Teach in Action:
Three Case Studies of Teach Implementation

This document summarizes three cases of *Teach Primary* implementations in Guyana; Mozambique; and Punjab, Pakistan, highlighting how the tool has been deployed in the field and describing its impact on policy dialogue.

Teach

Teach is the World Bank's suite of open-access classroom observation tools for the ECE, Primary, and Secondary levels.

GUYANA

MOZAMBIQUE

PUNJAB, PAKISTAN

What Is Teach?

Teach is the World Bank's suite of open-access classroom observation tools for the ECE, Primary, and Secondary levels. *Teach* provides a window into one of the less explored and most important aspects of student learning: what goes on in the classroom.

Teach has been designed to help countries track and improve teaching quality, inform policy dialogue, and ensure professional development is aligned to teachers' needs.

Teach measures teacher-student interactions, focusing on teacher behaviors known to nurture children's cognitive and socioemotional skills.[1] *Teach* captures both the time teachers spend on learning as well as the quality of teaching practices, focused on three domains: (1) how a teacher creates a culture that is conducive to learning; (2) whether a teacher instructs in a way that deepens student understanding and encourages critical thought; and (3) how a teacher fosters socioemotional skills that encourage students to succeed both inside and outside the classroom. In addition, the tool measures how well teachers use inclusive teaching practices that help all students learn.

Teach's Value Proposition

- **Teach holistically measures what happens in the classroom.** It does so by considering time spent on learning as well as the quality of teaching practices.

- **Teach has a cross-cutting focus on inclusion.** The tool provides a common language to encourage inclusive and responsive teaching that facilitates whole-child development.

- **Teach uses evidence-based teaching practices from countries around the world and has been tried and tested in diverse contexts.** *Teach* underwent a rigorous development and validation process over a two-year timeframe, including being piloted in over 1,000 classrooms across 4 countries.

- **Teach is adaptable to different contexts.** *Teach* also includes the use of local video footage to train observers, which ensures that the tool is contextualized and anchored in the local setting.

- **Teach comes with a suite of free resources to support its use.** These resources are meant to provide support in every step of the tool's implementation, including initial conversations with relevant stakeholders; training observers; using the tool to collect data in the field; cleaning and analyzing the data; and producing and sharing results.

Launched in 2019, *Teach* has revolutionized the way education systems track and improve teaching quality (Figure 1).

Figure 1. Teach Reach as of December 2021[2]

12 **Languages** in which *Teach* is available

25 **Organizations** that have used *Teach*

36 **Countries** where *Teach* has been or is being implemented

42,500
Schools in which *Teach* has been used

180,000
Teachers observed using *Teach*

3.6 million
Students involved in a *Teach* observation

VIDEO: Learn more about the reach and scale of *Teach* implementations as of December 2021.

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[1] The World Bank has developed several iterations of *Teach*, each tailored to a specific age group of learners: *Teach Primary*, *Teach Secondary,* and *Teach ECE*, the latter focusing on early childhood education. This brochure focuses on the use to date of *Teach Primary*, designed for primary school classrooms (grades 1–6).

[2] Please note that these numbers include implementation data from tools adapted from *Teach*, including the COT used in Punjab, Pakistan.

Teach Primary Use and Impact in the Field

Teach Primary has been applied or is in the process of being applied in 36 countries. The applications to date around the world have highlighted a key characteristic of the tool: its versatility (Figure 2).

Teach Primary can been used as a **system diagnostic**, allowing governments to get a clear snapshot of the current state of teaching practices and teaching quality in classrooms. In this capacity, *Teach* can be leveraged as an **M&E tool** to assess the results of a specific education policy or program targeting teacher practices, such as the deployment of a new curriculum or a new instructional model. The tool can also be employed as part of a **teacher professional development system**, to identify individual teachers' strengths and weaknesses. Specifically, *Teach* results can be used to provide targeted support to teachers to improve particular teaching skills when integrated with other tools and resources, such as the World Bank's *Coach program*.

Past *Teach Primary* implementations have been led by the World Bank and also by external organizations, including J-PAL, IDinsight, IRC, Save the Children, and Education World Trust, as well as individual schools. Implementations have varied in terms of their level of integration with existing structures in the education system. In some cases, *Teach* has been integrated into

Figure 2: Map of Countries with Past, Ongoing, and Early-Stage *Teach Primary* Applications[a]

Teach Primary Applications
- ■ Applied
- ■ Ongoing
- ■ Early stages

Created with mapchart.net

[a] as of December 2021
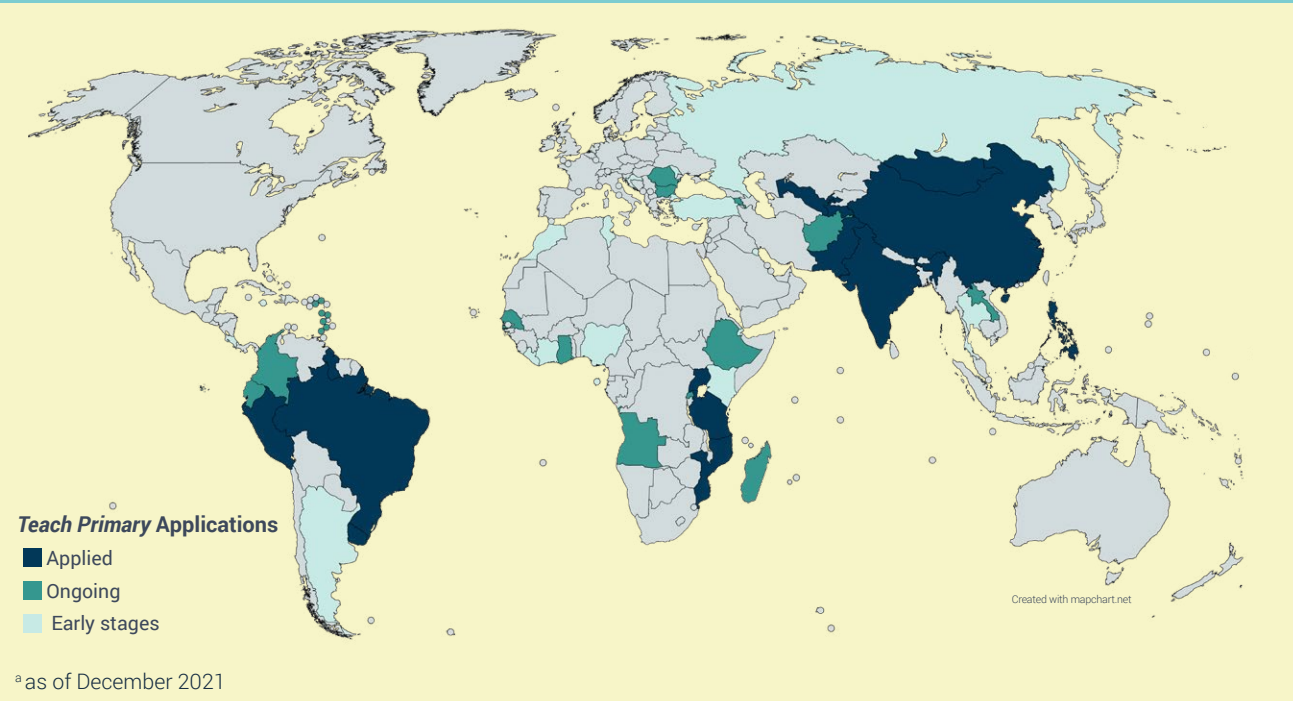
an existing teacher monitoring system. In other cases, outside observers have been brought in for a one-off diagnostic or evaluation exercise for an educational intervention or program.

This document summarizes three cases of *Teach Primary* implementations in Guyana; Mozambique; and Punjab, Pakistan, highlighting the three main uses of the *Teach* tool. For each case, the document shares: (1) the project and country context in which the tool was deployed; (2) key elements of the implementation process; and (3) the impact and results from using *Teach Primary*. As the case studies show, *Teach Primary*

can be used for different purposes and be adapted to the needs of a specific context.[3]

How Can Teach Be Used?

○ **As a system diagnostic**

○ **As an M&E tool to assess the results of an educational intervention or policy**

○ **As part of a teacher professional development system**

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[3] Case studies were developed by reviewing project documentation and other materials and by conducting brief interviews with relevant project stakeholders, including Adelle Pushparatnam (Education Specialist, co-TTL for *Teach*); Ezequiel Molina (Senior Economist, co-TTL for *Teach*); Marina Bassi (TTL, Mozambique); Carolina Melo (*Teach* trainer); Shawn Powers (TTL, Guyana); Koen Geven (TTL, Pakistan); Quenita Walrond-Lewis (MoE, Guyana); Cristel Cheong (MoE, Guyana); and Abdal Mufti (Head of Research, PMIU, Punjab, Pakistan); among others.

Using Teach Primary to Assess a Curriculum Reform in Guyana

Teach Primary was applied in Guyana in 2018–2020 to evaluate the success of a recent curriculum reform, which included a shift to student-centered pedagogy. *Teach Primary* was used to assess the extent to which teacher practices had shifted in the classroom in response to the new curricular and instructional model.

Context

Despite being one of South America's poorest countries, Guyana has achieved near-universal primary education and has relatively high levels of enrollment at the pre-primary level (88 percent).[4] However, low quality of teaching and learning at all levels and inequalities in learning outcomes present significant challenges.

When the Ministry of Education first decided to implement *Teach Primary* in 2018, there were several constraints that hindered progress on learning outcomes. Two of the key constraints were poor teaching practices and an outdated curriculum, which had not undergone cohesive review for nearly 20 years.

[4] World Bank, *Project Appraisal Document for Guyana* (Washington, DC: World Bank, 2021).

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The Ministry of Education decided to pilot a new grade 1 and 2 curriculum that included a shift to student-centered pedagogy under the Guyana Education Sector Improvement Project, to be implemented nationwide including in the hinterland regions that are home to the country's Indigenous communities. In this context, the Ministry of Education sought to use *Teach Primary* to understand how well the new curriculum was being implemented at the school level. The objective was to capture teaching practices and instructional quality in Guyanese classrooms and use the collected data to assess the extent to which teacher practices were shifting, and also identify needs for additional teacher professional development programming. One of the reasons *Teach Primary* was selected over other classroom observation tools was because the tool is not subject-specific, but rather could be used to understand the quality of teaching practices for any subject.

> **"What needed to be addressed and changed had to do with curriculum and teaching methodology and pedagogy.... Reorienting our teachers toward more student-centered pedagogy and methodology, we found to be of tantamount importance if we wanted to see any measure of success."**
>
> – Quenita Walrond-Lewis, Director of the National Centre for Educational Resource Development

> **"We have a number of M&E measures already in classroom observation tools. But everything was more centered on content, rather than quality of delivery. The *Teach* tool gave us the benefit of going into the classroom and doing an impartial observation that works regardless of which subject is being delivered."**
>
> – Cristel Cheong, Monitoring and Evaluation Officer, Guyana Education Sector Improvement Project

Implementation

Teach Primary was used to conduct classroom observations in a total of 134 schools. Local observers from the education system, including university professors, were trained and certified in using the tool and subsequently collected data on 354 teachers during school visits between March–May 2019. The data were used as a baseline for student-centered teaching practices.

After the baseline data collection, half the participating schools were randomly designated as pilot schools that were introduced to the new curriculum. The teachers in the pilot schools received training on student-centered pedagogy and how to implement the new curriculum. Teachers received two follow-up visits from observers, during which observers monitored teachers' progress and provided feedback on how to improve their teaching practice.

Results and insights

The new curriculum was fundamentally about shifting the instructional pedagogy from a more traditional teacher-centered approach to a student-centered one with teacher-student interactions at the core. The Ministry used the *Teach Primary* score relating to instructional practices to create a standard for successful implementation of the new curriculum. To meet the standard, teachers would need to score at least 3.5 out of 5 on the tool's instruction area, which includes the elements of lesson facilitation, checking for student understanding, providing feedback to students, and fostering critical thinking. At baseline, only 6.9 percent of teachers met that standard.

> **"The value-added [from using *Teach Primary*] is the fact that it impresses upon the system that all decision-making should be data-driven. It gives us, in a really cohesive and systematic way, a way to gather evidence."**
> – Quenita Walrond-Lewis, Director of the National Centre for Educational Resource Development

Subsequent curriculum training was informed by the *Teach Primary* baseline observations. For example, since during the baseline data collection most teachers did not exhibit the behavior of making connections between the lesson and students' daily lives, the training contained practice on that specific behavior.

The first round of follow-up visits showed that 23 percent of teachers met the minimum standard as measured by *Teach Primary*, a threefold increase compared to the baseline. The second round of follow-up visits showed additional improvement, with 28.8 percent of teachers meeting the standard.

The Guyana case shows how *Teach Primary* can be used in a variety of ways: as a system diagnostic, to inform teacher professional development, and to assess the implementation of a new curriculum.

> **"[We viewed *Teach* as] a professional development tool for the teachers, … as a yardstick for measuring progress on the project, and also a diagnostic for training and other supplemental activities."**
> – Shawn Powers, Senior Economist, World Bank

Teach in Guyana today

Guyana is planning a back-to-school evaluation once all children have returned to the classroom. The evaluation will indicate whether schools and students exposed to the new curriculum are doing better than the control schools.

> **The value-add [of *Teach*] is that it provides a framework for us to interact with governments on these projects that goes all the way from the science of learning and reaches down into the classrooms, and that is really powerful. We don't have many tools in our toolbelt that do that."**
> – Shawn Powers, Senior Economist, World Bank

In light of the successful collaborative experience of applying *Teach* in Guyana, the Ministry of Education is partnering with the World Bank to implement *Teach ECE* to measure the instructional practices of early childhood educators, with the goal of providing support to them. *Teach ECE* is intended to be used in classrooms for children aged 3−6 and captures practices that nurture children's cognitive and language skills, socioemotional competencies, and executive functioning abilities.

Teach Primary as a System Diagnostic in Mozambique

Teach Primary was applied in Mozambique as part of the Service Delivery Indicators Survey (SDI) data collection in 2018. The use of *Teach Primary* provided a clear snapshot of current teaching practices in the country and led to key insights about professional development needs for teachers. Insights from *Teach Primary* helped drive the dialogue and shaped the design of a new government teacher professional development program, Aprender+.

Context

Mozambique has invested significantly in education over the last 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.[5] Substantial investments in education have resulted in important progress in terms of access, especially in lower primary school, where coverage has risen to near-universal levels. Despite that, as the level of income of Mozambique is very low, the spending per student is one of the lowest of the world (below $150 per student). Mozambique 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.[6]

[5] UNICEF (2019). Education Sector Budget and Expenditure Brief.
[6] World Bank (2018a), World Bank (2016)

Implementation

The SDI Survey was first applied in Mozambique in 2014 to track key elements of the country's education sector delivery. SDI analyses the performance of the education sector by assessing the quality of service delivery at the school level, which helps policymakers identify gaps, find effective remedies, and track progress over time. In 2018, *Teach Primary* was added to complement the survey indicators in the second round of SDI, to capture information about the quality of teaching practices in Mozambique primary education classrooms.

It was the first time *Teach Primary* was applied in Africa and in a country of Mozambique's income level. To implement *Teach*, the World Bank worked together with the Ministry of Education and Human Development. A local survey firm was hired to guide the process of data collection, who in turn hired students and recent graduates from the University Eduardo Mondlane as observers. In total, 49 local observers attended training sessions led by the World Bank, including the students and representatives from the Ministry's teacher training and curriculum departments. Certified observers then administered *Teach Primary* during the SDI data collection, with a total of 279 classroom observations conducted during the implementation.

> **"[*Teach*] is an easy-to-use instrument and the training went smoothly, and in large countries like Mozambique, that feature is really important."**
>
> – Marina Bassi, Mozambique Task Team Leader (TTL) at time of *Teach* implementation

Results and insights

The results from *Teach Primary* were presented to the Ministry in the report Education Service Delivery in Mozambique, highlighting key insights:

- **Teachers did better in the classroom culture domain, followed by instruction, followed by socioemotional skills.** In general, teachers in Mozambique scored highly in the area of classroom culture, but poorly in instruction and especially poorly in 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 had significantly higher test scores than those with teachers scoring in the bottom 25 percent. The findings are consistent with related literature, showing that teaching practices are associated with student learning.

- *Teach* **scores varied with the teachers' gender.** Female teachers provided students with more opportunities to take on a role in the classroom and also embedded more choices in the lesson. Additionally, while having a female teacher had a positive correlation with student performance for both boys and girls, this correlation was stronger for female students.

The results of Teach and the SDI survey also highlighted key challenges related to teaching and teachers in Mozambique. In particular, the results highlighted the high level of teacher absenteeism in the country, as well as the low levels of effective teaching practices, pointing to the need for further professional development support for teachers.

Impact

Through the introduction of new resources and training, the *Teach Primary* application process promoted knowledge and skill-building around teachers' practice, and also supported dialogue on teaching policy and reform.

> **"It was not the results per se, but rather the process of implementation (and the feedback that we received throughout) that encouraged us to continue."**
>
> – Marina Bassi, Mozambique Task Team Leader (TTL) at time of *Teach* implementation

In parallel with the presentation of *Teach Primary* results, the government was working with the World Bank to develop a new program focused on improving early grade literacy skills in Mozambique. The insights from *Teach* around the relatively low teaching scores and their link to student outcomes helped drive the dialogue 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 in order to improve teaching practice and increase early grade literacy skills in their students. This is in line with and supports the operationalization of the government's in-service teacher training strategy.

> **"*Teach* was one of the inputs that informed the new pilot, Aprender+, and the decision to include teacher observations and coaching into the pilot."**
>
> – Marina Bassi, Mozambique Task Team Leader (TTL) at time of *Teach* implementation

The new program, Aprender+, is a two-year pilot focused on improving early grade literacy skills for students in Grades 1–3 in Mozambique. The pilot achieves 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 continuous professional development on how to implement and use these Portuguese language lesson materials effectively and with fidelity in the classroom.

> **"Aprender+ is focused on helping teachers improve students' early grade reading, by giving them the right tools, support and help. And Aprender+ accomplishes this by working through and strengthening the existing structures at the school, district and provincial levels. The pilot also builds on the country's in-service teacher training strategy, which is key for sustainability."**
>
> – Lúcia Jose Nhampossa, Education Specialist, Mozambique Task Team Leader (TTL)

The insights generated by *Teach Primary*, including data on the areas of teaching practice that Mozambique teachers most and least struggle with, have continued to shape the design of training and coaching in the Aprender+ program. Teachers will receive intensive practical training on how to utilize the Portuguese language lesson plans effectively prior to starting the program in their classrooms. Teachers will then receive continuous, personalized, targeted, and practical support through regular visits from a coach who will conduct classroom observations and provide regular feedback.

The vision is for the Aprender+ program to scale after its pilot implementation in 2022 through the Improving Learning and Empowering Girls in Mozambique project (2021).

Teach Primary Integrated into a Comprehensive Mentoring Program in Punjab, Pakistan

In Punjab, Pakistan, *Teach Primary* helped center the policy dialogue on teacher practices in the classroom, ultimately resulting in the launch of a new professional development program in the province that leverages a modified version of the *Teach* tool. *Teach* was first applied in 2018 in Punjab, collecting data from more than 800 schools across the province as part of the Service Delivery Indicator (SDI) survey. The results from this application provided evidence for *Teach's* reliability and validity and paved the way for the province-wide teacher mentoring program operating in Punjab today.

Context

Punjab is the largest province in Pakistan, home to 110 million people. The province has 48,000 public schools serving 12 million students, making the scale of province-wide programs huge. Ensuring education quality represents an important challenge for the government in Punjab, as for the rest of Pakistan: only about half of Pakistanis who complete five years of primary school are literate.[7] At the time of the *Teach Primary* pilot, the Punjab government knew that the learning levels were not adequate and that teaching quality needed improvement, but prior analyses and studies had

[7] The Economist. "Pakistan Is Home to the Most Frenetic Education Reforms in the World." *The Economist,* 4 Jan. 2018, www.economist.com/briefing/2018/01/04/pakistan-is-home-to-the-most-frenetic-education-reforms-in-the-world. Accessed 22 Apr. 2021.

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focused on the quantity of teaching—that is, the extent to which students were engaged in some learning activity or task—but not on the quality of the instruction itself.

> **"[There was] this idea of measuring the quality of instruction, not just the amount of time spent teaching, which is mostly what had been done until that point… *Teach* concentrates the conversation on the quality of the interaction between teachers and students. In the end, that is where the magic happens."**
>
> – Koen Martijn Geven, Pakistan Task Team Leader (TTL)

The government of Punjab introduced a large package of education reforms that included teacher recruitment, teacher human resources reform, the automatization of transfers and promotions, and a system-wide review of teacher career structures and policy. The timing was ripe to introduce a new tool that could support efforts at larger teacher and teaching policy reform by tracking and assessing the quality of teaching in the classroom. In the first iteration of the tool's use in Punjab, it was leveraged as part of the SDI Survey conducted in 2018.

Phase 1: Teach Primary implemented as part of the SDI in Punjab in 2018

To adapt the tool to the Punjab context, the team began by conducting consultations and focus groups with government counterparts, public school teachers and school leaders, and other stakeholders to gather insights into

how to adapt the *Teach* tool to the local context. The government ended up adjusting the tool significantly to align closely with local needs as well as with insights from the SDI data.

> **"In Punjab, [the tool] needs to have a local flavor to be sustainable."**
>
> – Koen Martijn Geven, Pakistan Task Team Leader (TTL)

Local observers with college degrees collected data from 845 schools across Punjab, which included 845 fourth-grade teachers and 18,243 fourth-grade students. In each school, a teacher from a randomly selected fourth grade classroom was observed during a mathematics or language class for one or two 20-minute segments. The data collected showed that teachers scored higher on classroom culture than on instruction and socioemotional skills, consistent with results from similar contexts.

Additional analysis was done based on the Punjab data and showed two important findings: First, that *Teach Primary* scores are internally consistent and present good inter-rater reliability, as less than 4 percent of the variation in *Teach Primary* scores can be attributed to observers; and second, that higher *Teach Primary* scores are associated with higher student outcomes. Specifically, students of teachers with higher *Teach Primary* scores had better student learning outcomes in English, Math, and Urdu compared to other students.

Results were summarized and presented to the government. Reception to the data was overall positive, and there was significant interest in exploring how to use a similar tool to systematically support teachers to improve their instructional practice.

Phase 2: Staggered roll-out using Teach Primary for teacher professional development

The results from *Teach Primary* together with other initiatives helped propel the government to initiate the design and development of a program focused on providing mentoring support to teachers to improve their instructional practice, based on classroom observation.

The Classroom Observation Tool (COT), a modified version of the *Teach* tool, was developed to be piloted as part of this initiative. The initiative consisted of a teacher mentoring program, whereby Assistant Education Officers (AEOs) would provide support to teachers via regular classroom observations, followed by personalized and targeted feedback sessions.

The initiative was first piloted through a staggered roll-out approach in six districts within the province, to test out the model, gain insights into the implementation process, and make appropriate adjustments before scale-up.

Importantly, the initiative required an important shift in the role of the AEOs, who had previously been focused on teacher accountability, to one focused on supporting teachers. The staggered approach for the pilot helped align expectations regarding this important change and helped ensure that the responsibilities of AEOs were modified appropriately.

Additionally, the staggered roll-out of the program helped gain buy-in and support for the program, because it allowed other stakeholders—

including other district and system leaders, as well as teachers—to become familiar with the program and its goals and also provide feedback and input into its early implementation. Ultimately, this staggered pilot approach helped align all stakeholders and boosted the legitimacy of the COT as a classroom observation tool, as well as the teacher mentoring program itself.

Phase 3: COT use at scale

In early Summer 2020, the teacher mentoring program was scaled across all public schools in Punjab's 36 districts. As part of this scale-up, a digital application was introduced so

that AEOs could easily input COT scores using a smartphone or tablet after conducting an observation. The digital application also facilitated the storage and aggregation of data, so that the data from all observations could be easily consolidated and analyzed.

> **"The language that the *Teach* tool uses is something that is very easily comprehensible […] [*Teach*] has already started providing insights into the system and how to improve teaching practices […] We've already seen the value that it can add."**
> – Abdal Mufti, Head of Research, PMIU, Pakistan

Figure 3. Screenshots of the COT Mobile Application
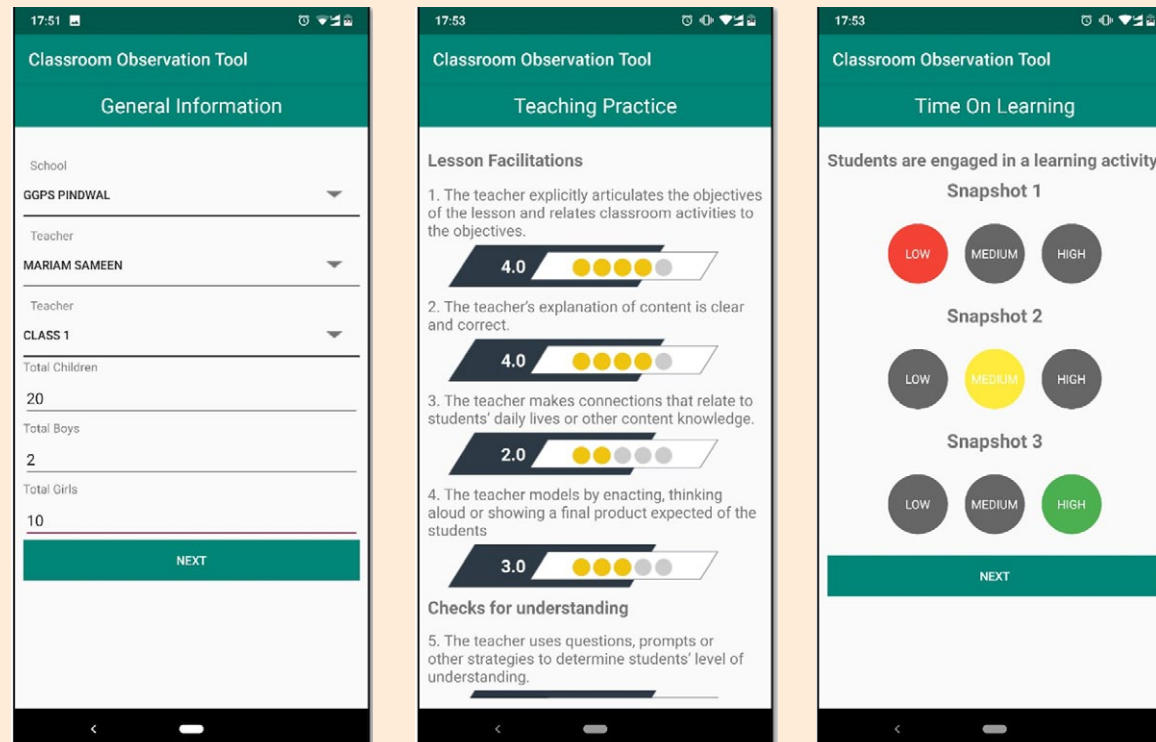
Data from individual teachers is only available to their mentors who use this data to provide targeted feedback and support in a regular 15-minute coaching conversation that follows the use of the COT in the classroom observation. Data at the aggregate level is available to system-level leaders and policymakers who use the data to identify areas where teachers need further support.

Figure 4. Mentoring at Scale

30,000
Classroom observations conducted each week

40,000+
Schools observed

829,000+
Classroom observations completed

174,000
Unique teachers observed

> "**It is revolutionary in Punjab. It's never been done before that data is available at all levels [school, marka, district, province]…**"
> – Abdal Mufti, Head of Research, PMIU, Pakistan

Impact

Based on insights from COT data, teachers receive additional professional development opportunities during monthly two-hour teacher forums which target the specific areas identified through the aggregate data on teaching practices.

> "**Teacher professional development [in Punjab] used to be based on intuitions. This is the first time it's based on evidence.**"
> – Abdal Mufti, Head of Research, PMIU, Pakistan

The vast amount of data collected through the application of scaled-up use of the COT has been made more accessible, and general dashboards are now available at four different levels: province, district, markaz (AEO level), and school (head teacher level). Through the data dashboards, the AEOs are now able to view teachers results from previous observations. Further, to support usage of data Punjab now has quarterly analytical reports that are generated per district and also per markaz. To supplement the use of these reports, District level meetings are held by District Field Officers who present insights to the Chief Education Officer and Assistant Education Officers. The government and its partners are currently working on developing new ways to use the information responsibly to unlock further insights.

With the onset of the COVID-19 pandemic, the government started experimenting with virtual teacher trainings on Zoom to complement the regular two-hour teacher forums. This led to the development of the Innovative Teacher Support Package (ITSP), a learning system/platform to be used by teachers with the goal of providing online teacher professional development that is further targeted and personalized to their needs. The ITSP contains modules on each of the COT practices that teachers can use for self-guided learning. The ITSP is both website-based and application-based; as of November 2021, the ITSP has been downloaded 140,000 and has had over 150,000 website log-ins.

Building on the work of the ITSP, the Punjab government developed the AEO Leadership Program (ALP). The program serves as a learning platform for the AEOs to ensure their continuous capacity building and help them to better support teachers. The program draws from the *Coach* program at the World Bank to develop skills of AEOs in giving better feedback. The program includes a website and an Android application; as of December 2021, the program will be used by approximately 3,300 AEOs across Punjab.

Are You Interested in Using Teach?

Implementing *Teach* is a five-step process that involves consulting with stakeholders; securing and coding local video footage; conducting observer training; and collecting data through classroom observations.

A Five-Step Guide to Implement Teach

Consult with stakeholders on what *Teach* measures and discuss its applicability in the local setting. Adaptations of the tool to fit local standards are possible.

Collect video footage of classrooms from the region, so that the material is contextually relevant and reflective of what observers will see in the classrooms.

Certified experts code the videos. Experts watch the classroom footage and use the *Teach* manual to assign a numerical score to the teaching practices they observe.

A *Teach* Trainer leads the Observer training. The 4-day training is practical with the majority of observers' time spent practicing coding classroom footage.

Observers who pass the certification exam conduct classroom observations. To simplify the process, there are automatized programs that label, clean, and analyze the data.

To learn more about how to start using *Teach*, please consult the following resources:

• The *Teach* Brief providing an overview of the tool, what it measures, and how to use it in the field

• The Implementation Brief that provides details on the timeline, cost and process of applying *Teach*

• This list of complementary materials to support in the tool's deployment in the field

Teach

Contact the World Bank *Teach* team at teach@worldbank.org or visit us at www.worldbank.org/education/teach

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