

Unit 8: The system enablers of instruction

Teaching is at the heart of education systems, and is of central importance to determining how much children learn. However, there are multiple system-level components that directly shape teaching (as distinct from the teacher-level factors covered in Unit 7) and determine whether it is effective or not. These core “instructional components” include children’s learning levels, curriculum, assessment, and instructional support (i.e. textbooks, lesson plans, and teacher training or coaching).

Many education reform efforts seek to improve teaching by acting on a single instructional component at a time. However, there is increasing evidence that this piecemeal approach is inadequate to improve learning outcomes. Instead, there is a need to increase attention toward coherence across (between) instructional components.

To take a negative example, the literature on “overambitious curricula” highlights the mismatch between curricula and children’s learning levels in many contexts, and the associated risk that children are left behind and unable to catchup as the curriculum advances faster than they can learn. Conversely, many of the most promising examples of systems change that have increased learning at-scale have brought about greater coherence between instructional components.

We will discuss tools to measure coherence between various instructional components (such as the Surveys of Enacted Curriculum). We will also explore influential contemporary case studies that have successfully improved instructional coherence (i.e. TARL), and compare and contrast the distinct approaches these programs take even as they pursue a similar goal.

After completing the unit, students should:

- Understand the concept of ‘instructional components’ and ‘instructional coherence’
- Be able to provide diverse examples of instructional coherence, and interpret real-world case studies through the lens of instructional (in)coherence
- Be able to marshal theoretical and empirical evidence around the impact of “overambitious curricula”, and the importance of adapting instruction to childrens’ learning levels

Required Readings

Atuhurra, J. and Kaffenberger, M. 2020. System (In)Coherence: Quantifying the Alignment of Primary Education Curriculum Standards, Examinations, and Instruction in Two East African Countries (Links to an external site.). RISE Working Paper Series. 20/057. https://doi.org/10.35489/BSG-RISE-WP_2020/057 [Blog version]

Standards, Examinations, and Instruction in Two East African CountriesActions

Hwa, Y., Kaffenberger, M. and Silberstein, J. 2020. Aligning Levels of Instruction with Goals and the Needs of Students (ALIGNs): Varied Approaches, Common Principles. RISE Insight Series. 2020/022. https://doi.org/10.35489/BSG-RISE-RI_2020/022

Banerji, R., and Chavan, M. 2016. Improving literacy and math instruction at scale in India's primary schools: The case of Pratham's Read India program. *Journal of Educational Change*, 17(4), 453–475. <https://doi.org/10.1007/s10833-016-9285-5>

Piper, B., Destefano, J., Kinyanjui, E. M., and Ong'ele, S. 2018. Scaling up successfully: Lessons from Kenya's Tusome national literacy program. *Journal of Educational Change*, 19(3), 293–321. <https://doi.org/10.1007/s10833-018-9325-4>

Further Readings

Case Studies of Improved Instructional Coherence

Muralidharan, K., Singh, A. and Ganimian, A. J., 2019. Disrupting Education? Experimental Evidence on Technology-Aided Instruction in India, in: *American Economic Review*, Vol. 109:4, 1426-1460. [Blog and [2021 conference presentation of scale-up in public schools](#)].

Banerjee, A., Banerji, R., Berry, J., Duflo, E., Kannan, H., Mukherji, S., Shotland, M., and Walton, M. 2017. From proof of concept to scalable policies: challenges and solutions, with an application. *Journal of Economic Perspectives* 31 (4): 73–102. <https://doi.org/10.1257/jep.31.4.73>

Crouch, L. 2020. Systems Implications for Core Instructional Support Lessons from Sobral (Brazil), Puebla (Mexico), and Kenya. *Research on Improving Systems of Education (RISE)*. https://doi.org/10.35489/BSG-RISE-RI_2020/020

Overambitious curricula

Pritchett, L. and Beatty, A. 2012. The Negative Consequences of Overambitious Curricula in Developing Countries (SSRN Scholarly Paper ID 2102726). Social Science Research Network. <https://papers.ssrn.com/abstract=2102726>

Pedagogical Production Function

Kaffenberger, M. and Pritchett, L. 2021. A Structured Model of the Dynamics of Student Learning in Developing Countries, with Applications to Policy. *International Journal of Educational Development*. Volume 82, 2021, 102371. ISSN 0738-0593. <https://doi.org/10.1016/j.ijedudev.2021.102371>

Instructional incoherence and Covid learning loss

Andrabi, T., Daniels, B., Das, J. 2020. Human Capital Accumulation and Disasters: Evidence from the Pakistan Earthquake of 2005. *RISE Working Paper Series*. 20/039. https://doi.org/10.35489/BSG-RISE-WP_2020/039

Kaffenberger, M. 2021. Modeling the Long-Run Learning Impact of the COVID-19 Learning Shock: Actions to (More Than) Mitigate Loss. In: International Journal of Educational Development, Vol. 81. <https://doi.org/10.1016/j.ijedudev.2020.102326>