

A Report of the Formative Assessment of Reading Apprenticeship Across the Disciplines

A Supporting Effective Educator Development (SEED) Grant

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Introduction

Reading Apprenticeship is a research-based professional learning model and instructional framework designed by the Strategic Literacy Initiative (SLI) at WestEd to improve student literacy and learning. Based on understandings of the close relationship between curricular reform and professional development (Heller & Greenleaf, 2007), Reading Apprenticeship components include an instructional framework and associated professional development model for secondary and post-secondary teachers across the academic subject areas. Guided by the instructional framework (Schoenbach, Greenleaf, & Murphy, 2012), reading instruction is integrated into subject-area teaching, rather than being an instructional add-on or additional curriculum. Teachers across the subject areas learn how to build student capacities to carry out intellectually engaged reading, make meaning, acquire academic and disciplinary language, read independently, and set personal goals for literacy development.

In 2015, the U.S. Department of Education awarded SLI a Supporting Effective Educator Development (SEED) grant to disseminate the Reading Apprenticeship approach to literacy instruction across the subject areas in middle and high schools. The intention of this grant was to improve teacher effectiveness to meet the instructional needs of middle and high school students. The Supporting Effective Educator Development (SEED) grants supported by the Office of Innovation and Improvement of the Department of Education identified absolute and competitive priorities for proposals. The Strategic Literacy Initiative of WestEd applied for and received SEED funding under *Absolute priority 2: Increasing the number of highly effective subject area teachers*, and *Competitive priority 2: Improving efficiency (cost) of educator development models*. The funded project, called Reading Apprenticeship Across the Disciplines (RAAD), was awarded in October 2015 and concluded in October 2019. Through RAAD, SLI served middle and high school teachers in 6 states (California, Illinois, Michigan, New York, Texas, and Wisconsin).

Three key goals shaped the RAAD project:

Goal 1: Increase the number of highly effective secondary teachers serving high needs students by providing Reading Apprenticeship professional learning.

Goal 2: Improve high needs students' reading comprehension, academic achievement, metacognitive skills, and positive learning dispositions by increasing opportunities to learn.

Goal 3: Build local capacity for strong and sustained implementation and dissemination of effective academic literacy practices through teacher leader development, school, and regional network support.

An independent impact study was conducted by IMPAQ International with 7% of participating sites to address project Goals 1 and 2. This report focuses on formative assessment of project activities that address SLI's capacity to accomplish project Goals 1 and 3.

Innovation and Iterative Design of Professional Learning Model

While several grants have supported implementation and research on the impact of Reading Apprenticeship in discipline-specific learning models—those in which teachers experience 7 to 10 days of learning in content-alike groups—this dissemination project explored the impact of a **less time-intensive model serving cross-disciplinary teams** that is widely used in the field, shortening the face-to-face professional learning from 10 to 5 days. To provide the ongoing learning and support for implementation analogous to more time-intensive face-to-face models, this project also built on SLI's previous investments in using digital environments to enhance professional learning. The RAAD model of Reading Apprenticeship explored a **blended professional learning model** to support Reading Apprenticeship implementation through synchronous and asynchronous online learning opportunities, local partner engagement, teacher leadership development, and site-based school team meetings.

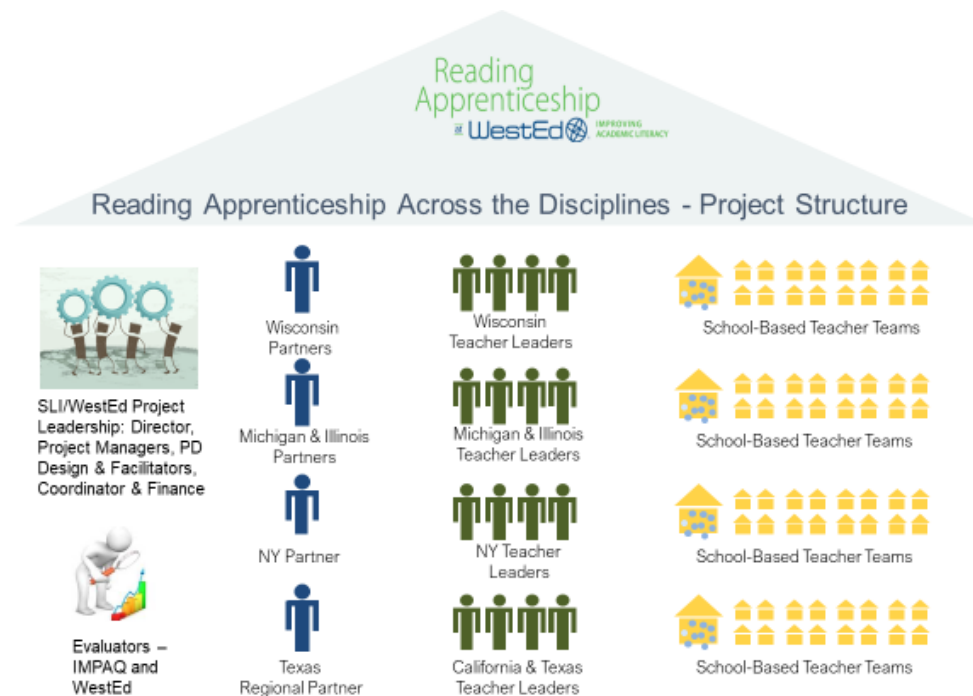
Layered Support for Implementation and Sustainability

SLI has long used the opportunity provided by large dissemination grants to explore ways to build local capacity and sustainability at participating sites. Similarly, SLI has explored multiple ways to scale its research-based programs effectively while reducing the demand on participating teachers and schools. To bring Reading Apprenticeship professional development

to scale at greater efficiency, SLI proposed to develop and test the promise of an innovative hybrid of face-to-face and online professional development based on its successful, inquiry-based, and highly interactive professional learning program.

To build local capacity for ongoing implementation of Reading Apprenticeship and in order to sustain the initiative after the grant’s completion, SLI proposed to work through **regional partners** – intermediary organizations with varied models and approaches to their work with schools. Finally, the project proposed to make deep investments in leadership development by offering additional professional learning days and material supports to **teacher leaders**, who were expected to convene their **school teams** (usually four teachers each year from varied content areas) for monthly meetings focused on Reading Apprenticeship implementation. The resulting project thus represents a determined effort by SLI to build self-sustaining supports for implementing Reading Apprenticeship in order to bring it to scale and provide multiple points of institutional support for ongoing learning. The graph below represents the cascading system of support for implementation.

FIGURE 1. PROJECT STRUCTURE OF READING APPRENTICESHIP ACROSS THE DISCIPLINES.



Formative Assessment

To gauge the success of these innovations and inform ongoing program improvement efforts, SLI research staff conducted extensive documentation and formative assessment of RAAD project components.

Research Questions

The formative assessment was designed to document: a) SLI's development and implementation of the proposed project; b) project outcomes for teachers, teacher leaders, and regional partners; and c) lessons learned about the project's approach to developing highly effective secondary teachers. Research questions included:

- 1. How did the RAAD Project build SLI's capacity to develop highly effective secondary teachers at scale?**
 - a. To what extent did RAAD enhance SLI's capacity to develop highly effective secondary teachers through improved materials, tools, and processes?*
 - b. To what extent did teachers, teacher leaders, and administrators participate in planned RAAD activities such as regional network meetings supported by Regional Partners, PLCs, and school team meetings?*
 - c. To what extent did the project build SLI's capacity to support strong and sustained implementation of effective academic literacy practices through teacher leader development, school, and regional network support?*
 - d. To what extent did the project support dissemination about the project's models and approaches to developing highly effective secondary teachers?*

- 2. To what extent did RAAD increase the number of highly effective secondary teachers through Reading Apprenticeship professional learning?**
 - a. To what extent did teachers and teacher leaders value and learn through the professional learning opportunities offered in the blended learning model?*
 - b. To what extent did teachers and teacher leaders value and learn through the Reading Apprenticeship instructional framework?*
 - c. To what extent did teachers and teacher leaders take up Reading Apprenticeship practices?*
 - d. Did these outcomes vary across subject areas?*

3. To what extent did the RAAD Project develop the capacity of regional partners and teacher leaders to sustain effective literacy practices in their sites?

- a. To what extent did local partners effectively support ongoing Reading Apprenticeship implementation at school sites?*
- b. To what extent were teacher leaders prepared to engage their broader school communities in learning about and taking up effective literacy practices?*

4. What new knowledge and insights did the RAAD Project contribute to SLI's work and to the field?

- a. What lessons were learned about the benefits and challenges of partnering with varied intermediate organizations operating in vastly different contexts?*
- b. What lessons were learned about supporting teacher leadership and its impact on implementation at sites?*
- c. What lessons were learned about the effectiveness (strengths and challenges) of the blended professional learning model?*
- d. What lessons were learned about the effectiveness (strengths and challenges) of the cross-disciplinary professional learning model?*

Data Sources

The formative assessment of the RAAD project drew on multiple forms of data, including records and artifacts of meetings with regional partners; teacher and regional partner surveys; records and artifacts of administrator, teacher leader, and teacher participation in RAAD activities; findings from teacher and teacher leader surveys focused on Reading Apprenticeship professional learning and classroom practices; analysis of a subset of online PLCs, and interviews with regional partners, focal teachers, and teacher leaders. In addition, we carried out a close case study of RAAD implementation over time in a large, urban school district, in collaboration with the regional partner supporting this site.

Documentation

Documentation protocols were developed by SLI research staff, with data collected by local partners and teacher leaders. Documentation data included professional development Design Team meetings, course materials and agendas, participant feedback sheets, agendas, and artifacts from all PLCs and team meetings at the school site. These were used to gauge the extent to which teachers, teacher leaders, and administrators participated in planned RAAD

activities, how often teacher leaders attended regional meetings, and how often team meetings occurred at school sites.

Observations

SLI staff observed a subset of video-recorded PLCs using field notes and analytical memos to document their observations and develop themes capturing the engagement and learning of teachers in the online PLC environment.

Surveys of Teachers and Teacher Leaders

SLI administered surveys of teachers and teacher leaders, adapting a survey developed for previous dissemination grants for the RAAD program. Survey questions asked for teachers’ perceptions of the value of the RAAD professional learning components and their classroom practices implementing literacy instruction as they participated in RAAD. These surveys were also used to determine to what extent teacher leaders felt prepared to engage their broader school communities in learning about and taking up effective literacy practices. A total of 1,333 teachers participated in the RAAD surveys—397 in Cohort 1 (2016-2017) and 936 in Cohort 2 (2017-2018). Teachers in Cohort 1 participated in three surveys: fall, winter, and spring. Teachers in Cohort 2 participated in two surveys: fall and spring. Overall, response rates for the five teacher surveys ranged from 37.8% to 64.7%. Participation in the surveys decreased in Cohort 2, likely related to the reduced stipends offered for data collection in this year of the project.

TABLE 1. TEACHER SURVEY PARTICIPATION NUMBERS AND RESPONSE RATES

Survey date	Cohort 1 (N=397)			Cohort 2 (N=936)	
	Fall 2016	Winter 2017	Spring 2017	Fall 2017	Spring 2018
Total Participants (TLs) ¹	252 (63)	257 (57)	237 (54)	354 (102)	384 (89)
Response rate	63.5%	64.7%	59.7%	37.8%	41.0%

Teacher Leader Focus Groups/Interviews

SLI research staff convened focus groups of teacher leaders in person and through online video conferencing at network meetings in each of the participating states to gather their feedback on the professional development program and the process of leadership development. These focus groups examined the degree to which teacher leaders felt prepared to support ongoing implementation of effective literacy strategies in their sites, including any barriers or challenges

¹ Number of teacher leader participants in parentheses.

they faced. In addition, the focus groups investigated how local partners and SLI can better support their ongoing work. Focus groups were asked, “To what extent do local partners effectively support ongoing Reading Apprenticeship implementation at school sites? What additional support might they need?”

Partner Interviews

SLI research staff carried out phone interviews with local partners quarterly to identify challenges and explore support needed for ongoing implementation at the school sites. In particular, interviews focused on the following questions: What RAAD resources do local partners find supportive in carrying out their work? What barriers or challenges do local partners encounter? How can SLI better support their work?

Stakeholder Interviews

For the extensive case study, SLI research staff also carried out recorded interviews with varied stakeholders in the large, urban school district, including district and school administrators, teacher leaders, and regional partners.

RESULTS

Below we report on each of the questions informing the assessment of the *Reading Apprenticeship Across the Disciplines* project. For each section, we identify the sources of data we drew on to answer these questions.

How did the RAAD Project Build SLI’s Capacity to Develop Highly Effective Secondary Teachers at Scale?

Enhancing SLI’s Professional Learning Materials, Tools, and Processes

To gauge the extent to which RAAD enhanced SLI’s capacity to develop the instructional effectiveness of secondary teachers through improved materials, tools, and processes, we drew on extensive documentation records from Design Team meetings, as well as the course materials developed for varied audiences, including participant and facilitator agendas, online course platforms and their content, and physical materials provided to teachers, teacher leaders, administrators, and regional partners to support their work.

The design of the RAAD professional learning model was motivated by SLI's goal to develop and test a model of professional learning that would be broadly feasible for most schools and school systems. It built on SLI's previous experience developing and implementing deeply discipline-specific professional learning over much longer sequences. For example, in SLI's 2010 I3 Validation grant, Reading Apprenticeship Improving Secondary Education, teachers attended 10 full days of professional development in face-to-face institutes over two years: 5 days in the first summer followed by 2 days in the winter and 3 days the following summer. Moreover, they met in single subject area groups—biology teachers, ELA teachers, and US history teachers—occasionally reconvening in school teams for implementation planning. Thus, support was provided by Reading Apprenticeship facilitators over a long period of time as teachers built their understanding of the instructional framework and practices, tried out the approaches in their classrooms, and refined their practice.

While this intensive model allowed SLI and the teachers it served to dive deeply into disciplinary literacy, the burden on schools and school systems for such in-depth work within single subjects was high. In practice, few school systems could afford, for example, to release all of their biology teachers at once, given the necessity of providing substitutes during the winter when schools were in session. Nor were there often enough teachers of the same subject to make an institute within a single subject practical and affordable. When school systems called on SLI to provide training, they opted for cross-disciplinary work, and often for far fewer days. Thus, it was incumbent upon SLI to test the efficacy of a professional learning model that was feasible and accessible for more schools and teachers. In addition to designing RAAD professional learning for cross-disciplinary groupings, we reasoned that reducing the number of days while offering support for implementation through other means would enable more educators to avail themselves of this work. These innovations required SLI to design new learning sequences and material supports, to adjust and reconfigure learning modules to address cross-disciplinary groups of teachers, and to develop online platforms and courses for varied audiences (regional partners, teachers, and teacher leaders).

Designing the Cross-Disciplinary Professional Learning Sequence

SLI's professional development is enactment and inquiry based. Teachers of various middle and high school subject areas learn how to integrate literacy learning into their ongoing teaching by investigating their own reading comprehension practices as they read unfamiliar and often challenging texts. They inquire into literacy instruction by observing and discussing videotaped classroom work, building a vision of possible practice and imagining how they might implement similar approaches. They listen to students think aloud, discuss text, and share their comprehension successes and challenges, thereby learning to value and interpret student thinking. They read, reflect on, and discuss professional readings, including the core text,

Reading for Understanding (Schoenbach, et al, 2012), that describes the Reading Apprenticeship Instructional Framework, offers teachers step-by-step guidance for implementation, and illustrates Reading Apprenticeship in classrooms serving diverse students in varied subject areas and grade levels. This learning model requires deliberate design, material support (the texts teachers will read, lesson materials, and task descriptions), and skilled facilitation.

SLI's professional development Design Team engages in a process of iterative R&D when designing and refining specific inquiry modules and professional learning sequences for particular learning goals. For RAAD, two lead designers proposed a set of learning goals attainable in the reduced time for institute days, as well as sequences of learning modules, drawing from previously designed modules of learning for disciplinary groups. Additional designers then provided input and critique, supported the design with text searches and refinements, and designed new modules as needed. To ensure support for discipline-specific literacy work, the Design Team took care to deliberately include each target subject area over the course of the learning days and within each day as much as possible. They included breakout times for subject area groupings during cross-disciplinary institute days when appropriate, as well as cross-subject area school team breakouts. While drawing from previous disciplinary sequences, designers worked to adapt and redesign modules to build a coherent through-line for teacher learning. Most importantly, the Design Team worked to reduce the scope and time devoted to face-to-face teacher learning, while at the same time building a learning sequence and set of experiences that would advance teacher understanding and implementation of the Reading Apprenticeship instructional framework.

As the Design Team conducted this iterative redesign, they engaged in specific Reading Apprenticeship R&D processes that are meant to ensure high quality professional learning. These include:

- Enactment of learning tasks with deliberate and metacognitive attention to the learning opportunities and challenges the tasks present;
- Reading Process Analysis with selected texts, using specific metacognitive routines that are proposed for the learning module;
- Field tryouts of new learning modules with school communities not participating in the grant; and
- Responsive refinement of modules and sequences of learning based on formative assessment during implementation (designer, facilitator, and teacher feedback)

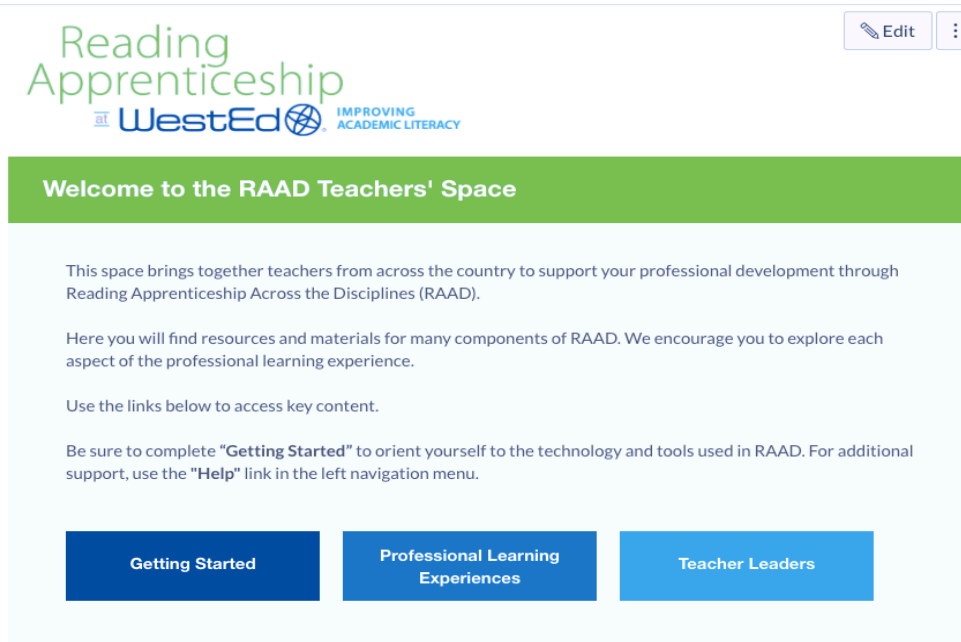
The professional learning model was then refined from institute to institute during the first year of implementation and submitted to a broader refinement from year to year based on teacher,

facilitator, and designer experience with the model. These processes are meant to result in modules of learning with predictable learning outcomes for teacher participants.

Designing Online Learning for Partners, Teacher Leaders, and Teachers

SLI's professional development Design Team drew on its prior iterations of online professional learning to design the online components for RAAD. For example, in a previous SEED grant, teachers participated in two-hour professional learning inquiry modules online through video-conferencing as well as regular hour-long synchronous PLCs and asynchronous professional reading discussions. These learning components occurred each month during the school year. Teachers reported that the time demands were too great during the school year. To make the RAAD model more feasible, SLI scaled back the online work. Synchronous video-conference PLCs were designed to engage teachers monthly in reflecting on their implementation of Reading Apprenticeship. Asynchronous text discussion accompanied each month's learning. This sequence was scaled back further for Year 2 after teacher attendance dropped off in the spring and teachers had difficulty getting online for synchronous PLCs. The Design Team also developed online support for teachers, teacher leaders, and regional partners using an online courseware platform. These courses detailed learning activities for each of these audiences.

FIGURE 2. SCREEN SHOT FROM ONLINE TEACHER LEARNING SPACE IN CANVAS



Designing Teacher Leader Support

A major goal of the RAAD initiative was to build local capacity to deepen and sustain Reading Apprenticeship practices over the long term. To this end, RAAD invested significant time and

effort into developing and supporting site-based expertise and leadership in the form of teacher leaders. SLI provided agendas and resources for local partners to use with teacher leaders and worked closely with them to ensure fidelity while at the same time adapting Reading Apprenticeship to the local context (Greenleaf, Schoenbach & Murphy, 2014). To design these materials and agendas, learning goals and approaches, SLI drew on, refined, and made consistent varied models for supporting teacher leader development created in previous grants by experienced state partners. Together with the teacher leader course platform, these materials offered a system of support.

Designing Reading Apprenticeship Facilitator Development

Certified Reading Apprenticeship facilitators were familiar with a different sequence of learning and set of professional development modules from their previous facilitation work. To prepare these experienced facilitators to enact a novel learning sequence and new modules with cross-disciplinary groups of teachers for RAAD, SLI developed a new process of facilitator development during the RAAD project. These ultimately became known as Facilitator Learning Communities, or FLCs, because, like the online PLCs for participating teachers, they included asynchronous and synchronous elements. SLI's Design Team developed overviews of each day of training, along with detailed facilitation agendas, notes to facilitators, and assemblies of materials to be used by participants. Facilitators were sent these materials at least a month in advance of the training events.

To prepare for facilitating RAAD institutes, facilitators were asked to carefully read the RAAD facilitator agendas to familiarize themselves with the learning sequence and modules. They made notes asynchronously in an online discussion space about these new elements. Then, the Design Team selected a few modules for attention that entailed major revisions of previous modules or presented particular challenges for facilitators. For these inquiry modules, facilitators were asked to enact the literacy learning tasks, often reading a text and carrying out the same inquiry learning tasks that teacher participants would experience. Enacting these tasks metacognitively, facilitators took note of their own thinking processes to bring their learning insights to the FLC. Having prepared by enacting the learning tasks, the facilitators met with a Design Team member in online synchronous meetings to share their reflections and insights and prepare to facilitate the module with RAAD teachers.

Finally, in years 2 and 3 of the RAAD project, facilitators were trained to carry out the online components. The Design Team developed materials to support facilitators in taking up this new facilitation, spelling out facilitation commitments and best practices. All facilitators participated in an online Canvas course to familiarize themselves with the online tools, practice the PLC *Successes and Challenges* protocol, explore best practices for online facilitation, and personalize

the course for their participants. Facilitators also prepared to support the asynchronous text-based discussions, learning to contribute judiciously to the asynchronous conversations taking place in their PLC groups, and to encourage teacher participation. Finally, an introduction to the online components of RAAD was built into day three of the face-to-face institutes. In the FLCs, facilitators learned how to introduce these online components to participants.

The elements of professional learning and ongoing support that resulted from these design processes are described in more detail below.

The RAAD Program of Professional Learning

RAAD professional development was delivered in face-to-face trainings, with implementation support through online professional learning community meetings and school team meetings over the course of two school years. Teacher teams from multiple subject areas participated in five days of face-to-face training, facilitated collaboration, and learning time for teachers in small, online professional learning community (PLC) meetings and monthly onsite school team meetings. The RAAD iteration of professional learning included a five-day cross-disciplinary sequence outlined in the figure below.

FIGURE 3. RAAD'S BLENDED PROFESSIONAL LEARNING MODEL ACROSS A SCHOOL YEAR

- Face-to-face Three-Day Summer Institute
- Synchronous online PLCs in fall (scheduled monthly meetings lasting 1 hour each)
- Face-to-face Two-Day Winter Institute
- Asynchronous online PLCs in spring (monthly text-based response forums that teachers respond to at times convenient to them)
- School team meetings (monthly meetings for teachers from different grades and disciplines teaching in the same school)
- Teacher leader meetings (one teacher leader per school meet in their regions to collaboratively support implementation within and across school campuses)

Face-to-Face Professional Learning

RAAD professional learning engaged teachers in five days (32.5 hours) of face-to-face professional development in cross-disciplinary teams—a 3-day summer Foundations Institute (between May and August) and a 2-day winter Calibration Institute (between December and February). SLI offered Reading Apprenticeship professional learning to teams of 3 to 8 teachers per school. The professional development drew from SLI's extensive toolbox of curriculum examples, lesson models, support materials, classroom videos, and assessments to support

implementation of the Reading Apprenticeship instructional framework. Trained Reading Apprenticeship facilitators led the professional development for institutes of 20 – 45 teachers.

Each institute immersed teachers in learning through models of practice that its designers intended for them to create in their own classrooms. Teachers participated in carefully designed inquiries to help them unlock their own disciplinary expertise in relation to literacy. Most importantly, they collaboratively investigated student work, case studies of student literacy learning, and videotaped classroom lessons designed to foster new expectations of what their own students could accomplish. In professional development sessions, participants enacted classroom routines to build student engagement, support student collaboration, and foster authentic discussion and problem-solving around course texts, all with the goal of learning new ways to support student thinking and learning with academic materials.

FIGURE 4. SUMMER FOUNDATION INSTITUTE OVERVIEW

Reading Apprenticeship Across the Disciplines Institutes at a Glance Foundations Institute (between May and August)		
Day 1 Personal and Social Dimensions	Day 2 Metacognitive Conversation	Day 3 Extending Reading
Institute Opening	Opening Routine	Opening Routine
Personal Reading Histories	Introduction to Think Aloud and Talking to the Text	Text Complexity
Literacy Learning Case: What Does a Reading Apprenticeship Classroom Look Like?	Reading Process Analysis: Think Aloud	Inquiry into Extensive Reading
Reading Process Analysis: Capturing the Reading Process with Reading Strategy Lists	Literacy Learning Case: Supports for Students' Reading, Thinking, and Talking	Blending Learning: Profiles and PLCs
The Social and Personal Dimensions: Chapter 3	Planning and Practicing a Reciprocal Think Aloud	Planning to embed Reading Apprenticeship
Closing Routine	Closing Routine	Closing Routine
Prepare for Day 2: <i>Reading for Understanding</i> , Chapter 3 Bring text you will use with your students.	Prepare for Day 3: <i>Reading for Understanding</i> , Chapter 4 Bring text you will use with your students.	Prepare for PLCs and School Team Meetings: Log in to Canvas for dates and next steps.

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FIGURE 5. WINTER CALIBRATION INSTITUTE OPENING

Reading Apprenticeship Across the Disciplines Institutes at a Glance Calibration Institute (between December and February)	
Day 4 Cognitive and Knowledge-Building Dimensions	Day 5 Formative Assessment
Opening Routine	Opening Routine
Introduction to Schema: Text and Task Analysis	Literacy Learning Case: Re-envisioning the Role of Teacher
Literacy Learning Case: Reading the Constitution in History Class	Inquiry into Questioning
Clarifying Roadblocks	Formative Assessment
Planning for Implementation	
Closing Routine	Closing Routine
Prepare for Day 5	Prepare for PLCs and School Team Meetings
Read <i>Reading for Understanding</i> , Chapter 8. Bring a class set of Talking to the Text student work.	Log in to Canvas for dates and next steps.

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Online Professional Learning Community (PLC) Meetings

PLC meetings offered opportunities for teachers to meet online synchronously (“live”) in small discipline-specific video conference groups moderated by a Reading Apprenticeship facilitator. Meetings took place after school or during the evening eight times over the course of each school year (about 8 hours/year). During online PLC meetings, teachers discussed their successes and challenges implementing Reading Apprenticeship in their classrooms. Online PLC meetings were designed as an opportunity for RAAD teachers to support and learn from one another. Rather than passively watching videos or reading solo texts, teachers were expected to have done some preparation and to engage in reflection on their practice, and they were expected to listen and respond to others doing the same. Online PLC goals and guidelines called for teachers to be reflective and ready to discuss and present their experiences implementing Reading Apprenticeship in a collaborative manner. Through this engagement, teachers were expected to discuss Reading Apprenticeship strategies and concepts, share resources for literacy instruction, and share challenges as well as successful lessons. In addition, asynchronous learning opportunities included facilitated text-based discussion forums. Teachers responded to an excerpt from a chapter of *Reading for Understanding* and the comments of their fellow PLC members by posting to the discussion forum. In total, reading, reflecting, and posting were designed to take approximately 60 minutes. The screenshot below shows how these elements were supported in the online course for teacher participants.

FIGURE 6. SCREENSHOT FROM ONLINE PLC DESCRIPTION IN CANVAS

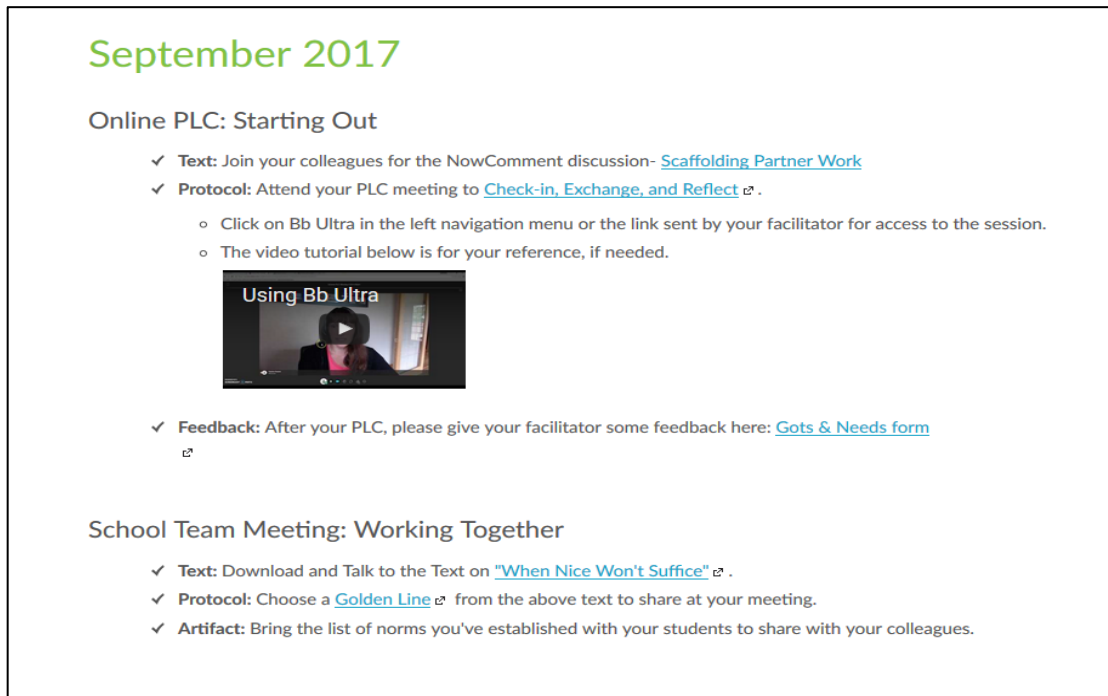


TABLE 2. PLC OVERVIEW

Fall: Blended Synchronous-Asynchronous PLCs		
Month	Focus	Protocol
September	Starting Out	Check-in, exchange, reflect
October	Pair and Group Work	Check-in, exchange, reflect
November	Think Aloud	Check-in, exchange, reflect
Spring: Asynchronous PLCs		
March	Moving Towards Independence	Student Learning Goals
April	Extending Reading	Classroom Close-up p.141
May	Metacognitive Logs	Pages 115-116 plus Box 4.12 and 4.13

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Synchronous PLCs were conducted by SLI facilitators in real time using video conferencing. Facilitators used SLI’s *Check-in, Exchange, Reflect* protocol, which prompts teachers to think about the challenges or successes they experience in their classrooms; gives each teacher time to respond and engage other teachers in a discussion about their experience; and asks teachers to reflect in writing about what they took away from the discussion. The monthly topic and

standard protocol gave both facilitators and teachers a clear direction and focus for interactions during the 60-minute online sessions.

Additional topics for Cohort 1 teachers, who continued with synchronous PLC sessions in winter and spring, included *Talking to the Text* (December), *Promises to Practice* (February), *Extending Reading* (March), *Metacognitive Logs* (April), and *Growth Over Time* (May). In addition, Cohort 1 teachers had reading and discussion assignments from *Reading for Understanding* in preparation for each PLC session. Reading and discussion occurred through NowComment, an online tool that supports asynchronous online reading and discussion.

School Team Meetings

Each RAAD school team was asked to select a teacher leader to support school team members in implementing Reading Apprenticeship instructional routines by convening and facilitating monthly multidisciplinary and cross-grade school team meetings at their site, from September through June (about 8 hours/year). Schedules for school team meetings were determined at each school. SLI provided material resources and support for these meetings. As with online PLC meetings, school team meetings were intended as an opportunity for RAAD teachers to support and learn from local colleagues. Through this engagement, teachers were encouraged to work toward implementing Reading Apprenticeship in their classrooms.

SLI created a teacher leader Canvas space that provided agendas, materials, resources, and advice and guidance for facilitating school team meetings. Monthly modules, which teacher leaders accessed through Canvas, provided everything teacher leaders needed to facilitate school team meetings—a focus, a text, an artifact assignment for teachers to bring to the meeting, and a protocol to lead colleagues through a text-based conversation and share classroom artifacts. Monthly modules are shown in Table 3 below. Teacher leaders were asked to capture and upload brief minutes of each school team meeting using a standard template and upload a short reflection following each meeting, using Padlet, an online tool to gather, display, and share information.

TABLE 3. SCHOOL TEAM MEETING OVERVIEW

Month	Focus	Text	Protocol	Artifact
September	Working Together	“When Nice Won’t Suffice”	Golden Line	Norms from your classroom
October	Building a Reading Strategy List	<i>Reading for Understanding</i> , pages 95–96	Check-in, Exchange, Reflect Protocol	Reading Strategies List from your classroom
November	What does a Reading Apprenticeship Classroom look like?	<i>Reading for Understanding</i> pages 337–338	Descriptive Consultancy	A lesson or issue in the implementation of Reading Apprenticeship
December	Supporting All Students	<i>Reading for Understanding: Choosing Not to Fail Classroom Close-up 3.7</i> , page 77	Exploring Classroom Vignettes	Reflection and selection of focal students
February	Sharing Student Work	Teacher Texts	Student Work Protocol with Text and Task	Student work with text
March	Sharing Student Work	Teacher Texts	Student Work Protocol with Text and Task	Student work with text
April	Sharing Student Work	Teacher Texts	Student Work Protocol with Text and Task	Student work with text
May	Reflections and Planning for Year 2	Teacher Practice Rubric	Golden Line	1-2 Goals for next year

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Participation of Teachers, Teacher Leaders and Administrators in RAAD

The RAAD model of Reading Apprenticeship professional learning was implemented in 248 districts and 570 schools across the six states, serving nearly 2,200 teachers. Participants were primarily middle and high school educators teaching English, History, and Science, though teachers of other subject areas participated in substantial numbers, as reported below. In addition to leading monthly school team meetings with their colleagues, teacher leaders were invited to lead book studies, which expanded the reach of the project to 40 additional teachers. Administrators were encouraged to participate in the professional learning along with their teams.

Scale of Participation in RAAD Professional Learning

TABLE 4. RAAD PARTICIPATION BY STATE

State/Site	# Districts	# Schools	# Teachers	# Teacher Leaders	# Coaches and Administrators
California	30	47	165	19	32
Illinois	3	121	584	112	37
New York	5	38	115	4	7
Michigan	155	225	742	177	51
Texas	13	59	243	34	44
Wisconsin East and South	42	80	314	56	47
TOTAL	248	570	2163	402*	218*

Note: Some teacher leaders, coaches, or administrators are counted twice because they participated in multiple cohorts across the years of the grant.

By conservatively estimating that each teacher serves 75 students during an academic year and participates in the RAAD program over two years, and factoring in some attrition and overlap of students served by multiple teachers at the same school, we estimate that the project served **231,400 students**. Importantly, given the priorities of the SEED program, 90% of the participants were from schools that served high needs students (defined as schools with 75% or more FRPL students, 75% or more non-white students, 10% or more students with disabilities, 10% or more ELL students, or 66% or more students who are below proficient on NAEP 2017 Reading assessments.)

Implementation Support for RAAD by Regional Partners

As mentioned previously, the engagement of regional partners was an intentional strategy in RAAD to extend the capacity of SLI to increase teacher effectiveness at scale. A major project innovation was to work through regional teacher service organizations instead of, as SLI had done in prior scale-up grants, education consultants whose sole role was to focus on this project.² This change brought about new opportunities and challenges. The partner roles and activities included:

- 1) Recruitment and dissemination to build interest and understanding of RAAD and its impact;

² This was true in all sites except Michigan where SLI had a staff member designated as a State-wide Coordinator.

- 2) Coordination of the professional learning institutes;
- 3) Support of teacher leader development and collaboration by building relationships and facilitating quarterly teacher leader meetings;
- 4) Assistance with data collection; and
- 5) Support of sustainability by seeking ways to institutionalize this work into local structures.

As shown in the table above, seven regions in six states participated in the RAAD initiative. The characteristics of each of these seven regional partners and the schools served in each region are summarized below.

California

The California partner was a County Office of Education serving a large city, suburbs and rural districts with more than 200,000 students in 32 districts in the central area of the state. According to State Department of Education census data, over three quarters of the students served by this county office are categorized as “Free/Reduced-Price Meals, English Learners & Foster Youth.” Because this is a large and dispersed community covering 6,000 square miles, teachers generally live in the communities where they teach. The partner supports curriculum and instruction for all grades and disciplines, and all professional learning and coaching supported by the partner site is explicitly aligned with statewide priorities and the specific goals established by each district. There is also substantial literacy and ELD support in the region in response to the needs of the large English Learner population. According to our partner lead in California, “Reading Apprenticeship is an absolute fit with the literacy needs in our districts and county.”

The County Office staff supported Reading Apprenticeship professional learning held at the county office, coordinating five days of face-to-face professional learning institutes and regularly facilitating quarterly meetings for all teacher leaders in the region. In addition, the California partner periodically attended site-based monthly school team meetings and communicated regularly with teachers and teacher leaders throughout the region, problem-solving and supporting individuals, school sites, and districts as needed, through email, phone, video conference calls, and face-to-face meetings. Although schools in the region have participated in previous Reading Apprenticeship initiatives, nearly all participating teachers in this grant were new to Reading Apprenticeship. The California site hosted both RCT and scale-up teachers.

Illinois

The Illinois partner was part of a university-school partnership that emphasizes shared leadership among school staff. The Illinois district where the RAAD grant supported professional learning has a long history of Reading Apprenticeship implementation. The large urban district

served by the Illinois RAAD partner is one of the largest in the United States, serving 371,000 students in over 600 schools. The district is organized into networks that provide administrative support, strategic direction, and leadership development to schools within each network. These networks are led by network chiefs who report to the district-wide office and have considerable autonomy in shaping and supporting school improvement efforts within their networks.

Although seven high schools in one comparatively affluent (72% free or reduced-price lunch) and white (20%) network have implemented Reading Apprenticeship since its introduction in the district in 2012, a review of Reading Apprenticeship in the Illinois district from 2012 to 2018 indicated relatively uniform geographical distribution of Reading Apprenticeship across the entire district. Since 2012, over 1,200 teachers have received Reading Apprenticeship professional learning through three major initiatives, the most recent and most ambitious of which was the RAAD grant. The highest concentration (of both schools and teachers who have participated in Reading Apprenticeship professional learning) is in the most impoverished neighborhoods where large numbers of traditionally underserved students reside.

Since student literacy development and support is a widespread need in district schools, for the last decade the Illinois partner has worked with district high schools around the question: *What is the professional learning teachers need to really move instruction?* In their search for programs to support high school literacy development, the local partner found Reading Apprenticeship, noting that it was created specifically for adolescent learners and aligns well with the unique needs and abilities of secondary students. District stakeholders recognized that Reading Apprenticeship was not simply a literacy program, but a robust instructional framework as well as a model of teacher professional learning. Given the diversity of students and the large number of students whose reading is below grade level in the district, the fact that Reading Apprenticeship supports all students was one of the model's key attractions. Importantly, the framework leverages personal and social dimensions of learning to support the development of academic literacy skills. Reading Apprenticeship's status as an evidence-based SEL program (a CASEL SElect secondary program) is another reason it was embraced in Illinois.

The Illinois partner works with administrators to support their priorities for school improvement and relate these priorities to literacy development and instructional leadership. The partner also has an extensive coaching system in place to support teachers to integrate literacy instruction in partnering schools. During the RAAD, instructional coaches affiliated with the Illinois partner provided extra support to teacher leaders throughout the school year, holding additional meetings, supporting shared lesson development and collegial classroom observations to bolster teachers' uptake of Reading Apprenticeship instructional routines.

Michigan

In Michigan, RAAD was coordinated by a full-time member of SLI who resides in the state. Recruitment, participation, and follow-up support were all conducted on a statewide basis and participation in the grant included 164 schools from 134 public school districts. In total, almost 600 educators in the state participated in the grant at some point during three cohorts. Participation was spread over 43 state counties, representing 51.8% of the state's total number of counties.

The number of districts involved in the grant and their respective locations in the state resulted in a wide diversity of school types participating in the grant, including urban and rural, racially homogenous and significantly diverse, monolingual schools and schools in which nearly half of their students are English Learners. Likewise, free and reduced-price lunch participation as a proxy for socioeconomic status was equally diverse for participating schools in the grant, with most schools having a mix of students from middle- and low-income backgrounds. Participating schools' prior experience with Reading Apprenticeship was similarly diverse, with some schools that were new to the professional learning while many used the grant training opportunity to expand Reading Apprenticeship within their buildings and districts.

The state of Michigan had identified three specific priorities to meet its broad educational goals for students, one of which was a specific focus on the support of student literacy skills. Among several supporting objectives in its action plan for literacy excellence, the state promoted the critical nature of research-informed literacy instructional practices. This same action plan also called for supporting the development and sustainability of literacy leadership throughout the state, which aligned well with Reading Apprenticeship and the particular model implemented during the RAAD project. The Michigan coordinator recruited and developed 134 teacher leaders throughout the duration of the grant, and supported teacher leader meetings that included school visits and classroom observations to see Reading Apprenticeship in action. Because he was a member of SLI's staff and deeply familiar with the model and mechanisms for teacher leader support, the Michigan coordinator served as a mentor to new regional partners, sharing agendas and templates for communicating with administrators, schools, and teachers.

New York

The New York partner was an organization that works in a very large and diverse urban school district implementing the district's secondary literacy support plan. Their organization's goals were to ensure that students entering 9th grade can read at or above grade level, support schools in the implementation of a comprehensive literacy improvement plan, strengthen literacy instructional practices through site-based coaching, provide on-going professional learning opportunities and middle school focused resources, and continuously reflect on how equity interplays with literacy. The partner is committed to building the capacity of schools in

order to strengthen their school-wide literacy by providing structured opportunities for professional learning, leadership development, and site-based coaching services. The partners' coaches support over 130 middle schools throughout the city with varied literacy intervention models aligned to comprehensive educational plans being implemented at the local level. Most teachers from this site resided in the city where they teach, but not necessarily the neighborhood. Students served by the partnering schools were 10.2% Asian, 31% Black, 51.9% Latino, and 5.6% White. These students included 11.9% English Learners and 23.2% students receiving special education services, with 79.8% eligible free and reduced lunch.

Texas

The Texas partner was a statewide educational support organization that focuses on "improving student achievement in state schools by supporting districts with designing and implementing systems to maximize educator performance." The Texas partner's approaches to improving educator effectiveness included helping districts align resources to improvement goals; providing leadership training, coaching, and instructional support; and balancing accountability with support for teachers and school leaders. The organization aims to create a "children first" environment, believing all children can learn.

Districts participating in the grant included one large 100-year-old ISD in the middle-southern region of the state that serves approximately "49,000 students in over 90 schools in a culturally proud, urban community." Forty-nine of those schools "offered dual language programs in 2019-20." The 13th largest district in Texas' 1,057 school districts, this district encompasses 79 square miles with a total population of approximately 307,000. Another participating district in western Texas consists of 40 campuses serving a diverse student body of more than 26,000. This ISD is "proud to be a district of Innovation. ...[T]hriving economic conditions in [the] region have created significant need to expand and improve [the local] infrastructure to support the growing community. This ISD is projecting an increase of approximately 10,000 students by school year 2027-2028" and has therefore re-envisioned the district's role as one that will "ensure that every child has access to a high-quality education... by increasing the number of high-quality seats. Success at the end of our 5-10 yr. plan would be 1) a diverse, high performing set of schools, 2) 21st Century learning facilities for all students, and 3) re-envisioning of talent in the region."

In addition to these scale-up sites, one of the districts served by the RAAD grant in Texas was a tri-city public school district close to the Mexican border which serves 32,000 pre-kindergarten through twelfth grade students, and had developed highly effective dropout prevention strategies that supported a high school completion rate of almost 97 percent. In addition to a dropout recovery program, the partner district's other successful programs include dual language, and an early college initiative. With the district's proximity to Mexico, 41.36% of the

students were considered Limited English Proficient (LEP) with Spanish being the language spoken at home.

Most of the teachers participating in RAAD in Texas were from, and lived in, the communities where they taught. Throughout the duration of the grant, and throughout each school year, the Texas state partner provided ongoing support to teachers. This support included convening teacher leaders and helping them guide their school teams through deeper dives into their teaching practice. As was the case in other grant-supported locations, members of the Texas partner organization attended school team meetings, visited classrooms, and developed support plans with administrators and teacher leaders in participating schools together throughout the academic year.

Wisconsin East

The Wisconsin East partner was a regional education service agency that supports a mix of semi-rural and small-town schools in 39 public school districts serving eight counties. The agency also serves educators throughout the state in cooperation with other regional service agencies. The primary function of the curriculum and instructional department in the Wisconsin East partner agency is to assist or support districts in meeting their instructional needs. This partner sees itself as a leader in educator effectiveness, building comprehensive performance evaluation systems to serve all educational personnel, from district administrators to educational specialists and coaches/advisors who provide a broad range of services. This partner has a literacy center whose mission is to provide research-based literacy support to students, teachers, and administrators and provide professional learning networks, professional development opportunities and coaching to advance literacy practices.

Though participating teachers and staff in Wisconsin East had no previous experience with Reading Apprenticeship, the professional learning aligned well with the partner's strong local focus on literacy development. According to Wisconsin East leads, between 50-60% of teachers in the region reside in the communities where they teach. Students in Wisconsin East schools are 8.9% Asian, 5.5% Black, 9.5% Latino, 74.1% White, and 5.9% English Learners, with 41.2% eligible for free and reduced-price lunch.

Wisconsin South

The Wisconsin South partner was also a regional education support and service agency that serves 45 school districts. This partner's focus on literacy made it a good fit for Reading Apprenticeship. Wisconsin South's website says the region "is home to both the largest and smallest districts in the state, as well as some of the most advantaged and disadvantaged students. It contains urban, suburban and rural districts, and while some districts have broad diversity, others do not. These differences require a philosophy and a team that are highly

connected to the varying needs and people of the region, while keeping students and educators at the forefront of everything that the agency does.”

Within the service area of the Wisconsin South partner, one large urban district and one medium-sized urban district participated in the RAAD grant (both scale-up and RCT). The smaller of the districts, whose first school was built in 1837, serves 22,000 students annually. Another urban district – the largest in the state — educates more than 75,000 students who are 54% African American, 27% Hispanic, 11% White, and 7% Asian. With 41 schools, the district is home to five of the state’s top high schools. The district’s leadership is “committed to accelerating student achievement, building positive relationships between youth and adults and cultivating leadership at all levels.” They view teaching as “the single-most critical factor impacting student achievement.” Like other participating sites, this district relied on a coaching model, specifically the Danielson Framework, to support and improve teaching and learning.

The table below provides an overview of the varied regional partners and implementation models supporting by RAAD.

TABLE 5. RAAD PARTNER ORGANIZATIONS AND IMPLEMENTATION SUPPORT OVERVIEW

Partner Organization/State	Type of Organization	Type of District(s)	How Reading Apprenticeship was supported	Existing literacy framework
California	County Office	Mix of rural, urban, large comprehensive schools and small schools	TL meetings and support for TLs	Yes
Illinois	University-district Partnership	Large Urban District	Coaches, TL meetings and support for TLs	Yes
Michigan	Statewide Coordinator from SLI	Mix of rural, urban, large comprehensive schools, small schools, medium size schools	TL meetings and support for TLs	Yes
New York	District Office	Large Urban	Coaches, TL meetings and support for TLs	Yes
Texas	State Education Service Agency	Mix of rural, urban, large comprehensive schools and small schools	TL meetings and support for TLs	Yes

Wisconsin-East	Regional Education Service Agency	Small to medium size schools	TL meetings and support for TLs	Yes
Wisconsin-South	Regional Education Service Agency	Medium and Large Urban districts	TL meetings and support for TLs, Coaches	Yes

Strengthening Mechanisms for Strong and Sustained Implementation at Scale

For the RAAD project, SLI worked through regional partners in the various participating regions and invested in teacher leader development as a means of supporting sustainability after the grant funding expired. To examine the extent to which the RAAD project built SLI’s capacity to support strong and sustained implementation of effective academic literacy practices through teacher leader development and school and regional network support, we describe the course materials and ongoing support developed and offered by SLI during the grant. We draw on partner surveys and interviews as well as partner websites to describe the characteristics and varied implementation models enacted by regional partners in the different states. In this section, we also describe additional mechanisms developed under the RAAD initiative for strengthening and sustaining implementation at scale, including developing and offering a book study, an online teacher leadership course, and training select participating teachers and teacher leaders to become certified Reading Apprenticeship consultants.

Teacher Leader Development

Teacher leaders were offered support through online materials, partner-convened daylong meetings, and stipends to convene and facilitate monthly school team meetings. In consultation with the SLI central office and other network leaders, each regional partner convened local teacher leader meetings to support teacher leaders as they assumed these new roles, thereby growing local capacity. The teacher leader-only meetings were designed to give teacher leaders a deeper understanding of the Reading Apprenticeship framework and approach.

SLI developed a series of six cross-school teacher leader meetings (three in Year 1, three in Year 2), providing materials and resources for regional partners to use, including sample agendas and other material resources. These meetings offered opportunities for teacher leaders to deepen their understanding of the Reading Apprenticeship framework, share ideas and best practices, and problem solve about implementing Reading Apprenticeship strategies in the classroom and supporting effective school team meetings and team collaboration. In addition, the book *Leading for Literacy* (Schoenbach, Greenleaf & Murphy, 2017) guided teacher leaders through the nuts, bolts, benefits, and stumbling blocks of creating Reading Apprenticeship

communities in their buildings. The book was released during RAAD and all regional partners and teacher leaders received copies.

Regional partners were responsible for recruiting and selecting teacher leaders from participating school teams. Teacher leaders were identified and selected in a variety of ways: some teacher leaders were recommended by a literacy coach or administrator; others became teacher leaders because they had previous training and experience with Reading Apprenticeship. Some teachers elected to become teacher leaders, while others were “voluntold” by their building administrator. To support their teacher leaders, regional partners convened and facilitated teacher leader meetings three times each year, ideally, in October, February, and May. The partners adapted materials supplied by SLI to design teacher leader meetings to both improve understanding of Reading Apprenticeship practices and to foster leadership development. These support mechanisms took on local flavor in the hands of particular regional partners. For example, the Illinois regional partner invited network Instructional Support Leads, who support school improvement efforts, to participate in teacher leader meetings. The Illinois partner also encouraged and supported returning teacher leaders to offer demonstration lessons in their classrooms in their second year, and allocated time during teacher leader meetings for teacher leaders to plan and practice these lessons. The Illinois regional partner also differentiated supports in Year 2 to address the needs of new teacher leaders and a significant number of returning teacher leaders, for example, by providing returning teacher leaders in Year 2 with opportunities and support for demonstration classrooms.

Regional Partner Development

For their part, regional partners were identified in each participating state to build on and extend existing relationships with school administrators, connect RAAD professional development with other local reform initiatives, encourage participation of site administrators in RAAD professional development with their teams and in the quarterly teacher leader meetings, and assist SLI with logistics and facilitation of the project. To facilitate understanding of the framework and professional learning model, regional partners attended Reading Apprenticeship professional learning, in most cases before their local Institutes, and SLI project managers met monthly with individual regional partners. To facilitate knowledge sharing across the partner sites, SLI regularly convened the regional partners for meetings (every 6 weeks by video conference and annually in person).

SLI supplied materials to regional partners to support their work, including model letters to administrators and teachers developed by the Michigan coordinator, teacher leader meeting agendas, and varied ways of engaging teacher leaders and administrators in supporting ongoing

work at their sites. In addition to sharing practices and successes as well as problem solving with one another and SLI staff, regional partners shared formative information with SLI staff to assist in making continuous real time improvements to the program while cultivating and deepening the relationship between theory and practice in Reading Apprenticeship. Monthly meetings by phone or video conference were designed to keep open channels of communication and support problem solving and solution sharing between SLI lead staff, the Michigan coordinator, and individual partners. This enabled the lead staff to pinpoint issues and provide additional support. For example, in some participating regions in year 1, the rationale for online PLCs was not clear and there were technical difficulties for teachers trying to get online. Staff worked with regional partners to iron out technical issues and designed All Partner Meetings to focus on the design and rationale for the online PLCs. Similarly, when the New York partner initially engaged their instructional coaches rather than including teacher leaders in quarterly meetings, a seasoned SLI consultant was sent to New York to support the leaders and the work.

In addition to investing in diverse regional partners, SLI worked toward sustainability in the participation sites by offering support for teacher leaders to carry out Book Study groups, by developing and delivering an online *Leading for Literacy* course to partners and teacher leaders, and by inviting RAAD teachers and teacher leaders to apply for and participate in SLI’s extensive Consultant-in-Training program to learn how to facilitate Reading Apprenticeship professional learning with fidelity. Below, we also describe these offerings and report on their uptake.

Book Study

To support ongoing implementation of Reading Apprenticeship and dissemination beyond those participating in the professional learning offered by SLI during the RAAD grant, we offered Book Study as a sustainability strategy to regional partners during the 2018-2019 school year. SLI developed Book Study guidelines and materials for teacher leaders and sent copies of *Reading for Understanding* to the sites. Partners in California and Wisconsin took up this offer and engaged teacher leaders in leading Book Study in their regions.

TABLE 6. RAAD BOOK STUDY GROUPS - 2018-2019 SCHOOL YEAR

Regional Partner	Teacher Leaders Participating	Teachers Participating
CA	8	24
WI East	4	16
TOTAL	12	40

Designing the *Leading for Literacy* Online Course

To continue to build capacity in sites implementing Reading Apprenticeship, SLI developed a facilitated digital learning experience to guide teacher leaders, instructional coaches, and administrators to support and sustain Reading Apprenticeship implementation at their campus or school site. The 15-hour, asynchronous online course was designed to provide guidance and support for building strong inquiry communities to strengthen disciplinary literacy. Course activities include professional reading, viewing video, posting to online discussions, and trying out protocols at school sites. Participants in the course must have access to a group of colleagues with whom they can try out what they are learning in the course: the format of the course is online learning, followed by practice and implementation, then reflection. Guidance and feedback is offered by peers in the course and the facilitator who has extensive Reading Apprenticeship and coaching experience.

The online course utilizes SLI's book, *Leading for Literacy* and offers six modules of facilitated and collaborative online study. Participants are expected to spend about 2 ½ hours per module on reading, viewing, and posting, over a two-week period. Participants also set aside additional time during each two-week period to meet with their teams and apply what they are learning in order to reflect on their implementation in the course. The *Leading for Literacy* course is a substantial additional tool for engaging school communities in Reading Apprenticeship learning and providing professional learning at scale.

Offering Consultant-in-Training (CIT) Development to RAAD Participants

Promising teacher implementers of Reading Apprenticeship were identified from each site, based on facilitator and regional partner recommendations. SLI aimed not only to increase the potential of sustainability at the sites, but to increase the representation and diversity of our facilitator pool by intentionally inviting applications from teachers of varied geographical regions, subject areas, and diverse cultural, racial, and linguistic backgrounds.

Invitations specified that teachers would need to commit to a rigorous three-part training program. Upon successful completion of the program, teachers would be added to SLI's Reading Apprenticeship facilitator pool, enabling them to work with one of SLI's lead facilitators as a consultant to provide Reading Apprenticeship professional learning. Applicants were offered a stipend for completing the training program. In Part 1, consultants-in-training were required to participate in a self-paced online course involving 10 hours of reading, reflection on practice, and written response. This online course launched in June of 2019. Part 2 of the course was a two-day, face-to-face training session held in California in August of 2019. The final part of the course required consultants in training to complete the online *Leading for Literacy* course offered during the fall semester of 2019. Ten RAAD teachers/teacher leaders

participated in the Consultant-in-Training program, 4 from Illinois, 1 from Michigan, 2 from Texas, 1 from New York, and 2 from California.

Dissemination of Tools, Models and Approaches

To achieve the SEED grant dissemination and field-improvement goals, SLI staff, RAAD partners, evaluators, and participating educators engaged in many local, regional and national presentations and publications about the lessons learned. Below we report the various ways the project supported dissemination about the SLI's models and approaches to developing highly effective secondary teachers. The following yearly list summarizes the publications and presentations made during the grant years.

Publications, Presentations, and Webinar Activities

2015 Presentations

Greenleaf, C. "Apprenticing Adolescents to Academic Literacy in the Subject Areas: The Reading Apprenticeship Instructional Framework." Workshop, February, Wisconsin State Reading Association, Milwaukee, WI.

Greenleaf, C. "All that Matters: Building Learning Culture, Learner Dispositions, and Literacy Identities" Keynote, February, Wisconsin State Reading Association, Milwaukee, WI.

2016 Publications

Goldman, S., Britt, M.A., Brown, W., Cribb, G., George, M., Greenleaf, C., Lee, C.D., Shanahan, C., & Project READI. (2016). Disciplinary literacies and learning to read for understanding: A conceptual framework for disciplinary literacy. *Educational Psychologist, 51(2)*, 219-246. <http://dx.doi.org/10.1080/00461520.2016.1168741>.

Greenleaf, C. & Valencia, S. (2016). Missing in action: Learning from texts in subject-matter classrooms. In K.A. Hinchman & D.A. Appelman, (Eds.), *Adolescent literacy: A handbook of practice-based research* (pp. 135 – 155). NY: Guilford Press.

Schoenbach, R., Greenleaf, C., & Murphy, L. (2016). *Leading for literacy: A Reading Apprenticeship approach*. San Francisco: Jossey-Bass Wiley.

Schoenbach, R., Greenleaf, C., Brown, W. & Howlett, H. (2016). Supporting deep change with an immersive online course. In C. Dede, A. Eisenkraft, K. Frumin & A Harley (Eds.), *Teacher learning in the digital age: Online professional development in STEM education* (pp. 69—86). Cambridge, MA: Harvard Education Press.

2017 Publications, Presentations and Webinars

Greenleaf, C. & Valencia, S. (2017). Missing in action: Learning from texts in subject-matter classrooms. In K.A. Hinchman & D.A. Appelman, (Eds.), *Adolescent literacy: A handbook of practice-based research* (pp. 135 – 155). NY: Guilford Press.

Greenleaf, C. & Brown, W. (2017). An Argument for Learning: Secondary Science Teachers Building Capacity to Support Students' Evidence-Based Argumentation. *The Learning Professional*, 38(2), 56 – 70.

Katz, M. Spotlight on State and Local Initiatives: WestEd, SLI Reading Apprenticeship Coaching Model. SEED Teacher Feedback and Coaching Online Community of Practice. (July)

Litman, C., Marple, S., Greenleaf, C., Charney-Sirott, I., Bolz, M., Richardson, L., Hall, A., George, M. & Goldman, S. (2017). Text-based argumentation with multiple sources: A descriptive study of opportunity to learn in secondary English language arts, history, and science. *Journal of the Learning Sciences*, 26(1), 79-130.

Loyd, W. Spotlight on State and Local Initiatives: WestEd, SLI Reading Apprenticeship Teacher Leaders. SEED Teacher Feedback and Coaching Online Community of Practice. (October)

Schoenbach, R. & Greenleaf, C. (2017). Leading for literacy: Engaging schools and districts in transforming subject-area literacy. *Phi Delta Kappan*, 9 (3), 59-64.

2018 Publications, Presentations and Webinars

Archer, J., Katz, M.L., Charney-Sirott, I., Howlett, H., and Max, J. (April 2018). "Implementing Online Professional Learning Communities: Insights from WestEd's Blended Professional Development Model." Washington, DC: Mathematica Policy Research.
<https://readingapprenticeship.org/articles/implementing-online-professional-learning-communities/>

Cribb, G., Maglio, C., & Greenleaf, C. (2018). Collaborative argumentation: 10th graders read modern Iranian history. *The History Teacher*, 51(3), 477-526.

Greenleaf, C., Litman, C. & Marple, S. (2018). The impact of inquiry-based professional development on teachers' capacity to integrate literacy instruction in secondary subject areas. *Teaching and Teacher Education*, 71, 226-240.

Greenleaf, C. "Reframing Reading as an Inquiry Practice of Science." (June 2018). Keynote, National Science Teachers Association. Atlanta, GA.

Greenleaf, C. "We Make the Road by Walking." (September 2018). Faculty Seminar, University of Auckland, New Zealand.

Greenleaf, C., Katz, M.L., & Wilson, A. (2018). Designing literacy leadership: Fractal motifs for teaching and learning. *Journal of Adolescent and Adult Literacy*, 61(1), 105-109.

Goldman, S.R., Ko, M.L., Greenleaf, C. & Brown, W. (2018). Domain-specificity in the practices of explanation, modeling, and argument in the sciences. In C. Chinn, J. Osborne, F. Fischer & K. Engelmann (Eds.). *Scientific Reasoning and Argumentation: The Roles of Domain-Specific and Domain-General Knowledge* (pp. 121-141). Routledge.

Litman, C. & Greenleaf, C. (2018). Argumentation tasks in secondary English language arts, history, and science: Variations in instructional focus and inquiry space. *Reading Research Quarterly*, 53 (1), 107–126.

Loyd, W. Spotlight on State and Local Initiatives: WestEd, SLI Reading Apprenticeship’s Role in Supporting English Language Learners. SEED Teacher Feedback and Coaching Online Community of Practice. (March, 2018)

2019 Publications

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Digital Communication and Social Media

In addition to the thousands of people who learned about the impact of this project via the publications and presentations noted above, WestEd Communications and SLI's Reading Apprenticeship team reached hundreds of thousands more educators, researchers and policy makers via our active social media, website, and quarterly e-bulletins. The project supported SLI to develop its website and social media to disseminate information about RAAD, lessons learned and about SLI's tools and approaches to teacher development. Visit www.ReadingApprenticeship.org to see the RAAD webpages; stories of participating school and district level implementation were, and continue to be shared in blogs, tweets @readapprentice, and posts on facebook <https://www.facebook.com/readapprentice/> by SLI and participating teachers and administrators.

To what Extent did RAAD Increase the Number of Highly Effective Secondary Teachers Through Reading Apprenticeship Professional Learning?

The project defined highly effective secondary teachers as teachers whose practices included research-based instructional strategies associated with increased student literacy and content learning. In this section we will focus on how participants regarded the professional learning they received and to what extent they took up the Reading Apprenticeship instructional practices associated with student learning gains. We reasoned that teachers' regard for the varied elements of the blended professional learning model will be associated with the degree to which they took up and sustained Reading Apprenticeship practices. We drew on data from the teacher and teacher leader surveys administered during cohorts 1 and 2, focus group interviews, individual teacher leader interviews, and a study of teacher and facilitator engagement during online PLCs to consider the following questions:

- To what extent do teachers and teacher leaders value and learn from the professional learning opportunities offered in the blended learning model?
- To what extent do teachers and teacher leaders value the Reading Apprenticeship instructional framework?
- To what extent do teachers and teacher leaders take up Reading Apprenticeship practices?
- Do these outcomes vary across subject areas?

Teacher and Teacher Leader Regard and Learning through the Blended Professional Learning Model

Face-to-Face Institutes

Among the 1,333 teachers who participated in the spring teacher surveys, 91.9% of Cohort 1 and 79.9% of Cohort 2 teachers attended all five days of the RAAD face-to-face institutes, a very high participation rate. The surveyed teachers assigned high ratings to these institutes. Over 85% of teachers rated face-to-face institutes as *effective* or *highly effective* as a group learning experience. Over 80% reported they *agree* or *strongly agree* that these institutes supported their motivation and learning in a variety of ways. Over 90% of these teachers rated the institutes as at least *moderately helpful* for supporting implementation in their classroom, with two-thirds rating them as *more than moderately-* or *very helpful* for supporting implementation. These positive assessments of the face-to-face learning experience was even higher among teacher leaders, who showed both higher absolute ratings and steeper increases across time and cohorts in their ratings of the effectiveness, motivation and learning, and support for implementation offered by the institutes, compared with teachers who were not teacher leaders. See Appendix A for the full survey report.

Online PLCs

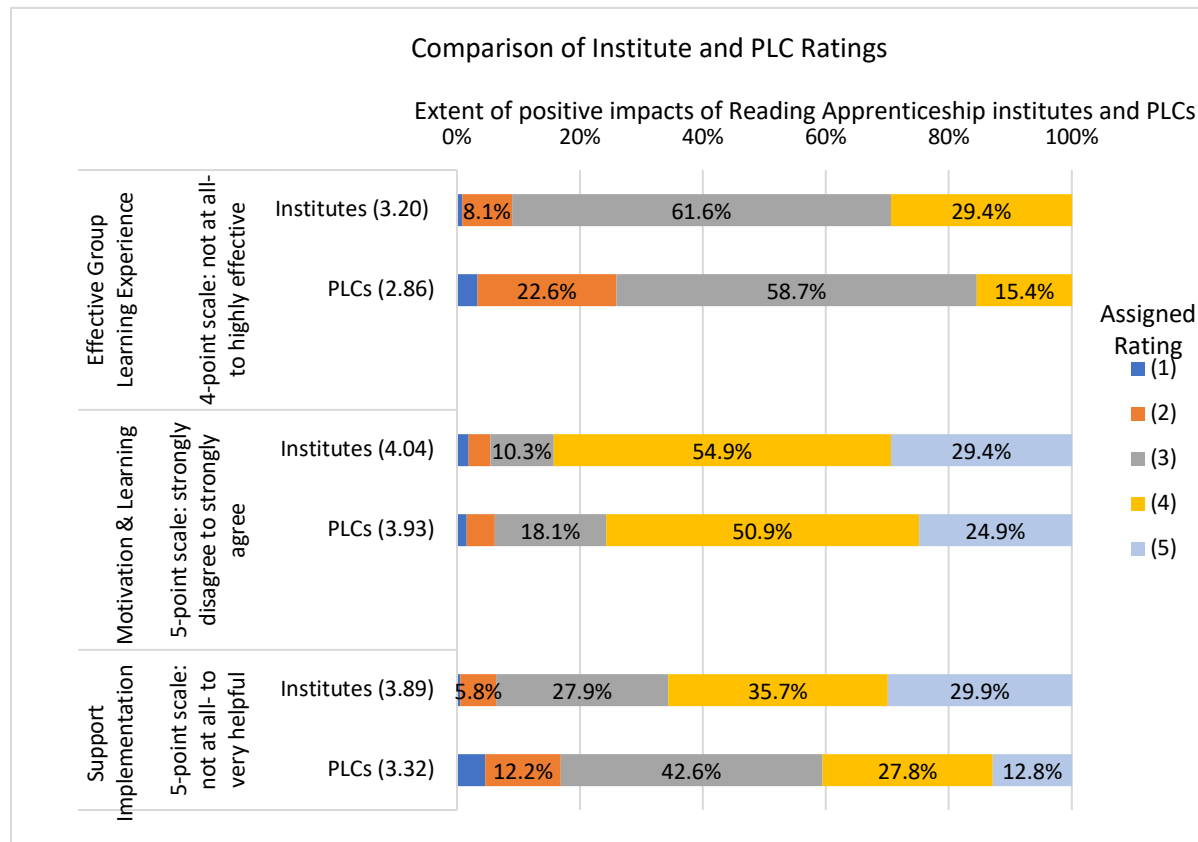
As reported earlier, the online components of the RAAD professional learning model included synchronous video conferencing sessions as well as asynchronous, text-based discussions in small content-specific Professional Learning Communities (PLCs). Teacher participation in online PLCs was high, according to surveys. Roughly 90% percent of surveyed teachers participated in at least one of the two PLCs offered in fall and winter, and the majority participated in both (64.1%-79.5%). Nearly 77% of Cohort 1 teachers participated in three or four of the four spring PLCs, and more than 85% of Cohort 2 teachers participated in two or three of the three spring PLCs.³ Competing obligations, technical problems, and a variety of individual idiosyncratic reasons were the primary explanations given for missing PLCs. As technical problems emerged in Cohort 1, SLI worked to solve teacher access to the online PLCs, with the result that technical problems diminished from Cohort 1 to Cohort 2.

Interestingly, in general online PLCs received lower ratings than the face-to-face institutes, as shown in figure 6 below. The percentage of teachers who rated PLCs as *effective* or *highly*

³ Cohort 1 teachers participated in a total of eight synchronous PLC sessions: three in the fall following the three-day summer institute; two in the winter; and three in the spring following the 2-day winter institute. Cohort 2 teachers participated in three synchronous PLCs in the fall, and three asynchronous PLCs in the spring.

effective as a group learning experience ranged from 59.2 to 85.9%. Similarly, ratings of *agree* or *strongly agree* with statements about motivation and learning from PLCs ranged from 62.5% to 87.6%. The percentage of teachers who found PLCs to be *more than moderately-* or *very helpful* for supporting implementation ranged from 27.4% to 54.3%. A greater percentage of Cohort 1 teachers who participated in a blended program of asynchronous and synchronous PLCs throughout the entire year reported that PLCs were *effective* or *highly effective*, *agree* or *strongly agree* that they fostered motivation and learning, and rated them as *more than moderately-* or *very helpful* for supporting implementation. In Cohort 2, teachers who experienced a shift midway through the year from the blended asynchronous-synchronous program to asynchronous-only PLCs rated the PLCs as less effective or helpful, despite the program being less demanding of their time. And while the percentage of positive ratings assigned by teachers in Cohort 1 increased from fall to spring, positive ratings dropped precipitously from fall to spring in Cohort 2. Teacher leaders and teachers who were not teacher leaders assigned similar ratings to the PLCs. See the full survey report in Appendix A for more detail.

FIGURE 7. COMPARISON OF PROFESSIONAL DEVELOPMENT INSTITUTE AND ONLINE PLC RATINGS



Note. Weighted means for each survey in parentheses. Ratings of < 5% are not labeled.

A Study of Teacher and Facilitator Engagement in Online PLCs

Since SLI began offering online learning in 2010, we deliberated about the optimal size and structure of online professional learning communities (PLCs). Drawing on a decade of conducting design-based professional learning and research in and on the online space (Schoenbach, Greenleaf, Brown and Howlett, 2016; Archer, Katz, Charney-Sirott, Howlett and Max, 2018; Katz, Stump, Charney-Sirott and Howlett, 2019), SLI made particular decisions about size, frequency, and disciplinary focus for RAAD's rollout, placing teachers in discipline-alike groupings (STEM or Humanities) of no more than 15 participants. This PLC organization offered individuals additional opportunities to voice their thinking in the company of disciplinary colleagues during monthly synchronous online meetings which complemented face-to-face institutes and asynchronous online work.

For this special study, we analyzed a subset of nine PLCs from the first semester of the second year to enable us to see how PLCs with the same focus (use of common protocols and processes) differed from one another when led by four different, highly experienced Reading Apprenticeship facilitators. PLCs were video recorded using the Zoom platform and were partially transcribed and annotated by three observers. Any messages via the Chat function within Zoom were also available in a text file. For each PLC, three analysts noted the number and names of participants, facilitator name, month of meeting (September, October, November) and focus of the PLC for that month, and any resources or protocols used across meetings. Analysts then compared and contrasted their notes and observations of the video recordings to identify emerging themes. All facilitators observed were members of the PD Team and had previously co-designed the protocols guiding the PLCs. Several key tensions and takeaways, described below, emerged from close analysis of the online PLCs.

Finding 1: Stable PLC community versus flexible PLC times. Previous research has demonstrated the importance of building trust in learning communities (Darling-Hammond, Hylar and Gardner, 2017). In order to build community and share problems of practice in a meaningful way, teachers and facilitators wanted to know who was in the virtual room. To this end facilitators began each PLC by asking teachers to share thoughts about what was happening in their classrooms in an attempt to build context and enable teachers to get to know one another. While flexibility made it possible for teachers to participate, flexibility also led to unstable grouping. Changing group membership impacted the type of learning that could happen in a one-hour online PLC. Though facilitators built in time for “get to know you” activities, even when those were brief, teachers seemed to want more time for them. Yet there was also some frustration about the value of the PLC; when teachers carved out time in their afternoons or evenings to participate, they wanted the time to be high value. Though it felt necessary to get to know one's colleagues, the time spent learning about their classroom

contexts and students took away from time that could have been spent on the protocol and in deeper inquiry to improve support for implementing Reading Apprenticeship. It seems that *the need for stable PLC communities*, which support trust building, knowledge sharing, and the possibility of deeper inquiry, *outweighs the advantages of flexible scheduling*.

Finding 2: Depth versus breadth. Across the PLCs observed, there seemed to be a trade-off between depth and breadth. Given the one-hour time frame and variable participant numbers (between 3 and 19 people) as well as the differences in facilitators' goals, the depth and breadth of knowledge-building and inquiry varied across sessions. This tension played out in terms of whether the PLC focused on a specific and in-depth discussion of a problem of practice versus broader reporting of teachers' practices about a topic. This finding appeared to align with the survey results from the previous year. There is some indication that greater depth might be occurring in the smaller PLCs where it was easier for one or two topics to be prioritized. For example, in one PLC, the facilitator guided an in-depth discussion of one or two pressing problems of practice that the participants raised. This data suggest that PLC participants were able and willing to go deep but that depth of discussion in a larger group could cause a loss of breadth.

Finding 3: Protocol as inquiry tool versus protocol as procedure. In year 2, all professional learning for the RCT teachers took place in the digital space. Each month, the PLCs focused on a different learning goal and included a new supporting text. As we reviewed the online PLC recordings, we noticed how differently facilitators enacted the same protocols in the digital space. How protocols are taken up in the PLCs may be more important in the digital space because other contexts and supports are not available to facilitators and PLC members. Additionally, depending on how the protocols are used, there is sometimes a tension around how facilitators use them and to what degree they are experienced (by facilitator and participants) as a tool for inquiry versus an activity (or processual list of steps) to be completed. While protocols are key to structuring Reading Apprenticeship inquiry, additional variables, such as preparation (of facilitators and participants), group size, stable community membership, length and frequency of PLCs, etc., impact how the protocols are implemented, and further, to what extent they are experienced as inquiry versus as a series of activities or steps.

Finding 4: Whole group versus small group learning. While in face-to-face professional learning settings small groups can sometimes offer more numerous opportunities for individual learning, close analysis of this subset of online PLCs suggests that in a digital space using a platform like Zoom, where all participants have their cameras on and can see one another's facial expressions, upper body comportment, gestures, notetaking, and texts (through

screensharing), whole group conversations may offer especially rich occasions for facilitator modeling, collaborative thinking, textual reflection, and teacher learning. Though the conversational moves that facilitators made in the online PLCs were in many ways characteristic of face-to-face Reading Apprenticeship professional learning, the concentrated and multimodal nature of conversations in the digital learning space amplified elements of effective inquiry-based practice, suggesting that the online space can, in some cases, be *as — or perhaps even more* — supportive of teacher learning than small group breakouts or can support small group breakouts in particularly powerful and intertextual ways.

Overall, it seems that stable communities within PLCs build trust and knowledge. While depth and breadth both have their place in learning design, given the one-hour time frame and variable participant numbers as well as differences in facilitators' goals, smaller PLCs can more easily support both depth and breadth. We conclude as well that while protocols are key to structuring Reading Apprenticeship inquiry, additional variables, such as preparation (of facilitators and participants), group size, stable community membership, and length and frequency of PLCs impact how protocols are implemented, and to what extent they are experienced as inquiry versus procedure. Finally, the concentrated and multimodal nature of conversations in the digital learning space amplified elements of effective inquiry-based practice, suggesting that Reading Apprenticeship's online PLCs can be especially supportive of teacher learning in particularly powerful ways.

School Team Meetings

According to the teacher surveys, participation in school team meetings was high: 98.7% of Cohort 1 teachers and 97.1% of Cohort 2 teachers who completed the teacher survey attended at least one school team meeting. Nearly two-thirds of Cohort 1 teachers and over three-quarters of Cohort 2 teachers attended five or more school team meetings. Across surveys, over 50% of teachers rated school team meetings as *more than moderately-* or *very helpful* for implementing Reading Apprenticeship in their classroom. Ratings were very stable within cohorts. However, Cohort 2 teachers assigned higher ratings than Cohort 1 teachers, on the order of 10 percentage points higher. This may have been a result of program improvement but could also have been due to a proportion of teacher leaders continuing to serve from Cohort 1 to 2, thereby improving their own ability to serve in this role.

Teacher and Teacher Leader Regard for the Reading Apprenticeship Framework

To get a sense of teachers' regard for the Reading Apprenticeship framework, we drew on survey responses to questions about their willingness to try to implement Reading Apprenticeship practices and well as their commitment to making Reading Apprenticeship work in their classrooms and schools. Nearly 55% of teachers who participated in surveys

administered in the fall, following summer face-to-face institutes, reported that they were *willing to try* to make Reading Apprenticeship work in their classroom. Nearly 44% reported that making Reading Apprenticeship work in their classroom was a *high priority*. Fewer than 2% of teachers said that Reading Apprenticeship was *not a priority* for them. At least 60% of teachers indicated that *competing priorities* were a challenge to implementing Reading Apprenticeship. A related challenge, *not enough time in the pacing guide*, was chosen by half the teachers. About 45% of teachers indicated that student behavior and/or ability was a challenge. It is not clear whether teachers believed student behavior and/or ability were particularly challenging for Reading Apprenticeship or represented ongoing challenges regardless of instructional approach. Thirty percent of teachers participating in the first survey in Cohort 1 indicated that lack of materials was a challenge, but this challenge declined with each subsequent survey.

Despite these obstacles, nearly every RAAD teacher who participated in the spring surveys reported that they planned to continue using Reading Apprenticeship in their classrooms. This is particularly noteworthy, given that fewer than 50% of teachers who participated in fall surveys indicated that implementing Reading Apprenticeship in their classroom was a *high priority*. In other words, after a year of implementation, teachers reported being *willing to try* to make Reading Apprenticeship work in the fall, shifting by spring to *planning to continue implementing Reading Apprenticeship* in the future.

Nonetheless, although surveyed teachers planned to continue implementing Reading Apprenticeship *in their own classroom*, they were somewhat less optimistic about the enduring impact of Reading Apprenticeship *at their school site*. Furthermore, fewer Cohort 2 teachers indicated that Reading Apprenticeship was either *more than moderately* or *very likely* to continue at their school site compared with Cohort 1 teachers. This suggests that the end of RAAD funding and corresponding uncertainty about continued institutional support for Reading Apprenticeship may have caused Cohort 2 teachers greater doubt about the future of Reading Apprenticeship beyond their own classrooms. At the same time, very few teachers in either cohort reported that it was *not at all-* or *less than moderately likely* that their school would continue Reading Apprenticeship.

Teacher and Teacher Leader Implementation of Reading Apprenticeship Practices

Spring surveys asked teachers to self-report the frequency of opportunities and support they provided for their students to engage in complex literacy practices conceptually linked to the Reading Apprenticeship framework. Implementation was measured on 11 constructs:

1. Reading Opportunities: Texts
2. Reading Opportunities: In-Class Reading and Comprehending
3. Support for Comprehending Content
4. Support for Collaboration
5. Student Collaboration
6. Support for Metacognition
7. Student Metacognition
8. Support for Comprehension Strategies
9. Student Comprehension Strategies
10. Promoting Equity
11. Traditional Practices

In addition, a 12th construct, Teacher Confidence, measured teachers' confidence in their ability to implement Reading Apprenticeship in their classroom.

More than 50% of teachers reported implementing five of the 11 Reading Apprenticeship constructs *about once a week or more: support for collaboration, student collaboration, support for comprehending content; and student comprehension strategies*. Importantly, these are all instructional practices that position students as active meaning-makers. In addition, nearly 80% of teachers modified their instruction based on student need at least *about once a week* to promote equitable engagement and learning. Nearly 60% did so at least *2-3 times a week*.

At the same time, many teachers offered limited reading opportunities, including breadth, depth, or variation in genres and text types, and time allocated to in-class reading and comprehending. Although roughly a third of teachers offered supplementary texts *2-3 times a week or daily or almost daily*, and another third did so *about once a week*, one-third *never* offered supplementary texts or did so very infrequently (*1-2 times* in four weeks). Similarly, in-class reading and comprehending occurred infrequently in many classrooms. Although 40% of teachers allocated time to in-class reading *2-3 times a week or daily or almost daily*, nearly 40% *never* allocated time for in-class reading or did so *1-2 times* in four weeks. About 20% assigned in-class reading *about once a week*. Because the survey didn't collect information about duration, the extent to which in-class reading occurred for significant stretches or briefly—for example, for the last few minutes of class – is unknown. Teachers' reported difficulty finding appropriate content-linked texts may have impeded uptake of Reading Apprenticeship practices with regard to extending students' reading opportunities.

Another central underpinning of the Reading Apprenticeship framework is engaging students in metacognition about their reading and learning processes. Fewer than 50% of teachers surveyed provided support or student practice for metacognition more than *about once a week*. Nearly 30% did so *never* or *1-2 times* a month. Similarly, fewer than half of teachers modeled or supported comprehension strategies more than *about once a week*. Notably, many teachers provided ample opportunities for students themselves to use comprehension strategies. More than 80% of teachers assigned comprehension strategies *about once a week* or more. Nearly 60% did so *2-3 times a week* or *daily* or *almost daily*. Only about 20% of teachers reported that they *never* asked students to use comprehension strategies or used them only *1-2 times* a month.

About 60% of teachers used traditional instructional practices that position students as recipients of information *about once a week* or more frequently—more than a third did so *2-3 times a week* or *daily* or *almost daily*. On the other hand, nearly 40% of teachers *never* used these practices or did so rarely (*1-2 times* a month). This suggests that some teachers were moving away from traditional instructional practices as they took up new ways to engage students with reading in their content areas. Overall, teachers' self-report survey responses indicated some uptake of Reading Apprenticeship practices, while gaps in key Reading Apprenticeship practices remained.

Open-ended survey items indicated that professional learning opportunities offered to teacher leaders had a strong impact on their classroom practice as well as their leadership development. Survey responses suggest that teacher leaders implemented Reading Apprenticeship practices more frequently than teachers who were not teacher leaders. Teacher leaders assigned higher ratings to all 11 teacher practice constructs compared with non-teacher leaders in their same cohorts.

FIGURE 8. TEACHER AND TEACHER LEADER IMPLEMENTATION OF READING APPRENTICESHIP PRACTICES



Both teachers and teacher leaders reported more frequent implementation of Reading Apprenticeship practices in Cohort 2, compared with their Cohort 1 peers. This increase may have been a result of program improvements from year to year. Finally, over 50% of teachers expressed *high* or *very high* confidence in their ability to implement a wide range of Reading Apprenticeship practices in their classroom. Mean confidence ratings increased slightly from fall to spring for both cohorts. The percentage of teachers rating their confidence as *moderate* decreased over time, while the percentage choosing *high* or *very high* increased.

Teacher survey results paint a promising picture of increased literacy instruction and support compared with literacy instruction as usual (Greenleaf & Valencia, 2017). In general, teachers implemented a wide range of Reading Apprenticeship instructional routines, strategies, and approaches from *about once-*, to *2-3 times a week* on average, and they did so with considerable confidence. Although we did not collect student outcome data as part of the formative assessment, RAAD theory of action posits that shifts in teacher practices result in corresponding shifts in student opportunity to learn. If this is the case, results from teacher practice and confidence ratings reported above suggest that RAAD students may have enjoyed

greater literacy learning opportunities and support compared with teaching and learning offered in most secondary classrooms. This is particularly true for students of teacher leaders who enjoyed additional support during both years of RAAD. See Appendix A for more detail.

Teacher Views of the Effects of Reading Apprenticeship on Students

Teachers new to Reading Apprenticeship often express anxiety about releasing responsibility for learning to students because such a move can make the classroom feel more chaotic, noisy, or messy (sometimes all at once). Teachers often worry that their adolescent students' behavior will not be disciplined and respectful enough to support a civil and dialogic learning culture. They also fear students will become hopelessly lost or off task in individual or peer or small group work and they worry that particular students' learning needs will go unmet in the heterogeneous classroom if teachers do not deliver the most important ideas themselves. And some even fear students' unbridled thoughts may lead to class discussions going deeply astray or to the proliferation of misconceptions. Interviews with regional partners and teacher leaders gave us insight into how leaders resolved these tensions for themselves and in their work with colleagues. As one of the partner leads in Chicago put it,

“In our work with Reading Apprenticeship routines, one of the most challenging for teachers is modeling their expert moves and master thinking in a way that really demonstrates how it looks and sounds for an expert to approach a disciplinary text. Teachers take detours when doing a think aloud in common ways: they model the thinking of a struggling reader trying to work through a roadblock; they start to think aloud and almost immediately start asking students whole group questions; or they spend several minutes teaching the text, filling in background knowledge, and giving away the point of the text. Teachers think they are modeling, ...[but] these detours around a model think aloud highlight one of the challenges teachers have in moving into an apprenticeship approach. That is, even with the best of intentions of building students' capacity to be independent and savvy readers, there is a deep-seated fear that if the teacher does not say it, students will not ‘get it.’”

Over time with the ongoing support for implementation provided in the RAAD professional learning, teachers began to see what students can actually do when given more control of and responsibility for their own learning. This made them see how the plunge they took into new pedagogical territory made increasing sense and they became gradually more willing to hand the work of learning over to students. As Teacher Leader Deborah Evans-Claytor put it:

“We got the results that we were looking for [but] it takes teacher buy-in first, and the students tend to follow the teacher's lead. [Once] we had the buy-in, the students had the buy-in It didn't happen overnight ... [but] by the beginning of November they were ready to go ... [and because] students

themselves helped develop the [classroom] norms, they knew that they were going to be held accountable.”

Taryn Martinez, a middle school science teacher in New York, noted that time, repeated opportunities, and modeling were critical to her students’ success and to her comfort with giving over more of the work to them:

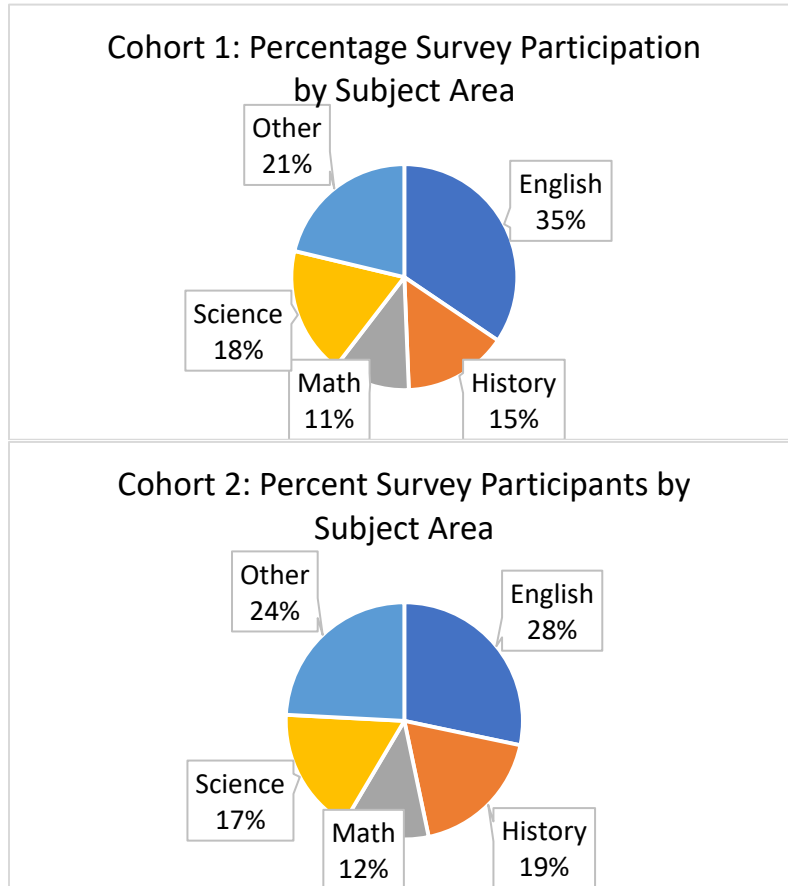
“The first couple of times that we did talking to the text [my students] were very tentative. They took a really long time. They definitely preferred to copy what I was doing in the modeling versus trying to make their own connections. So, you know, just like anything else, the more we did it, the more comfortable and confident they seemed to get. I even started doing some paired talking to the text, where one student would talk and the other would annotate, and at first with that, they were a little nervous. They didn’t want their partner to judge them. But again, the more comfortable they got with it and the more we practiced it, the better and the deeper and the more meaningful their annotations became.”

With sustained support and opportunity in professional learning, teachers discovered that their students were not only capable of thinking their way through complex texts to coherent ideas and interpretations; they were also able to lead their own learning. Moreover, students’ thinking – as evidenced through extensive metacognitive conversation about reading and sense-making – enlivened class discussion, providing teachers with ongoing insight into what students need to learn next.

Variation Across Subject Areas

Of the 1,333 teachers surveyed for RAAD, English/Language Arts unsurprisingly comprised the highest percentage of teachers participating in the project (34.5% and 28.3% for Cohorts 1 and 2, respectively). However, the majority of RAAD teachers were drawn from other core disciplines—history (14.9% and 18.4%), math (11.1 and 11.8%), and science (18.3% and 17.3%)—and from subject areas outside the core disciplines, including culinary arts, foreign languages, fine arts, physical education, and special education, etc. (21.3% and 24.2%).

FIGURE 9. SURVEY PARTICIPATION BY SUBJECT AREA AND COHORT



Survey responses by subject area revealed some differences. In general, science teachers assigned the highest ratings to the face-to-face institutes, followed by history, ELA, and math teachers. Science has been a strong focus of Reading Apprenticeship for many years, and Reading Apprenticeship professional learning is supported by strong science facilitators and resources. In contrast, there are fewer math-specific tools and resources and fewer math facilitators among the corpus of SLI facilitators compared with ELA, history, and science. Lower ratings of professional learning institutes by math teachers may indicate difficulties math teachers face in seeing the potential contribution of Reading Apprenticeship to math learning, in part due to fewer available math-specific professional learning resources, experiences, and classroom tools in Reading Apprenticeship materials. The professional development Design Team worked to address this gap across the course of the project.

With regard to uptake of Reading Apprenticeship practices, there were marked subject area differences, as the survey report in Appendix A details. Math and science teachers provided little breadth, depth, or variation in genres and text types and few in-class reading opportunities, both absolutely and compared with ELA and history teachers. Overall, math

teachers provided students with supplementary reading materials between *1-2 times* a month and *about once a week*, and science teachers just a little more frequently. Similarly, math and science teachers offered few opportunities for in-class reading and comprehending—between *1-2 times* a month and *about once a week*. This may be due to the relative role texts play in math and science learning, compared to ELA and history where texts often comprise the focus of content instruction (literature and primary source documents, for example). Perhaps more surprisingly, math and science teachers also allocated little time to supporting metacognition, student metacognition, and support for comprehension strategies, both in absolute terms and compared to ELA and history teachers. Although ELA and history teachers generally implemented Reading Apprenticeship practices more frequently than their math or science colleagues, they also used traditional teaching practices more frequently than teachers of math or science.

To What Extent did the Project Develop the Capacity of Regional Partners and Teacher Leaders to Sustain Effective Literacy Practices at the Sites

A major goal of the RAAD initiative was to build local capacity to deepen and sustain Reading Apprenticeship practices over the long term. To this end, RAAD invested significant time and effort into developing and supporting site-based expertise and leadership in the form of regional partners and teacher leaders. In this section, we summarize the results of those efforts. To determine the extent to which the RAAD project build the capacity of regional partners to support the ongoing implementation of Reading Apprenticeship, we draw from notes from ongoing meetings with regional partners as well as surveys and interviews with them, their websites, and communication materials. To determine the extent to which the RAAD project build the capacity of teacher leaders to support the ongoing implementation of Reading Apprenticeship, we draw from surveys and interviews.

Capacity and Implementation of Regional Partners

Drawing on notes from partner meetings, partner surveys, and interviews, the sections below detail the successes and challenges regional partners experienced during the RAAD project in implementing and supporting Reading Apprenticeship and the multiple components of the RAAD model. We touch on the nature and depth of the regional partnerships established and/or deepened during the project and report briefly on an in-depth case study of SLI's work over time with the district-university partnership organization supporting a large urban district in Illinois.

California

Successes/Support: Though small in number, California teacher leaders were very committed to supporting the work. The site lead shared that “Our teacher leader group was small but mighty. I think they learned that they need to be in this effort for the long haul, and that they should not expect to have everything mastered in one year. We bonded well and established good working relationships and sharing of student work.” In year 2, the lead reported that “We have a greater diversity of schools, which has made discussions and connections richer. I understand how to support teachers better and we have a few folks from Cohort 1 who are helping with mentoring others via email. It feels like we are finally getting awareness of the strength of Reading Apprenticeship support just as the grant is winding down. To say that teachers are disappointed not to have the grant continue is an understatement—we hope to find a way to keep networks going.”

In year 2, when asked what was changing for students, the lead noted, “I am hearing about teachers understanding the reading demands of their content much more clearly. I hear teachers talking about engaging in metacognitive discussions with students about processes in their content also. This is a big shift for many.” She explained further that the winter institute made things ‘gel’ for teachers. “I love that teachers have time to implement [between professional learning meetings]. They connect with others in the online PLCs and they are supported by their teacher leaders. When [local] schools have *not* gone through the grant and [therefore have not participated in] the online PLCs and teacher leaders' guidance, the progress of students' growth in literacy and metacognition is not as evident.”

Challenges: As was the case in some other sites, there was initial misunderstanding of the blended learning model, in particular, the monthly online PLCs, both synchronous and asynchronous. The regional partner explained that, “Connection [getting online] was an issue for some [at the outset] but once participants worked that out, they found the PLCs beneficial.” Initiative overload was also cited as a reason that teachers found the work challenging: “The timing of this effort in California coincided with: 1) textbook adoption for ELA/ELD/History in this region; 2) [a] new accountability system for English Learners; and 3) the two new curriculum frameworks and standards rollouts in History and Science. When we have had teachers fall away, the most-oft stated reason was the number of initiatives teachers were being asked to implement competing with this positive but less-stressed effort. I don't know how that could have been avoided, but I do think it was the main challenge for California.”

Illinois

Successes/Support: The Illinois partner had staff coordinators who deeply understood Reading Apprenticeship and had many years of experience working in both the school district and the

support agency. They also had systems (email distribution channels and professional learning registration) in place which assisted with teacher communication, and they had good relationships with some district network leaders who had a strong understanding and belief in the fit of this model.

SLI had particularly strong insight into the Illinois district because it was the focus of a case study, and the partner conducted some of their own research on teacher implementation and student outcomes. SLI's case study found strong evidence that the additional investment in time and resources for teacher leaders resulted in stronger implementation. In SLI's analysis that compared the district's teacher leaders to teachers, teacher leaders increased their implementation of Reading Apprenticeship practices from Year 1 to Year 2. The greatest increases occurred in: 1) use of multiple texts; 2) support for in-class reading; 3) student peer collaboration; and 4) metacognitive routines and conversation—aspects of the Reading Apprenticeship framework that most depart from business as usual. This pattern of findings suggests that an initial focus on comprehension strategies instruction in Year 1 may have shifted in Year 2 to a greater emphasis on collaborative meaning-making and metacognition. Survey results thus indicate that implementation of challenging aspects of the Reading Apprenticeship framework deepen with practice and continuing support. Importantly, many Cohort 1 teacher leaders continued as teacher leaders in Year 2, and therefore had a year of professional learning and implementation. That fidelity improves with support and practice is also supported by the finding that Cohort 1 teachers were more similar to Cohort 1 teacher leaders than Cohort 2 teachers were to Cohort 2 teacher leaders.

Another success and sign of strong partner support in the Illinois district is that several of their teacher leaders applied for, and successfully completed, SLI's facilitator development program and are now certified to lead Reading Apprenticeship professional learning across the country. Having more facilitators from large urban districts and of more varied subjects and grade levels assists SLI in meeting its ongoing improvement goal of having a diverse pool of facilitators who can lead from practice and represent a broad range of teaching contexts.

Challenges: As was the case in other sites, teachers in Illinois experienced initiative overload and initially misunderstood, or were less enthusiastic about, the blended online learning elements of the RAAD model. For example, the district's office of teaching and learning, which includes the district department of literacy, has, in recent years, begun focusing its resources on another literacy initiative in addition to Reading Apprenticeship. There is some possibility, then, that the frameworks of two competing initiatives were at odds and could have undermined the capacity to evaluate the impact of Reading Apprenticeship in this location.

Working through the Illinois partner also entailed working through the local tensions concerning the district and support agency's resource allocation. For example, some key leaders felt that the partner served primarily the more affluent schools in the district; however, the data showed otherwise. During the RAAD initiative, in Network "I," 86% of students in Reading Apprenticeship schools qualified for free or reduced-price lunch and 87% were African American students. Network "K," with the largest number of participating Reading Apprenticeship teachers (222) and schools (31), had similar demographics. Nearly 90% of students in Network K Reading Apprenticeship schools qualified for free or reduced-price lunch and 92% were African American. Together, these two networks (I and K) accounted for 56% of schools and nearly 30% of teachers who have participated in Reading Apprenticeship professional learning in the district since 2012. In the RAAD grant specifically, 59% of schools and 38% teachers were members of these two networks. Furthermore, across initiatives, 86% of students in Reading Apprenticeship schools have qualified for free or reduced-priced lunch, compared with 78% district wide. Over 65% were African American, compared with 37% district wide. Another 27% were Hispanic. Fewer than 5% were white. Nevertheless, interviews with district leaders at the end of the project indicated that the misconception of who is served by the partner, and therefore the RAAD initiative, remained for some leaders.

Michigan

Michigan was unique in that its regional support was led by an SLI staff member who lives in the state and has lead Reading Apprenticeship professional learning and projects there for many years.

Successes/Support: Participation in all aspects of the professional learning was exceptionally strong in Michigan, largely because of the deep experience of the regional partner (both with education in general and with Reading Apprenticeship), his strong communication systems, diligent outreach, and the broader awareness of Reading Apprenticeship in the state. The partner and teachers led presentations at state-wide literacy conferences, and teacher leader meetings were well attended.

A particular strength of the teacher leader approach in Michigan was doing classroom visits with a structured protocol for analyzing teacher instruction and student literacy activities. Michigan also had strong administrator participation and understanding of the initiative, as evidence by two quotes from interviews:

"Students that I see doing very little work in most classes are opening up and talking in class with their R[eading] A[pprenticeship]-trained teachers. Their behavior problems de-escalate because they are given a chance to frequently

engage with both the teacher and the students, and their answers and questions are given credence and respect.”

– High school principal

“My district has been actively supporting Reading Apprenticeship since 2012 for a number of reasons. The high-quality learning opportunities, combined with leadership development have been instrumental in engaging ALL of our students, particularly those considered at-risk. In fact, teachers have reported that the students who gain the most from this approach are those identified as at-risk. As a result of the sustained professional growth that R[eading] A[pprenticeship] fosters, two of our school districts have served as observation sites to teachers from across Michigan with the goal of improving instructional practices across the content areas using a collaborative, supportive approach. Furthermore, our teachers have expressed that one of the strengths of the Reading Apprenticeship Framework is that it recognizes and supports students’ social and emotional development. This is particularly valuable in that three years ago, our region’s educators identified a specific need for continued support around social and emotional learning.”

- District Director of Professional Learning, northern Michigan

Another success in Michigan was that several teachers applied for and completed SLI’s facilitator training, adding to both local and national capacity to continue the work, and signaling strong implementation and teacher leader support.

Challenges: Michigan included a lot of smaller schools and districts, many of which reported a difficult time securing substitute teachers for the winter professional learning. Although this didn’t have a strong impact on attendance, it does take additional effort on behalf of school staff in charge of securing substitutes. Weather often makes traveling to the winter institute difficult, and in one of the years, the project had to cancel one day of the professional learning due to an especially ferocious storm.

New York

Successes/Support: The New York state partner’s comprehensive, research-based literacy framework appeared to be a good fit for Reading Apprenticeship. In addition, site staff recognize that middle school students continue to need effective, targeted literacy instruction that is responsive to their strengths and needs, especially for high school and beyond, where students will tackle an increasingly complex range of texts. Another of the site’s goals was to support consistent, comprehensive, and improved literacy practices and leadership both within and across schools with an adaptable framework that allows for flexibility and innovation at the school level. Therefore, the New York site consistently offered teachers opportunities to make

decisions about what their particular students needed. This focus on teacher decision-making and agency aligns with Reading Apprenticeship’s approach to professional learning in which teachers “lead from practice.”

Challenges: The New York partner’s in-school coaching model, which focuses on assisting teachers and school campuses across the city to comprehensively address students’ literacy needs, turned out to conflict in some structural ways with dissemination of Reading Apprenticeship’s professional learning model. Job-embedded coaching models are usually a plus, and the New York partner assigned a coach to provide specific support to each school, tailoring coaching to meet the school’s needs and teachers’ daily practice. While on the surface this seemed well-aligned with Reading Apprenticeship’s approach to supporting teachers, it turned out that New York’s coaches were responsible for supporting multiple initiatives simultaneously. This meant that coaches were supporting teachers to implement classroom practices from programs whose underlying principles and frameworks may have conflicted with Reading Apprenticeship. This in turn created confusion for teachers who blended practices, strategies, and routines from different frameworks, thereby potentially confounding study findings. In addition, there was significant misunderstanding of Reading Apprenticeship’s blended learning model, in particular, the monthly online PLCs, both synchronous and asynchronous. Extra support was provided to New York site leaders to make the purposes for and processes of online PLCs clearer, yet this did not improve the very low levels of participation in the online components of the professional learning.

Texas

Successes/Support: In one Texas district in particular, there was broad teacher participation each year of the grant and a district leader—the Director of Curriculum and Instruction—who championed district-wide adoption year after year. The partner had good relationships with district leaders from prior work in the district supported by federal Teacher Quality grants. The outreach done by the partner and their ability to describe the work in detail as their staff saw implementation grow over time resulted in new districts joining the scale up work in this grant and in subsequent projects.

A year-end teacher survey found that 93% of participating teachers planned to continuing using Reading Apprenticeship. Like Illinois, the Texas districts and partners did some of their own research on implementation and impact, and anecdotal evidence supports the finding that partners and teacher leaders supported classroom implementation that translated into student change. For example, students reported understanding and enthusiasm for several of the literacy strategies and collaboration routines, as shown in two student quotes from a focus group:

“Reading Apprenticeship routines help me understand what I have read, and they are so easy to do. I can actually make sense of what I read now.”

“I love Talking to the Text and Think Alouds. I like to be able to write down my ideas, make connections, and share my questions with a partner, that way my partner and I can work it out to understand what we read.”

Teachers in Texas reported stronger implementation when they saw a fit with their schools’ own approach and goals. As one particularly strong teacher leader shared in an interview,

“RAAD fits in so well with all that we do. It is adaptable to the new generation of students and we want to make it a culture here at our school. We definitely see the value in the complete framework because we have seen it work.”

No matter how strong the partner, implementation of professional learning is often dependent on principal leadership. One Texas RAAD school is an early college high school, a campus serving single mothers who have one or more child. The principal was enthusiastic about this approach and communicated consistently that Reading Apprenticeship was to be implemented in every content area and she saw that every teacher had time to participate. Her school’s state assessment scores in four academic content areas—Algebra, US History, Biology, and English—steadily increased with each year of their participation.

Challenges: Like all of the other sites, Texas districts and the partner were implementing multiple initiatives simultaneously. Site leads indicated toward the end of the grant that some control teachers may have been exposed to Reading Apprenticeship through instructional coaches who were working with teachers in both treatment and control schools and inadvertently shared Reading Apprenticeship approaches with control teachers. This in turn likely weakened study findings for this partner site. One large district in particular had extensive leadership changes and teachers reported being overwhelmed with competing initiatives and a lack of coherence. Due to the state’s focus on testing, as well as the partner’s role in another teacher development project with a heavy focus on accountability, some teachers approached the project with more of a sense of compliance, and a huge state-wide focus on testing in the spring demanded teachers full attention on test preparation.

Wisconsin

Several state-level education leaders in Wisconsin have had a long history and deep knowledge of Reading Apprenticeship and an articulated approach to disciplinary literacy. For RAAD, one state-level leader facilitated introductions for SLI with two education service support agencies in the state who primarily worked with districts in the south and eastern part of the state, but

whose staff were new to Reading Apprenticeship. Both support agencies appointed a staff member who actively engaged in learning the model and supporting its implementation in very different districts.

Successes/Supports: Wisconsin partners and teacher leaders became strong champions of Reading Apprenticeship and helped disseminate knowledge of what it takes to shift practice. SLI, the project coordinators from the Wisconsin partners, and teacher leaders did a presentation about RAAD and disciplinary literacy at the Wisconsin State Reading Association in February 2018, building knowledge about the project and local efforts to support sustained professional learning. The teachers shared videos, slides, student work, and data from their own classrooms which illustrated strong understanding and implementation of Reading Apprenticeship.

In focus group interviews, teacher leaders reported feeling supported by the partner and understood the multiple sources of support for implementation, as evidenced by this quote from one of them:

“Having support from [the regional partner], school level teacher leaders, online cohorts and district literacy staff positively impacted the implementation of RAAD strategies in classrooms. Again, the size of the district and number of initiatives often hinder implementation, so having that additional support, communication and consistency of the [regional partner] representative was of particular value.”

Challenges: One district here was characterized by particularly high turnover at the principal level, and has strong building-level leadership control, and few centralized district-school-teacher communication systems, making new initiatives a challenge for any program. The partner had to work especially hard to build understanding of the professional learning schedule and support mechanisms. Though teachers committed to attending professional learning, their participation was low and administrative presence was minimal; almost no administrators attended face-to-face professional learning institutes and did not necessarily provide time during the school day for teachers to meet in school teams. Thus, school teams sometimes had to meet before or after school. On at least one occasion, teachers were double-booked by administrators for a multiple day Reading Apprenticeship institute and a second entirely different professional learning program. Many teachers and teacher leaders were unclear about the purpose of online PLCs or their connection to the other elements of professional learning, thus attendance in online PLCs was low, as was the case in some other states.

Deepening and Developing Partnerships

The RAAD investment in partnership development demonstrated that partnerships take time and care to establish, and even more time and care to mature. Over time, new partners' capacity to support Reading Apprenticeship deepened within and across organizations and individuals (for example, between members of each partnering organization, school administrators, and teachers; between school administrators and their cross-disciplinary school teams of teachers; and between teachers working collaboratively and individually in cross-school and cross-state PLCs. At the same time, competing models of implementation endemic to varied organizations differentially supported Reading Apprenticeship. When partners serve many and diverse initiatives, as they did in several of the RAAD partnerships, attention, focus, and important distinctions among models of educator development and literacy reform may be lost.

An in-depth case study of the Illinois partnership demonstrated the effectiveness of building momentum through establishing "critical mass." Stakeholder interviews in Illinois highlighted the importance of achieving "a critical mass" of Reading Apprenticeship teachers within a school, a network, or a district. At the school level, broad participation creates both support and accountability. As one leader from the Illinois partner organization put it, "You need other people in your building who are also trying this so you can come back together. Like if you go to the three days in August and come back at the end of September and you're like, Oh, I totally forgot to even try it! I got so busy. It's easy to just let that stuff go if it's not intentionally kept in the foreground. So just I think some kind of accountability system within your own school. Other teachers who are also practicing it and a place to come back to regularly."

Network chiefs and school principals who were interviewed likewise believed it is more sustainable when multiple schools are implementing and sharing Reading Apprenticeship practices. One Illinois lead elaborated on the benefits of cross-school support: "We've found that cross-school coming together piece to be critical. So that we know we're not only trying this at our school, but these guys across town are also trying it, and some opportunities to discuss how that's going with them is also important." Over time, such sustained and widespread work builds robust district capacity as well as momentum to support sustainability. Thus, it seems clear that new partnerships take time to develop, and enduring partnerships can pay off in building district-wide momentum for instructional change.

Capacity and Implementation of Teacher Leaders

As we have detailed, in addition to the professional learning offered to all RAAD teacher participants, teacher leaders received additional training through teacher leader meetings (TLMs), convened and facilitated by local partner organizations three times each year. Meetings

were designed to both deepen their understanding of Reading Apprenticeship practices and to foster their leadership development. SLI provided agendas and resources for local partners to use with teacher leaders and worked closely with them to ensure fidelity while at the same time enabling them to adapt Reading Apprenticeship to the local context (Greenleaf, Schoenbach & Murphy, 2014).

Fifty-four of the Cohort 1 teachers and 89 of the Cohort 2 teachers who completed spring surveys were teacher leaders. ELA teachers served as teacher leaders at higher rates than teachers from other subject areas. More than a third of all RAAD ELA teachers were selected as teacher leaders. History teachers were selected somewhat less frequently (28.6%, 29.9% in Cohorts 1 and 2, respectively), followed by teachers outside the four core subjects (“other”) (20.0%, 13.6%), math (11.5%, 18.6%), and science teachers (7.0%, 19.1%). Although ELA contributed the greatest number of teacher leaders in both cohorts, the percentage of ELA teacher leaders decreased from Cohort 1 to Cohort 2, and the percentage of history, math, and science teacher leaders increased. Most notably, the percentage of science teacher leaders more than doubled from Cohort 1 to Cohort 2.

Teacher leaders assigned their highest ratings of their professional learning opportunities to the teacher leader meetings, which provided additional professional development focused on modeling Reading Apprenticeship strategies, providing on-site support, and tools and resources for teachers. Teacher leaders described TLMs as *effective* or *highly effective*. Ratings increased slightly from fall to spring and for both cohorts, with the highest rating on the spring Cohort 2 survey, indicating that teacher leaders found TLMs to be increasingly valuable over time, perhaps as their responsibilities and need for support also increased.

Importantly, many Cohort 1 teacher leaders returned as teacher leaders for Cohort 2, serving as teacher leaders for two years. As reported earlier, in surveys teacher leaders indicated higher implementation of Reading Apprenticeship than teachers who were not teacher leaders, and those teacher leaders who continued into a second year deepened their implementation considerably. The greatest shifts for teacher leaders in Cohort 2 occurred with elements of the Reading Apprenticeship framework that deviate most from typical literacy learning opportunities: increased text use, in-class reading, support for student effort to comprehend content, student metacognition, and practices that promote equity. This pattern of change suggests that an initial focus on collaboration and comprehension strategies instruction in Year 1 may have shifted in Year 2 to a greater emphasis on text-based learning and metacognition—along with equitable practices that extend these opportunities to all students. Thus, survey results suggest that implementation of more challenging aspects of the Reading Apprenticeship framework may increase with practice and continuing support. Given the intention of the

added TLMs—to increase teacher leaders’ knowledge and implementation of the Reading Apprenticeship framework—the investment of extra time and support for teacher leaders seems to have been successful.

Teacher leaders were asked to support teacher development and implementation of Reading Apprenticeship at their school sites through monthly school team meetings (STMs). According to the teacher surveys, during the second cohort of RAAD, teacher leaders facilitated an average of 8.9 STMs.⁴ The more positive ratings of STMs from Cohort 2 teachers suggest that teacher leaders—many of whom returned as teacher leaders after serving in Cohort 1—may have been more effective in their second year of facilitation. In addition, Cohort 2 teachers may have benefited from collaborating with more experienced Cohort 1 peers who had a year of implementation already under their belt.

To better gauge teacher leader implementation of the school team meetings, a central element of the RAAD professional learning model, SLI administered a post-grant teacher leader School Team Meeting Questionnaire. The results of that questionnaire are summarized in Table 7 below. The survey was sent to 206 teacher leaders with a resultant response rate of 86.8%.

As Table 7 indicates, respondents included 26 teacher leaders from Cohort 1 (14.5% of respondents), 132 teacher leaders from Cohort 2 (73.7%), and 21 teacher leaders who served in both cohorts (11.7%). Respondents were from all 6 different states across the U.S. who participated in the grant. Nearly every teacher leader held at least one school team meeting to help support implementation and sustainability (100% for Cohort 1, 99.2% for Cohort 2, and 100% for teacher leaders who served both cohorts). Teacher leaders were encouraged to hold 8 separate school team meetings across the school year in which they participated in the grant. Data suggest that teacher leaders were committed to implementing and sustaining these meetings across the school year.

TABLE 7. SUMMARY OF POST-GRANT SCHOOL TEAM MEETING QUESTIONNAIRE

Number of Respondents	
2016-2017	26
2017-2018	132
Teacher Leader for both cohorts	21

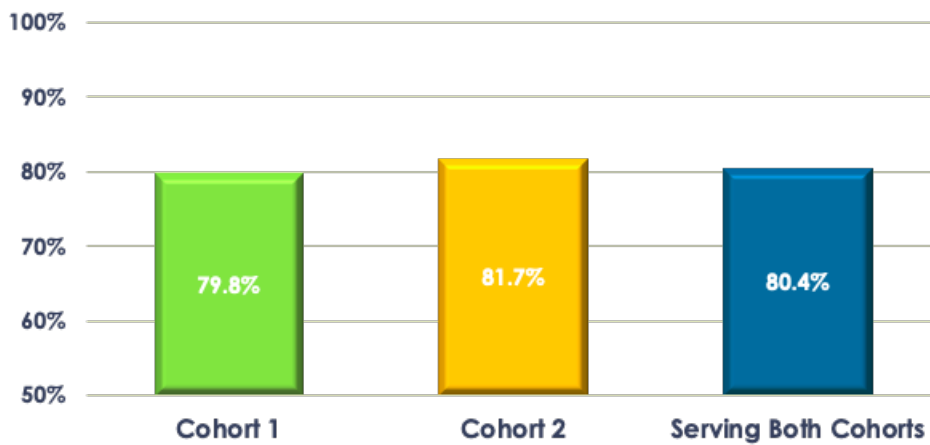
⁴ The Spring 2018 survey asked Cohort 2 teacher leaders how many School Team Meetings they facilitated during the year. There are no equivalent data for Cohort 1.

Total Participants	179	
Respondents by State/Region		
	Number of Respondents	Percentage of Total Respondents
California	20	11.2%
Illinois	35	19.6%
Michigan	84	46.9%
New York	3	1.7%
Texas	19	10.6%
Wisconsin S	6	3.4%
Wisconsin E	12	6.7%
Percentage of Teacher Leaders Who Held Any School Team Meetings While Teacher Leader		
2016-2017	100%	
2017-2018	99.2%	
Teacher Leader for both cohorts	100%	
Average percentage of School Team meetings held across sites (out of 8 per site each year)		
2016-2017	79.8%	
2017-2018	81.7%	
Teacher Leader for both cohorts	80.4%	
Percentage of 2016-2017 Teacher Leaders who INDEPENDENTLY sustained school team meetings in 2017-2018		
2016-2017	61.5%	

As shown in the figure below, teacher leaders in Cohort 1 held 79.8% of the suggested 8 meetings, teacher leaders in Cohort 2 held 81.7% of the suggested 8 meetings, and teacher leaders for both cohorts held 80.4% of the suggested 8 meetings.

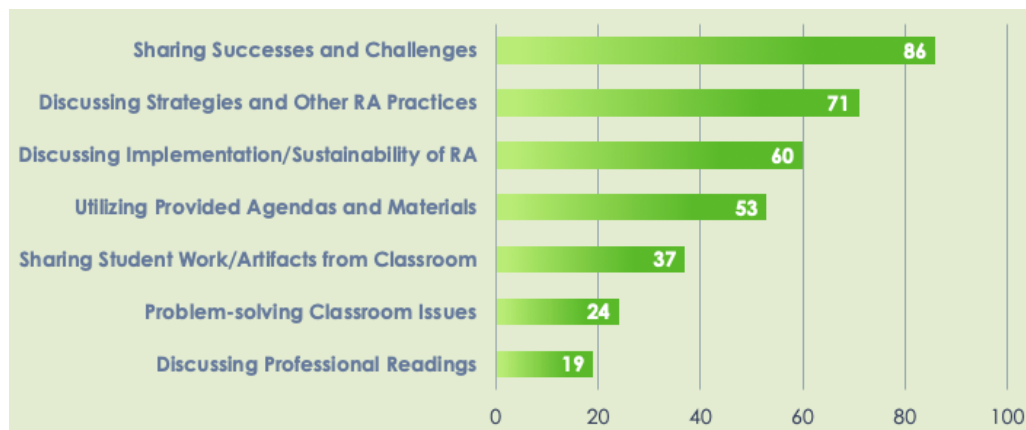
Teacher leaders were asked about the helpfulness of materials provided to them on Canvas to run their school team meetings (on a scale of 1 to 6, 1 being not helpful to 6 being very helpful). Teacher leaders responded positively to the materials provided, with average ratings of 4.0 for Cohort 1 teacher leaders, 4.2 for Cohort 2 teacher leaders, and 4.5 for teacher leaders serving both cohorts.

FIGURE 10. PERCENTAGE OF RECOMMENDED SCHOOL TEAM MEETINGS IMPLEMENTED



In addition to questions about their implementation of school team meetings, teacher leaders were asked to provide a short summary of activities they used during their school team meetings to support their teacher colleagues. Responses included a range of activities suggested on provided agendas as well as additional activities.

FIGURE 11. ACTIVITIES IN TEACHER LEADER MEETINGS



Open ended responses on the questionnaire allowed teacher leaders to identify some additional benefits of the school team meetings. Among those most frequently mentioned were the following:

- Team building
- Implementing group norms
- Discussing data/evidence of impact
- Discussing insights from teacher leader meetings with other team members

- Scheduling classroom visits to observe implementation in others' classrooms
- Discussing networking with other implementing schools

Notably, teacher leaders from Cohort 1, who did not participate in Cohort 2 training, noted that they independently sustained school team meetings outside of the grant in 61.5% of the Cohort 1 schools participating in the survey. This is a strong indicator not only of the value these teacher leaders placed on the instructional framework, but of their own capacity to sustain implementation of Reading Apprenticeship at their sites.

Teacher Leaders' Views of Effects of Reading Apprenticeship on Their Own Teaching or Efficacy as an Educational Leader

During the RAAD project, many early career teachers found themselves assigned to various new school duties by administrators and being a teacher leader for Reading Apprenticeship monthly school team meetings often fell to them. Interviews with teacher leaders revealed their views of their own professional learning. For example, one teacher in Michigan, Sonia, related that, "They just assigned me to be the teacher leader. But it was a great thing." Margarita, who was a teacher leader for two years running, agreed that, "The first year I was voluntold—the second year I wanted someone else to go through the same experience but no one wanted to. But the second year I was more comfortable and now I love it."

Many teachers who may not have initially wanted to be teacher leaders both enjoyed and benefitted from being in the role for a variety of reasons. For example, teachers like Julia suggested that the meeting time and Reading Apprenticeship materials (e.g., school team meeting agendas and activities) supported collaborative problem-solving around authentic challenges within their schools: "Personally I'm really nosey and this is one way to satisfy that. Another satisfaction was when people brought a problem to the table and everyone worked to come up with solutions..." Others like Ramona said school team meetings mitigated the isolation that teachers sometimes feel: "Collaboration—especially at the secondary level, you tend to be isolated." And teacher leaders like Sarah described how helpful it was to have opportunities to observe in one another's classrooms: "I am nerdy, I like to hang out with people and talk about teaching; it was really nice to be able to do that. [At my school] we had two math teachers struggling to make Reading Apprenticeship relevant in math. They said, 'we just need to see this' so we observed a bunch of content area teachers in Dearborn, Michigan. There are things we are doing now because we saw other people doing them at other schools so the sharing beyond the scope of our school has been really interesting."

Teacher leaders also appreciated having time carved out and materials that supported professional learning. Sonia appreciated the teacher leader meetings themselves, saying, "For

me the best support was going to the teacher leader meetings. We had three this year. They would advise us what to do and we bounced our ideas [off of one another]. It takes the pressure off because I realize I'm not the only one being a teacher leader." Margarita found teacher leader meetings in Texas similarly "very beneficial." She offered that the Texas partner lead "was very resourceful. I would ask her a question and she would immediately send me a text back. The [Reading Apprenticeship] agendas were very helpful and you could modify them." Ramona mentioned the materials as a source of support, saying that "during the first year, it's very helpful to have the agendas set for the school team meetings."

One middle school science teacher in New York reported similarly that as a new teacher delegated to be the teacher leader at her school, she felt that the Reading Apprenticeship agendas, routines and activities helped her support her colleagues. "Being a teacher leader made me the RAAD evangelist at my school. I might be in a meeting with people from other subject areas and I'd say, 'here's something you can try' and I would lead them through it. Being a teacher leader made me more likely to speak up... and share a lot of the materials. And then I had teachers come in and see me."

What New Knowledge and Insights did the RAAD Project Contribute to SLI's Work and to the Field?

Lessons Learned about the Benefits and Challenges of Regional Partnerships Operating in Diverse Contexts

A key aspect of implementing Reading Apprenticeship at scale over time has been layered leadership, multiple points of support over the school year for teachers, and flexible fidelity—meaning the intervention needs to be consistent to its carefully crafted, well-researched design, but also sensitive and responsive to local needs and contextual factors. SLI has achieved fidelity at scale in the past by hiring local consultants or staff to serve as regional or district coordinators who had extensive Reading Apprenticeship experience and a very strong understanding of the efficacy of the approach. However, this role has not been sustainable without grant funds, so in RAAD we contracted with local institutional partners in hopes of achieving greater sustainability. The regional partner role was to: assist with recruitment, help build relationships with local school leaders, coordinate professional learning events, support teacher leader development by facilitating regional teacher leader meetings, assist with data collection and analysis when needed, and to provide insights to SLI about needs, challenges and successes at the school and regional level.

Like teachers, partners require time to practice and understand the model and effectively support its implementation. Some individual partners were professional learning experts and/or literacy coaches themselves, which, in some cases, led them to embrace and understand the Reading Apprenticeship model. However, as noted above, some partners were new to Reading Apprenticeship, did not have enough time to develop a deep understanding of the approach, and/or made invalid assumptions about the model. In other cases, the point of contact who agreed to the grant work simply did not understand the scope of work their staff already had— they thought they could add the project onto their staff’s already overfull plates, resulting in partners who really did not have the FTE needed for the scope of work. SLI increased partner support and codified teacher leader meeting materials and agendas for the partners and school team meetings, but sometimes found competing initiatives and approaches to be immovable barriers given the pace and resources of the project. Partners deeply familiar with Reading Apprenticeship, like the Illinois district-university partnership, offered ongoing implementation support for schools, teacher leaders, and administrators that was well aligned to the model of teacher learning and classroom instruction. Thus, in the participating large urban district in Illinois, RAAD offered considerable added value to the work already underway to implement Reading Apprenticeship in district middle and high schools. Also, new partners became more familiar with Reading Apprenticeship models of professional learning over time and as a result improved implementation as the project continued over multiple years. This argues that SLI should develop and support long-term investments in partner capacity building, for both grant-funded and fee-based services.

SLI initially proposed that regional partners would carry out the monthly online PLCs after apprenticing with SLI staff to learn the protocols. In the first year of the project, SLI learned this was not feasible for the partners who were new to Reading Apprenticeship and needed time to learn about the approach and the nuances of facilitating small group sessions focused on classroom inquiry. SLI adjusted the proposed work, and had our own staff facilitate the PLCs. As the scope of the project grew in Cohort 2, this required additional training for SLI’s cadre of facilitators, for many of whom online facilitation was a novel challenge. However, due to their deep knowledge of Reading Apprenticeship, many of SLI’s facilitators were able to take on these new demands with relative ease.

Part of our approach to tapping the generative expertise of on-the-ground leaders in prior grants had been to allow partners to shape the agendas of regional teacher leader meetings around a core set of goals. This led to great variation in the focus and outcomes of the teacher leader and school team meetings, so with RAAD, SLI developed agendas for teacher leader and school team meetings. Experienced partners supported teacher leader meetings from the outset of the project, while new partners needed support from SLI to enact these meetings

using protocols and agendas in the spirit intended for them. Identifying a match between program elements and external partners experience and availability is key to successful implementation.

With the involvement of regional partners SLI had hoped to increase local capacity and sustainability for implementation after the grant funding expired. As detailed above, the specific models for supporting teachers and schools traditionally offered by the diverse regional partners had unanticipated impacts on project implementation and fidelity. Identifying service models that work well to instantiate Reading Apprenticeship principles of learning is clearly key to developing successful partnerships. Across the regional partners serving large urban districts there were tremendous bureaucratic challenges that undercut the success of program implementation. Where deep histories of work and deeply knowledgeable partners were in place, these difficulties were weathered more successfully. These regional and contextual variations should be kept in mind for future work.

Finally, although some sites found additional grants or discretionary funds to support continued professional learning, the funds required for a staff person to support the work at a regional level are rare. One solution is to develop partners as facilitators, which worked in one of the large districts, but keeping these facilitators up to speed on new Reading Apprenticeship research, routines, and resources, requires an ongoing investment by both SLI and their local employer. SLI developed a facilitator learning space, “Facilitator Central,” to address this need and support sustainability and quality control. In Michigan, where a considerable appetite for Reading Apprenticeship professional learning has been developed over the past decade, teachers remain keen to participate in additional learning, and schools want the professional development for new teachers, yet they are hard pressed to find discretionary funding to support a fee-based engagement of Reading Apprenticeship.

Lessons Learned about Teacher Leadership and its Impact

Another feature of RAAD was a deep investment in teacher leader development. As we detailed above, this investment in teacher leader development paid off in several ways. Teacher leaders developed a deeper appreciation of Reading Apprenticeship professional learning in all its forms and implemented the model more thoroughly in their classrooms than participating teachers who were not in these leadership roles. They deeply appreciated the teacher leader meetings and the ongoing support of their regional partners. They regularly held school team meetings at their sites which their school colleagues found meaningful and helpful in implementing Reading Apprenticeship. Many teacher leaders planned to continue supporting Reading Apprenticeship implementation after the grant years through ongoing school team meetings. Finally, teacher leaders were eager to participate in SLI’s Consultant-in-Training

program to continue their work with Reading Apprenticeship. It seems clear that investing in teacher leader development can be a strong mechanism for implementation support and sustainability.

Lessons Learned about the Blended Professional Learning Model

The RAAD professional learning model included both synchronous and asynchronous online components, school team meetings at participating sites, and face-to-face institutes, as detailed previously. Over the course of the project, the online platform hosting synchronous, video-based PLCs shifted in response to project licensing as well as to respond to technical challenges that emerged in the first year of the project. Additional changes were required to support teachers to participate in these learning components. In particular, SLI's professional learning program designers needed to be nimble in scheduling the synchronous components to maximize feasibility and attendance for teachers in various sites. In addition, as the project unfolded, it became clear that SLI would need to take on all of the PLC facilitation, rather than supporting regional partners to implement this component of the model, as had been anticipated in the project proposal. This required additional staffing and meant SLI also needed to develop facilitator training for SLI's professional development consultants as the project grew in scope. Thus, online components required an ongoing adaptability and responsiveness to changing conditions on the part of program developers. Given the pace of technical change, nimbleness is likely an ongoing requisite feature of professional learning that leverages the considerable and growing technical capacity to its best advantage.

With regard to the online PLCs, we found that teachers who accepted the invitation to participate and followed through in the PLCs appreciated this learning opportunity. However, not all teachers participating in the RAAD professional learning did join a PLC. We also saw participation in the online learning fall off over the course of the year, likely in response to the changing demands of the teaching year. The PLCs were designed to engage participating teachers in reflection on their practice with an inquiry frame. Nevertheless, teachers came to the PLC setting with different expectations and needs, including a need for reminders about the key components of the Reading Apprenticeship instructional framework, resources, and the like. The SLI program Design Team is, as a result, considering ways to strengthen the synchronous PLCs with more program inputs, such as short video snippets showing Reading Apprenticeship in action, to meet these needs. Redesigning the PLCs to offer more learning in addition to reflection and inquiry may thereby increase the value of the PLCs to teachers and draw more participation.

In surveys, the face-to-face professional learning was consistently rated as more effective as a group learning experience, more motivating and instructive, and more helpful for supporting

implementation, compared with online PLCs. The differences were particularly striking for effectiveness as a group learning experience and helpfulness for implementation. Nonetheless, teachers were generally very positive about the impact of both face-to-face institutes and PLCs on their motivation, learning, and implementation of Reading Apprenticeship. Additionally, synchronous PLCs were more highly valued than asynchronous components, despite their additional demands on teachers' schedules. This pattern of findings suggests that face-to-face professional development was more effective, motivating, informative, and provided more support for implementation than online PLCs, and synchronous PLCs were more effective, motivating, informative, and provided more support for implementation than asynchronous PLCs.

While surveys indicate differential appreciation of the blended learning components, the synchronous PLCs provided opportunities for subject-specific groups to meet and exchange resources, an important addition to the professional learning on offer. In addition, for teachers in rural communities, enabling conversations about classroom practice at a distance, with teachers in far flung and different learning contexts, was a unique and valuable contribution of the online PLCs. Thus, PLCs operate more like a network of teachers engaged in similar work than a traditional school-based PLC, as the analysis shared previously details.

As noted, SLI needed to develop facilitation training for its cohort of consultants in order to meet the increased scope of the PLCs over the duration of the project. As the project developed, SLI developed an online Facilitator Learning Community discussion space to foster learning of new inquiries for the face-to-face training as well as such online facilitation routines. In the Facilitator Learning Community, consultants shared facilitation moves that seemed productive and supportive with their facilitator colleagues. In focus group interviews, facilitator consultants detailed ways that online facilitation brought a set of unanticipated and unique demands, even though they were deeply familiar with Reading Apprenticeship and the professional learning inquiries and routines comprising the face-to-face learning model.

In particular, consultants found that the competing needs teachers brought to the PLCs were challenging to support equally during the short online sessions. As facilitators well practiced in observing teacher discussions and responding with supportive pedagogical moves during in-person trainings, they found the distant learning environment less permeable to nuanced observation and thereby less conducive to facilitator responsiveness. PLC group membership was also based on availability and time zone, rather than similar need or placement on a continuum of understanding and practice. In the small group setting, single personalities could sideline inquiries and protocols and set the tone for the entire group for the duration. These challenges led seasoned Reading Apprenticeship facilitators to develop in-the-moment adjustments to

agendas and protocols. SLI has captured these lessons in redesigned facilitator development processes and PLC protocols as well as specific recommendations about optimal scheduling, group membership and size.

Another important feature of the blended learning model was the inclusion of monthly school team meetings (STMs) for participating teachers at each site. As reported above, teachers participated in STMs at very high rates and valued the collegial learning opportunities they afforded. Teacher leaders reporting many positive contributions of these team meetings to school culture and to instructional practice. Many planned to continue implementing the STMs after their participation in SLI-supported professional learning was completed. The STMs were clearly a highly valuable component of the blended learning model. However, not all school administrators supported these meetings with time during contractual hours for their teams to meet. To support this important element of the model and deepen administrator understanding of the professional learning model and its rationale, SLI developed a short, self-guided administrator introduction to Reading Apprenticeship and a short set of guidelines describing their roles in supporting teachers and teams to benefit optimally from participation in Reading Apprenticeship professional learning.

Lessons Learned about the Cross-Disciplinary Professional Learning Model

The RAAD Project offered five days of face-to-face learning for cross-disciplinary teams of teachers, as described previously in this report. With this model, SLI's intent was to measure the impact of a professional learning model that would be more scalable than its in-depth, two-year, 10 day series of face-to-face learning that had shown positive impacts on teacher practice and student learning in earlier studies. A randomized efficacy trial conducted by IMPAQ, Int. failed to find positive impacts on student reading assessments in a subset of schools participating in RAAD. Consistent with that finding, and despite the considerable gains created by the project, we found that the magnitude of teacher implementation of Reading Apprenticeship was muted, compared to previous studies, with this shorter, cross-disciplinary model.

This set of findings raises questions as to whether the shortened professional development in cross-subject groups is of enough intensity and duration to shift teachers' practices in ways that have been proven to increase student literacy achievement. Teacher surveys showing limited instructional time devoted to in-class reading and use of texts, as well as relatively little metacognitive conversation—hallmarks of the Reading Apprenticeship approach—call for program developers to reconsider the length and duration of the professional development, and/or the composition of teacher teams. It argues that SLI increase, rather than decrease, the

time, resources, and ongoing support for teacher learning in order to meet the promise of Reading Apprenticeship, despite its relative ease of adoption by school leaders and decision-makers. Apparently, in concert with what is already known about teacher learning for transforming classroom practice, there is no way to avoid deeper investment, if deeper learning is the desired result.

Teachers of different subject areas who are implementing Reading Apprenticeship in their individual classrooms recalibrate their practice as their understanding of Reading Apprenticeship deepens. This recalibration also affects teachers' relationships with teaching colleagues who are part of the PLCs and other professional networks and relationships (with coaches, for example), where teachers think and learn collaboratively. Recalibration also occurs with regard to expectations and relationships between teachers and their students; as teachers find ways to hand the challenging work of reading and learning over to their students, they also come to trust that their students have the capacity to do the reading that challenging disciplinary work requires. Changes in teaching practices take time and the Reading Apprenticeship model enacted in RAAD supported these changes in teaching practice through a unique constellation of professional networks that include professional development institutes, teacher leader meetings, school team meetings, and online PLCs.

As teacher surveys suggested, it was a challenge for the project to meet the needs of all subject-areas equally well. Math teachers especially noted the relative lack of support for their implementation of literacy routines key to Reading Apprenticeship. Science teachers struggled to find textual resources to enhance their curricula and offer new literacy learning opportunities integrated with content goals. SLI leaders noted the relatively muted sense of learning community in the RAAD project, compared to previous programs of longer duration. Within RAAD, teacher leaders alone experienced the sociality and community typically visible in the culminating face-to-face institutes due to their regional meetings with other teacher leaders. Without a culminating end-point, the sense of solidarity and community built over time in longer, more discipline-specific convenings was lost with this briefer, more economical model. It is impossible to estimate the contribution that element of communality may have made to teacher learning in previous models. At the same time, some particular benefits of the cross-discipline model were clear. Opportunities for teachers to see their colleagues from other subject areas struggle to make meaning with discipline-specific texts enhanced teachers' understanding of their own disciplines' literacy, and their role in supporting student literacy learning in their subject areas. Additionally, the cross-disciplinary teams supported a school-wide approach that single-subject trainings cannot do as well.

Importantly, our formative assessment study showed that where regional partners had deep knowledge of Reading Apprenticeship principles and practices, as in Illinois and Michigan, the 5-day cross-disciplinary blended model added value, provided updated tools for partner use and dissemination, built additional capacity through teacher leader development and positively impacted test scores, according to assessment data collected by teacher leaders in particular schools. This suggests that a multi-year strategy to build local capacity and depth of understanding may be a strong way to disseminate Reading Apprenticeship efficiently and economically, with deeper fidelity, at scale.

Conclusions

The Reading Apprenticeship Across the Disciplines project resulted in thousands of more effective teachers serving hundreds of thousands of middle and high school students, who in turn increased their metacognitive awareness and use of reading strategies. Teachers valued RAAD professional learning and participated in much of the blended offerings, seeing the Reading Apprenticeship instructional framework as a fit for their students' needs. The evaluation and formative assessments raised questions as to whether shortened professional development in cross-subject teacher groups is of enough intensity and duration to shift teachers' practices and lift student outcomes at the significance level seen in prior studies of longer, subject-specific models of Reading Apprenticeship. The project findings thus align with current research which shows that the duration, content focus, and modality of professional development impact the level of practice change and student learning outcomes.

The project also highlighted the challenges as well as potential benefits of implementing programs through regional partnerships with education agencies that have varied implementation, staffing, and business models. Importantly, the formative assessment pointed to the important roles teacher leaders play in building and sustaining site-based work and the positive benefits of investing in teacher leadership development. Finally, the RAAD grant funded the design and development of many tools, processes, and innovations that complement the suite of products and services SLI offers the field. RAAD research and development processes and the findings from evaluation and formative assessment studies have informed SLI's Reading Apprenticeship service line which engages about 2,000 educators each year across the country. The project resulted in a new and more diverse group of Reading Apprenticeship consultants poised to add value to SLI's work in varied regions of the country. A new online leadership course promises to build greater capacity within districts participating in Reading Apprenticeship training. In addition to the many educators who directly benefitted from the professional learning and leadership development, RAAD impacted the field of teaching and learning through extensive dialogue and dissemination of this work in peer-

reviewed research and practitioner publications, presentations, conferences, websites, and social media. Thus, the investment in Reading Apprenticeship Across the Disciplines will continue to pay off for many years to come, for SLI and for the field.