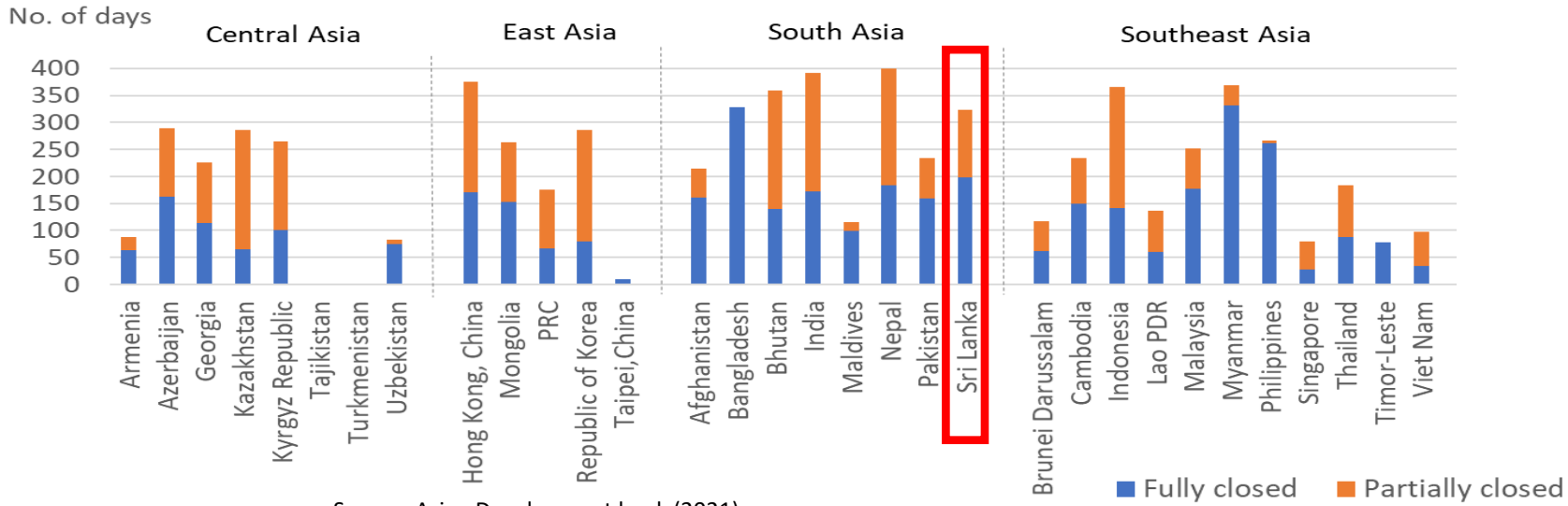


The Kolmogorov=Smirnov test of equality of these two distributions overwhelmingly reject the hypothesis of equality of distributions of credit-constrained probabilities before and during the financial crisis. CDFs indicate the first-order stochastic dominance.

- During AFC, real education expenditure decreased by:
  - 47-50% in Indonesia (Thomas et al., 1999)
  - 20% in Korea (Kang and Sawada, 2008)
- Long-lasting impacts on the poor in Indonesia (Ravallion and Lokshin, 2003)
- Credit crunch reinforced binding borrowing constraints in Korea (Kang and Sawada, 2003)

Substantial Learning Loss in Sri Lanka

Number of days schools were partially or fully closed (February 2020 – April 2021)



Source: Asian Development bank (2021)

Gender gap in expected learning-adjusted years of schooling (LAYS)

	Expected LAYS lossess						Gender gap in expected learning losses, %		
	High efficacy		Medium efficacy		Low efficacy				
	Male	Female	Male	Female	Male	Female	High efficacy	Medium efficacy	Low efficacy
Developing Asia	**0.46**	**0.48**	**0.62**	**0.64**	**0.82**	**0.83**	**4.3**	**3.2**	**1.2**
Afghanistan	0.73	0.78	0.77	0.80	0.82	0.84	6.8	3.9	2.4
Bangladesh	1.13	1.20	1.24	1.30	1.39	1.42	6.2	4.8	2.2
Bhutan	0.69	0.74	0.76	0.80	0.86	0.88	7.2	5.3	2.3
India	0.89	0.96	0.99	1.04	1.11	1.14	7.9	5.1	2.7
Nepal	1.07	1.13	1.14	1.18	1.22	1.25	5.6	3.5	2.5
Pakistan	0.81	0.86	0.89	0.93	0.99	1.01	6.2	4.5	2.0
Sri Lanka	0.86	0.94	1.03	1.09	1.25	1.28	9.3	5.8	2.4

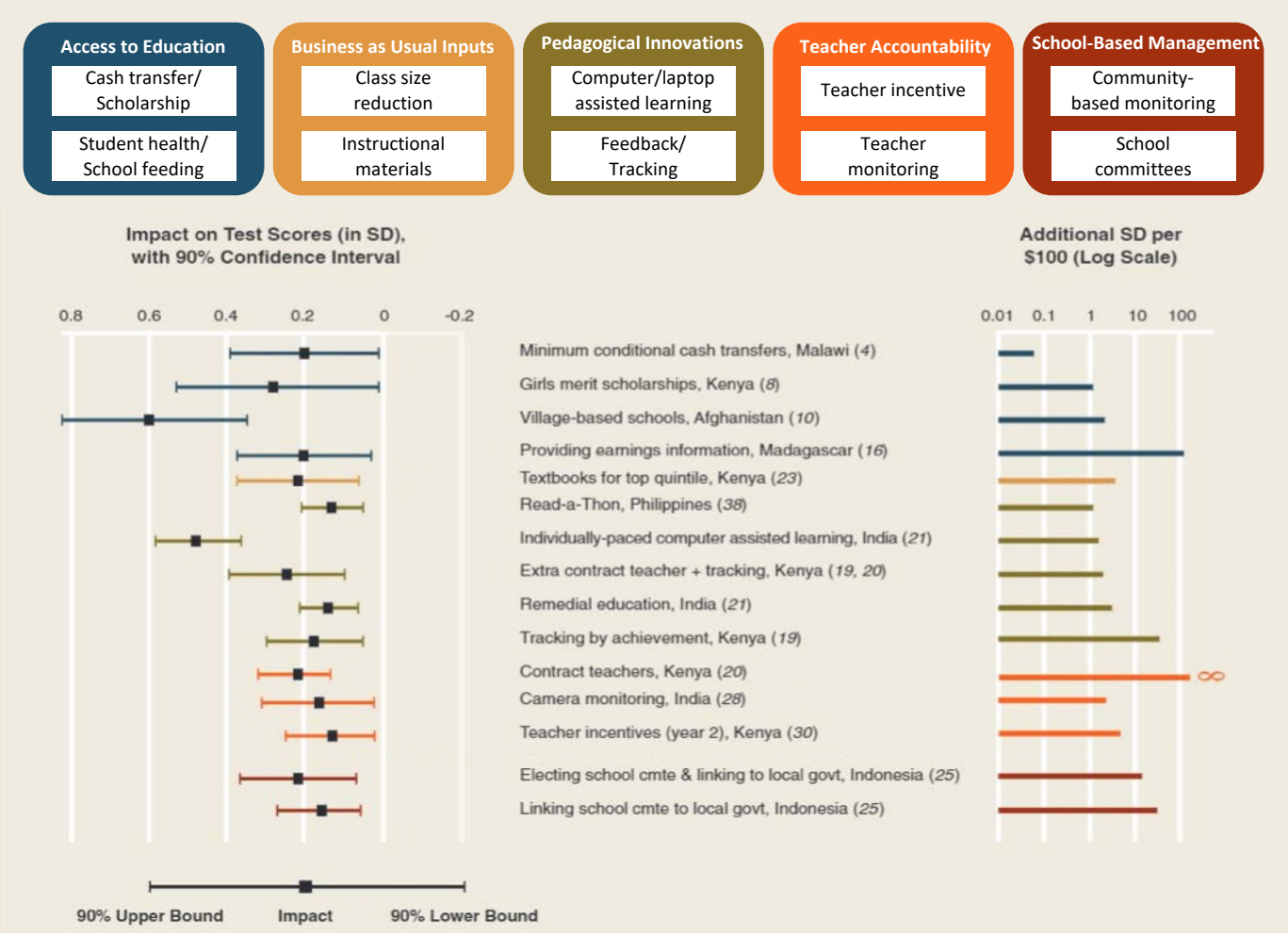
Wealth gap in expected learning-adjusted years of schooling (LAYS)

	Expected LAYS lossess						Wealth gap in expected learning losses, %		
	High efficacy		Medium efficacy		Low efficacy				
	Poorest	Richest	Poorest	Richest	Poorest	Richest	High efficacy	Medium efficacy	Low efficacy
Developing Asia	**0.57**	**0.36**	**0.65**	**0.49**	**0.74**	**0.65**	**58.3**	**32.7**	**13.8**
Afghanistan	0.87	0.75	0.89	0.78	0.91	0.82	16.0	14.1	11.0
Bangladesh	1.30	0.98	1.37	1.13	1.46	1.33	32.7	21.2	9.8
Bhutan	0.80	0.60	0.84	0.69	0.90	0.82	33.3	21.7	9.8
India	1.05	0.79	1.11	0.91	1.18	1.07	32.9	22.0	10.3
Nepal	1.22	1.13	1.25	1.18	1.28	1.25	8.0	5.9	2.4
Pakistan	0.93	0.69	0.98	0.80	1.04	0.94	34.8	22.5	10.6
Sri Lanka	0.84	0.35	1.02	0.65	1.24	1.04	140.0	56.9	19.2

Source: Asian Development bank (2022)

Reference: Asian Development bank (2022). *Asian Development Outlook 2022: Mobilizing Taxes for Development.* https://www.adb.org/publications/asian-development-outlook-2022;
Asian Development Bank (2021). *Asian Development Outlook 2021: Financing a Green Recovery.* https://www.adb.org/publications/asian-development-outlook-2021

Effective Interventions on Learning



Results from McEwan. (2015) following categories in Kremer et al. (2013)

	Mean effect
Access to Education	
Food, bevarages, and/or micronutrients	0.035*
Deworming drugs	0.013
Informational treatments	0.049
Monetary grants	-0.011
Business as Usual Inputs	
Class size or composition	0.117**
Instructional materials	0.078***
Pedagogical Innovations	
Computers or technology	0.150***
Teacher Accountability	
Teacher training	0.123***
Contract or volunteer teachers	0.101***
Student/teacher performance incentives	0.089**
School-Based Management	
School management or supervision	0.055

* p < .1, ** p < .05, *** p < .01

Left) Kremer, M., Brannen, C., & Glennerster, R. (2013). The challenge of education and learning in the developing world. *Science*, *340*(6130), 297-300. https://www.science.org/doi/full/10.1126/science.1235350?casa_token=9088Wpa6LHcAAAAA:qNax-p5e02vcksTA7z5pQEdhnjcSUVR-zLQBDdKzDyZY_oRwsJUnyC7I22Sh8_BCzvvhqej1ICgGhaM
Right) McEwan, P. J. (2015). Improving learning in primary schools of developing countries: A meta-analysis of randomized experiments. *Review of Educational Research*, *85*(3), 353-394. https://journals.sagepub.com/doi/pdf/10.3102/0034654314553127?casa_token=hEgtYry4F5gAAAAA:hwczaAEXuU-PwXzs-YI2kFETOcUj1L9IDoy3W6cMYUwDLxbyWMUTDE2snHxoS_WgxCynAemBjuvmbw

Effective Interventions to Fill Learning Loss

- Access to Education

- Conditional or unconditional cash transfers
- School-feeding/health programs

Students studying with the Kumon Method ad a BRAC school

- Business-as-Usual Inputs

- Resuming in-person class safely
- Soft/hard infrastructure for social distancing and health security
- Training

- Pedagogical Innovations

- TaRL and self-learning such as Kumon Method (Sawada et al, 2020) and Ei Mindspark
- Online programs but challenges in infrastructure and training (Hayashi et al., 2022)
- Accelerated curriculum (BRAC BPS)
- Adequate access to the hardware, software, and connectivity
- Training and mentoring

- Teacher Accountability & SBM

- Good school governance with proper incentives
- Bridging and linking social capital

Personalised Effective Learning with Ei Mindspark
Maths | English | Science
Class 1-10
Class 4-9
Class 6-8
Ei Mindspark is a personalised learning software that allows children to effectively advance at their own pace. Every day, Ei Mindspark delivers over 2 million questions, and the data collected is used to enhance the child's learning pathway.
Independent evaluations by J-PAL, IDinsight and Gray Matters have demonstrated learning outcomes to improve dramatically.
Students
Parents
Ei

Source: https://mindspark.in/, https://www.unicef.org/media/75706/file/Handwashing%20Facility%20Worksheet.pdf, https://www.kumongroup.com/eng/about/environment/2016/contribution.html, https://www.project-syndicate.org/commentary/developing-asia-pandemic-learning-losses-education-catchup-by-albert-park-2022-05,
Reference: Sawada, Y., Mahmud, M., Seki, M., Le, A., & Kawarazaki, H. (2020). Fighting the Learning Crisis in Developing Countries: A Randomized Experiment of Self-Learning at the Right Level. *Available at SSRN 3471021.* http://www.cirje.e.u-tokyo.ac.jp/research/dp/2019/2019cf1127.pdf