



Promising Practices and Lessons Learned from Early Implementation of the TSTM Framework

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I. Introduction

The Teaching Skills That Matter (TSTM)-SkillBlox Instructional Support Pilot (TSTM-SkillBlox pilot project) is a collaboration of the American Institutes for Research (AIR) and World Education, a division of JSI (WE) to develop and pilot test instructional resources aligned with the TSTM framework. Developed as part of a national initiative of the Office of Career, Technical, and Adult Education (OCTAE), the TSTM framework focuses on skills, topics, and teaching approaches intended to improve the persistence of adult learners by helping them connect what they are learning with their educational and employment goals. To support teachers' use of the TSTM framework, we will develop and pilot test new features of the free online application SkillBlox, designed to support TSTM-aligned instruction (hereafter, TSTM-SkillBlox). Adult educators will be able to use TSTM-SkillBlox to find, organize, adapt, and share free TSTM-aligned content with other teachers and with learners. The TSTM-SkillBlox pilot project has three key components:

- An implementation study of the TSTM framework in states participating in OCTAE's national initiative. Findings from this study—including promising practices and lessons learned in supporting TSTM-aligned instruction—are intended to shape TSTM-SkillBlox development but may also inform efforts in the field to support TSTM implementation.
- Development of TSTM SkillBlox that will include open educational resources (OERs). SkillBlox is a nascent application for the discovery, development, dissemination, and use of OERs.¹
- A two-stage pilot study that will include an initial study of the usability of TSTM-SkillBlox and the feasibility of implementing it in the classroom, followed by an implementation and outcomes study. The full intervention to be pilot tested includes TSTM-SkillBlox; related professional development (PD); supports for using TSTM and SkillBlox in the form of recorded webinars, guides, and written resources; and additional touchpoints with TSTM and SkillBlox experts.

This brief highlights key findings from the first component of the project—an implementation study of the TSTM framework.

¹ "OERs" are "teaching, learning, and research resources that reside in the public domain or have been released under an intellectual property license that permits sharing, accessing, repurposing—including for commercial purposes—and collaborating with others." https://lincs.ed.gov/sites/default/files/OER_Fact_Sheet_508.pdf

Objectives of the TSTM Implementation Study

The TSTM implementation study was designed to inform the development of TSTM-SkillBlox by helping us understand the needs and experiences of the teachers already implementing TSTM-aligned instruction. The implementation study explores teachers’ efforts, promising practices, and considerations or challenges in using and scaling up TSTM-aligned instruction.

In the section that follows, we describe the TSTM framework and the national TSTM PD initiative meant to support its implementation before we delve into the data collection process and key findings.

The TSTM Framework and the National TSTM PD Initiative

In 2018, OCTAE contracted with AIR to develop the TSTM framework, partly in response to the priorities expressed in the Workforce Innovation and Opportunity Act of 2014. The law—which authorizes funding for adult education under Title II of the act—emphasizes the role of adult education programs and services in improving adults’ preparation for and success in postsecondary education or training and employment. The TSTM framework is meant to help adult educators improve their instruction by emphasizing the skills and topics aligned with adult learners’ educational and employment goals. The framework emphasizes the nine skills, five topic areas, and three teaching approaches shown in Exhibit 1.²

Exhibit 1. Core Elements of the TSTM Framework

Skills		Topic Areas	Teaching Approaches
1. Adaptability and willingness to learn	6. Problem solving	1. Civics education	1. Integrated and contextualized learning
2. Communication	7. Processing and analyzing information	2. Digital literacy	2. Problem-based learning
3. Critical thinking	8. Respecting differences	3. Financial literacy	3. Project-based learning
4. Interpersonal skills	9. Self-awareness	4. Health literacy	
5. Navigating systems		5. Workforce preparation	

Note. From <https://lincs.ed.gov/state-resources/federal-initiatives/teaching-skills-matter-adult-education>

To support states’ implementation of the TSTM framework, OCTAE funded a TSTM PD initiative (led by AIR) to provide training, coaching, a comprehensive TSTM Toolkit with lesson plans, and other resources to state staff and adult education teachers from more than 30 states. The PD used a coaching implementation and train-the-trainer approach with six cohorts of states for roughly 6 to 8 months each from 2019 to 2023. For each cohort of participants—state adult education PD leaders and four local “teacher leaders,” selected to become local trainers—the PD

² More information on TSTM can be found here: <https://lincs.ed.gov/state-resources/federal-initiatives/teaching-skills-matter-adult-education>

began with an initial 3-day session to introduce participants to the skills, topic areas, and approaches that comprise the TSTM framework. Participants had an opportunity to learn from experts in the field and collaborate with teachers and state PD leaders from other states to deepen their understanding.

Participants also explored the TSTM Toolkit and learned the way to integrate lessons developed by the TSTM PD initiative into their instruction. The training period ended with a final 2-day session in which participants shared their experiences in implementing TSTM, both through small-group discussions and a showcase of their work, along with sharing sustainability plans for the ways state PD leaders would share, scale, and sustain the knowledge learned from the PD throughout their state. Between the two sessions, participants' learning was supplemented by three webinars on topics participants identified as areas of need. Teacher participants also had biweekly calls with coaches provided by the TSTM PD initiative, and coaches conducted two site visits per teacher participant virtually or in person, during which the coach observed the participant teaching a TSTM-aligned lesson and provided feedback and additional support.

After completing the training period, states were intended to “scale and share” TSTM further throughout the state—referred to as “TSTM scale-up” or “rollout” in this brief—and to develop sustainability plans.

II. Data Collection

Data collection for the TSTM implementation study took place in fall 2021 through summer 2022 and focused on the three TSTM cohorts that had begun supporting implementation of the framework within their states (Cohorts 1–3). These cohorts would have completed TSTM training in Spring 2020 (in-person pilot Cohort 1) and Spring 2021 (Virtual Cohorts 2 and 3). It is important to note that Cohorts 2 and 3 were trained during the COVID-19 pandemic and Cohort 1 ended as the pandemic started. Because of this timing, the data collected during the study represent an early stage of implementation and scale-up among a subset of the six TSTM cohorts.

We conducted the following three types of data collection to gather information on state and local efforts and experiences:

- Virtual interviews with state PD staff were held to learn the ways and the extent to which they had begun supporting local implementation of the TSTM framework. Because TSTM rollout and scale-up relies heavily on trained teachers, information from state PD staff was used primarily to identify and select a subset of states in which to collect more detailed information from teachers involved in the TSTM initiative.
- Virtual focus groups with teachers involved in the TSTM initiative in their states were convened to (a) better understand the ways they were implementing TSTM locally and/or supporting TSTM-aligned instruction, and (b) uncover promising practices and challenges they experienced in the process. These teachers included those trained through the national

PD project (teacher leaders) and other teachers implementing TSTM in their classrooms who were trained through the state's own TSTM rollout (classroom teachers).

- A web-based survey of teacher leaders was administered to learn the ways and the extent to which they had begun implementing and supporting TSTM-aligned instruction.

All Cohort 1–3 state PD staff who participated in the TSTM PD initiative were invited to participate in the study. There were 23 states total in Cohorts 1–3. PD directors from 22 of those states agreed to be interviewed in fall and winter 2021. To select a subset of states in which to collect teacher data, information from the interviews with state PD leads was used to identify states using a variety of intensive approaches to TSTM rollout—for instance, small-group training, instructional coaching, and training of trainers—and lighter touch activities such as webinars, state conference presentations, and online courses. The goal of this selection strategy was to capture a diverse set of promising practices in and potential challenges to implementation.

From this process, 10 states were selected from the 22 in which interviews were conducted. Of those 10 states, eight agreed to participate in an implementation study. Teacher data collection focused on those eight states: Arizona, Iowa, Maine, Massachusetts, Mississippi, Pennsylvania, Virginia, and Washington. Teacher data collection involved all teacher leaders (teachers trained through the national TSTM PD) in these states and a sample of classroom teachers identified by teacher leaders as local TSTM implementers.

Virtual focus groups were conducted with teachers within each of the eight states from April through July 2022. In total, 16 focus groups were conducted: eight with teacher leaders and eight with classroom teachers. Most focus groups were attended by two to four teachers, with a range of one to seven teachers. In total, 23 teacher leaders and 27 classroom teachers participated in the focus groups.

Finally, in June and July 2022, a survey was administered to teacher leaders from the eight states. Because some of the original 32 teacher leaders had left their positions during the pandemic, the survey was sent to the 25 teacher leaders who remained in their roles at the time of the study. All 25 teacher leaders responded.

The sections that follow describe what we learned from teacher leaders and classroom teachers in the eight states and discuss the implications of these findings for the development and pilot testing of TSTM-SkillBlox. Readers should note that, because the data collected largely reflect implementation activities from 2020 through mid-2022, the findings represent teachers' experiences with TSTM soon after participating in the TSTM PD initiative and while pivoting to online instruction during COVID.

III. Teacher Leaders' Efforts in Scaling and Integrating TSTM

This section draws on data from the survey of teacher leaders to describe the ways in which they were supporting TSTM implementation and scale-up, as well as the extent to which they had integrated the TSTM framework into their own instruction. Overall, the teacher leaders reported providing a range of training activities intended to help other teachers implement TSTM-aligned instruction, with most teacher leaders offering both lighter touch activities and more intensive PD. In their own classrooms, teacher leaders reported using multiple TSTM PD initiative resources to varying extents, with the TSTM Toolkit lessons and definitions of TSTM skills, topics, and approaches standing out as being used by most. Teacher leaders also reported integrating multiple TSTM skills, topics, and approaches into their instruction, with processing and analyzing information, workforce preparation, and integrated and contextualized learning emerging as the most extensively integrated skill, topic, and approach, respectively.

Types of Activities Provided for Scaling TSTM

The survey asked teacher leaders about the activities they used to roll out TSTM to classroom teachers in their states. Exhibit 2 reports the percentage of teacher leaders who provided each type of activity. The two most frequently provided activities reported had a lighter touch: webinars and conference or meeting presentations. More than half of the teacher leaders provided more intensive activities, including instructional coaching, workshops or trainings at state conferences, and small-group training. One-on-one training and training-of-trainer events were provided least often.

Exhibit 2. Percentage of Teacher Leaders Providing Each Type of Training Activity for Scaling TSTM



Note. The survey item was, “Since your state began participating in the Teaching Skills That Matter (TSTM) professional development (PD) initiative, what types of activities have you provided or helped provide to other teachers in your state for integrating TSTM skills, topic areas, or approaches into their instruction?” The percentage for each activity is based on the number of teacher leaders who responded to the corresponding subitem. The number of responses ranged from 23 to 25. From Teaching Skills That Matter-SkillBlox Instructional Support Pilot.

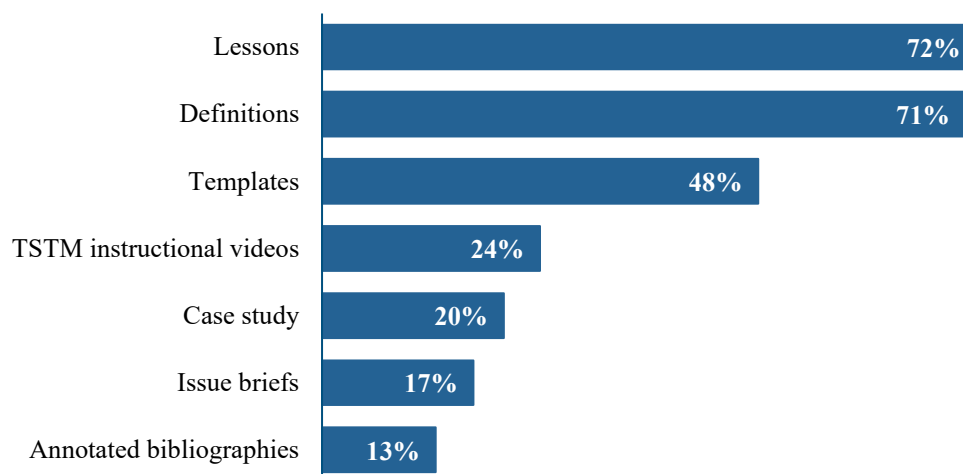
Use of TSTM PD Initiative Resources

Teacher leaders were asked about their use of TSTM PD initiative resources in their own instruction. We consider a resource to be used extensively if the teacher leader indicated that they used that resource “a great deal” or “completely” in their instruction. The [TSTM Toolkit](#) provided definitions and examples of the [nine skills](#), [five topic areas](#), [three teaching approaches](#) of the TSTM framework, issue briefs,³ an [action plan template](#) intended to help teachers make progress toward their instructional goals by mapping out steps toward the goal [a lesson planning tool](#),⁴ and many other tools that supported the implementation of fully developed lessons that teachers could easily adapt for use in their classrooms. Exhibit 3 presents the percentage of teacher leaders who reported using each resource extensively. The TSTM lessons and definitions were used extensively by more than two thirds of teacher leaders, whereas the issue briefs and annotated bibliographies were used extensively by the fewest teacher leaders to integrate the TSTM framework into their instruction.

³ [Teaching Skills That Matter in Adult Education | Adult Education and Literacy | U.S. Department of Education](#)

⁴ The toolkit included 25 lessons that teachers could use in their classroom (with adaptations to fit their context). We also provided a lesson-planning tool so that teachers could incorporate the TSTM framework into their existing lessons or create new lessons using the TSTM framework.

Exhibit 3. Percentage of Teacher Leaders Who Reported Using Each TSTM PD Initiative Resource Extensively



Note. The survey item was, “For the classes in which you have integrated TSTM (skills, focus topic areas, or approaches) into your instruction, to what extent have you used the following: TSTM-provided resources, issue briefs, case study, lessons, annotated bibliography, definitions, templates, TSTM instructional videos?” Each resource was used extensively if teacher leaders indicated using that resource “a great deal” or “completely” in their own instruction. The percentage for each resource is based on the number of teacher leaders who responded to the corresponding item on the survey. The number of responses ranged from 24 to 25. From Teaching Skills That Matter-SkillBlox Instructional Support Pilot.

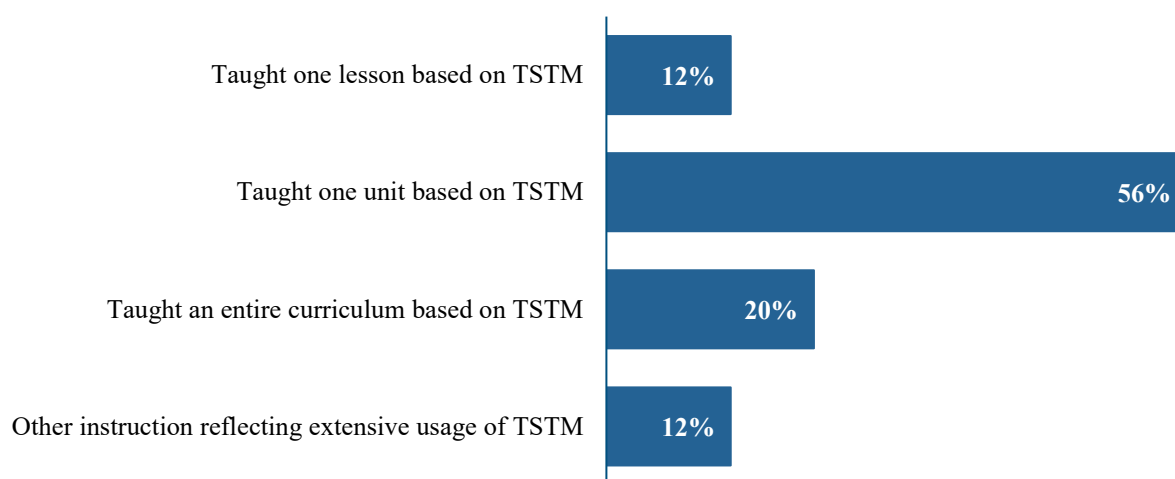
Teacher Leaders’ Integration of TSTM Framework Into Their Instruction

The survey asked teacher leaders about their integration of the nine TSTM skills, five topic areas, and three teaching approaches into their instruction. We consider a TSTM skill, topic area, or approach to be integrated extensively if teacher leaders indicated integrating it “a great deal” or “completely” into their instruction. Exhibit 4 shows the percentage of teacher leaders who incorporated the TSTM framework into varying amounts of instruction. Over half of the teacher leaders taught at least one unit based on TSTM skills, topics areas, or approaches. In addition, 20% of teacher leaders reported teaching an entire curriculum based on the TSTM framework. Exhibits 5, 6, and 7 show the percentage of teacher leaders who integrated varying numbers and types of TSTM skills, topic areas, and approaches extensively into their instruction. While the national TSTM PD initiative did not require teacher leaders to integrate all skills, topics, or approaches, it did ask them to integrate one to two lessons from the TSTM Toolkit during the state rollout.⁵ As findings show, teacher leaders met and often exceeded the guidance from the initiative.

⁵ For context, TSTM Toolkit lessons were designed to focus on one topic (except for an introductory lesson) and one approach, but lessons typically cover multiple skills.

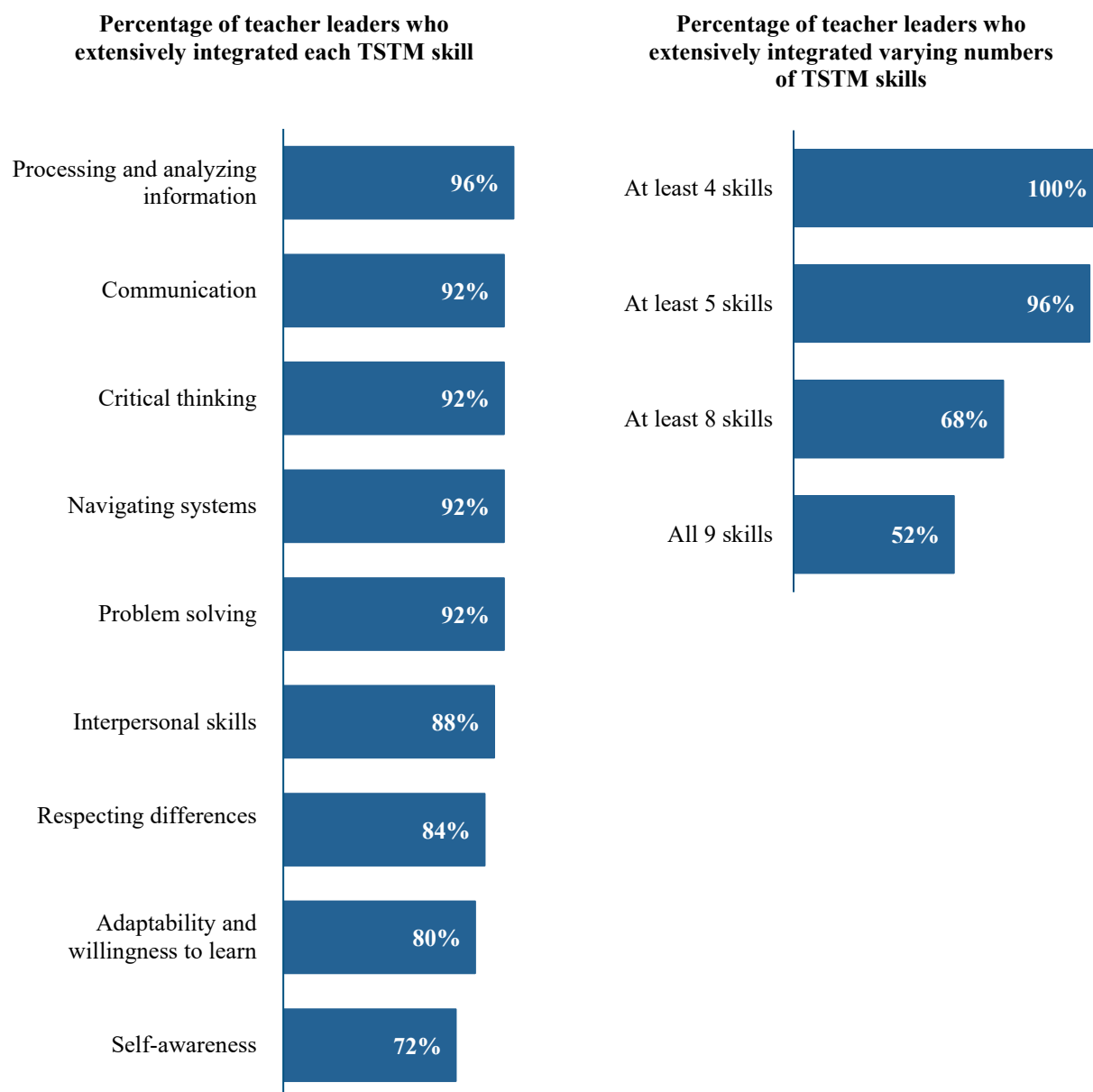
- All teacher leaders integrated at least four of the nine skills extensively, and a majority (68%) integrated at least eight skills extensively into their instruction. Five skills were integrated extensively by nearly all teacher leaders—processing and analyzing information, communication, critical thinking, navigating systems, and problem solving.
- A vast majority of teacher leaders (80%) integrated at least two of the five TSTM topics extensively into their instruction, although fewer than half of the teacher leaders integrated three or more topics extensively. The topics integrated extensively by the greatest number of teacher leaders were workforce preparation and digital literacy (reported by 67% and 63% of teacher leaders, respectively). The topic of financial literacy was integrated extensively into instruction by the fewest teacher leaders (42%).
- All teacher leaders who responded to the survey integrated at least one TSTM instructional approach extensively and most (68%) integrated at least two approaches extensively into their instruction. The most integrated approach was integrated and contextualized learning, which was extensively integrated into instruction by 88% of teacher leaders. The least integrated approach was project-based learning, which was extensively integrated into instruction by only 56% of teacher leaders.

Exhibit 4. Percentage of Teacher Leaders Who Reported Different Amounts of Instruction Incorporating TSTM Skills, Topics, or Approaches



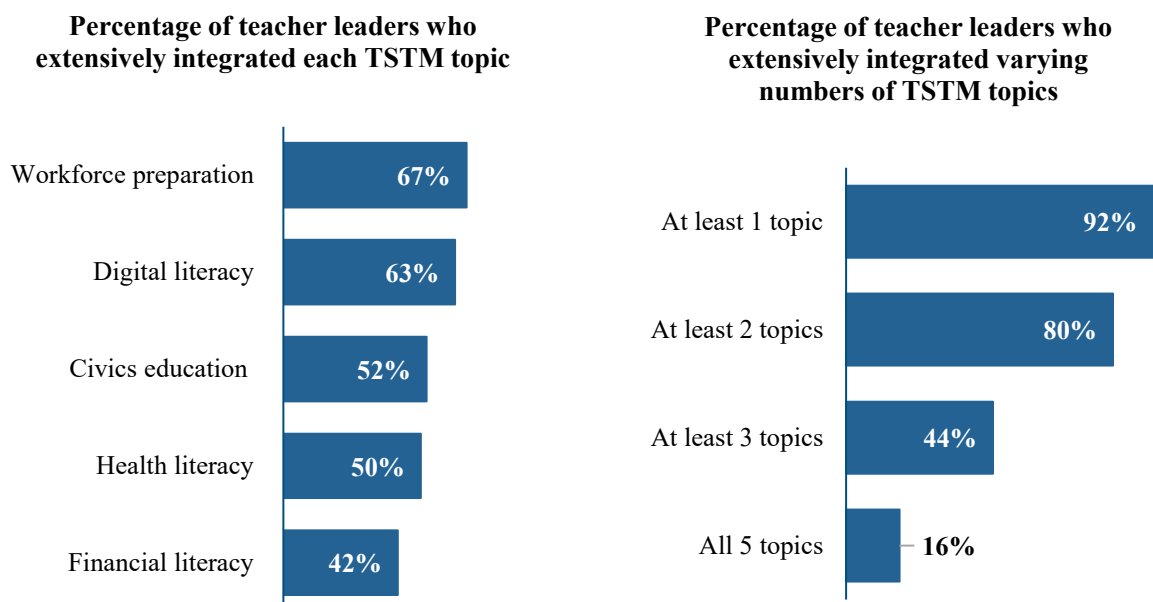
Note. The survey item was, “Which of these descriptions most closely reflects the amount of your instruction that incorporates TSTM skills, topics, or approaches? Select all that apply: taught one lesson that included TSTM skills, topics, or approaches; taught a unit of instruction that integrated the TSTM skills, topics, or approaches; taught an entire curriculum that integrated the TSTM skills, topics, or approaches; other.” If respondents selected the “other” option, they could add an open-ended response. All 25 teacher leaders responded to this survey item. From Teaching Skills That Matter-SkillBlox Instructional Support Pilot.

Exhibit 5. Teacher Leaders' Integration of TSTM Skills Into Instruction



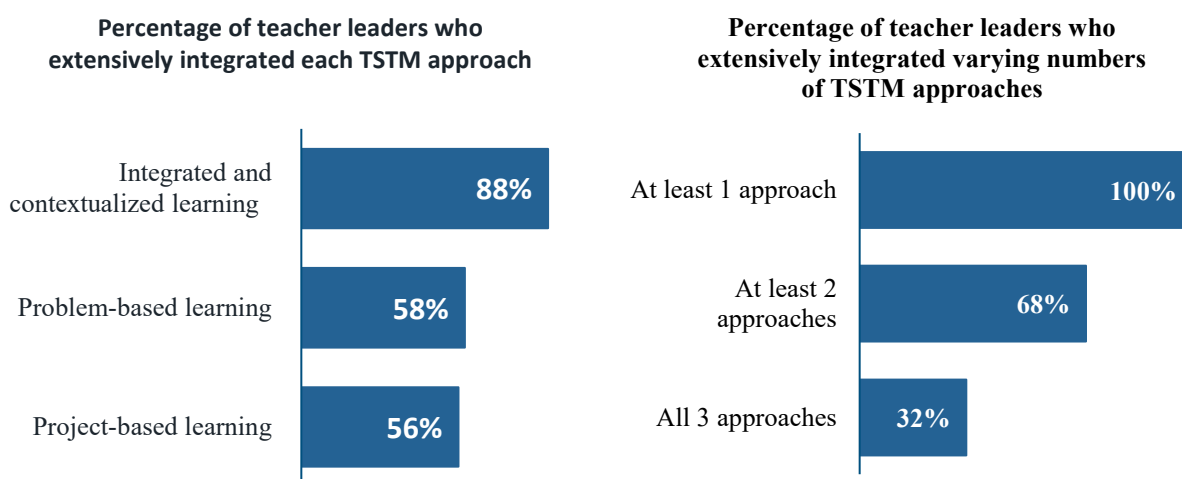
Note. The survey item related to the TSTM skills was, “For the classes in which you implemented TSTM, to what extent did you integrate each of these TSTM skills into your instruction: adaptability and willingness to learn, communication, critical thinking, interpersonal skills, navigating systems, problem solving, processing and analyzing information, respecting differences, self-awareness?” A TSTM skill was extensively integrated if teacher leaders indicated integrating that skill “a great deal” or “completely” into their instruction. The percentages include all 25 teacher leaders in the denominator. Item nonresponse is treated as not integrating the skill extensively. From Teaching Skills That Matter-SkillBlox Instructional Support Pilot.

Exhibit 6. Teacher Leaders' Integration of TSTM Topics Into Instruction



Note. The survey item related to the TSTM topic areas was, “For the classes in which you implemented TSTM, to what extent did you integrate each of these TSTM topic areas into your instruction: civics education, digital literacy, financial literacy, health literacy, workforce preparation?” A topic area was extensively integrated if teacher leaders indicated integrated that topic area “a great deal” or “completely” in their instruction. The percentages include all 25 teacher leaders in the denominator. Item nonresponse is treated as not integrating the topic extensively. From Teaching Skills That Matter-SkillBlox Instructional Support Pilot.

Exhibit 7. Teacher Leaders' Integration of TSTM Approaches Into Instruction



Note. The survey item related to the TSTM approaches was: “For the classes in which you implemented TSTM, to what extent did you integrate each of these TSTM approaches into your instruction: integrated and contextualized learning, problem-based learning, project-based learning?” A TSTM approach was extensively integrated if teacher leaders indicated on the survey that they had integrated that approach “a great deal” or “completely” into their instruction. The percentages include all 25 teacher leaders in the denominator. Item nonresponse is treated as not integrating the approach extensively. From Teaching Skills That Matter-SkillBlox Instructional Support Pilot.

IV. Promising Practices and Challenges and Considerations

Focus groups with teacher leaders and classroom teachers provided insights into the promising practices and challenging aspects of TSTM state rollout efforts. As a reminder, teacher leaders trained through the national TSTM PD project are referred to as “teacher leaders” and other teachers implementing TSTM in their classrooms who were trained through the state’s own TSTM rollout are referred to as “classroom teachers.” The findings below reflect the most salient collective opinions expressed by participants about their state rollout and sustainability efforts, which included state-led PD efforts and training separate from the OCTAE-funded TSTM PD initiative.



Promising Practices

Working Together and Learning From One Another

Teachers believed that working and learning together in several different ways was helpful and rewarding, and gave them an opportunity to practice and reflect on instructional approaches to incorporating TSTM. Teacher leaders described the importance of maintaining the necessary flexibility to connect with teachers in ways that honored their experience and expertise, built on their strengths, and supported adaptation based on local needs. This notion of taking a strengths-based approach and incorporating teachers’ existing knowledge and experience while building capacity showed up in a variety of ways. One example was having coaches and other PD providers recognize the individual needs and strengths of classroom teachers and build collaboratively from there, rather than assuming that all teachers would have the same starting points for implementing TSTM. Another approach was capitalizing on teacher leaders’ expertise through strategic collaboration—for example, by taking a team-teaching approach in which teacher leaders contributed to lesson planning on the basis of their area of expertise, such as financial literacy.

Playing to each of our individual strengths is probably the most important feature and best practice because we have experts throughout the state and a variety of different delivery methods for instruction. What we’re looking at as we move forward is some team teaching. . . . So coming up with a variety of different methods, using the expertise that we have, to share beyond the teacher leaders that we currently have.

— *Teacher Leader in Focus Group*

Many classroom teachers in the study reported that engaging in group discussion and project-based learning with colleagues provided an opportunity to practice and reflect on instructional

approaches to incorporating TSTM. Classroom teachers cited group work and opportunities to work together in training and in their local setting as an important element of implementation that helped develop skills and community, and provided them with opportunities to exchange ideas. For example, working together to create something like a poster or using educational technology tools such as Padlet was considered more rewarding than just hearing a presentation on the TSTM skills. Classroom teachers reported positive learning experiences in facilitated discussions, such as breakout rooms, group presentations, communities of practice, and professional learning communities. These teachers described this as a partnership in learning, which was useful in thinking through what TSTM looks like for adults in their real lives and helped teachers reflect on and learn the content in a way that was more likely to stick.

I do feel like people have really enjoyed the regular contact with a group of colleagues, even if they're from different programs, and the shared exploration, some struggles, some "how do we do this?" Navigating this thing together, I think, has really brought people together. And having that ongoing community of practice, I think, has been really valuable for everyone.

– *Teacher Leader in Focus Group*

Finally, classroom teachers also revealed how various forms of modeling (e.g., visual demonstrations of teaching TSTM lessons) were helpful supports for training classroom teachers to use TSTM. Teachers across multiple states expressed a desire for more demonstrations of TSTM lessons and expressed the way visuals (e.g., videos) strengthen their abilities to create and adapt the TSTM framework in their curriculum.

So I think that the example lesson plans and then actually seeing it . . . in the last session of the [state-led] academy, we just got a whole list of videos where we could listen to teachers talk about their experience and how they implemented it. And there was even some student perspective. I would even say that's something I feel like is lacking . . . just seeing it being applied, hands on in the classroom, and what that looks like with different populations.

– *Classroom Teacher in Focus Group*

Offering Multiple Types of Coaching Activities

Coaching and related activities provided as part of state rollout activities were valued by both teacher leaders and classroom teachers in most states. Coaching encouraged collaboration and communication, provided support to classroom teachers, and created a structure for teachers to come together and work collectively, ask questions, and share ideas in a way that they felt met their needs. Classroom teachers from two states, for example, shared that access to coaches who are knowledgeable about TSTM helped with integrating the TSTM framework into their lessons.

Teacher leaders described the flexibility of the coaching model in terms of scheduling, frequency, and number of participants. In addition to the coaching provided through the TSTM PD project, states tried different strategies to get some form of coaching in place for their state-led TSTM rollout, including full instructional coaching, group-based coaching meetings, and peer coaching as beneficial strategies to support implementation. Full instructional coaching involved partnering with teachers on a one-on-one basis to develop and implement curricular strategies. Group-based coaching, also providing supports to improve classroom instruction, was conducted in groups with multiple teachers, creating an opportunity for them to learn from the coach and one another. Lastly, peer coaching allowed teachers to learn new instructional skills by sharing ideas and effective practices with their colleagues. These models were often tailored to meet the needs of the teachers being trained. Many teachers suggested that low-intensity, scalable approaches involving virtual office hours at weekly or regular intervals provided teachers with access to local experts who supported them in implementing TSTM in their instruction, aided further collaboration, and provided a flexible means to reinforce the TSTM framework.

I'll add that the coaching, I think, is a really important part of the process. . . . From my observation, it really did strengthen the process and encouraged people and programs to be communicating with each other all along during the process. And there was a lot of brainstorming that happened and just kind of general support during those coaching sessions that were really valuable.

– *Teacher Leader in Focus Group*

Using TSTM Toolkit Lessons and Lesson Plans

The TSTM Toolkit was one of the key resources provided through the OCTAE-funded TSTM PD initiative, and this toolkit played an important role in implementing TSTM sustainability plans within states. Teachers emphasized the value of the information in the TSTM Toolkit, with some describing it as “central” or the “backbone” of state activities. Classroom teachers in most of the states described the utility of sample lessons, reporting that these lessons gave them ideas, direction, and structure.

Several classroom teachers also noted that, because of the amount of detailed information and comprehensive offerings, the toolkit could seem overwhelming. To overcome this challenge and make the toolkit more accessible, teacher leaders developed strategies for separating the toolkit into smaller modules. The teacher leaders emphasized the use of the toolkit for a range of applications and applied it flexibly to meet their needs. Teacher leaders suggested deconstructing the toolkit into different pieces and modules organized by topic, lesson, or specific skills and adapting it for their own purposes.

What we try to do is, depending on where our teachers are . . . try to strategically think, okay, where would be a natural entry point? What is going to be something that will encourage folks to want to pursue this? If I gave all of my teachers the toolkit and said, “Just learn it,” it would be overwhelming. It wouldn't gain traction. . . . You have to find out what's the morsel I can kind of pull out that would cause traction for scaling and implementation in the future.

– *Teacher Leader in Focus Group*

Obtaining Buy-In as a Key Facilitator of Implementation

Buy-in from state and local administrators was identified as an important driver of scaling and sustaining TSTM in states. Teacher leaders who received strong support from state-level staff (e.g., PD teams and leaders) believed that this was essential for successfully building capacity and facilitating classroom implementation of TSTM. However, buy-in not only from the state leadership but more locally, from each agency's administrator/program directors, was considered critical to TSTM implementation within the state. Several teacher leaders suggested that supportive actions and stronger endorsements from local leaders (e.g., program directors) could promote the adoption and sustained use of TSTM among classroom teachers. Overwhelmingly, teacher leaders suggested that teachers could embrace an initiative if state and local administrations provide encouragement, support, feedback, and freedom to pursue the intervention in any direction.

One thing that I've noticed is the importance of not only buy-in coming from the top but really the buy-in from each agency's administrator. That to me has been critical. And I just think about how my boss has supported me and supported TSTM ever since I went to the pilot [and] has always provided the PD time and the PD hours so that our staff can actually do this work and has allowed me to do some additional work outside with TSTM to support what the state's doing.

– *Teacher Leader in Focus Group*



Challenges and Considerations

Pandemic-Related Transitions

Pandemic-related educational disruptions were central to the experiences of the states in TSTM Cohorts 1–3. These educational disruptions exacerbated scaling challenges, and the shift to online learning required more time and resources to integrate the TSTM framework. Teacher leaders and classroom teachers reported that virtual teaching requirements significantly reduced the opportunities for community building and resource sharing, which in turn affected TSTM capacity strengthening during early stages of its implementation. Furthermore, teacher attrition quickly worsened during the pandemic, and some states lost most or all of their teacher leaders who were their key resource in TSTM scaling and sustainability of state-led efforts.

Teacher leaders in four of the eight states shared practical challenges related to teaching online using the TSTM framework, such as adapting group work to fit virtual breakout rooms and transitioning paper-based lessons to online platforms. Several classroom teachers and teacher leaders acknowledged the challenges of managing teaching demands virtually while also learning to engage students—many of whom had limited technology resources and skills—in virtual environments. Teacher leaders cited students’ lack of access to technological resources and lower levels of digital literacy as barriers to effectively teaching TSTM in virtual settings and shared the challenges of integrating the TSTM framework into fully online or hybrid courses.

I think, because I'm still teaching online . . . you have to come up with a whole new adaptation, thinking about how you can do group work and breakout rooms. What can [students] be working on? A lot of them have the assumption that you’re giving out a lot of handouts, and that’s really cumbersome when you’re doing [it] online. So you have to streamline it, thinking about which digital tools you can use to do different things, different forms of engagement

– *Teacher Leader in Focus Group*

Capacity Constraints Affecting Implementation

Capacity within states was another limiting factor for TSTM implementation and scale-up, which overlapped with the conditions created by the pandemic, such as limited numbers of teacher leaders or trainers who could work with teachers. This shortage, in turn, created a lot of burden for the existing teacher leaders who were planning to be trainers for TSTM in their own states, as they were tasked with helping implement multiple initiatives during this time. In some cases, the low number of trainers prevented classroom teachers from having their coaching needs met.

I know that we haven’t heard from one agency, and I believe the other agency declined to continue with the coaching. And one of the big things that they cited around that was just having so many different commitments, things that they’re trying to work on. . . . Some of it speaks to what I think [our colleague] talked about earlier with the great resignation, having a lot of turnover and just trying to get basic training of new teachers that they have coming in.

– *Teacher Leader in Focus Group*

Competing professional development initiatives and a mostly part-time teacher workforce made TSTM implementation even more difficult. Many teachers and teacher leaders reported a lack of time to adapt their lessons to the TSTM framework, and that further limited their ability to integrate the TSTM framework. In addition, some also mentioned lack of compensation for teacher’s time as a barrier to TSTM capacity-strengthening efforts.

And the reality is that we have mostly part-time instructors; they are only paid for the teaching time. And I think now that they're allowed 15 minutes of prep for each three-hour class that they teach. And so from their perspective, if it's not something that they can just easily utilize, it's something that, realistically, they don't see. "Well, how do I implement these things," If it's just not a fast, quick process.

– *Teacher Leader in Focus Group*

V. Looking Ahead

As we look ahead to future expansion of TSTM-aligned instruction, we must also acknowledge and learn from the implementation and scaling that occurred during the TSTM initiative's pandemic years. Sustaining programming was the priority of most local programs and states during this time, not implementing new initiatives unrelated to the pandemic. Yet it happened, with many states and their local teacher leaders participating in an intensive national PD initiative and some making real progress in scale-up.

The lessons learned from TSTM implementation in eight early TSTM states provide a new lens with which to consider planning for the scaling and sustainability of TSTM and similar initiatives. Through the implementation study, we identified several promising practices in scaling TSTM within states and learned about challenges or constraints that prevented teachers from integrating TSTM more fully into their instruction. The key promising practices shared by teachers involved in the TSTM initiative included:

- providing opportunities for teachers to work and learn collaboratively in multiple ways and in ways that build on their existing knowledge and strengths;
- offering access to coaches and other individuals who are knowledgeable about TSTM, including through flexible and less intensive modes such as "office hours;"
- providing TSTM lessons in the TSTM Toolkit and breaking down those lessons into smaller modules for easier adaptation and integration into instruction; and
- obtaining buy-in and having the support of state and local administrators for scaling up TSTM.

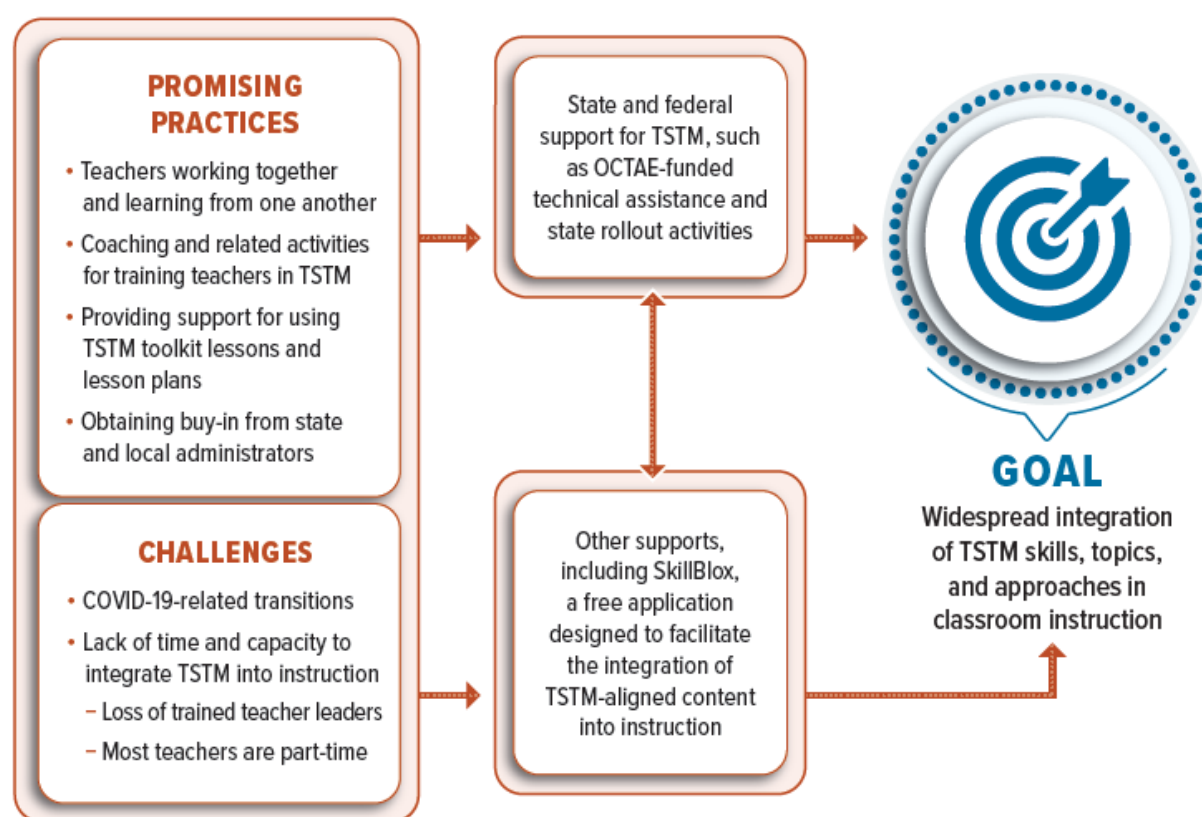
However, teachers' implementation of TSTM was constrained by two main challenges:

- pandemic-related transitions to online instruction; and
- lack of time and capacity to integrate TSTM into instruction, exacerbated by the loss of trained TSTM teacher leaders and by the part-time status of most teachers in adult education.

Efforts to continue support for TSTM rollout and scale-up are underway at the federal, state, and local levels. The implementation findings presented here are intended to help inform those efforts and to guide the development of a set of new instructional resources—the TSTM-

SkillBlox application, along with PD and technical assistance materials, to support users. TSTM-SkillBlox is designed to support future efforts for scaling TSTM by providing teachers with an innovative tool and relevant content for integrating TSTM into their existing instruction. Tools such as TSTM-SkillBlox, along with ongoing and future PD and technical assistance from OCTAE and states, may help bring the field closer to the goal of widespread integration of TSTM-based instruction in adult education classrooms. Exhibit 8 provides a conceptual framework illustrating the way in which the promising practices identified in the implementation study can be supported and the challenges addressed through these combined efforts to help achieve that goal.

Exhibit 8. Conceptual Framework



Note. From Teaching Skills That Matter-SkillBlox Instructional Support Pilot.

Below, we discuss the ways in which we are using what we learned about TSTM implementation to inform the development of TSTM-SkillBlox and resources for users as part of a multiyear pilot.

Informing the TSTM-SkillBlox Pilot

As Exhibit 8 suggests, an instructional application like TSTM-SkillBlox alone is unlikely to support widespread implementation of TSTM. However, it *can* help to address one of the more significant challenges teachers reported—lack of time and capacity for integrating TSTM into

instruction. The application will provide teachers with extensive content already aligned with TSTM and features for organizing that content to create lesson “blox.” To create the content of the TSTM-SkillBlox, we are conducting service-learning experiences called EdTech Maker Space where teachers learn about open educational resources (OER) evaluation, organization, design, and adaptation while they curate, adapt, and create shared TSTM-aligned OER. As part of the service learning events, educators learn about TSTM skills and topic areas to create or build on existing OERs to produce consistently structured lessons and activities useful for TSTM-aligned instruction. The pilot team at WEI is simultaneously developing the features of the application to be populated with these TSTM OER. The application development is an iterative process that involves repetitive design and testing, including the collection and analysis of data from participant focus groups and interviews, along with user engagement data.

The TSTM-SkillBlox application will be accompanied by a set of supports designed to address teacher time and capacity constraints while incorporating promising practices shared by TSTM teachers. These supports will include a series of brief online synchronous training sessions that provide opportunities for learning and collaboration, video resources to reinforce the content, and access to TSTM and SkillBlox experts through online office hours. In addition, teacher participants will be provided with other “how-to” resources, such as a SkillBlox guide. To support teachers who are unable to attend the training series or who need a refresher, video recordings will also be made available. Below, we describe in more detail the ways in which the design of TSTM-SkillBlox and user supports will address capacity constraints and incorporate promising practices for supporting TSTM scale-up.

Minimizing the time and capacity needed. TSTM-SkillBlox and the related supports planned for future phases of the pilot will be designed to reduce the time and difficulty associated with integrating TSTM into instruction. The TSTM-aligned content and instructional planning features of SkillBlox will make it easier for users to find relevant digital resources and activities in the SkillBlox library, organize them into instructional “blox,” and (if they choose) share the “blox” with learners through the application. Similarly, the brief trainings and other resources for using TSTM-SkillBlox will be designed to place minimal burden on teachers by focusing on what they most need to know to achieve their instructional goals. The trainings will strengthen capacity for more easily integrating TSTM into instruction by including time for teachers to develop their own skill “blox” to include in existing or new lessons.

Incorporating promising practices for supporting TSTM scale-up. The promising practices identified as part of the implementation study are also made more accessible and more easily implemented through TSTM-SkillBlox and the related supports for its use. The trainings for TSTM-SkillBlox are designed to provide the necessary flexibility teachers identified as being so important—meeting the teachers where they are and supporting adaptation of the TSTM lessons to meet local needs. The training sessions will involve modeling the ways to create and adapt lessons—a practice cited as being especially helpful. The training will also provide many opportunities for practice, discussion, and reflection. Although one-on-one coaching will not be

feasible, we plan to provide an approximation of the coaching conversations that were highly valued by implementation study participants by providing office hours during which users can receive similar support.

TSTM-SkillBlox and the user supports will be piloted in two stages. The first stage will include a small-scale usability and feasibility study in 2024, to get teacher feedback and make refinements. The second stage will involve a full-scale pilot study in 2024–25 to evaluate implementation and outcomes for learners receiving instruction.

Findings from the pilot will be used to inform future updates to SkillBlox and to offer the field additional insights on implementing and scaling TSTM. We expect the new SkillBlox features, user supports, and findings from the pilot to be available in 2026–27.

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