

Improving children's reading and math at large scale in Côte d'Ivoire

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The story of scaling PEC

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Contents

Executive summary	7
Introduction	12
Objective	13
Intended audience	13
What is a Real-time Scaling Lab?	14
Real-time Scaling Lab in Côte d'Ivoire	18
Background	20
Education ecosystem in Côte d'Ivoire	20
Cocoa in Côte d'Ivoire	20
Transforming Education in Cocoa Communities (TRECC)	22
Teaching at the Right Level (TaRL)	23
The story of scaling PEC in Côte d'Ivoire	30
Design: Selecting and testing PEC with scale in mind from the outset positioned it for success	31
Delivery: Strong partnerships and early government involvement were critical	38
Financing: Pipeline of available financing from diverse partners instrumental in PEC's expansion	47
Enabling environment: A shifting landscape underscores the need to consider the broader system	52
Lessons learned and recommendations	60
Lessons about institutionalization as a path to scaling in education	60
Lessons about partnerships and champions for scaling in education	63
Lessons about costs and financing for scale	65
Lessons about adaptation and continuous learning in the scaling process	68

Conclusion	71
Annex I Methodology	72
Annex II Côte d'Ivoire Real-time Scaling Lab members	75
Annex III Full list of Millions Learning International Advisory Group members	77
Endnotes	79

Boxes

Box 1. What is "scaling?"	12
Box 2. The Real-time Scaling Lab as a "window" into systems change	13
Box 3. PEC in bridging classes	24
Box 4. Key elements of PEC in Côte d'Ivoire	33
Box 5. PEC and COVID-19	35
Box 6. PEC governance structures	44
Box 7. Next step: Mainstreaming of PEC in preservice teacher training	45
Box 8. Strengths and weaknesses of pooled funding mechanisms	49

Figures

Figure 1. Map of cohort of Real-time Scaling Labs	16
Figure 2. Côte d'Ivoire Real-time Scaling Lab at-a-glance	19
Figure 3. PEC implementation and adaptation in classrooms in Côte d'Ivoire	26
Figure 4. Summary of recommendations	58

Acronyms

CAFOP	Centre d'animation et de formation pédagogique (vocational training schools in Côte d'Ivoire responsible for training primary school teachers)
CLEF	Child Learning and Education Facility
COGES	Comité de Gestion des Etablissements Scolaires (school management committee)
CUE	Center for Universal Education
DAENF	Direction de l'Alphabétisation et de l'Education Non Formelle (Directorate of Literacy and Non-formal Education)
DPFC	Direction de la Pédagogie et de la Formation Continue (Directorate of Pedagogy and In-Service Training)
ECD	Early Childhood Development
GMM2	Grant Matching Mechanism 2
IPA	Innovations for Poverty Action
J-PAL	The Abdul Latif Jameel Poverty Action Lab
MENA	Ministère de l'Education Nationale et de l'Alphabétisation (Ministry of National Education and Literacy)
PEC	Programme d'Enseignement Cibl�
RTSL	Real-time Scaling Lab
SDG	Sustainable Development Goal
TaRL	Teaching at the Right Level
TRECC	Transforming Education in Cocoa Communities
TVET	Technical and Vocational Training

Executive summary

Even before COVID-19 left as many as 1.6 billion students out of school in early 2020, millions of children and youth around the world did not have access to the quality education they needed to lead healthy, safe, and productive lives. Even worse, the poorest and most marginalized children continue to be most affected by this learning crisis, losing out on their right to education. This situation has far-reaching consequences for generations to come, including on poverty, inequality, climate change, and public health. Urgent action must be taken to rapidly and sustainably expand access to high-quality learning opportunities for all children. Of course, the question is “how?” While there exist many innovations that improve children’s learning, the vast majority only reach a small fraction of children in need. As a result, there is growing demand for more evidence and guidance on how to identify, adapt, and scale cost-effective policy and practice that lead to millions more children learning.

In response, the Center for Universal Education (CUE) at Brookings has been investigating efforts to scale and sustain evidence-based initiatives leading to large-scale improvements in children’s learning. CUE has been implementing a series of Real-time Scaling Labs (RTSL), in partnership with local institutions in several countries, to generate evidence and provide practical recommendations around the process of scaling in global education—encouraging a stronger link between research and practice.

This report focuses on one of the scaling labs in Côte d’Ivoire—launched in 2019 in collaboration with Transforming Education in Cocoa Communities (TRECC) and the Ministry of National Education and Literacy (MENA). It centers around the government-led process of implementing, adapting, and scaling the Programme d’Enseignement Ciblé (PEC), a remedial education approach to improving early grade reading and math adapted from Teaching at the Right Level (TaRL). While the lab has focused on the experience of PEC to date, it serves as a case study into larger questions of how an evidence-based initiative can achieve progress toward national sustainable scale, with lessons that are transferable beyond PEC and Côte d’Ivoire.

Section one of the report provides brief background on the case, including an overview of the RTSL and the education ecosystem in Côte d’Ivoire, and brief descriptions of key actors and initiatives engaged with PEC. Section two details the story of implementing, adapting, and expanding PEC in Côte d’Ivoire to date—exploring critical factors, opportunities, and challenges related to its design, delivery, financing, and enabling environment. Section three offers lessons and targeted recommendations organized around four key themes that emerged as critical to strengthening PEC’s ongoing expansion, as well as inform future scaling efforts in education in Côte d’Ivoire and beyond.

PEC's scaling journey: A confluence of advantageous factors

In many ways, PEC represents the “ideal scenario” for scaling and sustaining an initiative within a formal education system. PEC benefitted from a confluence of factors in its favor—some of which have been strategically and systematically orchestrated, others which have serendipitously emerged. TRECC’s problem-driven approach supported the development of government buy-in for PEC from the beginning and contributed to strong government ownership. The simplicity of the approach, the fact that it resonates with theoretical principles that teachers learn during initial training, its pilot through direct government delivery, its convincing results, and its clear pathway for scaling in the education system also fostered government engagement and facilitated PEC’s expansion.

The partnerships forged in the TRECC model were other important factors in generating support for PEC, including the opportunity to experiment with different potential solutions before settling on one, the role of a neutral third party assessing pilot results, technical support from organizations that originally developed and studied the TaRL approach, and the existence of a scaling lab bringing together diverse stakeholders for reflection and peer-learning. PEC has also had success

in gaining senior-level support within MENA, with key influential individuals championing it. This critical support has been maintained despite political turnover and shifts in the broader education environment, including a global pandemic. Finally, the availability of financing for PEC beyond an initial pilot phase—including funding for additional adaptation and expansion and potential access to five years of financing through the creation of a public-private pooled fund—has been essential for moving PEC beyond a short-lived project to an approach that the government intends to scale within the system.

Nonetheless, despite the many factors in its favor, scaling and sustaining PEC in Côte d’Ivoire is not guaranteed and critical challenges remain, including limited government capacity to incorporate and deliver the model in existing systems with quality, the persistence of a project mentality among some key actors involved, and insufficient attention to the engagement of education stakeholders at local levels (including teachers and communities). Other potential constraints to future expansion and sustaining of PEC include delays encumbering the launch of the new pooled fund and challenges around identifying and securing sustainable national financing.

Lessons to strengthen PEC’s expansion and inform future scaling efforts

Through accompanying the scaling journey of PEC, lessons emerged from the case centered around four key themes that were consequential to PEC’s scaling success to date, and which will continue to play a critical role in future efforts. These themes are: 1) institutionalization as a pathway to sustainable scale; 2) partnerships and champions; 3) costs and financing; and 4) adaptation and continuous learning.

Each of these themes offers lessons from the case of PEC and targeted recommendations not only to support ongoing progress to expand and deepen the impact of PEC but also to inform scaling efforts of other evidence-based education initiatives. Below is a brief overview of each of the lessons with targeted recommendations for implementers, policymakers, funders, and researchers further detailed in the full report.



Institutionalization as a path to scaling in education

- ***Ensure a relentless focus on who will deliver at large-scale from the start:*** Piloting an initiative with government takes more time and capacity up front, but also fosters buy-in, determines what is feasible, and demonstrates potential for a solution to work in the system.
- ***Focus on the scalability of an innovation in the local context:*** While it is tempting to seek innovations that significantly disrupt existing ways of working or test cutting-edge technology, it is critical to focus on the practicality of scaling an innovation in a particular context, including how best to infuse it sustainably and equitably into existing systems. Often, the innovations with the most potential for large-scale impact are those that are most feasible for the system to bear.
- ***Create coordinating structures with sufficient capacity and a strong government mandate:*** Scaling through institutionalization requires a coordinating structure with a high-level mandate to make decisions, harmonize efforts, and ensure the work of scaling moves forward—particularly once institutionalization progresses beyond any individual's or department's job description.
- ***Maintain one foot on the gas, and one foot on the brakes:*** Even with significant government buy-in for scaling, it is important that all stakeholders understand the need for a longer-term, phased approach to scaling, with a laser focus on quality and equity issues, balancing inevitable trade-offs during the scaling process.



Partnerships and collaboration for scaling in education

- ***Catalyze collective action, as well as recognize the point of diminishing returns:*** Government engagement in the scaling process may be critical for expanding and sustaining an education initiative, but collective action is nonetheless required to bring different perspectives, resources, expertise, and roles. At the same time, sufficient attention must be given to clarify each partner's motivation and incentives, value addition, vision of scaling and success, and risk tolerance.
- ***Support intermediaries to foster partnerships and align incentives:*** Intermediary or third-party organizations—including funders—can play a critical bridging role in scaling to align disparate incentives, develop innovative approaches to leverage the unique strengths and perspectives of each actor, and gather stakeholders together behind a shared goal.
- ***Cultivate an alliance of scaling champions:*** Creating conditions for effective solutions to spread requires scaling champions at all levels within and outside government, classrooms, and communities, and deliberately creating space to work together differently—disrupting existing patterns of collaboration and decisionmaking. Leveraging a collaborative learning approach, such as the RTSL, can help to “bring the system into the room” and build a new way of working.
- ***Support a mindset shift and behavior change for scaling:*** Identifying and building a cadre of scaling leaders and change agents requires more than getting these stakeholders to support scaling a particular initiative—it requires raising awareness of key scaling principles, encouraging application of these principles through concrete action and behavior change, and strengthening the competencies and skills needed to scale impact.



Costs and financing for scale

- ***Shed light on long-term government financing:*** For many innovators and implementers, government budgetary processes and pipelines remain opaque, and more clarity is needed on how to align with or integrate into these processes to mobilize long-term resources for sustainable scale.
- ***Increase support to make sound cost projections at scale:*** There is significant need to build local expertise and capacity to collect, analyze, and use cost data to inform scaling projections. Incentives are needed to support its collection, analysis, and sharing, and encourage greater transparency and opportunities for learning.
- ***Leverage the potential of pooled financing to cross the “valley of death”:*** Donor collaboration and pooled funding can provide important bridge financing for scale, helping initiatives make the challenging transition from pilot to large-scale implementation, but more learning is needed on the benefits and challenges of these mechanisms.



Adaptation and collaborative learning in the process of scaling

- ***Integrate a continuous learning process within government systems:*** There are tangible benefits to infusing a continuous learning approach, such as the RTSL, into government systems to support implementation, adaptation, and scaling, with quick feedback loops and opportunities for reflection and course corrections. Government leadership of a lab-like process can confer the necessary authority to develop, test, and refine a scaling strategy with relevant decisionmakers.
- ***Strengthen adaptive capacity to respond to rapidly changing environments:*** Too often adaptations being tested in the scaling process are not systematically planned for or well documented, and the learning is lost; more systematic approaches to planning for and learning from anticipated and spontaneous changes are needed.
- ***Invest time and resources in peer learning and exchange:*** Many initiatives in the process of scaling are working in isolation, and in spite of contextual differences, can benefit from greater collaboration to share experiences, reflect on common challenges and opportunities, and problem-solve collectively. Peer learning must go beyond one-off occasions and should be supported as an intrinsic aspect of the work that receives sufficient time, capacity, and resources.

Though still in its early chapters, PEC's scaling story is instructive on many levels. More than anything, the story of PEC has highlighted the tireless and inspiring efforts of so many education stakeholders in Côte d'Ivoire striving to improve learning outcomes for children, especially the most vulnerable.

And yet the case of PEC also underscores that even with this almost "best case" scenario of scalability and opportunity, scaling impact in education remains a challenging and long-term endeavor that cannot be taken for granted. PEC is arguably now entering its most challenging chapter—navigating

the tenuous middle phase of scaling—as it pushes beyond a small-scale pilot to become further embedded in government operations and reach significantly more children. This phase will require continued adaptation and experimentation, collecting data, and using them in rapid learning cycles to ensure PEC's efficacy is sustained as it expands. Regardless of what the future holds, the Ivorian government's efforts to scale and sustain PEC—in partnership with various actors—will continue to provide rich insights into scaling and system-wide change for Côte d'Ivoire and many countries around the world.



Photo Credit: TaRL Africa.

Introduction

While there are many innovations that improve children's learning around the world, the vast majority do not reach large scale—their impact touching only a small fraction of children in need. But why is this the case? How can scaling lead to a lasting change in an education system, when so many initiatives are still structured and conceived as short-term projects? How can delivering an effective approach be adopted and sustained by government, and what role can other actors play in supporting this process? How can greater evidence in policymaking support scaling? And why is scaling such a challenging endeavor even when an initiative has many advantages in its favor?

Accompanying the government-led adaptation and implementation of TaRL in Côte d'Ivoire—known as the Programme d'Enseignement Ciblé or PEC—has provided a rich opportunity to unpack these questions and explore how an evidence-based initiative can make progress toward national, sustainable delivery (Box 1).

This report details the scaling journey of PEC to date in Côte d'Ivoire, with transferable lessons for policymakers,

practitioners, and funders in the country and globally. As PEC is a journey in progress, this report aims to capture, distill, and synthesize the breadth of efforts to date and those still needed to come for lasting and meaningful change in children's learning, particularly among those most disadvantaged.

Section one provides an overview of the RTSL and education ecosystem in Côte d'Ivoire and the key actors and initiatives engaged with PEC. Section two details the story of implementing, adapting, and expanding PEC in Côte d'Ivoire to date—exploring critical factors, opportunities, and challenges related to its design, delivery, financing, and enabling environment. Section three offers lessons and targeted recommendations organized around four key themes that emerged as critical to strengthening PEC's ongoing expansion, as well as to inform scaling efforts in education in Côte d'Ivoire and beyond. These four themes are: 1) institutionalization as a path to scaling in education; 2) partnerships and collaboration for scaling in education; 3) costs and financing for scale; and 4) adaptation and continuous learning approaches.

Box 1. What is “scaling?”

Scaling refers to a range of approaches—from deliberate replication to organic diffusion to integration into national systems—that expand and deepen impact leading to lasting improvements in people's lives. This conceptualization of scale implicitly takes a systems approach, whereby the focus is not on growing an individual project but on enacting and managing a sustainable change in the broader system.

In the case of PEC, the scaling approach is to reach all primary schools in Côte d'Ivoire through integrating PEC delivery into the national, regional, and local education systems. This includes collaboration with related initiatives to align and streamline primary school literacy and numeracy approaches.

Objective

Millions Learning, a project of CUE at the Brookings Institution, explores how to address global education challenges by scaling and sustaining effective initiatives leading to improved system-wide approaches. In the second phase of the project (2018-2023), CUE is implementing a series of RTSLs, in partnership with local institutions in several countries, to generate evidence and provide practical recommendations around the process of scaling in global education—encouraging a stronger link between research and practice.

CUE launched an RTSL in Côte d'Ivoire in 2019 in partnership with TRECC focused on the government-led process of implementing, adapting, scaling, and sustaining PEC.

The objectives of this report are to:

- Capture key insights and lessons learned from PEC's scaling journey in Côte d'Ivoire;
- Provide recommendations for expanding and sustaining the impact of PEC—and education initiatives more generally—thereby strengthening the education ecosystem in Côte d'Ivoire; and
- Share reflections on and recommendations for public-private partnerships and collaborative learning approaches with the broader global education community, drawing learning from the experience of TRECC and the RTSL.

Intended audience

The report is intended to inform education stakeholders in Côte d'Ivoire, including policymakers (especially at MENA), practitioners, and funders (including philanthropic and institutional donors and the private sector). While the report focuses specifically on the case of PEC, it aims to provide insights to Ivorian education stakeholders more broadly seeking to scale impactful initiatives and enact

systems change leading to sustainable improvements in learning outcomes for all children. The report also provides transferable lessons from the Ivorian case to global education actors through an example of scaling through government institutionalization, an innovative multisector partnership, and a participatory, continuous learning approach to support scaling and systems change (Box 2).

Box 2. The Real-time Scaling Lab as a “window” into systems change

While the RTSL is centered around the PEC scaling process, the intention has always been to focus beyond just expanding a single program. The ultimate goal of the lab is to respond to a key challenge and support sustaining a large-scale change in the system. The lab offers stakeholders an opportunity to learn more deeply about the scaling process and strengthen institutional and adaptive capacity, which can be applied beyond the PEC initiative itself.

What is a Real-time Scaling Lab?

An RTSL is a participatory, action research approach to explore scaling impact in education, developed by CUE in collaboration with local institutions around the world. The RTSL is not a physical space but a process to collaboratively document, learn from, and support ongoing efforts to scale and sustain the impact of an initiative in a timely and ongoing manner. An RTSL combines ongoing documentation and analysis of the scaling journey with in-person and virtual convenings and workshops that bring together a diverse group of key stakeholders to collectively plan for sustainable scale, discuss and reflect on challenges and opportunities, and develop and test adaptations and course corrections to scaling strategies through an iterative learning process. The lab offers concrete opportunities for peer learning and exchange while also generating knowledge on the “how” of scaling impact. The RTSL approach was developed and informed by the findings of the first phase of Millions Learning,¹ as well as seminal scaling literature,² collective impact, innovation hubs, adaptive learning mechanisms, and a wide range of related methodologies and frameworks such as improvement science, systems thinking, and change management. For more information, see “Real-time Scaling Lab Guidelines: Implementing a participatory, adaptive learning approach to scaling.”³

Through the RTSLs, CUE seeks to address the following two primary research questions:

1. How do key “drivers,”^a factors, and forces facilitate the scaling process and how are key constraints addressed, mitigated, or overcome?
2. How can the link between gathering evidence around scaling and putting this knowledge into practice be strengthened?

To answer these questions, CUE is undertaking two strands of research through the RTSLs: (1) learning more about *how* scaling happens—and in particular testing assumptions that underlie key scaling drivers identified in CUE’s and others’ previous research and developing new theories as needed; and (2) learning more about how to support the *process* of scaling in education and investigating the role that a continuous learning approach with intermediary organizations^b might play. CUE is utilizing a comparative case study approach, with each RTSL serving as an individual case and each employing a shared approach to data collection, analysis, and reporting. This report focuses on the case of the RTSL in Côte d’Ivoire. See Annex I for an overview on the methodology.

There are other RTSLs in Botswana, Jordan (there are two), the Philippines, and Tanzania (Figure 1). Although each lab focuses on learning from, documenting, and supporting the scaling of an individual initiative, the broader cohort of RTSLs also forms its own learning community, with each initiative serving as an entry point to learn about enacting and sustaining a change in the broader education system. Despite contextual differences and foci of each lab, similar scaling-related challenges exist across the labs and this cross-national collection of RTSLs offers much needed opportunities for peer-to-peer learning and exchanges. Details of the criteria used for RTSL selection are included in Annex I.

a. CUE defines scaling drivers as core ingredients or key levers that contribute to and advance the process of scaling and sustaining an education initiative. The importance and role of various scaling drivers depend on the context and the initiative. These 14 core drivers were initially developed through a research study of 14 in-depth cases of scaling in education, and further tested in the Millions Learning RTSLs. Their importance is frequently reinforced from evidence in the broader scaling literature. See: Jenny Perlman Robinson and Rebecca Winthrop with Eileen McGivney, “Millions Learning: Scaling Up Quality Education in Developing Countries” (Washington, D.C.: Brookings Institution, 2016).

b. Intermediaries are third-party institutions or initiatives that play key roles in the process of adapting, transferring, and scaling an initiative, such as coordination, documentation, capacity building, or evaluation.



Photo Credit: TaRL Africa.

Figure 1: Map of cohort of Real-time Scaling Labs

Botswana

Local Partner Young 1ove	Initiative Teaching at the Right Level (TaRL)
Focus Targeted instruction approach to literacy and numeracy implemented in grades 3-5 in primary schools in collaboration with Ministry of Basic Education	
Place in scaling journey Ongoing expansion in partnership with government	Level of education Primary school

Côte d'Ivoire

Local Partner Transforming Education in Cocoa Communities (TRECC)	Initiative Teaching at the Right Level or Programme d'Enseignement Ciblé (PEC)
Focus Remedial education through targeted instruction for literacy and numeracy in grades 3-6 delivered in primary schools and bridging classes by the Ministry of National Education and Literacy	
Place in scaling journey Ongoing expansion and integration into government	Level of education Primary school

Jordan

Local Partner INJAZ	Initiative Financial Education Program (FEP)
Focus Financial literacy course implemented in grades 7-12 in all secondary schools, led by Ministry of Education and Central Bank of Jordan	
Place in scaling journey At national scale, focusing on sustainable impact	Level of education Secondary school

Jordan

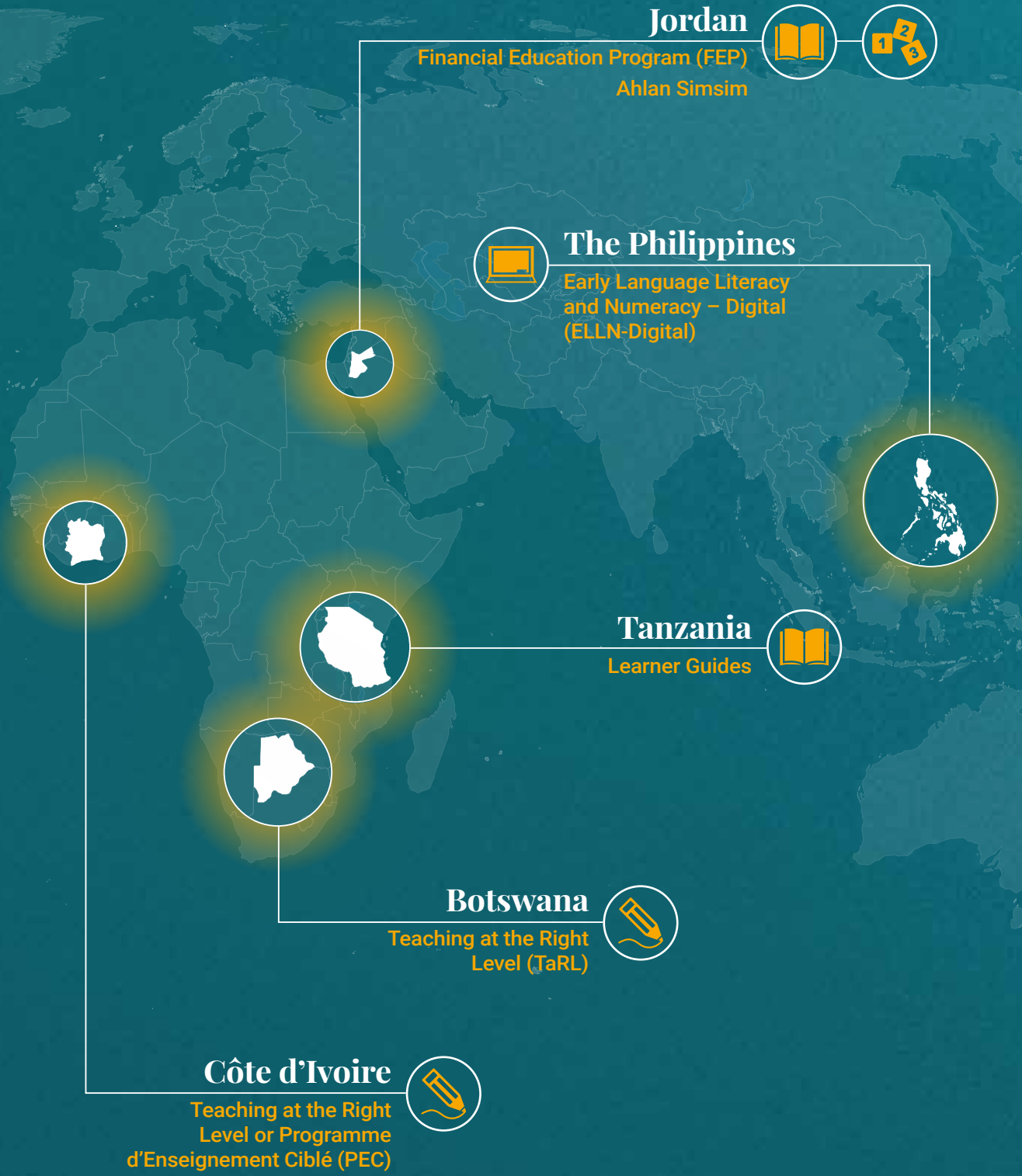
Local Partner International Rescue Committee	Initiative Ahlan Simsim
Focus Early childhood development intervention (including early learning and nurturing care) targeting children and caregivers affected by conflict and crisis in Iraq, Jordan, Lebanon, and Syria, through a combination of direct services and mass media in collaboration with Sesame Workshop	
Place in scaling journey Adapting to new context and new partnerships	Level of education Early childhood development

Tanzania

Local Partner CAMFED	Initiative Learner Guides
Focus Life skills curriculum delivered by female secondary school graduates to secondary students as part of 18-month volunteer program with focus on transition to higher education and workforce, in collaboration with Ministry of Education, Science, and Technology and President's Office of Regional Administration and Local Government	
Place in scaling journey Ongoing expansion in partnership with government	Level of education Secondary school and transition to workforce

The Philippines

Local Partner Teacher Professional Development @Scale Coalition, Foundation for Information Technology, Education, and Development (FIT-ED)	Initiative Early Language Literacy and Numeracy – Digital (ELLN-Digital)
Focus Blended teacher professional development model for K-3 teachers implemented in public schools, led by Department of Education	
Place in scaling journey Phased rollout by government	Level of education Teacher professional development



Real-time Scaling Lab in Côte d'Ivoire

Designing and establishing the RTSL in Côte d'Ivoire was a collaborative process informed by an analysis of the education landscape and mapping of relevant stakeholders, experiences with implementing other collaborative learning approaches around the world, and consultations with key stakeholders. The RTSL is led by an Ivorian scaling lab manager supported by an Ivorian scaling lab researcher and comprised of approximately 30 individuals representing government, implementing organizations, foundations, the cocoa and chocolate sector, and teachers' colleges and unions (Figure 2). After an initial scaling workshop held in January 2019 in Abidjan launching the lab process, MENA^c offered to host an RTSL focused on primary education within its Inspector General's office. This decision to host the lab within the Ministry and designate key government participants served as a clear indication of the government's engagement with the RTSL and commitment to scaling evidence-based solutions to improve learning outcomes in primary schools.

The initial impetus for the RTSL in Côte d'Ivoire was to support, learn from, and document efforts to expand and sustain the impact of promising TRECC-supported early childhood development (ECD), primary education,

and technical and vocational training (TVET) pilots. The intention was to help lay the foundation for the pilots' long-term scaling and institutionalization (if deemed effective), as well as support strengthening the education system more broadly. Over time—in response to findings from independent evaluations of the pilots, government priorities, and the changing education landscape—the lab narrowed its focus to the adaptation and expansion of one pilot: PEC.

The lab offered a structured space for members to reflect on expanding the PEC model, with the intention of using the data and learning to develop a scaling strategy and inform eventual national scaling. At the same time, MENA aimed to use the RTSL process—with PEC as a case study—to build its own scaling capacity in order to apply similar scaling principles and frameworks to scaling other education initiatives in the future. With MENA as the lead, CUE provided support throughout the lab through documenting and analyzing the scaling process and lessons learned, conducting relevant research, facilitating opportunities for learning and exchange with other RTSLs, and bringing in relevant scaling expertise, tools, and resources.

c. Prior to 2021, MENA was known as the Ministry of National Education, Technical Education, and Vocational Training (MENET-FP).

Figure 2: Côte d'Ivoire Real-time Scaling Lab at-a-glance

Teaching at the Right Level or Programme d'Enseignement Ciblé (PEC)



Building foundational skills in reading (French) and math through the Teaching at the Right Level approach delivered in primary schools (grades 3-6) and bridging classes by the Ministry of National Education and Literacy (MENA), with support from Teaching at the Right Level (TaRL) Africa



Reach 100% of students in grades 3-6 with child-centered level-based instruction to improve literacy and numeracy outcomes, institutionalize and sustain PEC delivery fully within the existing education system



Scaling Lab Manager:

Leads RTSL, facilitating convenings and guiding scaling discussions

General Inspection, MENA:

Officially hosts the RTSL

Transforming Education in Cocoa Communities (TRECC), the local partner:

Financial support to RTSL, contributes to design of lab process

Scaling Lab Researcher:

Documents PEC scaling process and RTSL adaptive learning approach

CUE: Analyzes and documents scaling process and lessons learned and provides capacity strengthening and peer learning opportunities



Representatives from:

- MENA across various departments at central and regional levels
- TaRL Africa
- Innovations for Poverty Action (IPA)
- CAFOPs (Teacher training centers)
- Teachers' unions
- TRECC
- World Bank
- Project to improve the delivery of education services (PAPSE)
- UNICEF
- Cocoa Industry
- Full list of members included in Annex II

Background

Education ecosystem in Côte d'Ivoire

Years of political and military instability—spanning a violent conflict that began in 2002 and the post-election crisis of 2010–2011—significantly impacted all of Côte d'Ivoire's social sectors, including access to and quality of education. Emerging from this period of crisis, the country has seen strong economic growth and become Francophone West Africa's economic hub.⁴ During this time, the government made substantial progress in improving access to primary education, including through the implementation of the Compulsory School Policy, which increased gross enrollment rates from 68.9 percent in 2007 to 100.3 percent in 2019⁵ (net enrollment 95 percent in 2019).⁶ Despite this substantial progress, access issues persist, including overcrowded classrooms, out-of-school children, and significant rates of repetition and drop out. In 2019, for example, the primary school completion rate was 79 percent, the repetition rate was 8.4 percent, and the pupil to teacher ratio was 42:1.⁷

While additional progress is needed to get more children into school, a pressing challenge facing the primary education sector remains low learning outcomes. A 2019 assessment^d of student competencies in

reading and math at the end of grade three conducted by MENA's Directorate of Program Surveillance and Monitoring found the average score was 24.1 percent in reading and 46.8 percent in math, underscoring children's challenges achieving basic competencies.⁸ International assessments have confirmed this challenge: The 2014 Program for the Analysis of Education Systems (PASEC) found the majority of children did not complete primary school with sufficient competency in both math and reading. The study found 48 percent reached the threshold in reading and 26.8 percent reached it in math by the end of primary;⁹ only 25 percent of six graders achieved both.¹⁰ Five years later, the 2019 PASEC found only 40.5 percent of children finishing primary with sufficient reading skills and just 17.2 percent with sufficient math skills.¹¹

As a result, the government of Côte d'Ivoire has turned its attention to improving the quality of education. The 2016–2025 Education Sector Plan focuses on addressing this learning crisis, aiming to provide all children and adults quality, inclusive, equitable education and training by 2025.¹² Improving education quality is also a priority for donors, civil society, and communities.

d. This study used the Early Grade Reading Assessment (EGRA) and Early Grade Mathematics Assessment (EGMA).

Cocoa in Côte d'Ivoire

Côte d'Ivoire is the world's largest producer and exporter of cocoa beans,¹³ with a projected 2.1 million metric tons to be produced in 2021.¹⁴ As a result, cocoa is integral to the Ivorian economy and one of the largest sectors, making up more than 50 percent of total exports,¹⁵ directly employing an estimated one million people, and providing income to roughly 20 percent of the population.¹⁶ Nevertheless, many farmers remain in poverty with little opportunity to improve their livelihoods. According to the Fairtrade Foundation, on average only six percent of profits from the cocoa industry make their way back to farmers,¹⁷ and in 2019 an estimated 55 percent of Ivorian cocoa producers and their families lived below the poverty line.¹⁸ While many farmers are highly dependent on cocoa as their primary source of income,¹⁹ challenges such as limited knowledge of agricultural practices and pervasive pests and disease result in low crop yields. Farmers are also vulnerable to fluctuating cocoa prices and hampered by exclusion from the formal financial sector.²⁰

A grave, highly publicized challenge plaguing the cocoa sector is child labor.^e In 2001, U.S. congressional pressure led major players in the cocoa and chocolate industry to voluntarily adopt the Harkin-Engel protocol, which aims to eradicate the worst forms of child labor and forced labor in West African cocoa farms (initially by 2005, though the target has been extended multiple times).²¹

The industry has sought to address these issues through company sustainability programs—including awareness-raising activities, the introduction of community- and supply chain-based child labor monitoring and remediation systems, and investments in community development—as well as industry-level

coordination such as CocoaAction.²² The Ivorian government has also undertaken multiple efforts aimed at eliminating child labor and child trafficking—including a National Action Plan to combat the worst forms of child labor and the Compulsory School Law²³—as well as strengthened labor laws, raised the minimum working age from 14 to 16, and created the Child Labour Observation and Monitoring System in Côte d'Ivoire, a national mechanism to monitor and address child labor.²⁴

Despite these efforts, 20 years later, child labor and forced labor persists in cocoa farming. A 2020 study conducted by the National Opinion Research Center at the University of Chicago found that approximately 790,000 children—or 38 percent ages 5-17 living in agricultural households in Côte d'Ivoire—were engaged in child labor in cocoa production, and almost all of them were engaged in hazardous forms of work. Alongside an increase in cocoa production, child labor among agricultural households in Côte d'Ivoire and Ghana rose 14 percent between 2008-09 and 2018-19.²⁵ Across the world, the COVID-19 crisis has also resulted in increased rates of child labor.²⁶ Government action to counter the issue is limited by a lack of human and financial resources,²⁷ and child labor remains pervasive, as it is rooted in broader social issues, including inter-generational poverty and lack of quality education. UNICEF reports that “Within the cocoa sector, persistent child labor is a symptom and self-reinforcing cause of poverty. ... When faced with price shocks, production losses due to disease and weather, or household emergencies between harvests, the economic resilience of these families is severely limited.”²⁸ Access to free quality education is not only a basic human right, but also an important tool for eradicating child labor in cocoa communities.

e. Not all work performed by children is classified as child labor. The International Labour Organization defines child labor as work that is “mentally, physically, socially or morally dangerous and harmful to children and/or interferes with their schooling by: depriving them of the opportunity to attend school; obliging them to leave school prematurely; or requiring them to attempt to combine school attendance with excessively long and heavy work. Hazardous child labour or hazardous work is the work which, by its nature or the circumstances in which it is carried out, is likely to harm the health, safety or morals of children.” Factors such as a child’s age and the type of work performed determine whether specific work is considered child labor. See: <https://www.ilo.org/ipec/facts/lang-en/index.htm>.

Transforming Education in Cocoa Communities (TRECC)

TRECC was launched by the Jacobs Foundation in 2015 to improve children and young people's living conditions in Côte d'Ivoire—in particular, those from cocoa-growing communities—by promoting quality education and leveraging private sector contributions. The five-year program was part of an intentional narrowing of focus by the Jacobs Foundation to concentrate its international investments on a single country in an effort to achieve long-term social impact and support systems transformation.²⁹ In 2016, the Bernard van Leer Foundation and UBS Optimus Foundation joined TRECC, bringing additional financial and intellectual capital.

TRECC was developed as a platform for engaging diverse stakeholders, aligning incentives around shared goals, and producing new learning and evidence. It brings together government, multinational corporations, philanthropy, civil society, and academia. In particular, TRECC works closely with the cocoa and chocolate industry—key players in the world's largest cocoa-producing country and an industry the Jacobs Foundation already understood well given its own history^f—to make the business case for investments in quality education. TRECC's aim is not to fund standalone projects, but to catalyze systems change at multiple levels: strengthening the Ivorian education system to improve learning and development outcomes for children, encouraging the cocoa and chocolate sector to view investments in education as part of core business and sustainability strategies (helping combat child labor, reduce poverty, and empower farmers), and shaping how philanthropy collaborates with different stakeholders and makes impactful investments.

While TRECC is a large and complex initiative—covering many different interconnected activities—the grant matching portfolio is most

relevant to this case study. In 2018, TRECC launched the Grant Matching Mechanism II (GMM2) that aimed to transform how the cocoa and chocolate industry approached investments in education as part of their core business strategy and sustainability efforts, while reducing risks to investment and providing capacity-strengthening support for partners. TRECC first undertook a global screening of evidence-based ECD, primary education, and TVET models with potential for impact in Côte d'Ivoire, solicited input from MENA on the primary education options, then shared the list of models with industry partners to choose from, adapt, and combine. Selected models were jointly financed by TRECC and the company(ies), and implemented by government, civil society partners, or a combination—sometimes with implementation support from company representatives.

GMM2 was intentionally designed as a two-stage “pilot to scale” approach to help ensure impact and sustainability in the local context and reduce risk for partners. In the pilot phase, the selected models were adapted and tested over a period of 6–12 months, with the intention that only those assessed as successful by an independent evaluator would continue on to a “scale phase,” which evolved to be referred to as the “extension phase” given its more limited scope. To make this determination, TRECC engaged Innovations for Poverty Action (IPA) to conduct independent process evaluations of each GMM2 pilot. IPA evaluated each pilot on 11 jointly agreed criteria, divided into five thematic buckets: relevance; results; costs and operations management; capacity to learn, improve, and innovate; and sustainability. For each criterion, projects were given a green, orange, or red color score—green signifying that the pilot was consistent with the criteria required

f. While an independent foundation, the Jacobs Foundation has deep roots in the cocoa and chocolate industry. Born into a coffee dynasty, Klaus J. Jacobs worked for years in the coffee industry; after taking over management of the Johann Jacobs Company, he expanded to chocolate, acquiring the Suchard and Tobler brands in 1982. In 1991, Jacobs founded two global companies, one of which was Barry Callebaut, now the world's leading manufacturer of cocoa and chocolate products. In 1989, Klaus J. Jacobs and his family established the Jacobs Foundation as a private foundation with the goal of investing in young people's future, including supporting better opportunities for positive development and equitable access to quality education. See: <https://jacobsfoundation.org/>.

for potential scale up, orange signifying that the pilot was partially consistent but scale up should be conditional on corrective adaptations, and red signifying that the pilot was not consistent with criteria for scale up. Looking across these criteria, IPA would then make an overall recommendation for or against scale up of that pilot. Where a full recommendation (green) was given, TRECC and the industry partners were committed to financially support the next phase.

From the beginning of GMM2, TRECC placed significant emphasis on longer-term sustain-

nability and how these pilot models could contribute to TRECC's systems transformation goals, both in terms of government policy and corporate sustainability strategies. For the government, TRECC aimed for the pilot projects to serve as "research and development," testing potentially impactful models and providing evidence and lessons learned to inform policy and strengthen the education ecosystem. For the industry, TRECC intended for the companies to integrate the lessons into their corporate sustainability policies and explore potential scale up through the company supply chain, where relevant.

In the primary education sector, variations of three education models were tested in five pilot projects. Most relevant to this report are the two pilots of the TaRL approach in public primary schools (and secondarily, the pilot of the TaRL approach in bridging classes; see Box 3). The former was the sole primary education model to receive a full recommendation for scale-up from IPA.

Teaching at the Right Level (TaRL)

TaRL is an evidence-based approach to improving children's foundational skills in reading and math developed in India by the Pratham Education Foundation. TaRL is intended to address a root cause of the learning crisis by providing level-based instruction to focus on every child, typically in grades 3-5. The approach works by conducting a rapid oral test with each child to ascertain his or her current learning level, and then grouping children by their learning needs rather than by age and grade. Instruction in these groups is differentiated based on children's learning levels and focused on mastering basic skills through interactive, child-centered approaches. Students' learning

levels are regularly re-assessed so that they progress to new groups as they master skills and eventually become fluent in reading and competent in basic math.³⁰ Assessment and timely use of data is core to the TaRL approach, as they inform decisions about grouping students appropriately and track progress.³¹ While TaRL activities have been implemented by a variety of different actors (volunteers, government teachers, and NGO staff, etc.), another core element of the model is mentorship for these TaRL instructors; mentors are trained in TaRL implementation and then provide assistance and mentoring to TaRL instructors to ensure they are delivering TaRL correctly.³²

Beginning in 2001, The Abdul Latif Jameel Poverty Action Lab (J-PAL) partnered with Pratham to rigorously test the approach and conducted six randomized control trials (RCTs) of different versions of TaRL implemented in seven states in India,³³—first to demonstrate the impact of the model on improving learning outcomes and later to evaluate, adapt, and refine TaRL models for efficient and sustainable scaling. Two RCTs were also conducted on TaRL-inspired programs in Kenya and Ghana.³⁴ Over the past two decades, multiple versions of TaRL have been tested, but since 2012, Pratham has focused on two models found to be effective at scale: (1) a government partnership model, in which government teachers are trained to implement TaRL in schools for one to two hours per day, with strong mentorship support; and (2) a learning camp model in which Pratham instructors work directly with children in intensive “learning camps” that last between six to 10 days and take place throughout the year.³⁵

In addition to expansion within India, Pratham and J-PAL have also provided tech-

nical assistance to adapt and implement TaRL in sub-Saharan Africa, more recently through the newly formed TaRL Africa initiative. Various governments and NGOs have also been inspired by TaRL’s success and adapted the model to implement directly in their own contexts, including in Botswana, Côte d’Ivoire, Ghana, Kenya, Madagascar, Mozambique, Niger, Nigeria, Uganda, and Zambia.³⁶ TaRL—in Côte d’Ivoire called the Programme d’Enseignement Ciblé or PEC as noted earlier—was first adapted to the Ivorian context in 2018 when MENA, supported by J-PAL and Pratham, piloted the government-partnership approach in 50 schools through the TRECC GMM2 program (Figure 3). Another TRECC GMM2 pilot also tested a new adaptation of the learning camps approach in bridging classes (Box 3). MENA, with support from TRECC and TaRL Africa, has since decided to gradually expand PEC to national scale through government adoption of the model and is conducting a series of extension phases to further refine the approach for the local context and strengthen government integration.

Box 3. PEC in bridging classes

In addition to the PEC approach piloted and implemented in classrooms in formal public schools, a version of TaRL was also adapted and piloted in bridging classes in Côte d’Ivoire supported by TRECC GMM2. Bridging classes aim to help out-of-school children transition (back) into the formal school system by supporting them to rapidly bring their skills up to grade level. In the pilot phase, the approach was implemented in 15 bridging classes over an intense 12-week period to build foundational reading and math skills. Training and supervision were led by a team from MENA’s Directorate of Pedagogy and In-Service Training (DPFC) and the Directorate of Literacy and Non-Formal Education (DAENF) also participated. The bridging class approach has now been incorporated into the planning of the PEC governance structures and the second PEC extension phase (see discussion below).⁹

g. To note, while MENA refers to this period as the second extension phase, TaRL Africa refers to it as the “first scale up phase.” The authors have chosen for this report to use the terminology employed by the government.



Figure 3: **PEC implementation and adaptation in classrooms in Côte d'Ivoire**

Pilot phase

2018

AIMS

Test adaptation of Teaching at the Right Level — PEC — in Côte d'Ivoire through a government-led approach

SCOPE

50 schools in two regions in southwest Côte d'Ivoire, reaching **5,191** students

DETAILS

PEC approach focused on reading and math delivered by teachers in grades 3-5 (CE1, CE2, CM1 in Ivorian education system) for **90 minutes per day**, five days a week

ROLES OF PARTNERS

Training: Pratham and J-PAL led training of national trainers and mentors; MENA national trainers led teacher training with support from J-PAL Europe

Classroom implementation: MENA implemented with support from J-PAL

Data collection and analysis: J-PAL collected data from teachers and mentors; IPA conducted independent process evaluation

Funding: TRECC

RESULTS

IPA recommended scaling PEC, given relevance to community need, project outputs reliably delivered, finances managed efficiently, credible data collected, and opportunities for scaling and sustaining implementation.³⁷ ASER test results found improved learning outcomes for majority of students; in total, the proportion of students unable to recognize a letter decreased from **38% to 6%**, and the proportion of students who could read at least a paragraph increased from **14% to 51%**.³⁸

KEY CHALLENGES³⁹

Teachers: Teacher absenteeism and strikes, challenges with time management, overcrowded classrooms

Materials: Delays in delivery, transport issues, challenges with full use of PEC materials

Data: Lag time in data feedback, lack of cost data

2019

Background

Extension phase 1

AIMS

Consolidate achievements from pilot, collect additional information to inform future expansion, and identify necessary adaptations, including to strengthen MENA capacity for sustainable scaling

SCOPE

200 schools in three regions in south and southwest Côte d'Ivoire, reaching **27,000** students

ROLES OF PARTNERS

Training: MENA national trainers trained pedagogical advisors as mentors, who trained teachers and school directors

Classroom implementation: MENA implemented with support from TaRL Africa

Data collection and analysis: Chain of transmission from teachers to school directors to pedagogical advisors to MENA education inspections to TaRL Africa and PEC national coordination body

Funding: TRECC

KEY ADAPTATIONS TESTED

Training: Cascade training approach to explore more cost-effective training for national scale

Mentoring: Three-tiered mentoring and supervision system through school directors, pedagogical advisors, and national trainers

Data: Data collection, results transmission, and analysis integrated into MENA's existing systems

Governance and coordination: PEC governance structures formalized within MENA, including steering committee, national coordination body, and advisory group

RESULTS

Due to COVID-19 school closures, baseline, midline, and end line data were not gathered for all students; when PEC implementation resumed in June 2020, a second baseline was conducted with 15% of children in the beginner level and an end line with the same children three weeks later. In this short period, proportion of students in the beginner level of reading dropped from **23% to 14.8%**, and students in the beginner level of math dropped from **22.6% to 20.9%**.⁴⁰

KEY CHALLENGES⁴¹

Training: Dilution of quality in cascade training

Mentoring: Challenges of local mentoring and supervisory framework, including insufficient time and limited capacity for mentoring each week; need for standardization of tools and more PEC training for inspectors

Data: Slow transmission of data and with significant errors, caused by long transmission chain, lack of training, weak understanding of tools

Governance and coordination: PEC governance structures faced some challenges of low levels of member attendance and seniority, insufficient capacity

Community engagement: Lack of community engagement and mobilization around PEC, including from school management committees (COGES)

2020

Figure 3: **PEC implementation and adaptation in classrooms in Côte d'Ivoire**

COVID-19 response 2020

AIMS

Help maintain students' reading, writing, and numeracy skills in wake of COVID-19 by broadcasting 30-minute PEC lessons via radio for two groups of students (grades 1 and 2 and grades 3-6)

SCOPE

Recorded **240** math and reading lessons, initially broadcasting **80 over 20 local radio stations**, targeted at children in grades 1-6 (beyond original in-person target group of grades 3-5)

TIMELINE

First extension phase of PEC was interrupted when schools closed March 16, 2020 due to COVID-19; PEC implementation resumed in schools June 2, 2020; first **80 radio lessons** were broadcast in July and August 2020, remaining lessons may be broadcast at a later date

ROLES OF PARTNERS

Design and delivery: PEC National Coordination (including national trainers) wrote, designed, and recorded radio scripts, with support from TaRL Africa

Funding: TRECC

RESULTS

No monitoring and evaluation of the radio program was possible, though MENA reported general positive reactions from teachers to support learning continuity⁴²

KEY CHALLENGES

Schools resumed in-person instruction before radio lessons were ready to broadcast

Unable to conduct planned second phase (where radio programs would be supported by interactions with parents and children via SMS) given no database of caregiver phone numbers

Extension phase 2

AIMS

Continue to expand PEC implementation while refining delivery approach and integration into government systems

ROLES OF PARTNERS

Training: MENA national trainers trained school heads, pedagogical advisors, regional directors, heads of pedagogical branches, and pedagogical inspectors as supervisors and mentors, who then trained teachers

Classroom implementation: MENA implemented with technical support from TaRL Africa

Data collection and analysis: Regional statistical officers included in the collection and analysis of ASER tests results

Funding: Child Learning and Education Facility (CLEF), with pre-financing by TRECC

SCOPE

991 schools in three departments of south and southwest Côte d'Ivoire, reaching approximately **200,000** children

KEY ADAPTATIONS TESTED

Training: Regional directors, heads of pedagogical branches, and pedagogical inspectors participated in mentor training; some school principals trained to support pedagogical advisors

Materials: To improve standardization, revisions made to PEC materials, new materials (MEL tools) created

Data: Revisions to data management and flow; TaRL Africa exploring digital approaches for collecting and transmitting data⁴³

Implementation: Expansion into grade 6 (CM2)

RESULTS

For the 200 schools engaged in 1st extension phase, the proportion of students who could read at least a paragraph increased by **18%** and the proportion who could at least do subtraction increased by **26%**. For the 791 schools added in this phase, the results were an increase of **6%** and **10%** respectively⁴⁴

2021/2022 school year:

Sustaining of existing **1,000 schools** and preparation (training, materials) for the expansion to **2,000 schools**, possible piloting of hybrid training model (virtual distance training + in-person practical training) in place of face-to-face cascade model

Beyond 2022:

Continued expansion and refinement of PEC and further integration into existing systems, potential piloting of PEC pre-service training in teacher training centers (CAFOPs)

2021 Beyond second extension phase

2022

The story of scaling PEC in Côte d'Ivoire

PEC benefitted from a convergence of factors, leading to scaling PEC being a priority in Côte d'Ivoire. These included a clear need to improve children's learning outcomes in primary school and MENA choosing to prioritize this need; PEC's close alignment with this priority, its robust evidence base in other countries, and later its visible results in the Ivorian pilot; global momentum and attention on the TaRL approach—particularly in response to COVID-19; and willing funders ready to provide significant financial support if the government prioritized expanding it.

TRECC's problem-driven approach supported the development of government buy-in for PEC from the beginning and contributed to strong government ownership. The simplicity of the model, the fact that it resonated with theoretical principles that teachers learn during initial training, its pilot through direct government delivery, and its clear pathway for scaling in the education system also fostered government engagement and facilitated PEC's expansion. The partnerships forged in the TRECC model—including the opportunity to experiment with different potential solutions, the role of a neutral third party assessing pilot results, and the existence of a scaling lab bringing together diverse stakeholders for reflection and co-learning—were other important factors in generating support for PEC. PEC has also had success in gaining senior-level support within MENA, with key influential individuals championing the teaching approach. This

critical support has been maintained in spite of political turnover and other events in the broader education ecosystem, including a global pandemic. Finally, the availability of financing for PEC beyond an initial pilot—including potential access to five years of financing through the creation of CLEF—has been essential for moving PEC beyond a simple project to an approach that the government intends to scale within the system.

Nonetheless, despite the many factors in its favor, scaling and sustaining PEC in Côte d'Ivoire is far from guaranteed and critical challenges remain, including limited government capacity to incorporate and deliver the model in existing systems with quality, the persistence of a project mentality among some key actors involved, and insufficient attention to the engagement of education stakeholders at local levels (including teachers and communities). Other potential constraints to future expansion and sustaining of PEC include delays encumbering the launch of CLEF due to recent tensions between government and the cocoa and chocolate industry and challenges around identifying and securing sustainable national financing.

This section will review in detail the story of implementing, adapting, and expanding PEC in the Ivorian context—looking at critical factors, opportunities, and challenges related to its design, delivery, financing, and enabling environment.

Design: Selecting and testing PEC with scale in mind from the outset positioned it for success

Scaling literature corroborates the necessity of planning for scale from the start of any pilot, rather than designing a model and then later considering how it might be expanded, deepened, and sustained.⁴⁵ Planning for scale early both avoids designing an expensive model that might maximize impact but cannot be sustained, and ensures attention is focused not only on the technical design of the initiative but also on the broader enabling environment contributing to or impeding scaling. The PEC approach in Côte d'Ivoire was indeed tested from the outset and selected with potential scale in mind. PEC's design clearly addressed critical issues in the education system and top government priorities; had clearly defined core elements but also tested adaptations to the original approach; had a simple and clear scaling pathway; and was adapted from an approach that had a strong evidence base and a promising local pilot.

A clear problem to address and alignment with top government priorities

The TRECC GMM2 model was based on the premise that scaling should not lead with a “solution” to be expanded, but rather with the problem to be addressed. While this may seem counterintuitive, it is essential to approach scaling not as growing a project but as creating and sustaining transformative change in a system. This problem-driven approach to scaling requires an in-depth understanding of the challenge and its root causes, as well as the government's key priorities.

In the case of PEC, the most critical challenges in primary education had been demonstrated in both national and international assessments, were clearly articulated by MENA as an urgent priority to address, and were well recognized by funders, multilateral institutions, and civil society actors across the sector. As referenced in the previous section, in primary school, these issues included low learning outcomes, large and heterogeneous classes, significant numbers of children falling behind grade level, and high rates of repetition and dropout. Given these

challenges, MENA highlighted four priorities for the sector to improve: 1) learning levels in reading, writing, and arithmetic; 2) the education supervision system's operational capacity; 3) teachers' professional skills (including pedagogical methodology for teaching reading, writing, and arithmetic) and school principals' leadership skills; and 4) learning conditions in schools.⁴⁶

PEC directly responds to these priorities. IPA's baseline assessment of the PEC pilot demonstrated its relevance, concluding that “This project targets important and specific needs in cocoa communities, where children have low learning levels in literacy and numeracy. PEC is well-suited to addressing low learning levels. On a handful of skills, students showed a wide range of skill levels, which is also a situation in which PEC is likely to be effective addressing students' needs.”⁴⁷ PEC also afforded the opportunity to improve how teachers instruct students in basic competencies, which enhances their professional skills. Further, teacher mentoring forms a core component of PEC, which strengthens the system of teacher supervision and support, as well as the leadership of school principals.

Testing a portfolio of a few options in a pilot phase selected by government and then asking government to select the approach to advance beyond the pilot—rather than settling too early on a single initiative—was instrumental in ensuring the government viewed PEC as its own solution rather than TRECC imposing a particular approach.

Notably, TRECC took a portfolio approach to piloting that put the government in the decisionmaking role from the start. As discussed above, not wanting to “reinvent the wheel,” TRECC shared 11 pre-vetted, evidence-based potential solutions for MENA to identify a few models most aligned with their priorities and feasible in the existing government system.⁴⁸ The three primary education models selected were then piloted with TRECC GMM2 financial support and technical support from NGO partners. In return, TRECC requested that the government consider integrating lessons from these pilots into policy if they proved to be effective.

Finally, TRECC’s initial scoping of evidence-based options further supported the government by providing background research to help ensure that the models tested had a solid evidence base behind them.

Although authentic engagement with the government is time and resource intensive, having government actors deeply involved in PEC’s selection, contextualization, delivery, and adaptation fostered government ownership for it as a ministry-led solution, resulting in stronger opportunities for long-term institutionalization and sustainability.

An approach with clearly defined core elements alongside interest in testing adaptations

An important ingredient of successful scaling is identifying the core elements of the approach to maintain when expanding to new locations and adapting the rest to the local context. The implementation of PEC in Côte d’Ivoire benefitted from the long history of implementation, experimentation, and refinement of TaRL in India and elsewhere, which meant that the core elements of PEC that lead to impact were defined from the beginning of the pilot phase (Box 4).

The originating organizations, first Pratham and J-PAL in the pilot and later TaRL Africa, played a central role as developer and custodian of these core elements as PEC continued to be adapted and expanded. At the same time, the originators have been open and willing to adapt other aspects of the TaRL model based on the local context and ongoing learning, such that PEC could transition from an external project to a locally adapted government-led initiative.⁴⁹

Box 4. Key elements of PEC in Côte d'Ivoire

1. Assessment of the individual learning level of each child to create groups based on these levels;
2. Teaching and learning materials adapted to the local context;
3. Theoretical and practical training for teachers and mentors;
4. Teaching tailored to each child, with “interactive, progressive, and engaging activities;” and
5. Regular pedagogical supervision and mentoring.⁵⁰

From the start, TRECC and its partners planned for PEC to be an Ivorian adaptation of the TaRL approach (including delivering TaRL in French for the first time).

The pilot was intended to adapt TaRL to Côte d'Ivoire, test its effectiveness at improving learning outcomes in this context, learn about the challenges and approaches to delivering the model in cocoa communities, build an approach that was government-led, and develop an understanding of how PEC might be delivered at larger scale through existing government structures.

In each subsequent phase of work, MENA and TaRL Africa made additional adaptations to the model and delivery approach based on challenges and key learnings along the way (for more details see Figure 3). These adaptations were meant to be informed by TaRL Africa and MENA's internal data collection and monitoring and evaluation, as well as external evaluations, RTSL research and reflections, and the PEC governance structures. After the first PEC extension phase, several workshops focused on the potential adaptations to the approach and delivery based on learning from the previous phase, while maintaining the core components. Some of the key issues that arose in adapting PEC to the Ivorian context included how to deliver teacher and mentor training affordably and with quality, manage data collection and flow, make the mentoring system sustainable at large scale, and procure and deliver materials in a timely manner. Adaptations were also considered to the scope of delivery. While PEC was initially piloted in Côte d'Ivoire in CE1, CE2, and CM1 classes (grades 3-5 in the Ivorian system), MENA expanded implementation to CM2 (grade 6) in the second extension phase. MENA is currently considering how PEC might work synergistically with other early grade models being tested in Cote d'Ivoire.^h

h. In particular, MENA is exploring how PEC might work alongside the Education Service Delivery Enhancement Project (PAPSE), a project funded by the Global Partnership for Education with the World Bank, which aims to increase access to preschool and improve learning outcomes in primary schools, focused on grades 1-3. More discussion is included in the Finance section of this report. See also: <https://papse.ci/>.

However, not all adaptations have been taken up with equal ease—there have been limitations to more significant adaptations given the realities of data collected, timeline, capacity, and previous experience. For example, after the pilot, MENA felt there was likely a need to adapt the training approach for scalability. While initial discussion raised the possibility of testing a hybrid approach, TaRL Africa preferred to maintain all training in person based on their experiences implementing TaRL in other countries and concerns that a virtual approach would not strengthen training quality, and so instead pursued testing a cascade, in-person training approach in the first extension phase. Additionally, limitations on the time and capacity available to adapt the training in the period between phases would have also made testing a hybrid approach difficult. However, challenges with the dilution of quality along the cascade (a well-known shortcoming of cascade models confirmed by past MENA experiences) observed during the first extension phase again raised questions for MENA about the viability of the current training approach at large scale. At the same time, prohibitions on large gatherings as a result of COVID-19 forced actors in Côte d'Ivoire and around the world to rapidly experiment with virtual learning approaches, leading key stakeholders to seriously consider the possibility of a hybrid training approach for PEC (Box 5).⁵¹ As such, in spring 2021, MENA returned to the idea of testing a hybrid approach to training in an effort to reduce training cost while maintaining quality. Such a hybrid approach could combine remote self-guided training for the theoretical portion, with in-person on-site training for the practical portion. As the cost study undertaken by the RTSL identified training as the most significant cost driver in implementing PEC by far (training of teachers and mentors constituted 80 percent of total PEC implementation expenses in 2020), MENA determined that PEC would

only be affordable for the government at scale with the introduction of a hybrid training model for in-service training.⁵² Adapting training content and developing digital materials will begin soon, but will nevertheless be a longer-term, iterative process to ensure quality and impact are not diluted.

In addition, the PEC institutional structures (discussed below) were designed to enable MENA to conduct course corrections and make adaptations based on data and learning. However, key stakeholders involved in delivering PEC have not always used data collected to assess the effectiveness of the adaptations made, and the lengthy time it takes to transmit the dataⁱ collected in PEC classrooms to the national level limits its ability to inform timely action.⁵³ Furthermore, moving forward, it will be important to focus on collecting data to assess the efficacy of adaptations tested, in addition to learning outcomes. This should include additional collection and analysis of process data such as whether teachers are understanding and applying training approaches (especially if the training is adapted) and whether PEC sessions are being held in classrooms as planned and with high quality (through classroom observations, spot checks, etc.) This should build on efforts during the second extension phase to collect some of this data, and will continue to be an even more essential element as PEC activities are further expanded across the country.

The RTSLs to date have demonstrated that building capacity for adaptation and data-driven iteration remains challenging—even where there is willingness—as efforts confront the realities of existing hierarchies and power dynamics and limited human and financial resources. Gaps remain in understanding how to effectively build institutional capacity and align incentives for timely learning and adaptation.

i. Progress has already been made during the second extension phase, with ASER data transmission cut down on average to two weeks from four, though challenges with the accuracy of data entry remain. See: Ministère de l'Éducation Nationale et de l'Alphabétisation, "Atelier de revue des activités du PEC de l'année scolaire 2020-2021 – Actes," Abidjan, Côte d'Ivoire, 14-16 July 2021.

Box 5. PEC and COVID-19

On March 16, 2020, the Government of Côte d'Ivoire closed schools in response to the COVID-19 crisis, interrupting implementation of the first PEC extension phase. In response, the PEC National Coordination body and TaRL Africa quickly pivoted. With financial support from TRECC, the National Coordination, TaRL Africa, and PEC national trainers developed 240, 30-minute math and reading lessons to be broadcast via radio. These lessons targeted two groups of children—students in grades 1-2 and students in grades 3-6—expanding the target age range beyond the grades 3-5 during in-person implementation. Although schools resumed in-person instruction before the radio lessons were ready (requiring key PEC actors to turn back to focusing on in-person implementation), an initial set of 80 lessons were broadcast across 20 local radio stations in July and August 2020.⁵⁴

While this quick response demonstrated the ability of key PEC stakeholders to be flexible and responsive to the changing environment, there were nonetheless some capacity constraints on what could be accomplished. Lack of robust data available on the PEC broadcasts meant it was not possible to conduct an analysis on the reach or effectiveness of the initiative.⁵⁵ In addition to schools resuming in-person instruction more quickly than expected, an originally-envisioned second phase intended to complement the radio broadcasts through SMS interactions with caregivers and children, was not possible given MENA did not have an existing database of parent phone numbers.

More broadly, the COVID-19 pandemic afforded the opportunity (and ultimately forced key stakeholders) to revisit scaling plans for PEC and ensure they remained in line with government priorities and the shifting needs of the education ecosystem. It is not yet clear if the adaptations tested in the PEC model will provide an opportunity for further scaling beyond the immediate crisis, though a broader assessment of Côte d'Ivoire's various distance education programs delivered during the pandemic did conclude that these types of programs could have value for some students in "normal" times.⁵⁶ Looking forward, MENA is building out a curriculum of primary education radio lessons to be broadcast nationally. The pandemic response also offered concrete opportunities for peer learning and exchange between other countries implementing versions of TaRL and underscored the benefits of sharing experiences. Through the community of RTSLS, key PEC stakeholders in Côte d'Ivoire met virtually with TaRL implementers in Botswana to discuss and share lessons about rapidly adapting TaRL implementation in response to COVID-19.

Simplicity of PEC approach and well-defined scaling pathway

A key element of the PEC model that contributed to the government decision to take the approach to large scale was its simplicity; the approach is focused in scope and easy to understand. This is contrasted with other models piloted by TRECC, which were often complex and multifaceted, sometimes combining multiple approaches. Further, the PEC model did not represent a big departure

from the differentiated pedagogy taught to student teachers, nor did it require much additional work on the part of the teacher. Experience suggests that strategically it is often easier to position a proposed change as improving what is already happening in the system or proposing a better way to deliver it, rather than starting from scratch. This relative simplicity and links with existing knowledge may have made PEC more attractive to key stakeholders at the Ministry, as well as to teachers and school principals.

The simplicity of the model is also important when considering scalability, where research demonstrates that more complex and holistic interventions are typically more challenging to scale and sustain.⁵⁷

In addition, PEC benefitted from a comparatively clear and easily articulated scaling pathway. As the approach is implemented by teachers and supervised by pedagogical advisors in public schools under the responsibility of a single ministry, the overall vision for how the government might institutionalize the approach into its own processes was relatively straightforward. In contrast, TRECC's ECD and TVET pilots spanned the work of several ministries, such that there was not a single obvious pathway for scaling through government or a sole government interlocutor with which to collaborate. Conversations with key stakeholders in Côte d'Ivoire highlighted the challenges of coordination, collaboration, and power dynamics resulting from multiple stakeholders cutting across ministries, which also threatened to make scaling those pilots institutionally more challenging compared to PEC.

Strong evidence base and visible results leading to buy-in

Finally, the strong evidence base behind PEC—including both the robust results demonstrated in numerous studies from other countries, as well as the independent evaluation of the pilot in the Ivorian context—coupled with visible results in Ivorian classrooms contributed to the buy-in for PEC at multiple levels of the system, from senior Ministry actors to individual teachers and school directors.

As detailed previously, the TaRL approach has been tested and refined for more than 20 years, with multiple randomized trials demonstrating how PEC can improve learning outcomes for students. Given the TRECC-supported pilot was the first time the Ivorian

adaptation of TaRL was tested, IPA was engaged to conduct an independent process evaluation to make a recommendation for potential scale-up. In IPA's evaluation, PEC “earned a full recommendation for scale-up, with green check marks on all measures”⁵⁸—the only primary education pilot and one of only two TRECC pilots to do so. The baseline and end line ASER^j test results collected by J-PAL during the pilot found improved learning outcomes for a majority of students; across the pilot schools in one area, for example, the proportion of students unable to recognize a letter decreased from 35 percent to 2 percent and the proportion of students who could read a text increased from 6 percent to 37 percent.⁵⁹ Ministry of Education officials reported that the choice to move forward with scaling PEC—rather than with another model being tested by TRECC or other funders in Côte d'Ivoire—stemmed directly from TaRL's robust evidence base in other countries and PEC's pilot results.⁶⁰

Gathering comprehensive data on learning outcomes after the pilot, however, was difficult due to the pandemic. Data collection during the first extension phase was interrupted by COVID-19 school closures, and it was not possible to gather baseline, midline, and end line data for all students (Box 5). As such, when PEC implementation resumed in classrooms in June 2020, TaRL Africa and MENA rapidly adjusted the data collection approach, conducting a second baseline with only 15 percent of children in the beginner level and an end line with the same children three weeks later (purposefully limiting time spent on data collection to maximize time spent on instruction after school closures). While complete data on the first extension phase does not exist, in this short period, the proportion of students in the beginner level of reading nevertheless dropped from 23 to 14.8 percent, and the proportion in the beginner level of math dropped from 22.6 to 20.9 percent.⁶¹

j. The Annual Status of Education Report (ASER) is an annual, national survey in India that has been used since 2005 to assess children's foundational reading and math skills. Developed out of a simple tool employed for many years by Pratham, the ASER reading tool and ASER arithmetic tool have since been used in many other countries, including Côte d'Ivoire. PEC employs a version of the ASER tool adapted to the Ivorian context (to ensure the questions are culturally appropriate and in line with what is taught in formal schools in the country) in its assessment of student learning levels. For more information, see: <http://www.asercentre.org/>.

The second PEC extension phase concluded in June 2021 with the collection of end line data on children's ASER results. The children involved in this phase were divided into two cohorts: Cohort one included the 200 schools also engaged in the first extension phase, who received 15 weeks of PEC implementation in phase two, and cohort two included the 791 schools newly receiving PEC in the second extension phase, who received three weeks of PEC implementation in this phase. The ASER results reflect the differences between these two cohorts, with an increase of 18 percentage points in the proportion of students who could read at least a paragraph in cohort one, compared to six percentage points in cohort two. Similarly, cohort one saw a 26-percentage point increase in the proportion of students who could at least do subtractions, compared to a 10-percentage point increase in cohort two. Despite these notable learning gains, the ASER tests also showed that the proportion of students remaining in the beginner level of reading and math at the end of the school year still remains unacceptably high, with 54 percent of students unable to read letters at the end line (including one out of five children completing grade 6), underscoring the need to strengthen and

expand PEC implementation and the broader emphasis on improving learning outcomes in the years to come.⁶²

In addition to the robust evidence base from other countries and the promising results of the pilot, the visibility of PEC's effect on learning outcomes was another important factor in building engagement from a multiplicity of actors. Several senior-level individuals at MENA noted the extraordinary progress they witnessed in children's learning during a field visit organized by TRECC and underscored the strong impact these results had on their interest in the PEC model. The inspector general reported that he was "astounded" when seeing PEC in action in classrooms, sharing that the students "had made so much progress in their reading that I did not believe it" at first.⁶³ The IPA pilot evaluation also found strong buy-in for PEC among all stakeholders involved in the pilot, especially teachers, with more than 90 percent of teachers at end line recommending the approach be taught in all primary schools in the country.⁶⁴ End line survey data showed teachers' most common response when asked about the key strengths of the PEC approach was the fact that PEC improved students' learning levels.⁶⁵



Delivery: Strong partnerships and early government involvement were critical to implementation

Beyond the specifics of the model itself, successful scaling requires attention to the operational realities of implementation at large scale, including strategic partnerships bringing together various skills and resources, champions at all levels inside and outside government, progressive institutionalization across the education system, and considerations of institutional capacity.⁶⁶ For PEC, the unique partnership model forged and led by TRECC brought together the expertise, financing, and capacity needed to pilot the approach and gather independent data. Meanwhile, MENA delivery of PEC from the pilot stage was pivotal in setting a course for government adoption and institutionalization of PEC in the national system. Challenges remain moving ahead with strengthening MENA capacity to match its ambitions for full ownership and delivery at scale, fostering a diverse, far reaching, and sustainable group of champions for the initiative at multiple levels—particularly local levels—and proactively addressing potential opposition.

Strategic partnerships brought together various skills and resources

A distinct aspect of TRECC is the partnerships it intentionally forged between diverse actors and the platform it created for collaboration across stakeholders. The scaling literature underscores that “Partnerships are the beating heart of successful, sustainable scaling efforts. Recognizing the different strengths, objectives, and ways of operating that various partners bring to the table, and finding common ground, is fundamental. Mutual trust, transparency, ongoing dialogue, and a willingness to adapt are impor-

tant in building partnerships among organizations with very different strengths.”⁶⁷ The partnerships fostered through TRECC and TaRL Africa—and further reinforced through the RTSL and PEC governance structures—forged an alliance of change agents with an assortment of comparative advantages, from TaRL Africa providing technical support, to IPA as a neutral third party supporting monitoring and evaluation, to philanthropic organizations and cocoa and chocolate companies supporting early innovation and risk taking, to CUE providing scaling support, research, and documentation of the GMM2 process.

Many stakeholders engaged in TRECC reported that its multidisciplinary approach and diligent efforts to bring diverse voices together in an inclusive manner was one of the model’s key strengths, pushing partners to engage beyond their “business as usual” approaches.⁶⁸

At the same time, this multilayered partnership model also brought its own challenges. In some of the GMM2 pilots (though notably not in the case of PEC), the complexity of TRECC's partnership model and the logistical challenges that resulted revealed the real limitations of engaging so many different partners and the challenges of aligning incentives among different players. GMM2 partners reflected that the multiplicity of actors required significant effort to finalize administrative and legal documents, ensure all partners were up to speed, and make joint decisions, which at times also led to implementation delays. These challenges could be exacerbated when pilot partners did not have a local office or experience in the local context. In contrast, in the case of PEC, the background and perspective of the organizations supporting its implementation were important to the success of the partnership model. The partnership with J-PAL and Pratham in the pilot and TaRL Africa in the extension phases enabled Ivorian stakeholders to draw on the experiences and learning of TaRL implementation in other countries across the continent and in India. From day one, Pratham and J-PAL clearly articulated the long-term vision for PEC to be government-led and owned, with their roles primarily to facilitate the process of institutionalization and strengthen local capacity. While TaRL Africa provided technical support and capacity strengthening in the extension phases, they purposefully kept the support structure lean to avoid designing an approach that could not be sustained by the government.⁶⁹ These organizations came into the partnership with a strong ethos of learning and an openness to collaboratively adapting and refining PEC over time to better suit the context (rather than resisting adaptation or insisting on strict fidelity to the model).⁷⁰ PEC elucidates the important and evolving roles external technical partners can play in supporting scaling through government institutionalization—including strengthening capacity, monitoring quality, and bringing evidence in support of government-driven adaptation and expansion. The three organizations saw themselves not as the “stewards” of TaRL but as the facilitators of government adoption.

In the complex ecosystem of partnerships that it created, TRECC itself played an important role beyond operating solely as a consortium of funders. TRECC served as both expert and advocate on issues of quality education and ECD and as an intermediary between industry, technical partners, and government actors. From its inception, TRECC presented itself not only as funder but as a “change maker” aiming to support the Ivorian government in transforming the education system, support the cocoa and chocolate industry in making their sustainability strategies more impactful, and support the diverse stakeholders in working together more effectively to achieve shared development goals.⁷¹ In the case of PEC, TRECC served as an advocate to MENA and to industry partners for aligning behind the common goal of improving the quality of education and student learning outcomes, particularly in cocoa regions, as well as offered expert technical and financial support in integrating PEC into existing systems. At the same time, given its overarching focus on transforming the system, TRECC also strove to remain responsive to government decisions about how and what to scale. This allowed a focus on the best way to achieve the shared goal of all children learning versus the best way to quickly grow PEC. In summary, TRECC played a pivotal intermediary role between government, TaRL Africa, and the industry—wearing multiple “hats” and filling numerous functions in support of scaling. It is not clear that the partnership between these diverse actors and ongoing efforts to scale PEC would have been gotten off the ground or been as successful in its absence.

At the same time, one of TRECC's primary objectives of aligning incentives between government and industry to accomplish shared goals was not always successful, as the realities of diverging incentives and scaling visions between stakeholders remained a sticking point for many of the GMM2 pilots. At times this divergence hindered the success of the pilots; for example, several of the ECD projects found that targeting the intervention to families

working in the cocoa supply chain made it difficult to meet other targeting criteria (such as having children in the target age range or coming from a group most in need), potentially limiting the impact of the initiative at improving early childhood outcomes. By contrast, one of the strengths of the PEC pilot was a shared long-term vision for scaling among the various partners and an ability to align around a common goal of improving student learning in primary school. The industry partners supporting the piloting of PEC did not intend to scale the initiative in their own supply chains, as they hoped that the intervention could eventually be scaled *without* their involvement. This enabled the companies to play a critical role supporting early experimentation and bring useful knowledge about the communities they work in,⁷² while maintaining a long-term view toward national scaling by government. However, one limitation of TRECC's partnership with the cocoa and chocolate industry to date has been the exclusive focus on expanding PEC implementation to cocoa-growing communities. While the cocoa-growing regions cover a significant portion of the country, expansion to national-level scale will require broadening PEC's reach beyond these regions, which will necessitate financial support from the government itself and external actors outside the industry, including other industries, philanthropic organizations, and multilateral institutions.⁷³

The partnership with IPA that formed a backbone of the TRECC approach was also an important contributor to building buy-in for PEC. While IPA played numerous roles^k in the TRECC pilots, its role as a neutral, third-party evaluator was particularly appreciated by stakeholders as an important value add of the TRECC model. IPA's external role enabled actors in the system to view the results as unbiased and as such, lent credibility to the strong results of the PEC pilot and its

perceived comparative advantages. Further, Pratham shared that the independent evaluation was useful for both confirming the strengths of PEC in Côte d'Ivoire and for highlighting some of the challenges that might not have been identified otherwise.⁷⁴

Finally, the partnership with CUE to launch an RTSL process to support strategic planning, learning, reflection, and documentation also contributed to PEC's scaling progress. In particular, the RTSL process has supported the inculcation of a scaling mindset in lab members, including building awareness of the importance of planning for scale early on and the need for ongoing adaptation, reflection, and iteration of scaling strategies. Concretely, this has included encouraging lab members to think beyond just the need for more financial resources for scaling to consider other important dimensions of sustainable scaling, such as institutional capacity, partnerships, and potential opposition. Strengthening this scaling mindset has included underscoring the need to conceptualize scaling beyond growing a specific project and the importance of rigorously considering elements in the broader education system that might constrain or support scaling. The scaling lab manager shared that, "It is the Real-time Scaling Lab that has enabled the extension phases to be oriented toward this question of what we need to do to scale PEC while maintaining its impact." Developing and refining a high-level scaling strategy for PEC as part of the RTSL process encouraged lab members to closely interrogate the enabling environment for scaling and how it might help sustain the desired change over time. While this mindset shift has been mostly limited to the individuals actively engaging in the lab thus far, the scaling lab manager and other key actors have endeavored to share this perspective more widely within MENA and, in particular, to bring this mindset to the PEC governance structures.

k. These roles included harmonizing data collection where possible across GMM2 pilots, providing monitoring and evaluation support, collecting independent data on the pilots, and evaluating the pilots based on mutually agreed upon metrics of success in order to make recommendations about what worked well, what needs to be adapted, and which pilots should move to scaling.

While PEC did not face many of the internal partnership challenges as other TRECC pilots, coordination issues with external stakeholders in the education space did arise during the expansion process. In the early days, the RTSL convenings surfaced that many actors working on improving learning outcomes in different projects were unaware of each other's efforts and the synergies across their work, and were inadvertently duplicating efforts. Coordination challenges also emerged as government representatives overlapped on education initiatives (including variations of PEC), at times disrupting work schedules and leading to the absence of national trainers for planned PEC activities. In the future, efforts to foster greater information sharing and collaboration, including reducing duplication and leveraging potential economies of scale, through the PEC governance structures will be particularly important. For now, MENA has paused PEC replication by other actors in the system until further progress has been made expanding and institutionalizing PEC with TaRL Africa to ensure efforts are coordinated, efficient, and effective.⁷⁵

Champions for PEC at all levels inside and outside government

To date, PEC has benefited from a few key champions in Côte d'Ivoire, including the deputy director of cabinet for MENA, PEC national coordinator, the inspector general in charge of Administration and School Life (who is also the scaling lab manager), and the director of MENA's Directorate of Pedagogy and In-Service Training (DPFC). However, this group of champions remains fairly small and limited to the national level. While these champions have made real contributions toward scaling PEC to date, moving forward a deeper bench of champions is needed, including cultivating champions at higher political levels and at regional and local levels, and within the classroom and communities.

The scaling lab manager has been one of the leading champions for PEC. His positions at the Ministry and as head of the RTSL have enabled him to play a

strategic role as an interface between MENA, TaRL Africa, TRECC, and other key stakeholders and to address bottlenecks in PEC implementation. Playing this dual role has enabled the manager to triage needs and challenges arising during PEC implementation and ensure priority issues are addressed in a timely manner. His existing relationships within the Ministry and internal authorities have helped ensure the right people are in the room for scaling discussions and reflections are held at strategic moments. This insider/outsider status has been important to advance discussions within the RTSL while also allowing more flexibility to operate outside of "business as usual" government practices and embrace the RTSL's scaling approach and principles. Despite the scaling lab manager's deep commitment to scaling PEC and unflagging efforts as a champion, there are real limits to what a single individual can accomplish and risks to placing too much emphasis on one champion.

The deputy director of cabinet has also been an important and powerful champion for PEC within MENA, serving as the main link between the Ministry's cabinet and key PEC stakeholders outside the government. His connections to the cabinet enabled him to elevate critical issues to the minister's attention as needed, while also playing an important role demonstrating MENA's commitment to scaling PEC to other internal actors. Similarly, his strong working relationship with the TRECC country director has also been an important asset in the PEC scaling process to date, which would not be replicable in every context.

At the same time, PEC may have benefitted from not having a high-level political champion to date, as it might have insulated PEC from becoming politicized during a period of political turnover, including the appointment of a new minister of education in April 2021, the resignation of the vice president, and the sudden deaths of two prime ministers. Political turnover and the resulting shifts in priorities and potential loss

of champions is a well-known challenge in education and a common barrier to scaling efforts.⁷⁶ Pratham also faced a similar issue when scaling Read India (a predecessor to TaRL), as the organization found “time and resources spent educating officials and cultivating relationships could be wasted with each government transition or bureaucratic reshuffle. Although successful partnerships

should last well beyond the life of individual personalities in office, they seldom did.”⁷⁷ It is a notable strength of PEC’s expansion to date that it has withstood these shifts in the political ecosystem and not faced significant setbacks due to turnover in the Ministry; the scaling lab manager points to PEC’s clear targeting of an urgent government priority as an important factor.



Photo Credit: TaRL Africa.

To date the attention has focused on government commitment to scaling PEC at the national level and cultivating regional and local champions has received less emphasis. Evidence suggests it is critically important to cultivate champions for an initiative at every level to get full buy-in to the solution and help move the scaling process forward.⁷⁸ Though decisions are largely made at the central level at MENA, they still must be implemented at the regional level and within each individual school, and inadequate engagement could jeopardize the effective implementation and sustainability of PEC. TaRL Africa noted the time and effort required to empower regional and local leaders to take full ownership over PEC.⁷⁹ For example, a February 2021 supervision mission to 13 of the 200 schools that had implemented PEC in the first extension phase found only one had restarted PEC classroom activities in the second extension phase, which underscored the need to more strongly emphasize building engagement and ownership regionally and locally for sustainable implementation.⁸⁰ Important steps toward cultivating regional and local champions have been taken during the second extension phase, as stakeholders have recognized this as a priority. In March 2021, the first regional coordination body of PEC was established in San Pedro, where the regional director is a strong champion for PEC. The PEC Steering Committee intends to continue to expand and establish additional regional coordination bodies in the future and identify and engage local champions for PEC.⁸¹ TaRL Africa is in the process of expanding its presence in Côte d'Ivoire to provide additional support to where these processes and other aspects of institutionalization might be getting stuck.⁸²

Teachers, school directors, mentors, and other individuals engaged in the pilot at the school-level reported significant support for PEC. Though their role in the scaling process has been limited to date, recent efforts are being made to engage them more now. For example, a handful of representative teachers and school directors have been invited to actively participate in the annual workshop reviewing the PEC materials and to attend debriefing meetings where decisions about PEC expansion are made. Further, for the second PEC

extension phase, some school directors have been selected to assist mentors in conducting local training sessions for teachers and heads of schools, and their school-level perspective and experience should help improve the effectiveness of the local training sessions. In this phase, TaRL Africa has also introduced several WhatsApp groups to enable interaction and mutual support between facilitators and mentors at a more local level and encourage the development of grassroots champions. In the near future, TaRL Africa plans to launch an international network of TaRL Leaders of Practice, including a group of active PEC actors to exchange experiences and best practices, encourage innovation, and give these champions a role to share their expertise and ultimately enhance PEC implementation.⁸³

Despite these promising recent steps, teachers' unions have largely been excluded from the scaling process; while a union representative has been an active member of the RTSL, no union representatives were invited to participate in the PEC governance structures. This exclusion is noteworthy, as teachers' unions (and parent associations) have been noted as a potential source of resistance to scaling PEC, and RTSL members have advocated for strengthening communication to defuse potential for opposition. Teacher strikes and teacher absenteeism—which remain pervasive challenges in the Ivorian education sector more generally—also may pose a risk to quality PEC implementation if teachers and teachers unions are not brought along sufficiently in the scaling process. In the pilot, one of the challenges hindering effective implementation was teacher absenteeism, leading to children being assigned to the wrong PEC group or groups being merged.⁸⁴ Moreover, the first PEC extension phase was interrupted by a national teachers' strike that shut down schools in Côte d'Ivoire from January 27 to March 23, 2019. A 2019 Côte d'Ivoire Education Sector Plan Performance report found that while time lost to teacher strikes decreased significantly from 90 hours in 2017 to 56 in 2018, this average still remains above their target of 37 hours.⁸⁵ Given the centrality of teachers to quality PEC implementation, these broader issues of absenteeism and strikes, as well as

the risk of potential opposition from unions, underscore the importance of deepening engagement with teachers, school directors, and unions moving forward and ensuring they directly inform the process.

There have been some pockets of resistance to implementing PEC through the existing systems at decentralized levels, including from some mentors and facilitators who may have benefited from PEC being a standalone project, such as through fuel subsidies. As PEC continues to integrate into the education system, PEC activities will naturally fall within the scope of government personnel's expected duties. To facilitate the transition for PEC to become part of teachers', pedagogical advisors', and other personnel's job description, the Ministry is testing adaptations to PEC's mentoring model to make the ratio of mentors to teachers more feasible at scale and considering linking promotions for personnel to student learning outcomes. Moving forward, however, key stakeholders should further consider who stands to lose from scaling PEC in government systems and make proactive plans to address their concerns.

PEC's institutionalization across the education system

As mentioned above, MENA's selection and implementation of the TRECC pilot models fostered government ownership for PEC from the earliest days. The DPFC at the

Ministry was the primary implementer of PEC in the pilot phase, marking MENA's strong commitment to the success of PEC. After the pilot phase and MENA's decision to focus on expanding PEC and institutionalizing delivery into its own systems, the subsequent extension phases were intentionally designed to support adapting PEC delivery to larger scale and to test and advance the process of institutionalization. Initial steps toward greater government adoption of PEC included expanding the involvement of MENA in the extension phases from one to multiple directorates and creating institutional governance structures.

In February 2020, a decree establishing the PEC National Framework was signed by the former minister of education, establishing three governance and coordination structures within MENA to support PEC adaptation and expansion, a key step in the process of institutionalizing all aspects of PEC within the Ministry of National Education's processes and systems (Boxes 6 and 7). In December 2020, another decree officially appointed additional Ministry staff to the PEC National Coordination body. According to the former TaRL country director, the establishment of these structures "sets a unique framework for cooperation and collaboration around PEC between Ministry of Education and partners" and should enable better collaboration and coordination across stakeholders.⁸⁶

Box 6. PEC governance structures

- **Steering Committee**, a strategic body for PEC, chaired by the deputy director of cabinet
- **Advisory Group**, a body that coordinates technical and financial partners and private sector actors involved in PEC, including a focus on mobilizing necessary resources
- **National Coordination**, a technical body responsible for the execution, coordination, monitoring, and evaluation of PEC activities, led by the PEC national coordinator, who is an officer of the DPFC, and including representatives from all the MENA departments involved in PEC implementation

Box 7. Next step: Mainstreaming of PEC in preservice teacher training

Another notable step toward furthering government institutionalization of PEC has been MENA's consideration of infusing PEC training into the curriculum of teacher training institutions for primary and lower secondary teachers (Centres d'Animation et de Formation Pédagogique or CAFOPs). In August 2020, MENA held a workshop to propose strategies for integrating PEC into the initial training of student teachers, which resulted in participants identifying four existing CAFOP training modules where PEC could be incorporated.⁸⁷ While delays related to CLEF (see below) have postponed plans for this pilot (likely to the 2021-2022 school year), this potential integration was a critical factor considered in the cost analysis of PEC scaling scenarios and the discussion of what scaling time horizon would be feasible. Infusing PEC into the CAFOP curriculum would provide MENA the opportunity to expand training without incurring significant additional costs, and in a few years, to begin graduating classes of teachers prepared to deliver PEC.

Despite these promising milestones in the institutionalization process, one of the most significant constraints in scaling PEC in Côte d'Ivoire remains institutional capacity.

Gaps persist in the capacity of MENA staff to fully take on PEC activities—in particular around integrating PEC's data collection and analysis process into MENA's current system.⁸⁸ The DPFC continues to take a leading role in PEC implementation and operations, but the involvement of the other MENA directorates in PEC activities should be strengthened.⁸⁹ Further, Côte d'Ivoire lacks sufficient education personnel, including teachers and pedagogical advisors, which could hamper the ability to deliver PEC with high quality at national scale.⁹⁰ The government is currently recruiting both mentors and teachers in an effort to close these gaps, as well as adapting the PEC mentoring model to work around them.

Additionally, while the PEC governance structures demonstrate MENA's commitment to scaling PEC in the existing system, the structures have nonetheless confronted challenges in conducting

its stated missions and functioning as planned. To date, the PEC Advisory Group has struggled to organize meetings at the intended frequency and the Steering Committee has faced challenges in regularly convening its senior-level members (who are frequently absent or instead represented by junior/mid-level officers). While logistical changes such as holding virtual meetings and setting meeting dates farther in advance might address some of these issues, these challenges also suggest either a lack of capacity to fully engage in the PEC structures and/or a lack of prioritization on the part of members. The PEC National Coordination has functioned best to date with frequent meetings and active participation, but nonetheless has struggled throughout 2020 due to insufficient human and financial resources, including a lack of offices and dedicated staff, and would benefit from additional operational and management capacity support.

Over time, the operations and capacity of these PEC structures have continued to improve, including through the formal assignment of staff, underscoring that institutionalization is a long-term process. Moving forward, further strengthening these entities and ensuring they are fully operationalized is a key priority to help enhance coordination and collaboration between the different stakeholders and support infusing PEC into the education system.

Finally, through the integration process, MENA stakeholders at the central level have also faced obstacles around a persistent “project mentality.” When designing the first PEC extension phase, it was challenging for some to move beyond the typical siloed way of working—where a single MENA directorate works on an entire project—toward an approach that sought to leverage Ministry systems and resources across departments. J-PAL and Pratham made the early recommendation to expand MENA involvement in PEC beyond a single directorate, and its expansion was a central reason behind the creation of the PEC governance structures, where multiple directorates could work together in a formal implementation and decisionmaking framework. While MENA continues to prioritize institutionalization,

it can nevertheless still be challenging for all stakeholders involved to see the “bigger picture” of delivering and sustaining PEC in existing systems and anticipate what this will require, rather than seeing PEC as a one-time intervention.⁹¹

These capacity challenges are not unexpected in the process of infusing PEC delivery into existing government channels and systems, but they underscore the reality that embedding PEC into existing structures takes time and moving too quickly risks both overtaxing the system and jeopardizing implementation quality. The PEC extension phases were intended to explore how the PEC approach could be integrated into government processes, activities, and ways of working. Questions remain over how to preserve what makes PEC effective and not dilute its efficacy as the approach becomes more integrated into existing systems. This challenge is not unique to PEC or Côte d’Ivoire but is an ongoing issue when it comes to education initiatives that originated outside the formal education system. How to sustainably and cost-effectively build institutional capacity not just to implement or support PEC, but to fully own it, remains an area for ongoing learning, adaptation, and improvement as the scaling process continues.



Crédit photo : TaRL Africa

Financing: Pipeline of available financing from diverse partners instrumental in PEC's expansion

Availability of financing is an inescapable and essential element of scaling, and lack of resources is a primary constraint. With PEC, there was a strong emphasis on the need for more resources as soon as scaling discussions began. At a January 2019 scaling workshop, actors from across ECD, primary education, and the TVET sectors all identified availability of substantial resources as a prerequisite for scaling, voicing concerns that funding would be a major barrier to sustainable expansion. At the same time, research suggests that for scaling, how financing is structured and allocated seems to be at least as important as total financing available.⁹² In the case of PEC, the scaling process has benefited significantly from TRECC's funding model, including initial financing for several innovative pilots and a pipeline of additional resources available for expansion based on an independent evaluation of the approaches, and the potential availability of five years of funding through a new financing facility. However, access to sustainable financing for expansion and long-term implementation remains a significant scaling issue that will be essential to prioritize moving forward.

The pilot to scale funding approach distributed early risk

TRECC was originally conceived as a five-year program (2015-2020)¹—financed collaboratively by the three philanthropic organizations and cocoa industry actors—with commitments to contribute additional financing for the pilots selected to move on to a next phase (based on IPA's independent assessment). In the case of PEC, MENA provided in-kind resources in the pilot and extension phase, delivering the initiative in public schools through existing staff on the government payroll, including teachers, school directors, and pedagogical advisors.

This funding approach enabled TRECC and the cocoa and chocolate companies to take the initial financial risk for testing the PEC approach (and other innovative options) in the Ivorian context, while fostering strong government engagement through in-kind resources.

TRECC's grant-matching model was also intended to incentivize industry participation and reduce risk, as continued investment was conditional to the success of the pilot phase as confirmed by the independent evaluator. TRECC financing further enabled MENA to quickly and flexibly respond to the COVID-19 pandemic, including through providing rapid additional funding to create and deliver PEC lessons via radio.

Pooled funding to help guide PEC through the treacherous middle phase

While TRECC's innovative financing model provided the flexible financing needed to pilot PEC in Côte d'Ivoire and begin the process of government adaptation and adoption, the "middle phase" or transition to scale is as a particularly challenging time.⁹³ The planned launch of a new financing facility, spearheaded by TRECC, offers an opportunity to build out a longer-term pipeline of reliable funding for PEC expansion, helping guide PEC across this potentially treacherous phase of scaling.

1. As the start-up phase took longer than expected, TRECC's last program activities will be completed by 2022.

The Child Learning and Education Facility or “CLEF” being prepared is a pooled financing facility intended to “ensure access to quality education as one essential tool for promoting children’s rights and fighting child labor in Côte d’Ivoire.”⁹⁴ Bringing together the Jacobs Foundation, UBS Optimus Foundation, the Ivorian Government, and 14 cocoa and chocolate companies that have expressed interest in joining the initiative to date,^m CLEF aims to mobilize new and predictable financing to provide quality education to 5 million children and influence the behavior of 10 million parents by 2025. This will include bringing effective learning to up to 10,000 primary schools (comprising approximately 58 percent of all primary schools and 90 percent of all rural schools)⁹⁵ and constructing up to 2,500 classrooms and other education infrastructure. Specifically, CLEF will be a source of guaranteed funding for scaling PEC.

Building on TRECC’s previous experience with grant matching, CLEF has been designed to reach its target capitalization of CHF 110 million with equal target contributions of CHF 25 million from the government of Côte d’Ivoire, the Jacobs Foundation and UBS Optimus Foundation, and industry.⁹⁶ CLEF partners would additionally work to support the government to raise funds from other donors (including the private sector) to close the remaining gap. A recent success in this area has been the Global Partnership for Education (GPE) awarding USD \$13.03 million to Côte d’Ivoire through its GPE Multiplier mechanism, based on the planned launch of CLEF—which will potentially be used to implement PEC in the country’s northern regions, as well as bring PAPSE implementation into early grades in the cocoa-growing regions, to develop a comprehensive primary school intervention leveraging both approaches.⁹⁷

One of the guiding principles of CLEF is targeting the regions with the greatest need and potential impact. A heat map developed by Enveritas will inform the selection of beneficiary schools for CLEF, prioritizing areas with lack of education infrastructure, high risk of child labor and out-of-school children, and

poor learning outcomes—with an emphasis on cocoa-growing regions. This balance between targeting regions most in need, while continuing to focus on cocoa growing regions and on reducing child labor, attempts to mitigate some of the challenges of diverging incentives between government and industry previously discussed. CLEF also plans to fund an RCT to explore the causal relationship between poverty, learning, and child labor, with the aim to provide rigorous evidence on the potential for quality education provision to reduce child labor.⁹⁸

While CLEF offers a promising opportunity for stable financing to scale PEC to a significant number of primary schools, its finalization has faced numerous challenges. Though the Council of Ministers officially endorsed CLEF in April 2020,⁹⁹ there have been significant delays in finalizing the facility and getting activities underway. The COVID-19 pandemic created substantial obstacles; while there was momentum to finalize the facility in the spring of 2020, the disruption caused by the pandemic meant key stakeholders were suddenly overwhelmed with COVID-19 response efforts, and the process was postponed. After this delay, other realities continued forestall its momentum, including the resignation of the vice president, whose office was supervising CLEF negotiations and national elections.¹⁰⁰ Final signature of the CLEF agreement between the government of Côte d’Ivoire and the other partners is still pending as of July 2021.

These institutional delays have caused setbacks in the implementation of PEC—as they halted the release of funds meant to cover the second PEC extension phase—delaying key activities such as the training of PEC teachers and mentors and postponing progress on piloting training in the CAFOPs. Fortunately, the Jacobs Foundation responded rapidly and pre-fund the extension phase while waiting for the CLEF disbursement, but the situation nonetheless slowed expansion to 800 new schools. While CLEF offers a huge opportunity for financing the expansion of PEC at significant scale over the next five years, the situation remains uncertain (Box 8).

m. As of April 2020, 14 companies are involved including Barry Callebaut, Blommer, Cargill, Chocolonely Foundation, ECOM, Ferrero, Fuji Oil Group, Guitard, Hershey, Mars Wrigley, Mondelez International, Nestlé, Olam Cocoa, Sucden, and Touton.

Box 8. Strengths and weaknesses of pooled funding mechanisms

Pooled funding mechanisms and multi-donor collaboration have become increasingly popular—especially in the wake of the COVID-19 crisis¹⁰¹—responding to calls for greater aid effectiveness,¹⁰² increased spending, and lower transaction costs,¹⁰³ as well as addressing concerns about aid fragmentation.¹⁰⁴ Further rationale is the concern that individual efforts and “business as usual” approaches are insufficient to address the critical problems faced, with collaboration affording a better opportunity to achieve large-scale impact.¹⁰⁵

There are notable benefits of pooled funding mechanisms like CLEF, which combine funding from multiple sources to create a dedicated pot of financing for a specific issue, shared objectives, or vision. These benefits include: 1) leveraging more resources;¹⁰⁶ 2) harmonizing support and improving coordination;¹⁰⁷ 3) reducing risk¹⁰⁸ and/or perceived risk¹⁰⁹ for individual donors; 4) enabling investment from actors that want to contribute but do not have the specific expertise;¹¹⁰ 5) providing grantees with longer-term, predictable sources of funding; 6) reducing the amount and frequency of funding applications for grantees, thereby reducing administrative burdens,¹¹¹ and allocating resources more efficiently; and 7) improving flexibility of funding.¹¹² In some cases, pooled funds also have the potential to “democratize” grant-making by transferring some decisionmaking power on how funds are spent away from the donors and toward local leaders.¹¹³ Pooled funds like CLEF can also serve a catalytic function that “makes them of high importance, since the mechanisms and processes associated with pooled funds often trigger collaboration among donors and with governments.”¹¹⁴

However, there are also known risks and challenges to pooled funding, some of which may be instructive in the case of CLEF. A major takeaway is the increased time, effort, and capacity required to work in a collaborative than to go it alone.¹¹⁵ Findings from a study of investments made by the U.K.’s Department for International Development (DFID)ⁿ showed that while pooling funds can reduce transaction costs for donors, in the short to medium term, significant resources are often required to broker buy-in from multiple funders: “While there may be agreement over objectives, it can take considerable effort to resolve differences over administration.”¹¹⁶ Individual donors may also hesitate to lose control over their grantmaking or to receive less attribution of their efforts.¹¹⁷ As such, the work and resources required to assemble and maintain the right group of stakeholders, undertake successful collaboration, and align across multiple individual strategies should not be underestimated.¹¹⁸ Further challenges facing pooled funding mechanisms include the need to reach agreement between a group of funders potentially resulting in working on “‘lowest common denominator issues’ that obtain easy buy-in while neglecting other more complex or politically sensitive issues.”¹¹⁹ Finally, while increased flexibility of funding is a potential benefit, there is also the risk that this type of mechanism requires donors to lock in early on a specific investment, making future shifts more challenging even if the intended impact is not seen.¹²⁰

n. In 2020, DFID was merged with the U.K.’s Foreign Office to create the Foreign, Commonwealth, and Development Office (FCDO).

Importance of cost data to inform scaling decisions

A constraint in pursuing the longer-term financing needed to scale PEC has been the limited amount of cost data available and consequent lack of understanding of the costs required to scale the approach nationally. While TRECC placed significant emphasis on data collection for monitoring, evaluation, and learning in the GMM2 pilots, one critical piece of information missing from the pilot phase of many of the initiatives was detailed and disaggregated cost data. Conducting cost analysis to inform scaling decisions requires accurate, detailed, and disaggregated cost data about an initiative and its components, as well as data about its outputs, outcomes, and/or impact. While the latter is often available, research shows that there is a general dearth of specific cost data available about education interventions in low- and middle-income countries, and when cost data is included, it is either too top-line to be useful or is not presented in a way that allows for analysis and comparison.¹²¹ This is partially due to the lack of incentives to report cost data,¹²² as well as the inherent challenges involved in collecting accurate costing information. Other barriers to collecting and using cost data include lack of knowledge of or access to costing tools, insufficient data available to conduct analyses, lack of consensus around what constitutes “accurate” data, and concerns about sharing cost data externally in case it reveals what is considered sensitive information.¹²³

In the PEC pilot phase, limited cost data was collected by J-PAL. From this data, IPA conducted initial estimates of the potential cost per child of delivering PEC at scale, which suggested that “Scale-up may be costly compared to PEC interventions in other contexts, which are often more densely populated.”¹²⁴ As a result, one of IPA’s key recommendations was to gather more details on the cost of delivering PEC in the next phase, including potential economies of

scale.¹²⁵ In the first extension phase, the PEC National Coordination began collecting data on the costs of delivering PEC incurred by the government, with TaRL Africa collecting the rest of the costs of PEC implementation and leading on compiling the data, but the information collected was limited and some challenges arose with data flow.

While the cost information collected about PEC in the pilot and first extension phase was used primarily internally for reporting to TRECC and for TaRL Africa’s internal procedures, members expressed the importance of understanding the cost of scaling PEC from the launch of the RTSL in January 2019. This was especially evident as lab members developed a high-level scaling strategy. In August 2020, RTSL members asked for a clear idea of the cost of government implementation of PEC nationally and requested the preparation of a document outlining PEC cost projections, as well as different scaling scenarios.

As a result, the RTSL developed costed scaling scenarios with the support of an expert consultant. Conducted over the course of several months, the purpose of the study was to identify a feasible cost model and inform efforts to identify long-term financing options for scaling PEC. The study first developed a simulation model and projections for the number of students to be reached and estimated teacher needs, then analyzed the unit costs for delivering PEC, and developed several cost simulations for possible scaling scenarios (looking at options of scaling to all students in grades 3-5 or grades 3-6 and at scaling time horizons of three, five, seven, and nine years). This work drew from existing cost data and relevant demographic indicators, such as projected class sizes, as well as discussions on key variables and assumptions for the scaling scenarios with MENA and lab members. RTSL members then held a workshop to discuss which scenario was most feasible in the Ivorian context; they decided to select the scenario

of scaling to all children in grades 3-6 over a period of five years, to balance issues of affordability and capacity with the urgency of the learning crisis. The selection of this scenario also relied on the implementation of a hybrid training model and the introduction of PEC modules in the CAFOPs as key factors in its feasibility. Finally, the complete costs of the scaling scenario selected were computed (total and by year) and a budgeted action plan for scaling was created. The study concluded that in order to finance the five-year scaling scenario, the Ministry would need to advocate for additional government resources for in-service training or additional external resources would be required.

The ongoing pursuit of financing for sustainable implementation at national scale

Though there has been progress in developing an understanding of the cost of implementing and sustaining PEC at national scale and securing middle-term financing through CLEF, the key challenge remains mobilizing resources and securing long-term and sustainable financing for national implementation. This is particularly true at the Ministry, where budgets are severely constrained (a situation only likely to worsen due to COVID-19). In 2018, government expenditure on education was 3.26 percent of GDP¹²⁶ (down from 4.14 percent in 2011 and below the Education 2030 Framework benchmark of 4 percent¹²⁷) and 18.3 percent of total government expenditure (down from 22.4 percent in 2011¹²⁸), although government expenditure per primary school student (in \$PPP) had risen from \$299.7 in 2011 to \$508 in 2018.¹²⁹ CLEF may be a starting point for a long-term strategy, but its financing will not cover full national-scale, as it is currently limited to cocoa-growing regions through 2025.

It will be essential to develop a long-term financing strategy for scaling PEC that more significantly includes government financing, as well as contributions from additional donors, foundations, and private sector partners.

MENA has expressed interest in broadening the scope of partners engaged in supporting PEC, a goal TRECC also supports to achieve national scale.

Full institutionalization of PEC implies dedicated government funding for its expansion and maintenance but allocating additional financing to PEC in existing budgets may prove challenging. To minimize the additional costs of scaling, scaling lab members and other senior government officials have recommended that the PEC scaling strategy focus wherever possible on leveraging internal resources to sustainably infuse elements of PEC into existing processes and structures, such as through the integration of PEC training into the CAFOP curriculum.¹³⁰ The development of the cost projections for scaling PEC through the RTSL also offers a concrete starting point for developing a resource mobilization proposal and strategy, given it is not possible to develop such a strategy without an understanding of the estimated costs of scaling. Scaling lab members have suggested that the final results of the cost study should be used to prepare an official communication to submit to the Council of Ministers before the preparation of the next budget in March 2022.

RTSL members noted that a potential opportunity for identifying additional government funding for PEC is the shift in

2020 from means budgeting to program budgeting. The previous approach to the national budget planned for a single year and focused on allocating existing funds to government services and then assessing whether the services spent all the money allocated to them. In contrast, the new program budget approach will make plans over a three-year period and focus on first assessing the most pressing problems facing the country and then having state services propose how to address those problems; the government will then allocate funding to these services to address the problems identified and monitor progress

toward the goals and targets to see if the spending supported progress.¹³¹ While the 2020 and 2021 budget priorities for education have included a strong focus on strengthening access to education and education infrastructure, there is also planned investment in improving education quality.¹³² A strong focus in the future on improving the quality of education could be an important opportunity for securing financing to scale and sustain PEC. Finally, with arrival of the new minister of education, there may be opportunities for MENA to explore new and potentially innovative financing mechanisms for mobilizing the necessary resources.

Enabling environment: A shifting landscape underscores the need to consider the broader system

While the design, delivery, and financing of an education initiative are essential pieces of the scaling puzzle, scaling does not happen in a vacuum. Political, economic, social, and cultural realities in the broader environment play a significant role in constraining or facilitating sustainable scale. As environments are dynamic and constantly evolving, innovations such as PEC must also constantly adapt and adjust in response. In three short years of accompanying the implementation of PEC, there has been the loss of two prime ministers, the resignation of a vice president, presidential and legislative elections resulting in a new minister of education, tensions between the government and cocoa and chocolate industry around the price of cocoa, and a global pandemic resulting in school closures. This complex and dynamic environment underscores the necessity of considering the broader system in which an initiative such as PEC operates and how it affects and is affected by these dynamics. In Côte d'Ivoire, PEC benefitted from a policy environment that prioritized improving student learning outcomes in primary school. At the same time, this period saw significant attention to PEC internationally—in particular in light of COVID-19—as well as international momentum to address child labor issues in the cocoa and chocolate sector, which likely also facilitated the selection and expansion of PEC in Côte d'Ivoire. Nonetheless, ongoing challenges in the education ecosystem and broader cocoa sector in Côte d'Ivoire risk hindering further expansion of PEC.

Relevant national policies and reforms support PEC implementation

Existing plans and policies and recent reforms pursued in Côte d'Ivoire demonstrate MENA's prioritization of improving access and quality of primary education, which likely helped foster a fertile environment for government interest in and engagement with PEC.

The overarching goal of the 2016-2020 National Development Plan (PND)—the third of its kind— was to transform Côte d'Ivoire into an emerging economy by 2020. One of the five strategic axes of the plan was *accelerating the development of human capital and social well-being*, which included a strong emphasis on strengthening education and training opportunities as the basis for sustainable

social and economic development.¹³³ The goal of the 2016-2025 Education Sector Plan is to guarantee to all children and adults “quality, equitable, and inclusive education and training,” through 1) improving the quality and diversity of education and training offered; 2) improving school, family, and community environments to increase demand for schooling; and 3) improving the quality of the education system’s management, governance, and stewardship.¹³⁴ Although many of the outcomes and indicators used to assess the education sector plan’s progress are focused on materials and infrastructure, nevertheless a key indicator of progress for the plan is primary school students’ learning outcomes in French and mathematics. This indicates the Ivorian government’s focus on addressing the learning crisis—an important factor in MENA’s support for expanding and sustaining PEC—which is seen as directly targeting this issue.

A new National Development Plan has been finalized, and as of June 2021, is being reviewed by stakeholders, including international organizations, civil society, and communities. It is especially notable that the scaling of PEC has been proposed as a specific item within the plan, further institutionalizing the government’s commitment to its national implementation.

The Compulsory School Policy passed in 2015 makes school obligatory and free for all children ages 6-16. Despite the law, in reality school has not yet become completely free,^o as families have had to pay for uniform costs, canteen meals, contributions to school management committees, and other related fees. Nonetheless, this law significantly expanded access to education and was subsequently operationalized including through the large-scale recruitments of teachers and pedagogical advisors necessary to achieve full enrollment. For PEC to be delivered at national scale and benefit all children in Côte d’Ivoire in the long run, access to free schooling with well-staffed classrooms for all children will be an essen-

tial pre-condition. As such, while not directly linked to PEC, the Compulsory Schooling Policy is an important element of the broader education ecosystem that will support scaling and sustaining PEC.

Finally, MENA has undertaken several reforms in recent years prior to PEC to address education quality, including increasing the number of teaching hours and adapting a pedagogical approach that dedicates 90 percent of classroom time in primary schools to reading, writing, and arithmetic.¹³⁵ In October 2019, a reform to the CAFOPs was announced, expanding the training from two years to three—with the first two years focused on theory and the third on practice—and adopting a modular training format. The aim of the reform is to improve the quality of teaching and learning, as well as respond to challenges in the implementation of the Compulsory School Policy. The reform helps create an enabling environment that supports PEC expansion and institutionalization. For example, the plan to pilot PEC training in the CAFOPs would build on this broader reform, infusing PEC methodology into the curriculum of the four modules. PEC training also requires a practical element, in addition to theory, and the addition of a practical year to CAFOP training makes PEC infusion easier.

Leveraging global momentum to address the learning crisis

The scaling of PEC in Côte d’Ivoire also benefitted from a global education agenda coalescing around addressing the learning crisis, with some arguing for a focus on building foundational skills in the early years. This has been articulated in the Sustainable Development Goal 4, with its focus on quality and equitable learning opportunities for all, and further reinforced by other large-scale efforts such as the Global Partnership for Education’s 2021-2025 Strategic Plan focused on system transformation¹³⁶ and the World Bank’s Learning Poverty indicator.¹³⁷

o. Abolishment of payments by parents of additional fees imposed by school management committees was announced in the president’s inaugural address on December 14, 2020, so it appears that reducing these financial burdens will likely be a priority for the new Ministry.

More directly, TaRL has received considerable attention and support from the international education community as an evidence-based intervention to address this global crisis.

Over the past several years, multiple large philanthropic institutions have adopted more of a systems approach and doubled down on a few significant investments rather than fund many small projects, transitioning toward larger grants over longer-term horizons. TRECC itself is an example of this trend, with the Jacobs Foundation's decision to limit its international investments to a single country over a five-year period and focus on improving the education ecosystem and support long-term systems transformation. Co-Impact is another example directly relevant to PEC. Co-Impact brings together a community of funders to provide five-year grants of \$10-25 million for education, health, and economic opportunity initiatives that seek to address large-scale problems through a systems-change approach and that have "the potential to enable enduring and large-scale change."¹³⁸ In its first round of funding, Co-Impact awarded a grant to expand TaRL to the African continent and support programs.

In fact, as a result of this grant and building on decades of collaboration, Pratham and J-PAL jointly launched TaRL Africa in 2019 to support governments and NGO partners across the continent to implement, adapt, and scale contextualized versions of the TaRL approach and embed it into existing government systems. In Côte d'Ivoire, this included the establishment of a local office and close collaboration with government and other partners to continue to adapt and expand PEC, including through the provision of technical assistance, capacity strengthening support, and sharing of evidence and key learnings. In addition to country-level support, TaRL Africa also aims to build a movement of leaders of practice across Africa to support TaRL innovation and expansion, as well as continue to learn about how to effectively address children's low learning outcomes cost-effectively at scale through a cross-cutting learning agenda.¹³⁹ PEC has benefitted from this

advisory and technical support and likely will continue to do so in the future.

TaRL also received additional international attention and accolades with the Royal Swedish Academy of Sciences awarding the Nobel Prize in Economics to Abhijit Banerjee, Esther Duflo (the co-founders of J-PAL), and Michael Kremer in October 2019. The prize was awarded for the economists' pioneering use of RCTs to study the impacts of development policies in order to reduce global poverty.¹⁴⁰ While Banerjee, Duflo, and Kremer have been involved in dozens of studies across many different sectors, J-PAL's long-term collaboration with Pratham to study how to improve learning in the classroom (contributing to the learning and development of the TaRL approach) is a notable example and one that got increased attention in the wake of the prize.¹⁴¹

Demand for remedial education in the wake of COVID-19

The COVID-19 pandemic that began in 2020 and subsequent actions to mitigate the spread of the virus have led to "the worst crisis to hit education in a century—having kept more than 1.6 billion students out of school at the peak of school closures."¹⁴² The World Bank estimates that the share of 10-year-old children in low- and middle-income countries that are unable to read a short text will increase as a result, rising from 53 to 63 percent.¹⁴³ Research demonstrates that learning losses are typically greater than just the time spent out of the classroom, as children also forget what they have already learned, and learning losses are compounded as children are unable to catch up. A 2021 UIS report estimates that an average child lost 54 percent of contact time with teachers by November 11, 2020, equaling over a year's worth of learning lost on average.¹⁴⁴

In response to the severe estimated impacts of COVID-19 on children's long-term learning outcomes, the global education community saw increased (though not unanimous¹⁴⁵) calls for prioritizing investments in the

development and remediation of foundational literacy and numeracy skills.¹⁴⁶ UNESCO, UNICEF, and the World Bank "joined forces to launch 'Mission: Recovering Education 2021' centered on the three priorities of bringing all children back to school, recovering learning losses, and supporting teachers."¹⁴⁷

The second priority pillar of this mission—recovering learning loss—strongly emphasizes the need for remedial education in all schools and at different education levels to help children catch up to their grade level once back in the classroom, rather than continue to fall further behind.¹⁴⁸ Capitalizing on this momentum, multiple actors have positioned the TaRL approach as a critical tool for responding to the pandemic's learning losses, given its targeting of foundational skills and emphasis on remedial education.¹⁴⁹ The former country director for TaRL Africa in Côte d'Ivoire explained that, "We feel that the PEC approach is doubly important in this time of COVID-19 response and recovery. At its core, TaRL focuses on helping children catch up by assessing children's real learning levels and then focusing on the basics in reading and math. PEC puts the learning needs of these children first and leverages high-quality evidence and data, along with the 20+ years' of Pratham's experience with the program, to help them catch up."¹⁵⁰ This increased attention to the benefits of PEC's remedial approach is likely to further strengthen support for its institutionalization in the Ivorian education system even beyond the COVID-19 pandemic and reinforce it as an effective solution for addressing one of Côte d'Ivoire's urgent education priorities.

International attention to combat child labor and ongoing tensions between industry and government

Over the past two decades, global consumers of chocolate have become more aware

of issues plaguing the sector, including child and forced labor, as well as serious environmental impacts such as deforestation, and have put pressure on cocoa and chocolate companies to respond to these concerns.¹⁵¹ While companies have made efforts to eradicate child labor in their supply chains, as discussed above, the persistence of the issue—along with high-levels of media coverage providing consumers with vivid images—presents real reputational risk to the brands. For example, the fact that the industry has missed the target deadlines of the Harkin-Engel protocol in 2005, 2008, 2010, and recently in 2020,¹⁵² has led to critiques that the cocoa and chocolate industry is not taking the issue of addressing child labor in its supply chain seriously enough.

TRECC's alignment with this global momentum for sustainability in the cocoa and chocolate industry and the fight to eradicate child labor provided an important window of opportunity for implementing and scaling PEC in Côte d'Ivoire, tapping into the industry's interest in and incentives for taking concrete action. While much progress remains in making the case to the industry on the essential role of quality education in reducing child labor and strengthening their supply chains—including a need for strong evidence demonstrating the link between education and child labor^p—TRECC has succeeded at putting both ECD and quality education on the industry's radar and agenda. Whereas prior to TRECC cocoa and chocolate companies were primarily investing in education infrastructure, GMM2 has fostered industry support for both quality ECD and education programs.¹⁵³ Company partners interviewed expressed their pride at helping put ECD on the industry's agenda through TRECC.¹⁵⁴ Education has also become a visible issue in industry publications, with companies regularly highlighting their work in the sector and some already integrating quality education key performance indicators into their sustainability strategies.¹⁵⁵

p. While there has been some emerging evidence showing correlation between the two, CLEF plans to finance an RCT seeking to address a causal link between quality education and reduction in child labor.

If CLEF is successful, it could represent a paradigm shift for how the industry invests in quality education, including moving away from a strictly value-chain approach to investments.

This would bring clear benefits to the scaling of PEC but also the broader education ecosystem.

However, ongoing tensions in the relationship between the cocoa and chocolate industry and the governments of Côte d'Ivoire and Ghana (the world's second largest producer of cocoa) bring indirect risks to the public-private partnership supporting PEC's expansion. In March 2018, the presidents of Côte d'Ivoire and Ghana signed the Abidjan Declaration to align their cocoa policies and prices, increase the countries' share of the cocoa earnings, and reduce cross-border smuggling.¹⁵⁶ In July 2019, the two countries introduced the Living Income Differential (LID), a fixed \$400 premium companies must pay per ton of cocoa for the purpose of alleviating farmer poverty and stabilizing prices.¹⁵⁷ However, disputes have arisen between the Ivorian government and cocoa and chocolate companies around the payment of the LID, resulting in temporary freezes on company sustainability activities in the country.^q While not directly linked to PEC, these disputes between key stakeholders and broader political issues in the sector carry some risk of impacting collaboration between government and industry around education efforts and hindering joint action to support PEC expansion, as has occurred in the case of CLEF.^r

Companies' support and investments in quality ECD and education are critical components of a longer-term and sustainable solution to improving learning outcomes and tackling child labor. Partnerships are a central tenet of the SDGs, including collaboration with the private sector; these "cross-sector partnerships among governmental bodies, the private sector, civil society, and philanthropic actors are critical for the creation of systemic change, in order to achieve the SDGs and solve the most pressing challenges of our time."¹⁵⁸

Transitioning from an externally communicated commitment to the SDGs to tangible changes in core business practices, however, is a challenge for companies on a much broader scale beyond the cocoa and chocolate industry. A 2019 study published in the Harvard Business Review found that "The commitment of almost every company we studied [to the SDGs] appears to be merely cosmetic; we found very few companies doing anything new or different to advance the goals." The study also finds that some companies' core business activities in fact contradict their stated commitments to the SDGs.¹⁵⁹ Critics have raised concerns that without stronger accountability, companies can use superficial commitments to the SDGs to enhance their corporate image, while doing little to make progress toward—or even working against—the goals themselves.¹⁶⁰

q. In the fall of 2020, as the COVID-19 crisis depressed demand for cocoa resulting in significant amounts of unsold cocoa beans, Côte d'Ivoire's Cocoa and Chocolate Board and its Ghanaian counterpart COCOBOD accused several cocoa and chocolate companies of endeavoring to get around paying the LID. In retribution, in November 2020, Côte d'Ivoire and Ghana banned Hershey and its subsidiaries from implementing sustainability programs in those countries, lifting the sanction a week later after the company recommitted to paying the LID. The government had utilized similar tactics of potentially suspending sustainability projects as leverage over cocoa and chocolate companies in the past, contending that paying farmers a living wage is a core component of sustainability.

r. Other events taking place globally in regard to child labor in the cocoa supply chain include forthcoming tighter European Union regulations on cocoa imports intended to improve sustainability and human rights in the cocoa value chain, which will place more stringent requirements on industry, as well as an ongoing case against the cocoa and chocolate industry in the U.S. Supreme Court seeking to hold companies accountable for child labor violations in their supply chains.

With this in mind, some critics are concerned that cocoa and chocolate companies' investments in quality ECD and education initiatives (including PEC) and their own sustainability strategies come in place of—rather than alongside—broader support for improving farmers' livelihoods (such as with the payment of the LID). Some contend that a more direct means of tackling child labor in the supply chain would be to pay farmers more for their cocoa, reducing poverty—a key driver behind child labor.¹⁶¹ UNICEF details that the low price of cocoa “is one of the key reasons poverty persists among cocoa farmers. ... Major fluctuations in international markets can have devastating impacts on the final price paid to farmers.”¹⁶²

CLEF is intended to directly address the need for greater transparency and stronger accountability for companies' commitments around child labor, and if successful, may represent concrete changes taking place in companies' core business practices and sustainability strategies. Given the Jacobs Foundation's position between business and civil society—especially its role as an independent philanthropic organization with historic ties to the cocoa and chocolate industry—the foundation is especially well-placed to serve in an intermediary role and facilitate more effective collaboration between the industry and government in pursuit of improving education quality and reducing child labor.¹⁶³

Ideally, TRECC's ongoing advocacy and partnership efforts—alongside CLEF—will continue to promote industry sustainability strategies that contribute to, but do not replace, additional efforts required to improve conditions for cocoa farmers, their families, and communities.



Crédit photo : TaRL Africa

Figure 4. Summary of recommendations

Lessons emerging from PEC's scaling journey to date center around four key themes, which will continue to play a critical role in future efforts, and can also inform the scaling efforts of other evidence-based education initiatives.



Institutionalization and sustainable scale

- Focus on who will deliver at large-scale from the start.
- Concentrate on the scalability of an innovation in the local context.
- Create coordinating structures with sufficient capacity and a strong government mandate.
- Balance scaling momentum with maintaining quality.



Partnerships and collaboration

- Catalyze collective action but recognize the point of diminishing returns.
- Support intermediaries to foster partnerships and align incentives.
- Cultivate an alliance of scaling champions.
- Support a mindset shift and behavior change for scaling.



Costs and financing

- Shed light on long-term government financing.
- Increase support to make sound cost projections at scale.
- Leverage the potential of pooled financing to cross the "valley of death."



Adaptation and continuous learning

- Integrate a continuous learning process within government systems.
- Strengthen adaptive capacity to respond to rapidly changing environments.
- Invest time and resources in peer learning and exchange.

Lesson learned and recommendations

Through accompanying the scaling journey of PEC, lessons emerging from the case centered around four key themes that were consequential to PEC's scaling success to date, and which will continue to play a critical role in future efforts. These themes are: 1) institutionalization as a pathway to sustainable scale; 2) partnerships and champions; 3) costs and financing; and 4) adaptation and collaborative learning. Each of these themes offers lessons from the case of PEC and includes targeted recommendations not only to support ongoing progress to expand and deepen the impact of PEC but also to inform the scaling efforts of other evidence-based education initiatives (Figure 4).

Lessons about institutionalization as a path to scaling in education

Ensure a relentless focus on who will deliver and finance at large scale from the start

Experiences with the RTSL have confirmed that unyielding attention on who will be the “doer” and “payer” at scale is critical from the start.¹⁶⁴ Piloting an initiative with those who will eventually deliver at scale—in particular, government—takes additional time and capacity up front, but helps foster buy-in, determines what is feasible, identifies capacity gaps, and demonstrates potential for the solution to work in the system. In addition to establishing proof of concept, the PEC pilot served as an opportunity to experiment with how it could be adopted and sustained by the government, if proven effective.

TRECC's approach to piloting a portfolio of education initiatives selected by the Ministry and then supporting the expansion of the initiative that the government determined it wanted to scale—based on an indepen-

dent assessment of the results—offers an important example of a relentless focus on government ownership from the start. The government as the potential “doer” and “payer” at scale was in the driver's seat from the beginning, with TRECC providing initial financial and technical support.

Focus on the scalability of an innovation in the local context

While a focus on innovation is pervasive in the global development architecture—especially in identifying the next groundbreaking approach or new technology—PEC demonstrated the potential for impact by scaling an approach that can achieve transformative results but is not seen as a radical departure from the current way of operating. PEC's relative simplicity and resonance with existing preservice teacher training made it more attractive to key stakeholders in Côte d'Ivoire, facilitating its adoption into the existing system. The example of PEC underscores that while it is often tempting to seek innovations that signifi-

cantly disrupt existing ways of working or test cutting-edge technology, it is critical to focus on the practicality of scaling an innovation in a particular context, including how best to infuse it sustainably and equitably into existing systems. Often, the innovations with the most potential for large-scale impact are those that are most feasible for the system to bear.

Create coordinating structures with sufficient capacity and a strong government mandate

Scaling through institutionalization requires a coordinating structure to make decisions, harmonize efforts, and ensure the work advances—particularly once an initiative progresses beyond any single individual’s or department’s job description.¹⁶⁵ As seen with PEC, however, the creation of new structures alone is not sufficient, and limited institutional capacity can be a significant constraint. The scope, mandate, and functions of these structures must be realistic given the existing system, and they must be supported by a mandate at the highest possible political level to help ensure stakeholders at all levels see the scaling process as central—not ancillary—to their daily work. Institutional and human capacity must also be built and reinforced, including through the provision of sufficient dedicated staff.

When possible, there are benefits to building on existing structures—rather than creating new ones—to avoid duplication or the risk of parallel processes. Where new institutions are created, they should be continuously evaluated in comparison to alternative existing structures and merged where useful to reduce fragmentation.¹⁶⁶ The example of the scaling lab in Côte d’Ivoire has demonstrated that while a coordinating structure may be centered around the scaling process of a particular initiative, its mandate must go beyond just expanding that single program. Instead, the ultimate goal of the lab is to respond to a key challenge and support sustaining a large-scale change in the system—offering stakeholders an opportunity to learn more deeply about the scaling process—which can be applied beyond the initiative of focus itself.

This demonstrates that it is not necessary to establish new coordinating structures for each initiative being scaled; there are concrete benefits to expanding the scope of current structures or bodies while strengthening capacity more broadly.

Maintain one foot on the gas, and one foot on the brakes¹⁶⁷

Scaling is a long-term process with multiple stages between pilot and large-scale implementation, each requiring sufficient time, attention, and resources. TRECC’s pilot-to-scale approach was intended to reduce risk for partners and identify and adapt effective approaches before moving toward expansion. An important strength of TRECC’s approach was its consideration of scaling and sustainability from the pilot stage and taking a phased approach. While this strength was baked into the original GMM2 design, it became evident early on that an even greater appreciation of the multiple phases and longer timeframe of scaling was actually required. Additional attention and support for a “zero year” prior to the pilot (i.e., integral activities prior to implementation such as planning, adapting and contextualizing the approach, setting up local offices, building partnerships especially with government, finalizing contracts, and hiring local personnel) and for transition between phases could have strengthened the GMM2 process, reducing delays and implementation challenges.¹⁶⁸

There was also a need for more consideration and provision for the stages of scaling on the part of the Ministry. In the case of PEC, an urgent need combined with evidence, available financing, and global momentum at times propelled interest in scaling faster than might have been prudent. Recognizing the urgency of addressing children’s low learning levels as quickly as possible, it is nonetheless important that all stakeholders—including government—appreciate the need for a longer-term, phased approach to scaling, with a laser focus on quality and equity issues as the initiative expands.

Recommendations:

Implementers: Build additional time and capacity into the piloting process to consider the scaling vision and pathway (even before determining if the model should scale) and collaborate with government stakeholders. Develop a scaling strategy by collaborating with those who will be the “doers” and “payers” at scale, and identify what questions need to be answered and what data collected to inform any transition to larger scale. Use the pilot and subsequent expansion phases not only to establish proof of concept of the model, but also to test how the approach could be infused into the education system—identifying institutional capacity gaps in need of strengthening. Use systems diagnostics to determine areas that need and are ripe for more transformative change.

Policymakers: As part of institutionalizing an education initiative or approach, establish or engage coordinating structures with a system-wide lens from national to regional to local levels. Coordinating structures with a clear government mandate are critical to support the scaling process, especially as an initiative moves from a discrete project to becoming mainstreamed throughout departments and divisions. At the same time, pay sufficient attention to resource and capacity limitations, which can quickly constrain the effectiveness of this coordination. Governments can work together with donors to chair these coordination bodies, and an approach like the RTSL can help strengthen coordination and scaling capacity. It is not necessary to create new coordinating structures to support the scaling of every intervention; there are benefits to building onto existing structures, such as sector working groups, to avoid duplication and fragmentation.

Funders: Consider funding a portfolio of approaches that address a locally identified priority, rather than committing to a single approach up front and attempting to “sell” it to the government as the best solution. Ensure adequate support for timely monitoring, evaluation, and learning to provide the government with the evidence needed to determine which approach they deem most promising, scalable, and suited to the local context. As seen in TRECC, multiple donors can join together to fund this portfolio approach—pooling resources, reducing risk, and leveraging the specific expertise and capacities of each funder.



Photo Credit: TaRL Africa.

Lessons about partnerships and champions for scaling in education

Catalyze collective action as well as recognize the point of diminishing returns

Government engagement in the scaling process may be critical for expanding and sustaining an education initiative, but this does not mean the government can or should do it alone; collective action is required between diverse actors bringing different perspectives, resources, expertise, and roles. Cross-sector partnerships, including with the private sector, are crucial to achieving the SDGs. Impactful collective action often requires going beyond traditional collaboration or partnerships to encompass a more structured approach—supported by a common agenda, shared measurement system, mutually reinforcing activities, and ongoing communication between all actors,¹⁶⁹ as in the case of TRECC. Many TRECC stakeholders reported that its focus on bringing diverse perspectives together and pushing partners to engage beyond their “business as usual” approaches was a key strength and helped demonstrate the benefits of this multi-stakeholder approach.

Questions remain, however, around how to balance the need for partnerships to bring in diverse expertise, networks, and resources for scaling with the reality that overly complex or mismatched partnerships can significantly hinder the process. TRECC’s complex, multi-layered partnership model struggled at times to adequately address the realities of diverging incentives and scaling visions between different players. Sufficient attention must be given at the early stages to clarify each partner’s motivation and incentives, value addition, vision of scaling and success, and risk tolerance, as well as existing power dynamics between actors. As it is difficult for this type of partnership to develop and sustain itself organically, it requires some stakeholders to manage and fund this process (such as CUE and TRECC, respectively), at least at the start of scaling.

Support intermediaries to foster partnerships and align incentives

Addressing large-scale, complex social issues, such as improving children’s learning, requires leveraging the strengths of innovators—characterized by agility and higher tolerance for risk-taking—and the bureaucracies and institutions that are more rigid and risk-adverse but can deliver sustainably at large scale. The case of PEC has highlighted the essential role of a third set of actors—intermediaries—who cross-pollinate between these actors, often handling overlooked functions such as strategic planning, evaluation and documentation, fundraising, advocacy and field building, and convening and coordination.¹⁷⁰

TRECC’s model purposefully brought together innovators, government, and private sector stakeholders to create a portfolio of actors with different risk tolerances and capacity at various stages of implementation, adaptation, and scaling. In the case of PEC, TRECC played a critical intermediary role to align disparate incentives, develop innovative approaches to leverage the unique strengths and perspectives of each actor, and gather stakeholders together behind a shared goal of improving learning outcomes. TRECC’s existing networks with key stakeholders in the Ivorian ecosystem, including with government actors and the cocoa and chocolate industry, and its expertise and willingness to secure technical assistance enabled TRECC to wear multiple hats as an intermediary and fill different gaps in the scaling process. The Jacobs Foundation’s positioning between civil society and industry may have made it uniquely well placed to play this role in the Ivorian context.

Cultivate an alliance of scaling champions

Creating conditions for effective solutions to be accepted and spread requires scaling champions at all levels within and outside

government, classrooms, and communities. A key tenet of the RTSL process is to engage stakeholders from across the education ecosystem to “bring the system in the room,” disrupting existing patterns of who is involved in decisionmaking and deliberately creating space to work together differently. In Côte d’Ivoire, bringing together perspectives that cut across roles to collectively consider scaling strategies proved to be one of the most significant contributions of the RTSL process. At the same time, it was critical to consider how existing hierarchy and power dynamics could hamper frank discussions and make disrupting the status quo challenging, and how to adjust the structure and strategy of lab convenings to counteract these potential hindrances and build a new way of working.

To date, PEC champions have been mostly clustered at the senior ministry level, with less emphasis on the grassroots and highest political levels. While the latter fact may have in fact protected PEC from becoming politicized, moving forward scaling will require broadening the bench of champions and fostering buy-in and ownership for PEC at all levels—from classrooms and communities all the way up to the minister of education.

Support a mindset shift and behavior change for scaling

Identifying and building a cadre of scaling leaders and change agents requires more than getting these stakeholders to support scaling a particular initiative or even convening periodically to consider scaling questions. Cultivating and catalyzing such a cohort of changemakers also requires raising awareness of key scaling principles,

encouraging application of these principles through concrete action and behavior change, and strengthening the competencies and skills needed to scale impact. In other words, getting buy-in for a solution from government stakeholders is a necessary but insufficient initial step. An important contribution of the RTSL process in Côte d’Ivoire is the spread of a scaling mindset among lab members, including building awareness of the importance of planning for scale early on and the need for ongoing adaptation, reflection, and iteration of scaling strategies. In Côte d’Ivoire, education stakeholders—and MENA in particular—saw the opportunity for strengthening scaling-related capacity as a key benefit of engaging in the lab. The process of diffusing a scaling mindset takes time, but there nevertheless have been spillover effects—with lab members raising key scaling principles in discussions unrelated to the RTSL or to PEC, such as when reviewing the progress and future plans of other education pilots in Côte d’Ivoire.

While a mindset shift is a critical first step, it will only improve learning for all if it is followed by action. It is also essential to explore how to move beyond awareness raising toward behavior change, such that individuals take ownership over the process and bring the learnings into their daily work. The long-term goal is that scaling principles become embodied and embedded across all departments and individuals, not limited to a discrete unit within government “responsible” for innovation and scaling. Nonetheless, the RTSLs have demonstrated that diffusing a scaling mindset across broader systems and translating it into concrete actions is a complex, long-term process, whereby scaling an initiative can help catalyze behavior change.

Recommendations:

Policymakers, implementers, and funders: Cultivate champions at all levels to build ownership for sustainable implementation and safeguard against inevitable political turnover. Ideally, building a bench of scaling champions should happen at senior levels to establish necessary mandates and at local levels to ensure relevancy and ownership. Invest the necessary time and energy upfront to ensure alignment of scaling vision between all champions and partners. This includes identifying who might stand to lose as an initiative expands and addressing potential concerns early on. As is true with scaling more broadly, champions and partnerships must be continuously revisited and reconsidered in light of shifting events and evolving circumstances.

Implementers, in particular originating institutions: Proactively plan for an evolving role as an initiative expands, embracing a facilitator role of government-driven expansion rather than acting as gatekeepers of the initiative. Such a transition is a gradual process and often requires building additional institutional capacity and support in areas such as data systems, monitoring and mentoring, and training.

Funders: Catalyze and support the critical intermediary roles for scaling, that can help fill gaps and strengthen the scaling process such as conducting independent data collection, documenting processes, and/or strengthening institutional capacity. In many instances, this intermediary function should be designed to be gradually phased out, with many of these roles subsumed by the implementing entities over time.

Policymakers: Create space to substantively engage actors not traditionally given a seat at the table during scaling to benefit from their complementary skills, competencies, and viewpoints. These include teachers, private sector actors, and community members.

Researchers: Explore how to move beyond a mindset shift for scaling toward behavior change. Research and analyze the intersection between scaling principles, adaptive capacity, and behavior change—drawing from behavioral insights and adult learning science.

Lessons about costs and financing for scale

Shed light on long-term government financing

Though the need for government financing to support sustainable implementation at scale is evident for many education initiatives, innovators and implementers often find government budgetary processes and pipelines opaque and the way forward unclear. More clarity is needed on the financing pipeline and how to align with or integrate into these processes to mobilize long-term resources for sustainable scale. Clear and practicable information about budgetary processes and timelines that is widely available would be valuable to education stakeholders. An instructive example is the

government of Côte d'Ivoire's publication of a "Citizen's Budget" alongside the implementation of the new program budgeting approach, which provides information on the budget process to the general population in accessible terms, in order to promote citizen's ownership over the process and increase transparency.¹⁷¹

An additional challenge is that many implementers do not have clarity on what type of budget and cost data government actors seek to inform their decisionmaking about scaling. As such, they can struggle to collect, analyze, and share the type of data the government most needs—including information on cost savings and opportunity costs—hindering the scaling process. It

is key for stakeholders pursuing scaling to engage those who are involved in budgetary decisions from the start, including inviting their participation in any collaborative learning approach, in order to ensure they are collecting the necessary information and packaging it in a way that is useful to decisionmakers.

Increase support to make sound cost projections at scale

Cost data and analysis are critical for making decisions about scaling, including for informing the case for investment, forecasting and planning for scale, and exploring opportunities for cost efficiencies and adaptations to lower cost. Cost data also provide insight to where costs might change in a new context and help decisionmakers make informed choices about the most effective and efficient use of resources. However, as in the case of PEC, sufficiently detailed cost data are often not collected about education initiatives, and there is a widespread lack of knowledge of how to conduct cost analysis and project scaling costs. The very limited cost data collected in almost all of the GMM2 pilots and extension phases hindered the rigorous cost analysis and assessment of anticipated costs at scale, restricting comparisons across the various pilots and limiting the information that could make the case for scaling to government and other stakeholders. Progress is already underway in addressing this challenge with the RTSL's development of the costed scaling plan for PEC and with TRECC's funding for a cost-effectiveness study of two GMM2-supported ECD approaches. However, there is great need to build local expertise and capacity to collect relevant cost data and use it to conduct cost analyses.

Leverage the potential of pooled financing to cross the “valley of death”

Where pilots are typically funded by donors as one-off, time-bound projects, delivering and sustaining an initiative at scale requires resources for supporting ongoing operational costs. Initiatives transitioning from the former to the latter often get stuck in the “valley of death,” where funding structures do not match financing needs. As in the case of PEC, there is real potential for innovative financing mechanisms and donor collaboration, such as through pooled or catalytic funding, to support initiatives to make this challenging transition from pilot to large-scale implementation and navigate the middle phase.

TRECC's funding approach enabled the philanthropic and cocoa industry partners to experiment while making additional funding conditional on external assessment of the pilots' success, reducing risk and helping to ensure funding for expansion would be strategically spent. The planned launch of CLEF will provide a more dependable funding pipeline for further PEC expansion, drawing resources from diverse actors, including government, and guiding PEC across the challenging middle phase of scaling. However, it is also evident that the time, resources, and coordination required to make these types of funding collaborations work are significant, and a mindset shift is required to transition away from individual attribution and toward a shared vision and strategy for longer-term systems transformation led by the government. There is much more to learn as CLEF is officially launched and its work gets underway, including the strengths and weaknesses of pooled funding mechanisms for supporting the middle phases of scaling in education.

Beyond CLEF, it will be essential to develop a long-term financing strategy for PEC that includes more significant government financing, as well as contributions from additional donors, foundations, and private sector partners. While the costs of PEC reaching national scale are only a very small proportion of the overall MENA budget, they nonetheless represent a significant amount compared to the annual in-service training budget, and therefore key stakeholders engaged in PEC's expansion will need to make a strong case within MENA to secure

additional targeted funding. To leverage additional funding for improving learning outcomes, MENA should consider building on initial plans to develop a national reading, writing, and math program across all primary grades—drawing from PEC, PAPSE, and other related efforts—to invite interested donors to support. Such an approach would similarly leverage the benefits of pooled funding, reducing fragmentation and the challenges of a “project mentality” in favor of more collective action in support of improving learning outcomes for all.

Recommendations:

Policymakers: Develop accessible overviews of budgetary processes, timelines, and actors within national education systems—including identifying critical junctures to intervene—and make these documents publicly and widely available to education stakeholders outside of government.

Implementers: Develop plans for mobilizing long-term financing for scaling and sustaining an education initiative as early as possible in the implementation process, rather than waiting until an approach is “perfected” before considering the financial aspects of scaling. Build on existing systems and leverage existing resources where possible. This involves recognizing current programs that might get displaced and considering how to bring along those who might stand to lose from any reallocation of existing resources. While concerns around sharing cost data are understandable and widespread, embrace cost transparency and share data with a broader range of stakeholders in support of scaling and peer learning.

Researchers: Create a repository of widely accessible resources drawing from existing costing tools where available (such as the forthcoming Brookings Cost Calculator Tool) and developing others where none exist. Provide necessary training and support to organizations and institutions in the collection, analysis, and use of tools. Conduct additional research on the type and formatting of cost information governments need to inform decisions about scaling and develop education-specific guidance on how implementers and funders can “speak the government’s language” in terms of costs and financing, building on work done in other sectors.¹⁷² Undertake more research and analysis on the middle phase of financing and the potential role of pooled funding mechanisms like CLEF to support initiatives to cross the “valley of death.”

Funders: Create a transparent funding pipeline that provides financing at various stages of scaling, taking realistic scaling time horizons into account. This should include adequate resourcing and time for a “zero year” to support necessary planning, outreach, and start-up activities prior to implementation. As not all funders will have the resources and/or risk tolerance to invest during all phases of scaling, donor collaboratives and financing mechanisms, such as private-public partnerships and pooled funds, can help reduce fragmentation and transaction costs, disperse risk across partners, and address short-term, project-based funding cycles—if structured appropriately. Incentivize and support the collection, analysis, and sharing of cost information—encouraging greater transparency and opportunities for learning among partners and grantees—beyond just using cost reporting as an accountability exercise. This may require bringing in external costing expertise, as well as building institutional capacity around costing analysis over time.

Lessons about adaptation and continuous learning in the scaling process

Integrate a continuous learning process within government systems

There are tangible benefits to infusing a continuous learning approach, such as the RTSL, into government systems to support implementation, adaptation, and scaling. Government leadership of a lab-like process can confer the necessary authority to develop, test, and refine a scaling strategy with relevant decisionmakers. A driving force behind the co-creation of the RTSL was the need to bring research and practice closer together so that decisions are more-evidenced based and research is focused on issues of direct relevancy to ongoing efforts. This has included undertaking research responding to key scaling questions that arise in the process of adapting and expanding PEC, packaging that learning accessibly, and supporting key stakeholders in applying the research to inform efforts moving forward. Additionally, the documentation undertaken by the RTSL has helped ensure learning from scaling PEC is not lost and others can build upon it. Much has been learned about this intentional effort to bridge the evidence and policymaking divide, including the importance of clarity about the purpose of data collection, how data will be used, and that “just enough data” will be collected to achieve their purposes without encumbering efforts. The RTSL has also demonstrated that the timelier the information, the more useful it can be for directly informing action.

Experiences in Côte d’Ivoire have demonstrated the value of hosting a continuous learning process in support of scaling within government systems, rather than outside them. In the case of PEC, strong government leadership for the launch of the RTSL process demonstrated the ministry’s support for testing a continuous learning approach to scaling and helped encourage other sta-

keholders to engage. Having an institutional home for the RTSL also helped illuminate how key principles for this type of iterative learning approach might be integrated into longer-term working. Government ownership of the lab process, including through embedding the lab itself into government systems as in Côte d’Ivoire, is beneficial given the centrality of government in scaling in education. However, this does not negate the importance of using the lab to convene diverse perspectives and foster open discussion and data-driven reflection. CUE’s neutrality vis-à-vis the scaling of PEC helped reinforce the idea of the RTSL as a platform for open discussion and consideration of research to inform scaling decisions.

Strengthen adaptive capacity to respond to rapidly changing environments

Scaling is an iterative process that requires ongoing adaptation and learning that includes modifications—and often simplifications—to the initiative being scaled and the scaling approach and strategy. While this is not a new concept, too often adaptations being tested are not systematically planned for or well documented, and the learning is lost. Further, scaling processes often do not build in enough time to pause, reflect, and course correct based on data and changes in the broader environment. The work of the RTSLs to date has demonstrated that building the capacity for adaptation and data-driven iteration remains challenging, even where there is willingness to take an adaptive approach, especially as efforts confront the realities of existing hierarchies, power dynamics, and limited human and financial resources. Gaps remain in understanding how to effectively build capacity and align incentives for timely learning and adaptation.

An important lesson from Côte d'Ivoire is the need for flexibility and adaptability among all partners to respond to a rapidly changing environment. Key to the RTSL's success is the ability to understand and react to the ecosystem around the intervention being scaled and the key stakeholders involved. A rapidly shifting political, economic, and funding landscape is not an aberration but the reality of supporting large-scale change in dynamic environments, and it is essential that those engaged in a scaling process can react to these shifts, leveraging new windows of opportunity and addressing new challenges.

Invest time and resources in peer learning and exchange

The experience of the RTSL in Côte d'Ivoire reinforces the benefits of peer-to-peer learning and knowledge exchange about scaling, providing the opportunity for diverse stakeholders to come together to share experiences, reflect on common challenges and opportunities, and collectively problem-solve. Further, the cohort of RTSLs has confirmed previous research demonstrating that many initiatives in the process of scaling are working in isolation, and in spite of contextual differences, can benefit

from greater collaboration to share experiences and problem-solve collectively. Across the labs, CUE has seen tangible benefits of hosting both periodic, in-person peer-to-peer learning exchanges and facilitating opportunities for lab partners to connect with each other more frequently via online webinars, discussions, and workshops. Lab partners have shared that cross-lab discussions have benefitted their scaling efforts—even for those working across diverse issues and contexts—and have expressed a real interest in continuing to learn from and share with each other.¹⁷³

These investments in peer learning and exchange about scaling must go beyond a handful of webinars or attendance at a yearly global conference; they should be supported as an intrinsic aspect of the work that receives sufficient time, capacity, and resources. Fruitful collaboration and exchange take time and energy to plan, foster, and execute, and can be challenging to prioritize amid limited time and resources. The role of a hub, secretariat, or third-party organization can help facilitate and nurture this type of scaling community to pause, reflect, share, and learn together. Understanding and embracing lessons from failures must be an explicit part of any learning community to ensure growth and ongoing experimentation.

Recommendations:

Policymakers, implementers, researchers, and funders: Undertake and/or support a deliberate and resourced effort to convene diverse actors in a collaborative learning process—encouraging data-driven reflection and course correction and relentlessly focusing on scalability and sustainability. Where possible, embed this type of collaborative, continuous learning approach directly into government institutions, such that government stakeholders own and lead the process from the start and ensure the learning and reflections can feed into decisionmaking. As inevitable trade-offs are confronted during the scaling process, it is critical to consider at each stage how issues of quality, equity, sustainability, and efficiency are balanced. Sufficient time must be allowed to test, learn from, and refine necessary adaptations, strengthen capacity, and foster an alliance of stakeholders supporting scaling across the system. While the specifics of the collaborative and reflective approach should look different depending on the context, CUE’s “Real-time Scaling Lab Guidelines” offer a useful starting point.¹⁷⁴

Funders: Support research and development efforts including providing financing for small-scale experiments with quick feedback loops—such as A/B testing—to inform ongoing adaptations and improvements during scaling. Incentivize capturing, documenting, and learning from these tests—especially from failures—and sharing experiences widely. Incentivize and support professional learning networks, including investments in deep, ongoing, meaningful peer learning and exchange among partners and grantees within and across countries.

Implementers: Undertake more systematic approaches to handling planned and unplanned changes—beginning with a diagnosis of the challenge or opportunity to address, determining a proposed adaptation to test, collecting data to measure if the change led to an improvement, documenting unplanned shifts, and analyzing results to determine what, if any changes, to make to an initiative or its scaling strategy. CUE’s “Adaptation Tracker” can be a useful tool to support this process.¹⁷⁵



Conclusion

Though still in its early chapters, PEC's scaling story is instructive on many levels. PEC benefitted from a confluence of factors in its favor—some of which have been strategically and systematically orchestrated, others which have serendipitously emerged. PEC's adaptation and expansion in Côte d'Ivoire has brought together a cast of characters playing distinct and intersecting roles, who each provided critical support to move efforts forward and strengthen the process. PEC's simplicity and scalability, its convincing results, and direct targeting of a national priority all helped bring key stakeholders on board and maintain momentum. Meanwhile, available financing for sequential extension phases supported PEC's transition from just another pilot project. More than anything, the story of PEC has highlighted the tireless and inspiring efforts of so many education stakeholders in Côte d'Ivoire striving to improve learning outcomes for children, especially the most vulnerable.

And yet the case of PEC also underscores that even with this almost “best case” scenario of scalability and opportunity, scaling impact in education remains a challenging and long-term process that cannot be taken for granted. Scaling is much more than an exercise of copy and pasting a successful pilot—requiring diligent consideration of the local context and willingness to experiment, fail, learn from mistakes, and try again in pursuit of making the solution work in the current system. Not everything about PEC's journey has gone smoothly, but scaling is a process of continuous improvement and adaptive learning.

As with any story, this one is far from complete. In many ways, PEC is entering its most challenging chapter—navigating the tenuous middle phase of scaling—as it pushes beyond a small-scale pilot to become further embedded in government operations and reach significantly more children. This phase will require

continued adaptation and experimentation, collecting data, and rapid learning cycles to ensure PEC's efficacy at improving learning outcomes is not lost as it expands. Looking ahead, plans are in place to test a hybrid approach for in-service teacher training and to pilot PEC instruction in teacher colleges in order to reduce the costs of PEC training and avoid the dilution of quality common to cascade approaches. The launch of CLEF will bring a more stable pipeline of funding for continued expansion over the next five years, but it will also be essential to mobilize additional resources to reach national scale and maintain PEC implementation over the long term—ideally including additional government funding alongside resources from new partners. As PEC moves farther along the path of institutionalization towards its goal of reaching all students in grades 3-6, MENA must continue strengthening its own capacity to deliver with quality and more effectively and efficiently infuse PEC into its current processes and job descriptions. The potential inclusion of PEC within the country's new National Development Plan offers an exciting snapshot of the future, emphasizing the Ivorian government's commitment to expanding PEC to reach all children in the country.

Traversing this next phase—and ensuring that lessons are built upon and shared—would benefit from an expanded RTSL that is more deeply embedded into the government system. The experience with the RTSL over the past three years provides important insights and key champions to further foment this process.

One thing is clear: PEC's next phase of scaling will continue to offer exciting developments and opportunities for rich learning—for stakeholders in Côte d'Ivoire but also for education stakeholders around the globe working to scale and sustain innovative and impactful solutions to achieve quality education and lifelong learning for all.

Annex I

Methodology

This study used a participatory, action research approach in which qualitative and quantitative data was collected, collaboratively analyzed, and fed back into the work being studied. In this way (and unlike a lot of traditional research), the study informed practitioner learning and implementation course corrections in real-time. Simultaneously, this approach captured key insights and transferable lessons to share across the Real-time Scaling Labs and beyond the RTSL

community. The approach was based on practice-oriented research design and a systematic but flexible methodology aimed to improve education practice through collaborative, iterative data collection, analysis, dissemination, and uptake among researchers and practitioners in actual settings.¹⁷⁶

Through the RTSLs, CUE seeks to address the following two primary research questions:

How do key drivers contribute to the scaling process and how are key constraints mitigated or overcome? More specifically, what works and does not work, for whom, under what conditions, in what contexts, why, and how?

- How does the role of the “originating” entity evolve over the course of scaling and what role do incentives play?
- Where government capacity for institutionalization is insufficient, how are these gaps addressed?
- How is output, outcome, and/or effectiveness data collected, analyzed, disaggregated, and used to inform decisionmaking about implementation, adaptation, and scaling in real-time and what are the primary barriers and facilitating factors?
- How is cost data collected, analyzed, disaggregated, and used to inform scaling decisions and what are the primary barriers and facilitating factors?
- How does adaptation happen in real-time given funding, timeline, capacity, and institutional constraints?
- How are educators effectively engaged in the scaling process, including teachers and heads of schools?
- How are leaders and champions cultivated and sustained at different levels of the system in support of scaling? How are oppositional forces mitigated or reduced?
- How are initiatives resourced in the middle and long term (financially and in-kind) and what is the process/strategy for securing these resources?

How can the link between gathering evidence around scaling and putting this knowledge into practice be strengthened?

- How is adaptive capacity fostered among key decisionmakers and institutions?
- How has the scaling lab process contributed to each intervention's progress toward scale and what are the essential components of an adaptive learning mechanism that can help to scale education interventions?
- What type of tools or support do decisionmakers need to scale effective education interventions beyond evidence alone, from whom, and in what format?

To answer these questions, this study undertook two strands of research: 1) learning more about **how** scaling happens, and in particular, testing assumptions that underlie key scaling drivers identified in CUE's and others' previous research and developing new theories as needed; and 2) learning more about how to support the **process** of scaling in education and investigating the role that a continuous learning approach with intermediary organizations might play. While much evidence exists already about **what** key scaling drivers are, more evidence and guidance are needed on **how** scaling takes place and how previously identified drivers play a role, particularly in education.

The study took a comparative case study approach, with each lab serving as an individual case and each employing a shared approach to data collection, analysis, and reporting. Flexibility was embedded in the approach to allow for the emergence of unanticipated aspects. As Yin¹⁷⁷ detailed, "In general, case studies are the preferred method when (a) "how" or "why" questions are being posed, (b) the investigator has little control over the events, and (c) the focus is on a contemporary phenomenon within a real-life context." He further underscored that the need for case studies "arises out of the desire to understand complex social phenomena"—such as the process of scaling in education—where the individual context is highly relevant. In line with this criteria, the RTSL case studies seek to answer "how" and "why" questions around scaling in education—focused on scaling processes that are taking place contemporaneous to the study—that are highly depen-

dent on local context, with a significant number of variables, and in which many variables are beyond the study's control.

Criteria for selecting the cases included:

1. demand (a committed local partner with aligned interests and capacity to engage);
2. evidence of effectiveness of the initiative being scaled;
3. strategic timing (where there was a reform process underway or another catalyst to leverage);
4. political will and buy-in from government partners; and
5. a critical education issue facing many countries to be addressed.¹⁷⁸

Additionally, the study deliberately sought to include diversity across cases, including geographic location, fragile and crisis-affected contexts, type of education intervention and target beneficiaries, phase in the scaling process, and scaling pathway pursued. The rationale for this stratified selection process was to allow for in-depth investigation of how key scaling drivers operate across different contexts, at different stages of scaling, and when scaling different types of initiatives. At the same time, this stratification strategy also allowed for testing one of the study's assumptions—that despite differences in context, interventions in the process of scaling often face common challenges and opportunities and would benefit from knowledge exchange with other efforts.

Data were collected by CUE and scaling lab researchers from each lab through primary and secondary means. For the primary research, CUE developed a set of tools to document the lab participants' scaling journey, the role of key scaling drivers in scaling impact, and the progression of the RTSL itself. These included interview guides, scaling checklists, convening evaluation surveys, quarterly lab report worksheets, and templates for developing in-depth research briefs on specific "drivers." Secondary, contextual data was collected on each scaling case (including information on the education conditions in each country and existing research on the particular intervention being scaled).

To analyze the data, CUE employed a conceptual framework for scaling in education developed from a review of the scaling literature and further refined by the Millions Learning project (itself a review of existing research on scaling plus fourteen in-depth case studies). The Millions Learning framework includes 14 core ingredients (or key scaling drivers) that, in different combinations depending on context, contribute to the scaling of effective innovations and practices that improve learning. These core ingredients are elements found to be essential for designing, delivering, financing, and fostering an environment that enables sustainable scaling of proven quality education. For a more detailed discussion of the individual scaling drivers, see "Millions Learning: Scaling Up Quality Education in Developing Countries."¹⁷⁹ Additionally, the conceptual framework also utilized research on systems frameworks—most specifically, the notion of "leverage points" (pioneered by Donella Meadows)¹⁸⁰ to identify small but powerful intervention levers in a system in which a small shift in one element produces exponentially larger changes in the system. For this case study, CUE specifically examined (1) **how** PEC did or did not make progress towards scale and what factors and forces affected this degree of progress, (2) PEC's real-time scaling journey through the framework of the previously identified key drivers, (3) scaling constraints faced and how those were perceived and addressed, and (4) if and how the Real-time Scaling Lab contributed to the scaling of PEC.

Data were first organized into the four broad categories defined in the Millions Learning

framework: 1) design, 2) delivery, 3) finance, and 4) an enabling environment for sustainable scale. Within each category, data were then coded in sub-categories by individual driver or issue—drawing from the original list of 14 core drivers while also seeking to identify additional drivers, levers, or themes not included in the original framework. From this coding, CUE identified an initial list of themes and topics emerging as relevant or interesting. CUE then worked to refine and flesh out these themes and topics and develop an initial set of findings through further consideration of the coded data and triangulation of information through additional interviews and discussions with key stakeholders. To identify areas of convergence and divergence—as well as possible alternative explanations of findings—CUE cross-referenced its findings with the existing science of scaling literature, as well as compared the results of this case study with experiences in other Real-time Scaling Labs. Through several rounds of further investigation, consultation of data, and analysis, CUE continued to refine its analysis. Findings were shared with CUE's International Advisory Group (see Annex II for full list) for interrogation, as well as with peer reviewers, before finalization. The report was also reviewed by key stakeholders in Côte d'Ivoire, including by the scaling lab manager and scaling lab researcher, and representatives from TaRL Africa, IPA, TRECC, and the Jacobs Foundation.

There are limitations to a case study-based approach, including the inability to demonstrate causation or make broad generalizations and the risks of subjectivity of informants. Selection bias might also exist whereby the selection criteria employed may have resulted in a sample of cases more likely to successfully scale than the average education initiative, which may limit the transferability of conclusions. Further, CUE recognizes that playing an active role as an intermediary in supporting scaling in each case has the potential to introduce bias into the analysis. In particular, there is risk that the role of Brookings—a well-known think tank—influenced the scaling process and role of key drivers during the RTSL process in a manner that would not hold true without its involvement.

Annex II

Côte d'Ivoire Real-time Scaling Lab members

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COULIBALY Issa, Chief - Child Survival & Development (CSD), UNICEF Côte d'Ivoire

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* Indicates a former RTSL member

Annex III

Full list of Millions Learning International Advisory Group members (2017–2019 and 2019–2021)

Chair (2017-2019): **Hon. Julia Gillard**, 27th Prime Minister of Australia, former Chair of the Board, Global Partnership for Education, and Distinguished Fellow, Center for Universal Education, The Brookings Institution

Chair (2019-2021): **Jaime Saavedra**, Global Director, Education Global Practice, World Bank, Former Minister of Education, Government of Peru

Modupe Adefeso-Olateju, Managing Director, The Education Partnership Centre (TEP Centre)

Manos Antoninis, Director, Global Education Monitoring Report

Luis Benveniste, Human Development Regional Director, Latin America and Caribbean, World Bank

Theresa Betancourt, Salem Professor in Global Practice, Boston College School of Social Work, Director, Research Program on Children and Adversity

Larry Cooley, Senior Advisor and President Emeritus, Management Systems International, Nonresident Senior Fellow, Brookings Institution

Claudia Costin, Director, Center for Excellence and Innovation in Education Policies (CEIPE), Getulio Vargas Foundation

Luis Crouch, Senior Economist, International Development Group, RTI International

John Floretta, Global Deputy Executive Director, Director of Policy and Communications, The Abdul Latif Jameel Poverty Action Lab (J-PAL)

Laura Ghiron, Vice President, Partners in Expanding Health Quality and Access

Yaneth Giha Tovar, Executive President, Association of Pharmaceutical Laboratories for Research and Development (AFIDRO); Former Minister of Education, Government of Colombia

Javier Gonzalez, Director, SUMMA, Affiliate Professor, Center of Development Studies, University of Cambridge

Sanni Grahn-Laasonen, Member of Parliament, Former Minister of Education, Finland

Afzal Habib, Cofounder and Chief Imagination Officer, Kidogo

Rachel Hinton, Senior Education Advisor, UK Foreign Commonwealth and Development Office

Maysa Jalbout, Founding CEO, Abdulla Al Ghurair Foundation for Education, Nonresident Fellow, Brookings Institution

Cassandra Kelly, Founder and Senior Advisor, Pottinger; Founder, C-Change

Shiv Khemka, Vice Chairman, SUN Group; Chairman, The Global Education and Leadership Foundation (tGELF)

Homi Kharas, Senior Fellow, Global Economy and Development, Brookings Institution

Lord Jim Knight, Director, Suklaa Education

Wendy Kopp, Chief Executive Officer and Co-Founder, Teach For All

Lucy Lake, Chief Executive Officer, Camfed International

Ruth Levine, Chief Executive Officer, Partner, IDinsight

Johannes Linn, Nonresident Senior Fellow, Brookings Institution; Distinguished Resident Scholar, Emerging Markets Forum, Senior Advisor, Results for Development Institute

Tamar Manuelyan Atinc, Nonresident Senior Fellow, Center for Universal Education, Brookings Institution

Nadim Matta, President and Founding Board Member, Rapid Results Institute

Joe McCannon, Co-Founder, Shared Nation; Co-founder and Faculty, The Billions Institute

Kristen Molyneaux, Vice President, Social Impact, Lever for Change

Tamela Noboa, Managing Director, Impact(Ed) International (formerly Discovery Learning Alliance)

Darius Ogutu, Director of University Education, Ministry of Education, Kenya

Lant Pritchett, RISE Research Director, Blavatnik School of Government, University of Oxford

Ramanathan Ramanan, Senior Vice President, Tata Consultancy Services; First Mission Director, Atal Innovation Mission, Niti Aayog

Nathan Richardson, Executive Vice President, Red Ventures

Sara Ruto, Chief Administrative Secretary, Ministry of Education

Asif Saleh, Executive Director, BRAC

Gus Schmedlen, President and Chief Revenue Officer, Merlyn Mind

Philipp Schmidt, Director of Digital Learning Collaboration, MIT Media Lab

Liesbet Steer, Director, International Commission on Financing Global Education Opportunity

Kedrace Turyagyenda, Director, Directorate of Education Standards, Ministry of Education and Sports, Uganda

Justin van Fleet, President, Theirworld; Executive Director, Global Business Coalition for Education

Emiliana Vegas, Co-Director and Senior Fellow, Center for Universal Education, Brookings Institution

Rebecca Winthrop, Co-Director and Senior Fellow, Center for Universal Education, Brookings Institution

Eliya Zulu, Executive Director, African Institute for Development Policy (AFIDEP)

Alix Zwane, Chief Executive Officer, Global Innovation Fund

This list of members spans two cohorts of advisory groups. The first was in place from March 2017 to August 2019 and the second from September 2019 to August 2021.

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