

Scale - Provocation Paper

Introduction

Taking effective education innovations to scale is generally accepted as essential to driving improvement of learning at the systemic level. This is even more pertinent in the wake of a global learning crisis intensified by the Covid19 pandemic. However, the scaling and sustenance of education innovation pose a great complexity since contexts of learning vary widely across schools, regions, countries, etc. Thus, innovations that work in one context may be ineffective in another. Accordingly, key actors, in research and practice, have formed varied, and often contesting models for scaling education innovation. For instance, a linear model advocates the translation of effective education programmes into ready intervention packages that can be transferred to any context; while others suggest that education innovations accepted for scaling must allow for extensive adaptations across diverse sites. Nonetheless, [studies](#) have emphasized that although it is possible to significantly improve learning outcomes at scale, there is never a fixed formula for the successful scaling up of educational interventions. This report builds on research evidence and experiences of leaders in the field to explore the 'nature of scaling educational innovations', as well as the questions 'how do we scale education programs while maintaining their effectiveness?' and 'what are some critical factors to consider when scaling educational innovations?'

Story

The education system in Delhi, India, has suffered from a host of challenges. Its public schools have a reputation for [decrepit buildings, mismanagement and poor instruction](#). As a result, only 30% of schools go up to the 10th grade, 38% of teaching positions are vacant and 75% of students in grades 6-9 cannot read a grade 2 text. However, by adopting a model of scale that creates a collaborative network of leaders at the grassroots and grassstops, Teach For India - Delhi is catalyzing change across the education ecosystem.

Notably, [more than 77% of Teach For India \(TFI\) alumni](#) continue to serve in the the social sector, reaching more than 33 million children in India. For example, with alumni in high-level positions in government, TFI is having an influence in strengthening policies and regulations protecting the rights of children, as well as leading efforts to [improve teacher training and address school grievance](#). Also, alumni-led social enterprises such as [Alohomora](#) and [Meraki](#) are in partnership with the Delhi government to design entrepreneurship curriculums and expand parental support for children's education. Dozens of Teach For India alumni work across organizations tackling issues ranging from early childhood education to health and sanitation to college readiness. Teach For India Delhi works closely with its alumni community to ensure [they can access the resources they need](#) and are supported to continue driving the vision of access to excellent education for every child.

This holistic system around children in Delhi has created proof points of students' holistic development and academic excellence. In a recent national 10th grade exams, about 1,000 Teach For India - Delhi students participated, and [87% of them passed](#) (compared to 72% of students in Delhi government schools).

According to the City Director of Teach For India - Delhi, Mansi Joshi, [choosing and managing scale](#) is a significant choice in achieving transformational impact across India.

Perspectives

Who?	When?	What?
Who is talking?	What time stamp?	What they are talking about
Shaheen Mistri	00:11:48 - 00:12:14	“Depth of scale is as important as breadth of scale.”
Kaya Henderson	00:22:15 - 00:23:10	“In designing education interventions, we have to think about scale from the beginning”
Matthew Hood	00:27:03 - 00:30:54	“Six factors that matter for rapid scale: a clear goal, evidence, expertise, implementation fidelity, structure, and generous relationships”
Omar Qargha	00:27:03 - 00:30:54	“Learning as a human endeavor is complex and context-based”
Matthew Hood	00:54:19 - 00:55:33	“In every scaling process, it is critical to identify the active ingredients of an innovation”
Kaya Henderson	01:01:18 - 01:02:37	“To get to scale we must start to think beyond policy and include implementation practices”
Omar Qargha	01:25:21 - 01:26:40	“Focus on the problem, create spaces for diverse voices, and learn as you go so as to be adaptive”

“When we're in pursuit of scale, we miss the importance of depth. I think one of the things that we've learned in the Teach for All Community is unless you have deep, deep relationships with people in the community, transformation cannot happen. That's been one of my key lessons. When you do deep work with community, with the people who are on the ground every day, your impact is heightened. It's broadened. It's deepened. It is magnified in so many ways.” – **Kaya Henderson, CEO, Reconstruction US**

“If we're working collectively and are really working with our communities, we can't strategically plan and sequence the universe for impact and change. That's an ongoing process of learning and discovering and finding out what works for the context, or the community, or the system. It's important to plan, but we also need to have the ability to be agile and shift according to what emerges” – [Soon Seng Chan, CEO, Teach For Malaysia](#)

“No matter the target of reform or the design construct, the scale-up process is iterative and complex and requires support from multiple actors. This is likely to remain so for the foreseeable future. The actors must jointly address a set of known, interconnected tasks if scale-up is to succeed; how each group addresses these tasks will vary according to design, context, and resources. Perhaps most important, the actors must align policies and infrastructure into a cohesive network of supports to sustain effective practice.” – **Glennan, et al., [Expanding the Reach of Education Reforms: What Have We Learned About Scaling Up Educational Interventions?](#)**

“What we’ve been trying to do since 2003, is both increase breadth and depth. Therefore we have a suite of 9 programs that cover the lifecycle of a teacher’s development. Ultimately, what we wanted to do is make sure they developed in the long term in schools that needed them the most and also that they contribute to the improvement of the schools and communities.” – [Reuben Moore](#), **Executive Director, Programme Development - Teach First UK**

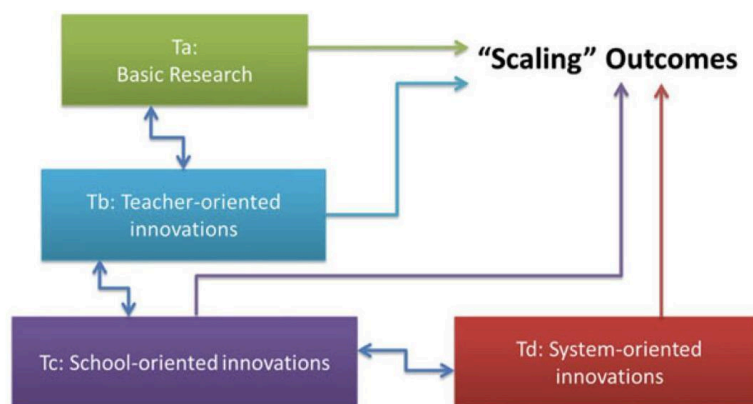
“The question here isn’t ‘are there best practices that we know about?’ In fact, there are plenty of best practices that fail to be implemented and executed effectively and fail to be contextualized for what specific groups of students need. So what we’re working to do now is figure out how we can bring cohorts of educators together alongside a common idea, a concept, or practice, and then work together to understand what it means to implement that in their context and really have them leading with one another. So that’s how we really think about the network effect.” – [Aneesh Sohoni](#), **Executive Director, Teach For America Chicago**

Evidence

[A study by D. Hung et al., \(2015\)](#), based on case studies of scaling practices in Singapore’s education system, argues for an ecological model for scaling (Figure 1) that mobilises stakeholders at the systems level, allows for productive tension at various levels (teacher, school, policy levels) and meaningful variations based on differences in student profiles, curriculum, teacher dispositions, local context and cultural dynamics, etc.

However, the study advocates for the maintenance of core principles to sustain the integrity of the education intervention being scaled.

Figure 1: An Ecological model to Educational Scaling



The ecological model insists that effective scaling is a combination of top-down and bottom up approaches. Firstly, teachers can adopt basic research ideas and adapt it to their classroom settings; here, ownership shifts from researcher to teacher and innovation is driven by teachers’ initiatives. Secondly, as projects attain success by spreading across different classrooms they require structure and support from school-level management to diffuse these teacher-led innovations to more classrooms and create cultures needed for sustaining the interventions. Thirdly, as teachers and schools adopt, adapt and implement interventions, system structures are implemented by the MOE to create system-wide diffusion and impact.

These innovations working concurrently create a healthy ecology for scaling learning innovations in any education landscape.

[Several studies](#) have argued for the rethinking of scale beyond quantitative terms (that is, number of districts, schools, teachers, or students reached) to the nature and quality of the implementation of the education interventions being taken to scale. Accordingly, scale is reconceptualised as a combination of five interrelated dimensions: depth, sustainability, spread, shift in ownership and evolution.

- “Depth” refers to deep and consequential change in classroom practice. This involves altering teachers’ beliefs, norms of social interaction, and underlying pedagogical principles as enacted in the curriculum.
- “Sustainability” involves maintaining these consequential changes over substantial periods of time especially in the face of competing priorities, changing demands, and teacher and administrator turnover
- “Spread” is based on the diffusion of the innovation to large numbers of classrooms and schools. This involves more than the spread of activity structures and materials to the spread of underlying beliefs, norms and principles.
- “Shift in ownership” ensures that the education innovation being scaled becomes an internal initiative of the districts, schools, and teachers who have the capacity to sustain, spread, and deepen the innovation.
- “Evolution” is when the adopters modify and adapt the education innovation in a way that influences the thinking of its designers. Evolution is a product of depth, spread and shift in ownership which in turn creates a community of practice between adopters and program designers.

Richard Elmore, [in this article](#), argues against the conception of scale as the pursuit of generalizable, replicable ‘results’ or a uniformity of practice and outcomes in every school and classrooms. Decades of attempts to reform education, he argues, shows that scaling education practices is heavily influenced by the contexts, micro and macro, within which they exist. Consequently, notions of scaling in education must involve a move:

- From universal prescriptions for learning to multiple, diverse, and promising adaptations to diverse populations
- From complex, technical expressions of expert knowledge to simple, transparent expressions, accessible to adults and children alike
- From a focus on producing predictable effects across many settings, to a focus on expecting to be surprised by effects and patterns that emerge from divergent thinking and practices.

[In this report](#) by the Center for Universal Education (CUE) at Brookings, evidence is generated on the process of scaling and sustaining the most effective education intervention. Lessons from the report center around three themes:

- Firstly, it recommends that programs be embedded in the formal education system of given contexts. This includes aligning with government priorities as well as creating a coordinating structure that ensures coordination across government ministries.
- Secondly, it advocates securing flexible, long term financing to support the sustainable scaling of the education initiative. This necessitates understanding the processes of government budgets, and strategic thinking built upon cost data and analysis.
- Thirdly, it proposes the implementation of a continuous learning process to support expansion. Here, scaling is regarded as an iterative process which demands feedback loops to strengthen the model and approach of the initiative. A collaborative learning approach is recommended that engages diverse stakeholders.

According to [Marnie Thompson and Dylan William](#), for any intervention to be effective and scalable, it must meet three interrelated factors:

- A clear idea of all the program components and theory of action;
- A comprehensive idea of what it means to scale the program across diverse contexts;
- A consideration of the unique context into which the program is being scaled.

Building upon these factors, they propose a “Tight but Loose Framework” of scaling which “combines an obsessive adherence to central design principles (the tight part) with accommodations to the needs, resources, constraints, and particularities that occur in any school or district (the loose part), but only where these do not conflict with the theory of action of the intervention”.

Examples

This section links to specific examples that we already have of efforts within and beyond the network:

- [Anseye Pou Ayiti](#) is pursuing ‘scale as depth’ characterized by a focus on systemic, sustainable impact through long-term and consistent community partnerships over time. This is done by careful listening, relationship building and sustained contribution to the civic leadership development of local teachers, parents, school leaders and students.
- Zambia recorded a successful implementation of ‘Learning Study’, a [peer to peer collaborative learning](#) practice original to Japan that saw an improvement in teaching methods from the traditional chalk and talk to inquiry-based, learner-centered approach, as well as improved learning outcomes for Zambian students. An emphasis on flexible adaptation to local context, attaining teacher buy-in through recognition of teachers as agents of change rather than targets of training, and the alignment of the initiative within government policies and priorities are identified as key drivers behind the successful scaling of ‘Learning Study’.
- In India, [Pratham’s large-scale ‘Read India’ initiative](#) is improving literacy and numeracy skills among children in primary schools. Pratham’s achievement in bringing this effective pedagogy to scale is underpinned by a deep partnership with communities and schools. This involves the use of locally available resources as well as involving volunteers at the ground level to catalyse local leadership. Also, Pratham embeds its work within the government institutional structures. This includes working directly with the school system, investing in capacity building and cultivating a culture of evaluation, allocating time within the school day for ‘Read India’ and collaborating with government staff as instructional leaders.
- Cote d’Ivoire is seeing an adaptation and implementation of the Pratham model of pedagogy via the government-led [Programme d’Enseignement Ciblé \(PEC\)](#). Moreso, PEC is making a significant difference in improving the literacy and numeracy rates of children in schools. Its design was planned for scale at the outset, ensuring that early attention was committed to the broader enabling environment contributing to or impeding scaling. Lessons from this scaling effort recommends, firstly, planning to infuse education programs sustainably and equitably into existing systems, rather than planning to disrupt existing ways of working. Secondly, catalysing collective action through partnerships and collaboration at the government and grassroots level is critical for expanding and sustaining an initiative. Thirdly, aligning with government financing processes and donor collaboration provides important support to finance the initiative for scale. Fourthly, integrating an adaptive and collaborative learning in the process of scaling create opportunities to problem solve collectively and adapt to changing contexts and circumstances.

- In the 1980s, Singapore adopted English as the medium of instruction in its schools. However, the PISA 2012 data showed that 50.6% of Singapore students did not speak English at home. This created a wide literacy gap between students who spoke English at home and those who did not. Consequently, a national curricular approach to teaching the English language, [Strategies for English Language Learning and Reading \(STELLAR\)](#), was implemented in primary schools across Singapore. End-to-End support was provided in various forms to enable the scaling success of this new curriculum. This support plan comprised of Materials, Methodology, Mentoring, and Monitoring. Thus, high quality instructional materials were made available to all schools in both print and digital media. Research-based teaching methods were utilised to promote students' enjoyment and engagement in learning English. A Teacher Mentoring scheme was developed to win teacher buy-in and shift ownership so as to create deep and consequential change in classroom practice. Lastly, a process of monitoring and evaluation is embedded to ensure continual improvement. In addition, STELLAR's scale success was possible because of the sustained commitment from various stakeholders, including government, parents and teachers, and the capacity to anticipate and cope with challenges in the implementation of the innovation.

- In London, [Teach First has achieved scale](#) through the presence of thousands of its teachers and ambassadors (alumni) working at all levels of the city's education system. Currently, [one in 14 of all teachers](#) working in schools serving London's low-income communities are Teach First teachers and alumni, with over 1,000 alumni serving in areas such as school leadership, policy, social enterprises and thought leadership. Teach First alumni serve as head teachers at almost 100 schools, having either founded new schools or taken over existing ones. [Research showed](#) that London's schools improved dramatically since 2000, at a faster rate than anywhere else in the country. This improvement was also tied to the significant scale and impact of the Teach First programme in London. Reflections on the school system turnaround in London reveals [several themes that informed effective scale](#):
 - Strategic clarity: systemic change is built around people and process and therefore requires clear holistic goals around learners, including tackling wider inequity, poverty and disempowerment. This also means building an excellent working culture that informs the processes of the organisation.
 - A leadership pipeline: partner schools in London with 20% of its staff being Teach First Alumni emphasised the leadership culture these individuals bring to bear upon the school systems, changing the life outcomes of many children.
 - Strong partnerships: deep partnerships provided the means and opportunity for investing in various aspect of the two-year fellowship, creating an enabling environment for alumni success and building a supportive community for alumni leaders.
 - Intentional program investments: Establishing a deep sense of purpose, a tight network and success as a teacher in the classroom during the two years of fellowship is underlined as the most important investment that determines a strong alumni movement.
 - Student Agency: Building connections and promoting well-being of students, as well as flexibility in curriculum design are important factors in enabling student leadership in and outside the classroom.

Insights

- 1. Scaling effective education interventions is a critical problem** in the drive towards improving learning for every child. Only a small percentage of interventions that work reach scale, and it is unclear what proportion of these sustain the depth of impact.
- 2. Scaling is complex and contextual, and is best approached iteratively and in partnership.** Scaling a particular solution is a very different demand to creating that solution in a particular context. Effective scale answers the questions of sustainability, ownership and possibility of the project's adaptation to unique contexts.
- 3. There is no one-size fits all approach to the question of scale.** However, some recurring characteristics across successfully scaled projects are outlined as guidelines to be adopted and adapted across contexts. These include recommendations such as:
 - Designing for scale
 - Clarity of the most important elements of the intervention
 - In depth understanding of the context into which the idea is being scaled
 - Allowing for meaningful variations as programs are introduced to diverse settings
 - Building a collaborative system of feedback and learning to enable the scaling process to be both responsive and adaptive
 - Embedding programs within existing systems, such as government policies and priorities, government budgeting and financing processes, leadership structures of the school system or local communities
 - Creating strong coordination structures between relevant government ministries
- 4. Adopt a 'tight and loose' approach to scaling,** where the core ingredients of an initiative are identified and upheld across various contexts, while other details are allowed the freedom of adaptation to unique settings - as long as the 'core ingredients' are not inhibited.
- 5. A critical mass of capable leaders working together is fundamental to scale.** Across the Teach For All Network, investing in the fellowship program and alumni communities enables a pipeline of leaders that transforms education systems. This points to the place and importance of collective leadership in producing multiplier effects that unlocks better systems of learning for children in schools and communities.
- 6. Scale is achieved through partnership and politics.** Collaboration and effective partnerships that engender ownership and prioritize the perspectives of stakeholders across all levels of the system (government, parents, teachers, students) is a significant lever for systems change.

Questions / What's next?

Now more than ever, in the face of a [global learning crisis](#) exacerbated by the Covid19 pandemic, the question of scaling educational interventions to improve learning for all is increasingly relevant. Small tweaks will not be sufficient, as Michelle Kaffenberger have [noted](#), because the scale of the problem demands the reorientation of entire education systems to be coherent with learning. This paper has been an addition to the call for research into the scaling of effective solutions to attain improved learning opportunities for every child. However, the context-based nature of the scaling process lends itself to further questions to be explored by leaders within their unique settings, namely 'how do we

effectively scale education programs, in our context, while maintaining their effectiveness?' 'What are some critical factors to consider when scaling educational innovations?'. Although this research outlines examples, perspectives and evidences on effective scaling, it is critical that every leader engages these questions for themselves while considering the unique constraints and opportunities of their own realities.

Useful Links

- Community Impact Conversation: [full call recording](#)
- Quotes from the Community Impact Conversation on Scale [Scale - Video note-taking](#)
- [Global learning series website](#)
- Case studies of community impact FY21
- Looi, C.-K., & Teh, L. W. (Eds.). (2015). [Scaling Educational Innovations](#). Springer Nature Singapore.
- [Millions Learning research on scale](#) at at the Center for Universal Education at Brookings