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Improving Teacher Continuous Professional Development

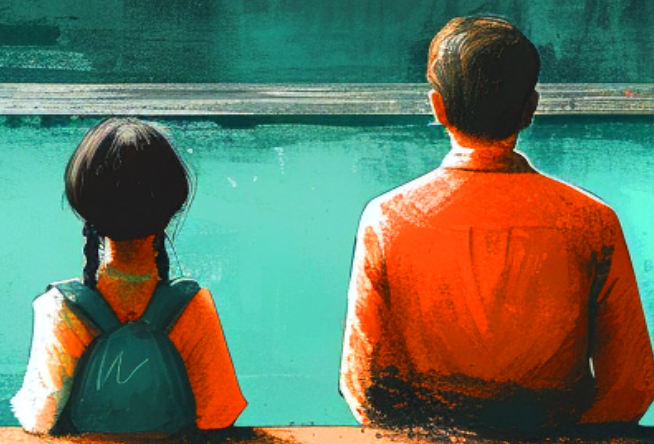
Case Examples from the Coach Program

by Abdal Mufti


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Abbreviations

AEO	Assistant Education Officers, Punjab, Pakistan
CPD	continuous professional development
ECE	early childhood education
FTS	foundational teaching skills
ITE	initial teacher education
LGA	Local Government Authority, Tanzania
LMS	learning management system
NEP	National Education Policy, Maharashtra, India
SABER	Systems Approach for Better Education Results
SDI	Service Delivery Indicators
SQAO	School Quality Assurance Officers, Sierra Leone
TCPD	Teacher Continuous Professional Development Framework, Tanzania
TPD	teacher professional development

Executive summary

Developing teachers' capacities to facilitate learning is one of the most pertinent challenges of education systems around the world. An education system that supports teachers to be lifelong learners enables them to be agents of change. Continuous professional development (CPD) is an essential avenue for teachers' ongoing learning and development. CPD can help teachers build and hone the knowledge, skills, and competencies to teach effectively and can help build their motivation and commitment to the profession. CPD is important for all teachers. In education systems in which teachers have not received rigorous initial teacher education (ITE), there are additional needs for on-the-job training through CPD.

Designing and implementing effective systems of teacher CPD requires significant investments. This includes an institutional setup that can deliver competent and knowledgeable trainers and effective and sustained leadership. Effective CPD is well-integrated with ITE, links capacity building with broader teacher career development pathways, develops school leadership, and creates a comprehensive plan of support for teachers in their professional communities and throughout their careers.

This document examines how the World Bank's Coach program, supported by partners through the Foundational Learning Compact, has been implemented and adapted in different contexts to support improvements in teacher CPD. It provides a summary of the different tools and resources that have been developed to support the design, implementation, monitoring, and evaluation of teacher CPD.

The Coach program consists of three elements: (1) the development of technical resources, (2) the provision of operational support, and (3) the facilitation of stakeholder engagement. This document includes case studies of countries and education systems that have implemented initiatives to improve teacher CPD using Coach program tools and resources. It takes into consideration the different goals, resources, capacity, and other country characteristics. The intended audience of this document is World Bank country teams that support education programs,

Executive summary

such as teacher CPD, as well as governments and their partner organizations that intend to develop an understanding of the Coach program.

The Coach program resources are being used across several countries and contexts to support CPD programs in various ways. The variation extends from simple CPD interventions such as text message-based guidance for teachers, to highly structured individualized coaching sessions with a bespoke Android application, and to collaborative improvement through communities of practice. This document shares cases of the Coach program resources being used in the following countries: El Salvador, India (Maharashtra), Mozambique, Pakistan (Punjab), Sierra Leone, South Africa, and Tanzania.

Lessons learned from the Coach program show that contextualizing CPD to country contexts is key to success, and more effort is needed to gather and react to ongoing feedback. Countries should consider scalability and sustainability when selecting and designing the CPD model from the outset. There is a need to develop built-in mechanisms in CPD programs for evidence generation and constant evaluation of impact. There is also a need to think of CPD beyond in-service training and coaching. Such strategies include professional learning communities, personal professional learning plans, peer learning, tutoring and mentoring, online learning in networks, and team teaching, to mention a few.

Strengthening the teaching profession is urgent. An innovative and inclusive education system can only be achieved by committed and competent teachers. It is important that teachers are provided CPD throughout their whole teaching careers. Teachers must have opportunities to grow professionally to stay motivated and committed to students' learning. The Coach program is guided by four principles for effective teacher professional development: CPD must be tailored, practical, focused, and ongoing. Strong systems of CPD, guided by these principles, can help build a robust, committed teacher workforce that is well-equipped to support the next generation of learners.

Investing in teachers' professional growth

Developing teachers' capacities to facilitate learning is one of the most pertinent challenges of education systems around the world. An education system that supports teachers to be lifelong learners enables them to be agents of change. In high-performing education systems, initial teacher education (ITE) programs in universities or teacher training colleges prepare teachers well before they enter the classroom. After that, continuous professional development (CPD) opportunities provide the lifelong learning path necessary to build the skills, knowledge, and competencies of all teachers according to their needs at different stages of their career. However, in low-performing education systems, ITE is often unsuitable, insufficient, or ineffective, which results in a need for on-the-job training. However, CPD opportunities in many countries often lack the characteristics known to be effective in raising teachers' competencies.

Designing and implementing effective systems of teacher CPD require significant investments and an institutional setup that can deliver competent and knowledgeable trainers and effective and sustained leadership. Countries' contexts, priorities, resources, and capacity vary, and CPD systems need to be designed to meet those conditions. Further, there is a need to think through CPD as more than just ongoing training. Effective CPD is well-integrated with ITE, links capacity building with broader teacher career development pathways, develops school leadership, and creates a comprehensive plan of support for teachers in their professional communities and throughout their careers. Effective teachers are lifelong learners, which means that they always seek to grow and advance as teachers.

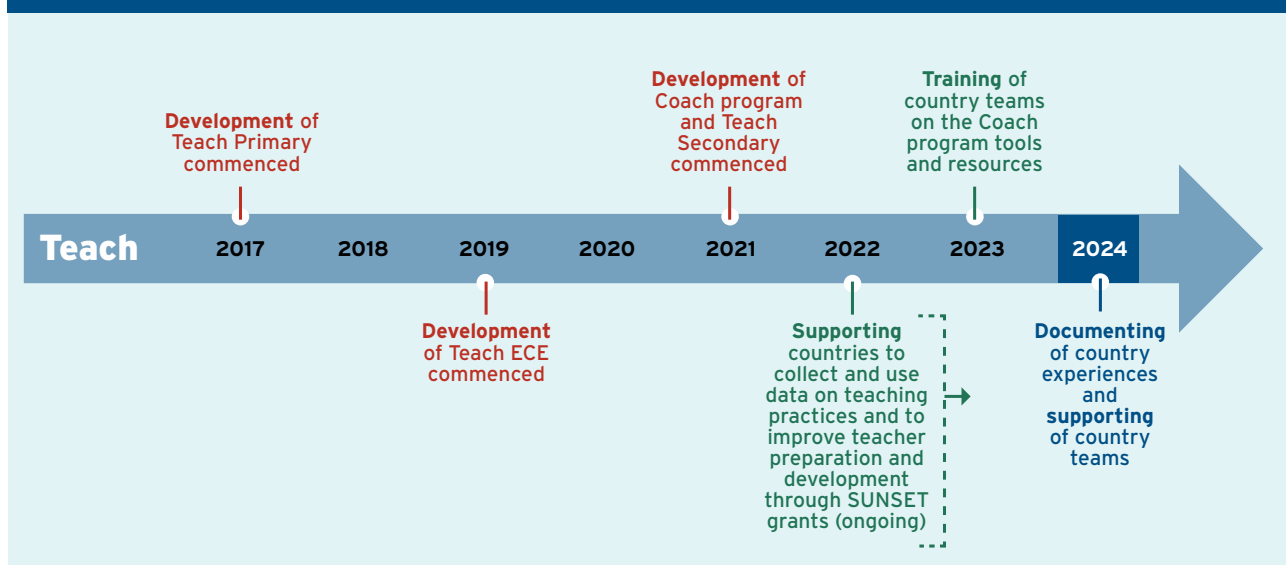
This document examines how the World Bank's Coach program, supported by partners through the Foundational Learning Compact, has been implemented and adapted in different contexts to support improvements in teacher CPD. It also provides a summary of the different tools and resources that have been developed to support the design, implementation, monitoring, and evaluation of teacher CPD. Countries' experiences in implementing initiatives to improve teacher CPD using Coach program tools and resources are described, taking into consideration the different goals, resources, capacity, and other country characteristics. The intended audience for this document is World Bank country teams that support education programs, such as teacher CPD, as well as governments and their partner organizations that intend to develop an understanding of the Coach program, its tools and resources, and ongoing examples of improving teacher CPD.

The Coach program to improve teacher continuous professional development (CPD)

Recognizing teachers' central role in improving student learning, the World Bank developed the [Coach program](#) to help countries design, implement, and evaluate teacher CPD systems to align with best practice and evidence. The Coach program consists of three elements: (1) the development of technical resources, (2) the provision of operational support, and (3) the facilitation of stakeholder engagement. The vision of the Coach program is that all teachers have access to high-quality CPD opportunities to improve their teaching practices and their students' learning.

The Coach program has developed over several years, continuing a path of developing evidence-based resources for countries and technical support to countries related to teacher preparation and development. Prior to the development of the Coach program, the World Bank made available the [Teach](#) suite of open-source classroom observation tools. These tools are designed to gain information on the prevalence of effective teaching practices in classrooms, providing information that can inform the development of CPD programs. Figure 1 provides a brief timeline of key stages of development of the Teach suite of classroom observation tools and the Coach program on teacher CPD.

Figure 1. Brief Timeline of Stages of Development of the Teach Suite of Classroom Observation Tools and the Coach Program on Teacher CPD



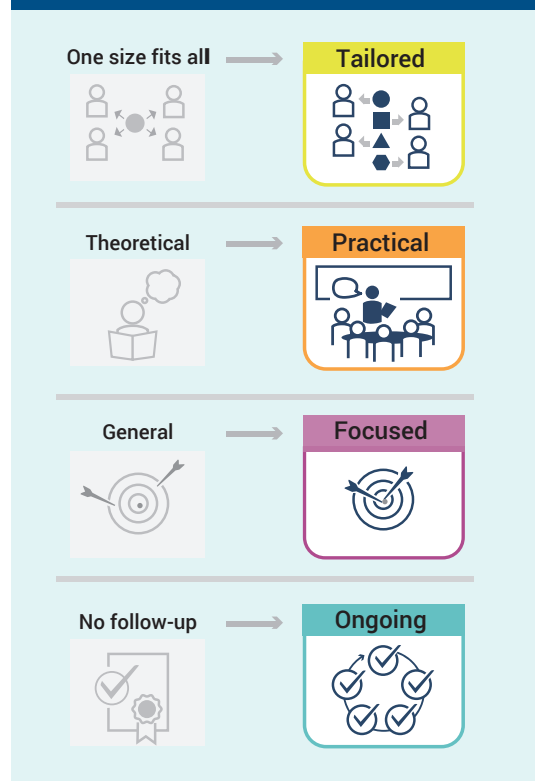
The Coach program helps countries shift away from traditional, ineffective systems of teacher CPD to ones that use insights from the fields of adult learning and the education and behavioral sciences. Four evidence-based principles of effective CPD form the basis of the Coach program, as outlined in figure 2.

The Coach program recognizes the need to leverage countries' available policies, structures, and modalities to deliver appropriate training and support to teachers. Teacher CPD can take many forms depending on a country's needs and opportunities, including workshops and training sessions, conferences and seminars, online courses and webinars, collaborative learning communities, action research, lesson study, team teaching, job shadowing, school- and cluster-based training, postgraduate certificates or degrees, reflective practice, and professional self-study, to mention a few.

The Coach program encompasses training and support to teachers through CPD, including but not limited to a mentoring or coaching model, and draws from evidence of what works to improve teaching practices and improve student learning.¹ While several of the Coach program tools and resources focus on a model of classroom observation with individualized (1-1) teacher coaching, the program does not exclusively focus on this model. It continues to develop and support a variety of CPD models following the principles laid out above.

The Coach program builds on the [Teach](#) suite of open-source classroom observation tools, but it differs substantively in its goals and purpose. The Teach observation tools are designed to help countries collect data on a set of general teaching practices that are known to support quality learning, irrespective of the subject or specific learning objectives.² The tools can be used to monitor teaching practices at a system level by selecting a representative sample of classrooms and applying rigorous data collection procedures to ensure valid and reliable data on a snapshot of classroom practices, which taken together can give countries a broad understanding of the degree to which this set of general teaching practices is used in classrooms. This information can help to draw conclusions about areas of strength and weakness at an overall system level and on a snapshot basis, which can guide the development, content, and revisions of teacher CPD systems and programs.

Figure 2. The Four Coach Program Principles for Effective Teacher CPD



1 See for example [Darling-Hammond, Hyler, and Gardner \(2017\)](#); [Kraft, Blazer, and Hogan \(2018\)](#); and [Popova, Evans, and Arancibia \(2016\)](#).

2 These general teaching practices include developing a safe and supportive learning environment, checking for student understanding, adjusting instruction according to needs, and developing social and emotional competencies.

The Coach program offers principles and guidance that apply across various types of CPD, subjects, and teaching practices. The program has a wide range of tools and resources that can be used to strengthen different aspects of CPD programs. One of the tools is the [Foundational Teaching Skills Guide](#), which broadly aligns with the framework of practices measured by the Teach observation tools. The 11 foundational teaching skills (FTS) were selected because they are applicable to everyday classroom instruction, are supported by evidence of their effectiveness and their links with student learning outcomes, are observable in practice, and are simple to learn. These 11 FTS are not the only ones that teachers need, but they are a starting point to build on, adapt, and add to, depending on the specific needs and contexts.

The Coach program tools and resources are open-source and made available both inside and outside of the World Bank. The technical resources include (1) resources to support the design and implementation of effective teacher CPD systems and programs, (2) sample professional development materials, and (3) resources and tools to support the analysis, monitoring, and evaluation of teacher CPD systems and programs. A full list of the Coach program tools and resources is provided in figure 3 and detailed further in appendix A.

Figure 3. Summary of Coach Program Tools and Resources

Resources to support the design and implementation of effective CPD programs		Sample professional development materials		Resources and tools to support the analysis, monitoring, and evaluation of CPD programs	
	Structuring Effective 1-1 Support Technical Guidance Note		Foundational Teaching Skills Guide		Teacher's Guide Diagnostic Tool
	Structuring and Supporting School- and Cluster-Based CPD Technical Guidance Note		Foundational Teaching Skills: Teacher Training Package		Monitoring and Evaluation for In-Service Teacher Development Programs Technical Guidance Note
	Motivating Changes in Teaching Practices Technical Guidance Note		Foundational Teaching Skills: Coach Training Package		
	Building a Digital Coaching Application				

Operational support under the Coach program includes direct technical assistance to country teams, training for education leaders, and financing for country teams working on improving teacher CPD. The World Bank is the largest financier of education in low- and middle-income countries, and most of these projects include investments to support teacher CPD. The Coach program's operational support is aimed at World Bank staff and consultants working on teacher CPD improvement, and the country counterparts that they are supporting. Many World Bank operations have drawn on Coach resources. In addition, the [Foundational Learning Compact](#) umbrella trust fund includes grants to support countries in improving their CPD systems and programs, and operational support is provided to these grant recipients. The grant program, which commenced in 2022, is known as the Scaling-Up National Support for Effective Teaching (SUNSET) grant program, and included 22 grants amounting to US\$5.3 million to countries to support activities related to teacher CPD. Table 1 provides the list of countries with SUNSET grant activities. To support ongoing activities in-country, a database of trained consultants was developed, and it is maintained for country teams to consult when hiring direct support.

Table 1. Countries with SUNSET Grant Activities

East Asia and Pacific	Europe and Central Asia	Latin America and the Caribbean	Middle East and North Africa	South Asia	Sub-Saharan Africa
<ul style="list-style-type: none"> Indonesia Pacific Islands 	<ul style="list-style-type: none"> Armenia Romania Uzbekistan 	<ul style="list-style-type: none"> Brazil El Salvador Honduras Mexico 	<ul style="list-style-type: none"> Algeria Djibouti Morocco 	<ul style="list-style-type: none"> Cabo Verde India Nepal Pakistan 	<ul style="list-style-type: none"> Burundi Cameroon Central African Republic Cote d'Ivoire Eswatini Somalia Tanzania

Note: The bolded countries are implementing activities related to teacher CPD using Coach program tools and resources. Other countries are implementing activities related to generating data on teaching practices using the Teach classroom observation tools or an adaptation of the tools.

The Coach program facilitates stakeholder engagement. This includes convening communities of practice, promoting cross-country learning, widely sharing global public goods, and engaging with other development partners and organizations working on improving teacher CPD to strengthen global knowledge and understanding. To promote and facilitate cross-team learning, a community of practice has been established consisting of consultants working with teams using Coach program tools and resources in different contexts. The community connects by:

- **Convening regularly in curated sessions to share key lessons and challenges**
- **Participating in a WhatsApp group to share learning, questions, and challenges.**

Selected country cases

The Coach program tools and resources are being used across several countries and contexts to strengthen and support CPD programs in various ways depending on program design, available resources, and the overall vision of teacher CPD. The variation extends from simple interventions such as mobile phone text-based guidance for teachers, to highly structured coaching sessions based on classroom observation with a bespoke Android application, and to collaborative support through communities of practice. Selected examples of initiatives to improve teacher CPD using Coach program tools and resources are discussed in this section and summarized in figure 4. These examples vary across a spectrum of depth and scale of usage of the Coach program. This is not an exhaustive set of country examples related to teacher CPD or the use of the Coach tools and resources. Instead, examples have been selected to illustrate the different approaches that are being taken and the various ways in which the Coach tools and resources can be helpful in different contexts.

Figure 4. Summary of Country Cases Using Coach Program Tools and Resources

Country	Challenge	Coach program tools and resources used
Punjab, Pakistan	The previous model of training 250,000 primary school teachers in the summer break involved 30 days of training in batches with high costs of travel to the provincial capital and no follow up throughout the year.	<p>1-1 in-person coaching with frequent classroom observation</p> <p>School leaders are assigned clusters of 15-20 schools to conduct regular observations of each teacher using an adapted version of the Teach classroom observation tool, followed by a 30-minute individualized coaching session. This enables continuous support throughout the year and reduces travel costs.</p>

<p>Sierra Leone</p>	<p>There is no national CPD program—training is ad hoc and is not informed by learning assessment outcomes. In 2018, 61 percent of teachers were volunteers—volunteer teachers do not participate in any preservice training.</p>	<p>Scripted coaching as part of a structured pedagogy package</p> <p>School leaders were hired across the country. They observe classes and provide coaching to teachers. Volunteer teachers can also benefit from coaching because it does not require travel. Realizing limited capacity of school leaders, scripted coaching sessions were developed.</p>
<p>Mozambique</p>	<p>A 2018 Service Delivery Indicators (SDI) report indicated that teachers of children in the early grades significantly lacked lesson facilitation skills.</p>	<p>Strengthening teacher CPD to improve early grade literacy instruction</p> <p>As part of the Aprender+ program, which focuses on improving the literacy skills of grades 1-3 children, high-quality teacher guides and formative assessments were developed, along with teacher CPD opportunities to support their use.</p>
<p>Tanzania</p>	<p>CPD for Tanzania teachers has been ad hoc and intermittent (reliant on donor support) with ineffective use of the cascade model. In 2020, more than 80 percent of teachers had not received any CPD in the last five years.</p>	<p>Leveraging technology to provide cluster-based and school-based teacher CPD</p> <p>A new teacher CPD framework strengthens the regular support for teachers through cluster- and school-based approaches and by leveraging technology, along with monitoring and evaluation tools to strengthen school quality assurance and CPD monitoring and evaluation.</p>
<p>El Salvador</p>	<p>El Salvador has a history of teacher training programs that focus on subject content, which has not translated into significant improvements in teaching practices.</p>	<p>Prompting better teaching practices through text messages</p> <p>Teachers participating in a training program signed up to receive text messages (via WhatsApp) from the Ministry of Education over a period of 13 weeks, with messages on key teaching practices delivered regularly.</p>
<p>Maharashtra, India</p>	<p>The National Education Policy (2020) promotes the use of digital tools in teaching, and associated training of teachers. However, there is little information on teachers' skills and needs in using such technologies to inform the training.</p>	<p>Understanding classroom practices to inform professional learning communities</p> <p>Teacher training needs were identified through using the Teach classroom observation tool. This information is planned to be used to tailor the content of teacher CPD opportunities through existing local professional learning communities.</p>

Punjab, Pakistan: 1-1 in-person coaching with frequent classroom observation

Timeline: 2019-Ongoing

Supported Under Project: Third Punjab Education Sector Program (PESP III) (P154524)

Challenge

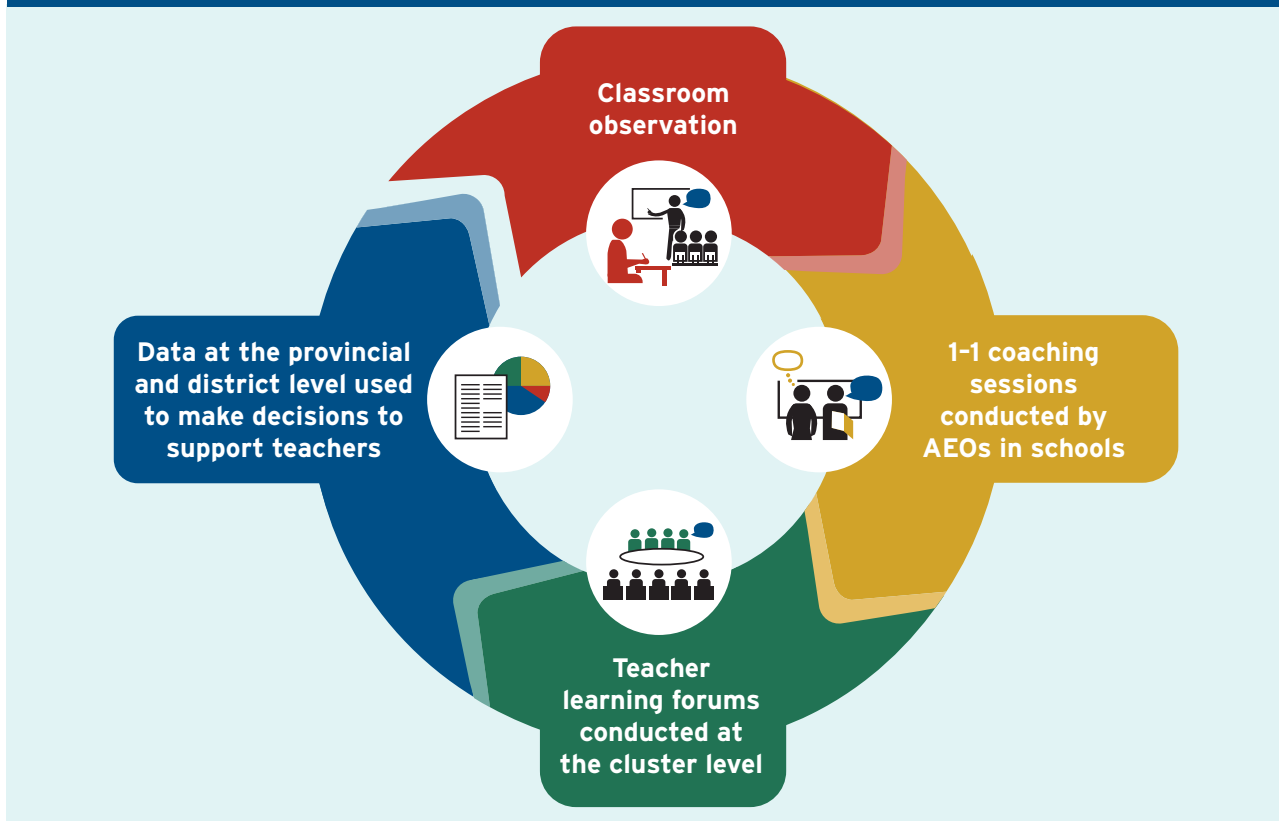
The Teach Primary classroom observation tool was applied to a representative sample across Punjab, Pakistan, as part of the [SABER SD survey](#) in 2018. The findings of the survey indicated that teachers have poor pedagogical skills. The average aggregate score of a representative sample of teachers was 2.5 on a five-point scale. Punjab had a history of implementing large scale cascade-based in-service teacher training programs. However, despite making significant financial investments in these programs, there was no evidence that they were having a positive impact on teaching practices. There was also a prior culture of conducting classroom observations using checklists of basic classroom processes, such as whether a teacher guide was available, whether teachers checked students' notebooks, and whether students had books. However, the checklists did not focus on pedagogical practices and no feedback or coaching was provided to teachers after these observations.

Description

In 2019, the Punjab government developed the New Deal Document, a revised education policy that emphasized mentoring and support to teachers instead of monitoring. In line with this new government vision, an observation-based coaching program was developed where school leaders, known as Assistant Education Officers (AEOs), would conduct regular observations of each teacher using a contextualized and shorter version of the Teach classroom observation tool, followed by a 30-minute coaching session. In developing the model, the country team utilized the [Structuring Effective 1-1 Support: Technical Guidance Note](#) from the Coach program. The process to contextualize the classroom observation tool included a review of existing research and literature, identification of the key teaching practices most in need of improvement from the Teach classroom observation tool, and consultations with stakeholders, including teachers.

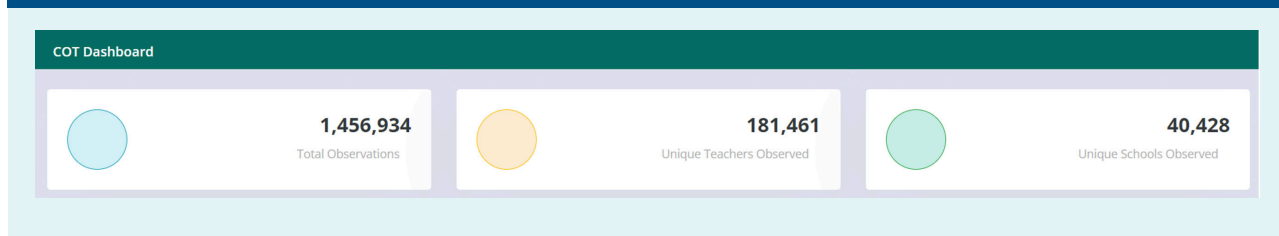
Under this program, the AEOs can conduct one observation per quarter for each teacher in their cluster (each cluster has 15–20 schools) using the contextualized classroom observation tool, along with the follow-up coaching session. Once a month, all teachers in the cluster can come together as part of a community of practice, known as Teacher Learning Forums, to share ideas. This shared learning environment is supported by a learning management system (LMS), which was developed with self-learning modules on 11 teaching practices from the classroom observation tool. Teachers can access the LMS during the community of practice sessions and drive their own learning. The key steps of the coaching program in Punjab are illustrated in figure 5.

Figure 5. Key Steps of the Coaching Program in Punjab, Pakistan



To facilitate classroom observation and coaching, the government in Punjab developed a dedicated Android application that is used by AEOs to conduct observations and deliver coaching sessions. Information on teaching practices gathered during the classroom observations is integrated and displayed through dashboards at different levels of the system: school, cluster, district, and provincial levels. To date, 1.4 million observations and coaching sessions have been conducted (figure 6). Observation results are aggregated in the dashboard, as shown in appendix B. Over the years, the government has further developed the dashboard with the purpose of supporting planning and identifying teachers’ overall key training needs from the 11 fundamental teaching skills monitored. Through the dashboard, the users at each level of the system can track improvements in teaching practices over the years, the key teaching practices that teachers are not performing well, and the geographical areas that need more support.

Figure 6. Number of Teacher Observations in Punjab, Pakistan, 2023



By using the existing coaching-based program to roll out foundational literacy training, the government has significantly saved financial resources. To give a sense of this, in 2020, the School Education Department developed a plan for a five-year teacher training model that was estimated to cost the government US\$63 million; 79 percent of that budget was earmarked for travel and logistics. The use of the existing coaching model reduced costs; the government was able to lower costs to less than US\$500,000. The reduction in cost was primarily the result of eliminating travel and logistics costs by bringing together a large number of staff in centralized training, and teachers were able to have in-school support through observation and coaching.

Key emerging lessons and next steps

The coaching program in Punjab has been sustained beyond the life of the wider education reform program from which it was developed. It is the main CPD program that the government implemented to support teachers. While the outcomes in terms of improvements in student learning outcomes or feedback from teachers are not yet known, some lessons from the program that have emerged to date are:

1. **Contextualizing and simplifying CPD programs are important for success.** In Punjab, the Teach classroom observation tool was contextualized to be shorter and easier to implement for all teachers. The coaching program was designed with considerations of the available resources in the system.
2. **Technology can be a good enabler to support CPD.**
3. **By making data available at different tiers of the system, the improvements (or lack thereof) can be tracked and addressed.**
4. **It is important to develop support structures and resources that teachers can use to drive their own learning beyond the support provided by the coaching program.**
5. **Continuous training of coaches and teachers is the key to sustainability.**
6. **Costs can be reduced if existing modalities and resources are used.**

Based on the above key lessons the government is continuously evolving the program to increase its impact.

Sierra Leone: Scripted coaching as part of a structured pedagogy package

Timeline: 2020–Ongoing

Supported Under Project: Sierra Leone Free Education Project (P167897)

Challenge

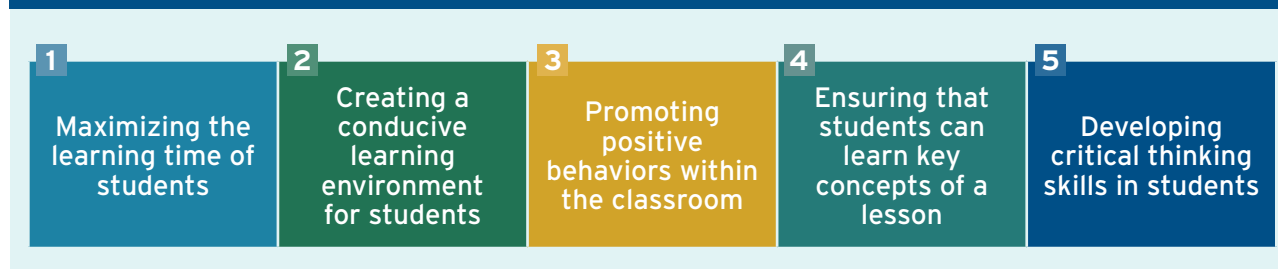
In general, Sierra Leone’s teacher workforce is poorly trained and poorly paid, and teachers receive insufficient CPD support. As a result, teacher morale is low. In 2018, around 61 percent of the estimated 80,000 teachers in primary and secondary education were not government approved and hence not paid with government funds, leaving many to live precariously as part-time volunteers on minimal stipends. Teacher training is ad hoc; it is neither informed by learning assessment outcomes nor does it respond to the needs identified by classroom teachers. There is also no national in-service teacher training program.

Description

To address high learning poverty rates in Sierra Leone and improve the teaching and learning of foundational literacy and numeracy skills in the primary grades, a structured pedagogy package has been designed and is planned to be rolled out across Sierra Leone, covering approximately 6,600 schools and 33,000 teachers. The package includes new teacher guides with lesson plans that incorporate effective teaching practices for foundational literacy and numeracy, plus training sessions for teachers, along with ongoing 1-1 coaching follow-ups, on using the new teaching guides to improve their teaching practices.

Within this model, head teachers will once a month observe teachers in their classrooms to determine the extent to which key teaching practices are being utilized. The head teachers will then provide coaching for the teachers to improve their foundational literacy and numeracy instruction, as needed. Sierra Leone has already developed and implemented a classroom observation tool for system-level diagnosis, focusing on pedagogical practices. The tool includes a set of 11 teaching practices identified through a process of contextualizing the Teach Primary classroom observation tool. These teaching practices are grouped into the key teaching competencies outlined in figure 7. After the observations, the head teachers will sit with the classroom teacher to provide a 30-minute coaching session. District-level School Quality Assurance Officers (SQAQO) will provide support to head teachers on observation and coaching through sample-based visits. Once the foundational literacy program is developed, the classroom observation tool will be expanded to include indicators related to teaching practices for foundational literacy and numeracy. Head teachers will be trained to provide ongoing 1-1 coaching follow-ups to support teachers in their use of the new teacher guides.

Figure 7. Key Teaching Competencies to be Observed in Sierra Leone



Head teachers and SQAOs have been prepared for their coaching role through an intensive six-day training that covered all three key parts of the program: classroom observation, 1-1 coaching, and communities of practice. To facilitate the coaching, guiding scripts have been developed for each teaching practice. The scripts are developed to help head teachers to facilitate and structure the coaching conversation. Head teachers conduct the coaching sessions in the local language using the pointers provided in the script. The coaching conversation is structured around the guiding principles of the Coach program's [Structuring Effective 1-1 Support: Technical Guidance Note](#).

A teacher learning circle is conducted once a month in each school, with all teachers participating. These are community of practice sessions aimed at facilitating peer to peer learning. The goal of this practice is to ensure that teachers can regularly sit together, focus on one key teaching practice per month, and learn from and with each other.

To streamline the observations, coaching, and monthly community of practice sessions, an Android application has been developed. The application is currently used by SQAOs to conduct observations and provide coaching to teachers. In future, once each school has been provided a tablet as part of the one-tablet-per-school initiative in the country, head teachers are expected to be able to use the application on the tablets to conduct observations and provide coaching. The coaching application is developed specifically for Sierra Leone, but it is designed to be used in other country contexts. The application links classroom observation, coaching, and communities of practice. It also has built-in dashboards designed to make insights from observation and coaching available at each level of the education system. Appendix C provides examples of the Android application for head teachers to choose teaching practices to focus on with teachers, manage the coaching session, and facilitate the teacher learning circles.

Key emerging lessons and next steps

As this model of teacher CPD rolls out, a system-level review will be conducted to understand key challenges during implementation and document key lessons. The review aims to check the key aspects of implementation, quality of training, use of the observation tool in the field, and quality of post-observation coaching sessions. Further, the model has embedded quality assurance through the SQAOs' sample checks on the head teachers. Lastly, the Android application is designed to have built-in dashboards that present data on the schools covered and the observation and coaching sessions conducted in each school. The data are intended to guide the coaching conversation but can also be used to cross check the frequency of observation and coaching provided in each school. This work is at an early stage, and results and early feedback from school leaders and teachers on the model's effectiveness and improvements in teaching and learning are not yet available.

Mozambique: Strengthening teacher CPD to improve early grade literacy instruction

Timeline: 2020–Ongoing

Supported Under Project: Improving Learning and Empowering Girls in Mozambique (P172657)

Challenge

Mozambique has invested significantly in education over the last few decades. Between 2008 and 2018, education spending in Mozambique averaged 19.1 percent of total government expenditure and 6.3 percent of GDP, well above the average in Sub-Saharan Africa. However, despite significant investments, per-student spending remains low and tends to decline as the student population growth rate increases. The country still faces critical challenges, as it underperforms in terms of education quality compared to other countries in the region, and few students in lower primary school achieve the academic skills expected for their grade level.

The [Service Delivery Indicators](#) (SDI) survey was last applied in Mozambique in 2018 to track key elements of the country's education sector delivery. It was the first time that the Teach Primary classroom observation tool was applied in Africa and in a country of Mozambique's income level.

Results of the SDI survey included:

- **Teach scores indicated the quality of teaching practices.** In general, teachers in Mozambique scored highly on teaching practices related to classroom culture, but poorly on instruction, and especially poorly in teaching practices that foster socioemotional skills. These results are consistent with results from a wide range of countries.
- **Teach Primary scores were correlated with students' test scores.** Students with teachers in the top 25 percent of the score distribution for the Teach tool had significantly higher test scores than those with teachers scoring in the bottom 25 percent. These findings are consistent with related literature, showing that teaching practices are associated with student learning.
- **Teach scores varied by teachers' gender.** Female teachers provided students with more opportunities to take on a role in the classroom and embedded more choices in the lesson than male teachers.

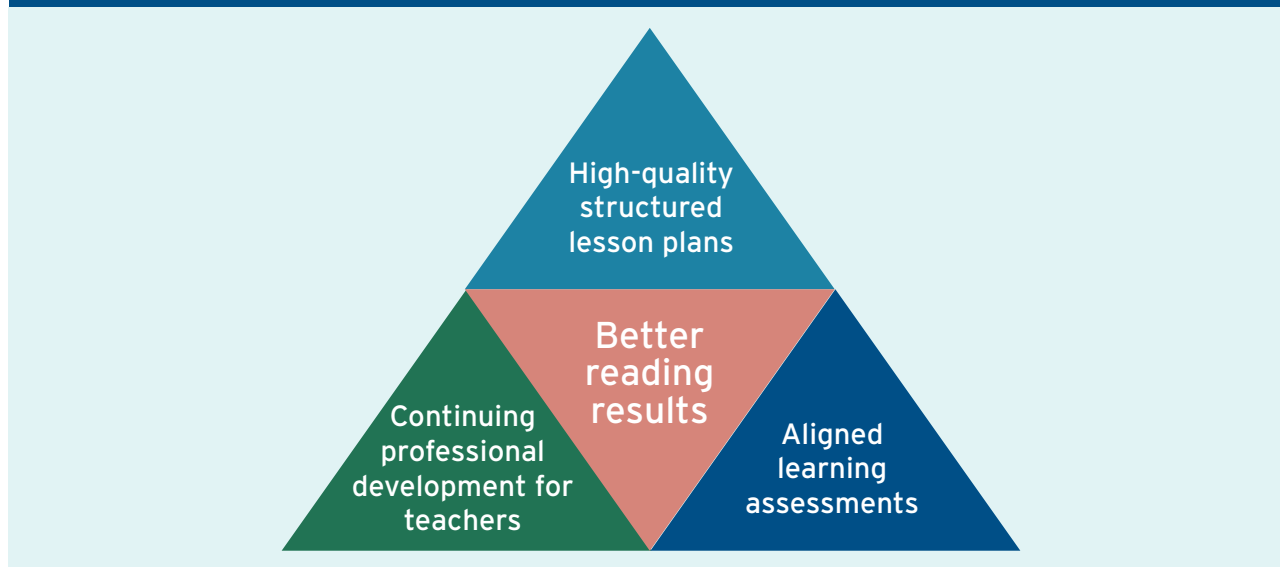
The insights from Teach, particularly the relatively low teaching scores and their correlation with poor student learning outcomes, helped drive the dialogue in Mozambique on the importance of ensuring that the program included a component of teacher professional development and support. Specifically, the insights showed that teachers would need robust, tailored, and continuous support to improve teaching practices and increase early-grade literacy skills among students.

Description

The Aprender+ program was developed to focus on improving early-grade literacy skills for students in grades 1-3. The program, financed by Finland and implemented by the Ministry of Education and Human Development (MINEDH), aimed to achieve this through a three-pronged

approach involving (1) the creation and use of high-quality teacher guides for Portuguese language instruction for grades 1-3 that are aligned to the curriculum, (2) formative assessments for teachers that help track and assess student progress, and (3) robust teacher training and CPD on how to implement and use these Portuguese language lesson materials effectively and with fidelity in the classroom. Figure 8 presents the key components of the program.

Figure 7. Key Components of Mozambique's Aprender+ Program



The Aprender+ program was developed in line with the National Teacher Professional Development Strategy of Mozambique and builds on existing CPD and available resources. It made use of the already present system of support to teachers provided by pedagogical directors to ensure that teachers were receiving ongoing structured support at the school level. In 2022, the Aprender+ initiative commenced with a pilot phase, targeting 45 schools in Niassa and 15 schools in Manica, primarily focusing on grade 1. The following year, 2023, saw the expansion of the Aprender+ project to encompass 352 schools across both Niassa and Manica, introducing a grade 2 curriculum in the schools initially involved. The program supported the development of structured lesson plans for grades 1 and 2, in collaboration with MINEDH. In 2024, the program aims to incorporate grade 3 in the schools involved previously and assist MINEDH with the transition from the pilot stage to a broader national rollout, with the support of the MozLearning Project.

Traditionally in Mozambique, teacher training has been focused on theoretical issues and does not equip teachers with the knowledge of how to teach or with practice in the skills for teaching. As part of reforms to teacher training programs, there has been an emphasis on placing student learning and classroom practice at the center, using digital solutions in an effort to maximize impact. Technical assistance from the World Bank through the Coach program has supported these efforts, particularly in relation to the ongoing coaching of teachers and feedback mechanisms using classroom observation tools. One such resource is the Coach program's [Facilitating Effective 1-1 Coaching Sessions](#) note.

Key emerging lessons and next steps

1. **While this program has been implemented in just a sample of schools and grades, there are plans to scale it up across the country.** Scalability has been integrated within the program design. However, the government foresees that challenges could arise in relation to the management of the program at the national level. To help overcome these challenges, lessons learned from the pilot experiences are being integrated into the program design.
2. **An impact evaluation of the effectiveness of this model is being conducted for the pilot stage.** This will examine the effect on student learning outcomes and gather feedback from school leaders and teachers. Monitoring visits have shown that all teachers were using the structured lesson plans and appreciated the introduction of lesson plans and support from their coach. The introduction of coaching sessions looks promising, as the coaches are gradually adapting to this structured approach and MINEDH is committed not only to expanding the Aprender+ program to the rest of the country but to incorporating this approach into the regular CPD.

Tanzania: Leveraging technology to provide cluster-based and school-based teacher CPD

Timeline: 2020-Ongoing

Supported Under Project: Boost Primary Student Learning and SUNSET Grants (P169380)

Challenge

In-service training for Tanzanian teachers has been ad hoc, supported by donor projects, and often delivered via a cascade model without a school-level platform for practicing and sustaining the newly acquired knowledge and teaching practices. Tanzania adopted a competency-based preprimary and primary education curriculum in 2015 but has yet to fully implement the curriculum and align pedagogy, teaching and learning materials, and learning assessments. Though there have been recent efforts to establish communities of learning, and these communities have had positive results, they have been small in scale and their sustainability is uncertain. More than 80 percent of 200,000 primary and secondary teachers in Tanzania have not received any professional development in the last five years.³ Teachers in remote rural areas and volunteer teachers tend to receive the least training.

Description

With support from development partners including the World Bank, in 2020, Tanzania revamped its national Teacher Continuous Professional Development (TCPD) framework, popularly known as **Mafunzo Endelevu kwa Walimu Kazini (MEWAKA)**. The program is supported by the World Bank-funded BOOST Primary Student Learning Program for Results, with the aim to improve equitable access to quality learning in preprimary (pre-K) and primary (elementary) education in mainland Tanzania. An additional World Bank Teach/Coach SUNSET grant was provided to complement technical assistance and capacity building related to the national TCPD rollout. The grant covers evaluation of the TCPD in the 26 pilot Local Government Authorities (LGAs), the development of digitized teacher training modules, intense training for primary school mathematics tutors in partnership with the UNESCO Teacher Education Center in Shanghai, and capacity building for peer facilitators and school leaders.

MEWAKA aspires to strengthen the regular support for teachers through integrated cluster and school-based approaches and boosted by technology. The government developed a national implementation plan, which initially piloted the TCPD in 26 LGAs. The expectation is to scale up year-on-year until every LGA and primary school is reached by the end of 2026. The plan focuses on providing support to teachers through peer facilitators, which includes mostly teachers and head teachers, as well as external coaches who act as pedagogical leaders to teachers. The plan is currently being operationalized with financing from the BOOST program, which channels project funds to every LGA to renovate an information and communication technology (ICT) hub school or a functional teacher resource center (TRC), and to every school to establish a school-based community of learning. The SUNSET grant provides complementary support with the following activities:

³ Tanzania CAG report 2020.

- Strengthening school quality assurance and TCPD monitoring and evaluation tools (expected by June 2024).
- Developing digitized, user-friendly content and pedagogy integrated TCPD modules in primary school mathematics, science, and preprimary subjects (12 modules have already been digitized and made accessible).
- Capacity building of the school peer facilitators and external coaches in 26 LGAs where the program is being piloted.
- Carrying out learning evaluations and contributing to the global evidence base.
- Carrying out a teacher skills competition to boost the morale of teachers and to crowdsource best teaching practices from Tanzanian teachers.

The use of the Teach classroom observation tool as a diagnostic tool has provided a baseline of the prevalence of specific teaching practices. Further, the Coach program resources were used in the design of the monitoring and evaluation tools to strengthen the school quality assurance and TCPD monitoring and evaluation tools, and to build the capacity of school peer facilitators and external coaches. The Coach program's [Structuring Effective 1-1 Support: Technical Guidance Note](#) has informed the design of the feedback process that the peer facilitators and external coaches provide to teachers.

In addition, the grant brought dedicated capacity building for mathematics tutors to strengthen their subject knowledge and pedagogical skills including their use of ICT in mathematics lessons. A consultancy was established between Shanghai Normal University and Tanzania Institute of Education to support the strengthening of mathematics in primary and secondary schools, and to demonstrate school based TCPD for mathematics. This collaboration revolves around resource sharing, technical support, and exposure visits. Some key aspects of the support are:

- Training of mathematics tutors on challenging topics and pedagogy via a three-month online professional development activity run by the UNESCO Teacher Education Center Shanghai over the last two years.
- A visit of Tanzanian policymakers and mathematics tutors to Shanghai for a two-week immersion exposure to school based TCPD and mathematics teaching.
- Resources including model lesson plans and model mathematics teaching presentations.

Key emerging lessons and next steps

1. **Implementation of a national TCPD is likely a long-term process.** At the national level, there remain policy gaps in financing and providing an effective teacher career ladder. School-based TCPD is relatively new and requires continuous capacity building.
2. **Buy-in from all levels and facets of education management, including LGA District and Ward Education Officers, SQAOs, and head teachers is crucial.** The revamped national TCPD is a major shift from the traditional approach of CPD in the country, and there is a need to ensure continuity and sustainability of the program based on the lessons learned through the pilot.

3. **Dedicated, in-depth, and long-term technical assistance and capacity building, focusing on mathematics teaching, was crucial to demonstrate how school-based TCPD can be effectively structured and operationalized.**
4. **Collaboration between universities and schools was deliberately fostered.** The grant helped catalyze collaboration by bringing the University of Dar es Salaam and the Dar es Salaam Institute of Technology to support evaluation and digitization of CPD modules. Also, the engagement of local tertiary institutions for TCPD helps ensure sustainability and mitigate the risks of TCPD dissipating after project support ends.
5. **Going forward, the government will need to continue improving national policies to ensure regular sustainable financing of TCPD, as well as establishing an effective teacher career ladder that would incentivize teachers to regularly participate in TCPD.**

El Salvador: Prompting better teaching practices through text messages

Timeline: 2021–Ongoing

Supported Under Project: SUNSET Grants

Challenge

El Salvador has a history of teacher training programs that focus on subject content; however, this has not translated into significant improvements in teaching practices. To address this issue, the Government of El Salvador developed and rolled out a training program to improve key teaching practices through text messages. The Coach program's [Foundational Teaching Skills Guide](#) was adapted to develop the training materials.

Description

Teachers participating in the training program signed up to receive WhatsApp text messages from the Ministry of Education over a period of 13 weeks, with three messages delivered per week. One teaching practice was introduced every two weeks through the text messages, with a total of six teaching practices covered over the course of the program. The messages guided teachers through an introduction to the practice, an explanation of its importance, instructions on how to implement it in their classroom practices, and links to relevant resources to learn more, such as videos and manuals.

Teachers are also able to text questions and receive additional support, as needed. This model of teacher CPD is a potentially cost-effective way to reach teachers across the country with guidance and reminders on important teaching practices.

Teachers responded positively to the text messages, as shown by the volume of interactions on WhatsApp and participant feedback. For example, one teacher noted:

“ The feedback provided to us through the text messages has helped us deliver better lessons in the classroom. We get regular prompts on how to improve lesson delivery and we have the option to ask questions through chat. ”

Primary school teacher, San Salvador

Key emerging lessons and next steps

In El Salvador, there is a unique opportunity through the existing operations to inform new early learning CPD programs at scale in preschool and transition to primary school. To further support the testing and development of CPD that is more tailored to providing ongoing evidence-based support to teachers, the World Bank has provided a grant to the country as part of a SUNSET grant. The grant proposes to use the Teach classroom observation tools to understand classroom practices. The grant also plans to use Coach program tools and resources to develop structured materials to support regular coaching and feedback sessions at a national scale. The Ministry of Education is piloting a CPD program using Coach program resources to improve teaching strategies to develop students' literacy skills in grade 1. The CPD program for grade 1 teachers combines coaching (1-1) with different training delivery models (distance, face-to-face, and hybrid) to measure their respective effectiveness.

Maharashtra, India: Understanding classroom practices to inform professional learning communities

Timeline: 2023–Ongoing

Supported Under Project: SUNSET Grants

Challenge

Through the National Education Policy (NEP) 2020, India has set ambitious objectives related to foundational literacy and numeracy to equip all children with the tools they need to thrive in a knowledge-driven world. The operationalization of the NEP is supported through a wider education reform agenda. This includes incentivizing states to invest in needs-based CPD. A SUNSET grant enables evidence-based development of CPD programs informed by data from the Teach ECE and Teach Primary classroom observation tools. The activities will enable greater exposure to, and facilitate the contextualization, adaptation, and rollout of, the Teach ECE and Teach Primary classroom observation tools across the India education portfolio with a prioritized focus on nine states. The results are intended to inform the development of training materials, digitized/ video content, translation of the Teach tool in local languages, orientation and capacity-building workshops at decentralized federal levels, and a digital application to support the rollout.

The NEP 2020 also promotes the use of digital tools in teaching and the training of teachers to use technologies, such as digital textbooks and smart classrooms. However, there is little information related to teachers' pedagogical skills and needs in technology or ICT-aided instruction. Approximately 3.5 percent of the total budget on education at the national level was allocated to building digital infrastructure in classrooms. As classrooms are increasingly equipped with digital tools, education policymakers are interested in the training of teachers on using technology effectively in the classroom.

Description

The state of Maharashtra in India explored the challenge of understanding the added value of digital technologies in teaching and the ability of teachers to use such technologies in a pedagogically effective manner. To do this, the Teach Primary classroom observation tool was adapted to include the following indicators, which focus on the use of digital technologies for key pedagogical purposes:

- The teacher integrates technology (computer, projector, tablet) into lesson facilitation.
- The teacher checks the student's level of understanding during technology-aided instruction.
- The teacher provides students with opportunities to use digital tools and interact with technology (computer, projector, tablet) in the classroom.

By observing the prevalence of these practices through the rollout of this observation tool in a representative sample of the state's classrooms, the current levels of teachers' abilities to use digital technologies for key pedagogical purposes could be determined.

In addition to the introduction of new indicators in the classroom observation rubric of the state, the Teach observation protocol was also adapted to provide just-in-time feedback to teachers after the observation. This approach relies heavily on building the capacity of a cadre of classroom observers to provide concise and objective feedback to the teacher after completing the observation. A one-page guided feedback template was developed as part of the Teach Primary observation protocol, and training on how to use the feedback form was included as an additional module in the Teach Observer Training.

Key emerging lessons and next steps

- 1. Preliminary results from the Teach pilot indicate a strong potential to inform teacher CPD systems on building teachers' pedagogical competencies in technology-aided instruction, as needed.** In a subsample of 332 classroom observations from the Teach pilot in Maharashtra, approximately 49 percent of the teachers were found to use technology as a form of representation but not to build on it with additional explanations, discussions, or connections to other content knowledge. However, 42 percent of teachers integrated technology in a meaningful manner in their instruction, such as by showing graphics or animated content and building on this instructional material with additional explanations. A small share of observed teachers (9 percent) used technology during their lesson but did not use it to connect to the learning objective. Another dimension of teachers' use of technology is with respect to checking students' level of understanding during technology-aided instruction. Preliminary results indicate that more than 27 percent of observed teachers did not check students' understanding during technology-aided instruction. However, 50 percent of observed teachers used superficial questions or prompts to check students' understanding and 23 percent of teachers used substantial prompts during technology-aided instruction, such as asking students to explain their thinking, making connections or interpreting learning content. Lastly, only a small share of observed teachers (15 percent) gave meaningful opportunities to students to use digital tools in the classroom where they are responsible for parts of a learning activity. These results align with findings from Teach data on instruction indicating that there is immense scope to strengthen teachers' practices on checking students' understanding while teachers are more effective in lesson facilitation practices.
- 2. Through the first phase of the Teach pilot, more than 1,080 teachers were given written feedback on their pedagogical practices aligned to the Teach tool.** Observers who used the Teach tool in the field found the feedback protocol at the end of the observation to be very useful in giving teachers actionable information to incorporate into their teaching practice.
- 3. Based on the teacher training needs identified through implementing the Teach classroom observation tool in Maharashtra, the State Council of Educational Research and Training aims to tailor the content of professional development opportunities offered to teachers through a decentralized process:**
 - **Classroom observers will continue to provide just-in-time feedback to teachers as a post-observation protocol.**

- **The state currently organizes monthly Shikshan Parishads, which is a platform for teachers to share best practices in pedagogy and instruction from their experiences.** The state envisions using Teach findings to guide discussions during these monthly meetings of teachers at the block level (within the district) on how to use effective pedagogical practices in the classroom through a collaborative learning process.
- **The findings will also inform the menu of training opportunities offered to teachers focused on pedagogical skills in addition to the currently offered learning on subject knowledge and teaching and learning materials.**
- **The state plans to host a capacity-building workshop with key education functionaries to access the process of implementation, reviewing the selection of a cadre of observers in the state and observer training modalities to scale up Teach across the state.**

Key considerations and analysis

The CPD programs examined in this document vary in design and modality of implementation, mostly in line with the purpose and available resources. Studying and analyzing these programs, even at an early stage, can help deduce key lessons that can be used to maximize impact and ensure the ongoing development of teachers.

There is no set formula that can be applied to every context for designing and implementing a CPD program. Countries vary significantly in terms of their education systems, institutional setup, available human resources, financial resources, and the needs of teachers. To ensure an effective CPD program, contextual factors need to be taken into consideration. For example, while 1-1 coaching can support teachers' development, to be effective, it requires having experienced and respected coaches within the system, and this can create difficulties with scaling up such a model.⁴

The case examples included in this document highlight the need to contextualize or adapt tools and resources to address local issues. The Coach program has a wide range of tools and resources that can be used and adapted to strengthen CPD programs according to the context. Some key questions that can help when leading a process of CPD development or reform include:

1. What are the needs to be addressed by the teacher CPD program, and which teachers need training or support and on what knowledge or skills?
2. What resources are available to support the design of the CPD program?
3. How can existing resources or institutional setups be leveraged, and how can costs be reduced?
4. How will teachers, school leaders, and other stakeholders be involved in the development and implementation of the CPD program?
5. How will the CPD program's development and implementation be monitored and evaluated?

While it is important to ensure that teachers receive ongoing support that is tailored to their needs, this can take different forms. For instance, El Salvador has designed a program in which teachers receive simple and concise prompts via text messages whereas in Pakistan, bespoke feedback is provided through a 30-minute structured 1-1 coaching session that follows school

4 [Kraft, Blazer, and Hogan \(2018\)](#).

leaders' observation of a lesson. Similarly, in Sierra Leone, the government led CPD program aims to provide ongoing structured coaching for teachers based on classroom observations.

Several countries are focusing on the collection and use of data to support teacher CPD, including to inform individual coaching sessions. For example, data from an adapted Teach Primary classroom observation tool are used to understand teachers' use of digital resources in Maharashtra, India, and to define training needs. Across these examples, it will be important to hear from teachers, head teachers, and other stakeholders on which of these models have been most helpful, for which teachers, and under which contexts.

The Coach program promotes a wide variety of CPD approaches that are tailored, practical, focused, and ongoing. Its name implies a primary focus on a coaching model; however, the examples in this document highlight a wide variety of approaches that can be implemented to support teachers in their continuous learning goals and professional development.

Lessons learned

Emerging key lessons that can help to guide the Coach program and other efforts to improve teachers' CPD include the following:

1. **The Coach program tools and resources can be adapted and contextualized for a wide variety of countries and system contexts and needs.**
2. **There is still a need to study and understand the implementation and impacts of CPD programs, including coaching models.** There is limited information on implementation, particularly how useful teachers and school leaders find the models and materials, and there is insufficient evidence at this stage on the effectiveness of the CPD programs. More effort is needed to gather ongoing feedback.
3. **Scalability and sustainability need to be considered from the outset when selecting and designing CPD models.** Only options that can feasibly be implemented at scale should be considered. Anecdotally, there are emerging concerns about scalability and sustainability of some of the CPD models, with evidence that some CPD programs such as individualized coaching lose value as they scale up.
4. **Not all teachers are at the same level of practice or have the same professional development needs.** For example, new teachers require an induction period with intensive support, while experienced teachers may need training on new methodologies. CPD programs should be responsive to these various levels and needs.
5. **There is a need to think of teacher CPD beyond training or coaching to a wider variety of collaborative and alternative strategies.** Professional learning communities, personal professional development plans, peer learning, tutor teachers, collaborative teaching, team-teaching, and online learning in networks are some possibilities to be added for the lifelong learning path of teachers.
6. **The Coach program aims to ensure continuous development and improvement of tools and resources based on the feedback from implementation across different countries.** This document is one such example of documenting different country-level implementation efforts.

Looking ahead

An innovative and inclusive education system that realizes expected learning outcomes can only be achieved with committed and competent teachers. While ITE can provide student teachers with knowledge on subjects and pedagogies, teachers must still be supported with continuous professional development opportunities throughout their careers. Teachers are lifelong learners, and they benefit from professional opportunities that foster and develop their capability to do their work.

A comprehensive CPD system needs to be developed to meet the needs of all teachers throughout their whole career. Teachers must have the possibility to grow professionally to become motivated and to stay committed to students' learning. The four Coach program principles—effective professional development must be tailored, practical, focused, and ongoing—are a solid base for adult learning for teachers in a fragmented system. Teach classroom observation tools and Coach program tools and resources for improving teacher CPD provide opportunities for countries' education systems to support their teachers in an effective way, through contextualizing, adapting, and tailoring these resources according to the country contexts and teachers' needs.

While systemwide CPD programs support the achievement of national standards, a more personalized approach to career long professional development is also needed. Systemwide CPD programs can ensure that all teachers receive initial professional development activities on core competencies. At the same time, with the creation of personal professional development plans, teachers can identify the specific kinds of professional development that respond to their individual needs. Learning in a community of practice, team teaching, creating networks, and tutoring, for example, provide a range of collaborative learning opportunities, embedding new learning into daily teaching practice. Teachers face many challenges teaching in a complex learning environment. They need to be equipped with sufficient competencies throughout their careers through CPD opportunities.

The Coach program continues to develop in line with its three-pronged approach:

- **Developing resources**
- **Providing operational support**
- **Engaging stakeholders**

Each of these approaches will benefit from the emerging lessons to date and from a continued study of the CPD interventions under SUNSET grants and elsewhere, with close attention to local contexts, scalability, sustainability, and the wide variety of possible CPD models and strategies.

Appendix A.

Coach program tools and resources

As illustrated in the country examples above, the Coach program can inform country-level CPD design and implementation in different ways. Supporting the variety of country-level CPD programs, however, is a core set of Coach tools and resources, which have been developed to give guidance on how to design, implement, and evaluate effective CPD programs and systems. While a full set of resources will not be reviewed in this document, a comprehensive set of links can be found in the [Coach Tools and Resources document](#).

Figure A1. Resources to Support the Design and Implementation of Effective CPD Programs

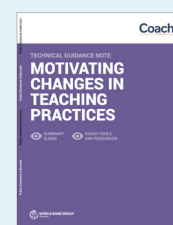
Structuring Effective 1-1 Support Technical Guidance Note. This note provides guidance on the profile of the pedagogical leader who gives 1-1 support to a teacher, the typical ratio of teachers to pedagogical leader, the frequency of support to teachers, the typical length of observation and feedback session(s), and the remote support teachers require across different 1-1 support models.



Structuring and Supporting School- and Cluster-Based Continuous Professional Development Technical Guidance Note. This note provides guidance on the five decision points for structuring and supporting effective school- and cluster-based teacher support: grouping of teachers, frequency of meeting, profile of the facilitator, training and support for facilitators, and content for teachers.



Motivating Changes in Teaching Practices Technical Guidance Note. This note provides information on motivational barriers for behavioral change in the teacher professional development (TPD) journey along with strategies and motivational enablers to overcome barriers for improving teaching practices.

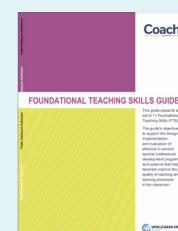


Building a Digital Coaching Application. For Coach to benefit a global community of policy makers and serve teachers at scale (at a lower cost while maximizing its impact), strategic integration of digital technologies is required. While demand for digital Coach tools is high, there are few global public goods that provide solutions that can be implemented in country-level contexts, particularly within countries with little informational technology infrastructure. This guidance note contains a step-by-step approach for building a digital Coach or Coach-like app to help countries and clients improve in-service TPD and monitoring.



A2. Sample Professional Development Materials

Foundational Teaching Skills Guide. This guide outlines a set of 11 foundational teaching skills (FTS). For each skill, the guide provides a clear description of what it entails, step-by-step guidance on how to implement it effectively in the classroom, and a detailed example.



Foundational Teaching Skills: Teacher Training Package. This package is meant to be used by master trainers delivering group support to teachers focused on improving their skills across all, or a subset of the 11 FTS. The package consists of a training manual, participant workbook, training video scripts, training assessment, and a Coach FTS Contextualization Note.

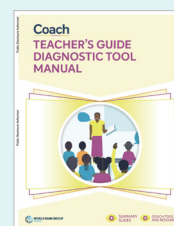


Foundational Teaching Skills: Coach Training Package. This package is meant to be used by master trainers delivering group support to coaches focused on supporting teachers in improving their skills across all, or a subset of the 11 FTS. The package consists of a set of classroom observation tools, a training manual, participant workbook, video scripts, and training assessment.

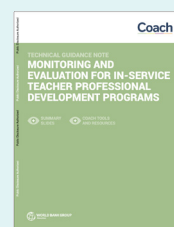


Figure A3. Resources and Tools to Support the Analysis, Monitoring, and Evaluation of CPD Programs

Teacher's Guide Diagnostic Tool. This resource provides guidance on how to assess the quality of teacher's guides in grades 1-4. The tool assesses teacher's guides based on two sets of criteria: guide criteria, which looks at the overall organization, structure, and level of scripting of the entire teacher's guide; and lesson criteria, which looks at the composition of the individual lesson layouts and structure. The manual also provides recommendations for the improvement of teacher's guides.



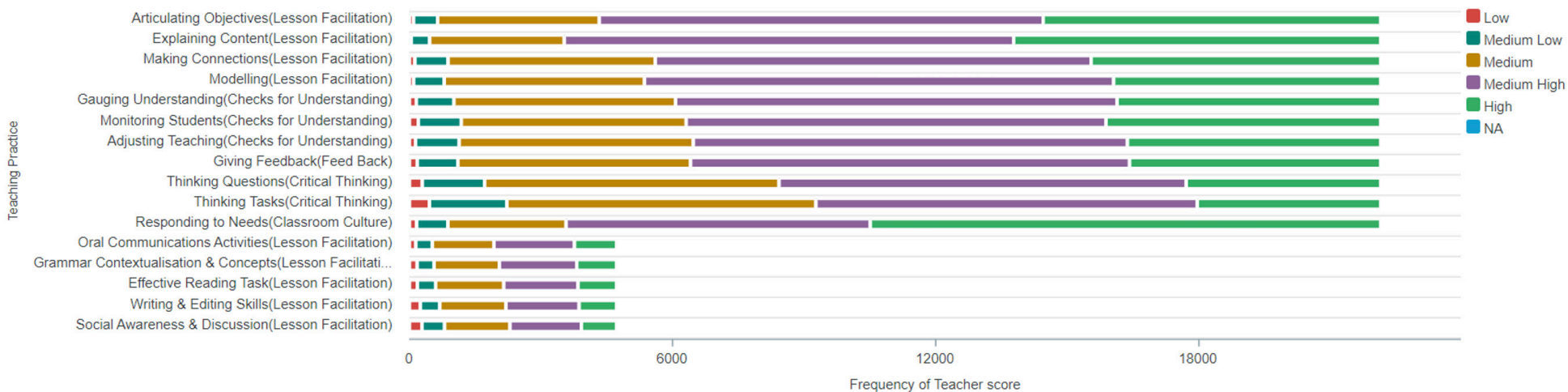
Monitoring and Evaluation for In-Service Teacher Professional Development Programs Technical Guidance Note. This note provides guidance on designing a results framework and choosing indicators, and it outlines a step-by-step process to design, implement, use, and sustain a TPD M&E system.



Appendix B.

Dashboard example in Punjab, Pakistan

Performance - Frequency of codes for each Teaching Practice



Appendix C. Screenshots of the Coach app in Sierra Leone

