BEYOND **ACCOUNTABILITY**

Improving the Use of Information to Support Teaching and Learning

Improving the Use of Information to Support Teaching and Learning Through Continuous Improvement Cycles

OCTOBER 2018

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Finally, we would like to thank the participating districts and the teams of teachers, principals, and other staff in each district for their commitment to improving instructional practice and student learning through a continuous improvement approach. We hope their experiences, which we have attempted to describe in this report, will help inform the work of other districts.

Introduction

During the past decade, states and districts have made significant investments in developing systems to measure teacher performance. The goals of such systems are to improve practice, inform professional growth, and ultimately improve student learning. In the very best of these systems, educators know the expected teaching standards and receive timely, relevant, and actionable data about their professional practices; districts align supports and resources for improvement; and educators and district staff monitor data about how instructional practices are influencing student learning.

Unfortunately, not all systems work this well. Implementation often has focused on compliance and accountability rather than growth in teachers' professional practice. Furthermore, the components of these systems (e.g., feedback/observation, professional development, and supports) often are not aligned with one another or do not adequately reflect or support standards-based, rigorous instruction. In 2016 and 2017, AIR collaborated with four districts from four states on a project to identify and address district-specific problems of practice (PoPs) with the current teacher evaluation and support systems in those districts.

The Beyond Accountability project aimed to improve the way that districts gather and use evaluation system data, enabling them to better develop and support teachers, and provide them with more differentiated and high-quality opportunities to improve their instructional practice. To achieve this goal, the project employed a continuous improvement approach, specifically plan-do-study-act (PDSA) cycles. Each district identified a specific challenge to be addressed and conducted a root-cause analysis to understand the sources of the challenge. Through an iterative process, each district developed, tested, and revised a strategy to address the challenge. With support from AIR, each district collected and analyzed outcome data to inform revisions to the strategy. All but one district implemented multiple PDSA cycles in an approximately 18-month period during 2016 and 2017. (One district implemented only one cycle.)

AIR provided technical assistance and support to within-district teams to carry out the PDSA cycle process, particularly in defining and reviewing data on the effectiveness of the tested strategies in each district. In addition, AIR brought the district teams together during the project through in-person and virtual meetings to share information, get feedback from one another, and learn about new or relevant resources or research.

The project's goals for each district were to improve instructional quality, increase teacher satisfaction with opportunities or mechanisms to improve teacher practice, and increase district capacity to engage in improvement efforts. Although each district's work differed in its specific challenge area and focus, the project aimed to achieve the same broad outcomes across the districts.

This report provides information about the project and the lessons learned by both AIR and the participating districts. It provides specific examples of participating districts' work, including goals and participants, that may be useful to other districts facing similar challenges or interested in using similar approaches. AIR has produced a separate, comprehensive evaluation report that describes the

extent to which the overall project goals were achieved; the high-level findings are briefly highlighted in Appendix A. Appendix B provides the tools and materials used during the project (e.g., meeting agendas and planning templates) that other districts might use or adapt for their own work. First, however, we begin with an overview of improvement science in the context of a community of practice and why we chose this approach for Beyond Accountability.

Continuous Improvement and Cycles of Inquiry Within a Community of Practice Setting

Continuous improvement is focused research that involves multiple iterative cycles of activity for extended periods (Bryk, Gomez, Grunow, & LeMahieu, 2015). Schools, districts, and states have been engaged in continuous improvement, with varying degrees of discipline and success, for decades. Another name for multiple iterative cycles is inquiry processes or cycles of inquiry. Cycles of inquiry provide a framework for asking questions related to practice and designing rapid-cycle experiments to generate data that provide practitioners with information that informs that practice. Several versions of cycles of inquiry are used, and it is a common framework across many disciplines, including education.

The primary purpose of employing inquiry cycles is to improve practice in applied settings. Continuous improvement research and cycles of inquiry differ from traditional research because they aim to better understand why an intervention works in some places and not others, and they involve researchers and practitioners in innovation design and revision (Bryk, Gomez, & Grunow, 2011; Tichnor-Wagner, Wachen, Cannata, & Cohen-Vogel, 2017). Employing cycles of inquiry is not the same as action research because action research does not address how others might learn from the findings and use them (Bryk et al., 2011; Tichnor-Wagner et al., 2017).

In general, a cycle of inquiry (a) establishes current thinking; (b) identifies needs and questions; (c) requires some investigation of information, ideas, and data; (d) sorts the information and makes meaning out of it; and (e) applies the learnings. The analysis yields new action, which in turn suggests new inquiry into the results, so the cycle begins again (Cushman, 1999). The application of cycles of inquiry occurs at a variety of levels, including at the classroom level for instructional improvement and at the school and district levels for systemwide improvement (Park, Hironaka, Carver, & Nordstrum, 2013). Inquiry processes can be short term or long term; however, one benefit of implementing cycles of inquiry is that they allow for rapidly testing changes on a small scale, testing multiple changes through multiple cycles, and identifying early and effective changes to action plans based on testing.[1]

Informally, schools and classrooms apply cycles of inquiry on a regular basis. Formally, however, a few inquiry processes have emerged for use in the education field (DeLuca et al., 2015). The most common inquiry process is the PDSA cycle.

[1] For more information, see https://www.rand.org/content/dam/rand/pubs/monograph_reports/MR1267/mr1267.ch5.pdf.

Plan-Do-Study-Act Cycles

A key feature of continuous improvement research is the PDSA cycle. These cycles test a change in real-world settings and help researchers determine whether a change is an improvement (Deming, 1993; Langley et al., 2009; Tichnor-Wagner et al., 2017). During PDSA cycles, practitioners plan a change to be tested; do the test; study the data they collect during the test; and act on what they have learned from the test by abandoning, revising, or scaling up the change (Langley et al., 2009). Specifically, the PDSA steps are as follows:

- **Plan.** Determine areas that need improvement to guide the development of an improvement plan.
- **Do.** Implement the improvement plan by carrying out a small-scale test of the planned action. You can test almost any type of action, ranging from small to large. During the test, you observe and document any problems or unexpected events and collect data that will help you determine the impact of your test.
- **Study.** Analyze the data you have collected and the observations you have made. Compare what you find with what you expected to happen and summarize what you learned from testing the action item.
- **Act.** Use what you learned to improve your planned action. At this point, you may decide to either test the change again with modifications or proceed to full-scale implementation.

When you use PDSA cycles to carry out an action plan, keep the tests as simple and straightforward as possible. What is most important is moving quickly through each stage of the cycle to apply what you learn. Figure 1 depicts the components of a PDSA cycle.

Figure 1. PDSA Cycle Components

Cycles of inquiry are commonly considered most effective when employed in networks, professional learning communities (PLCs), or other collaborative learning groups for deep, sustained learning and improvement at scale (Bryk et al., 2015; Cannata, Cohen-Vogel, & Sorum, 2015; Cohen-Vogel et al., 2015; Tichnor-Wagner et al., 2017). Communities of practice are groups of people who share a concern, a set of problems, or a passion about a topic; they deepen their knowledge and expertise in this area by interacting on an ongoing basis (Wenger, McDermott, & Snyder, 2002). These communities serve to build the capacity of the participants to perform well, both individually and collectively, as they share information, build relationships, and develop effective strategies for meeting implementation challenges together. In short, communities of practice facilitate the creation, accumulation, and utilization of knowledge to improve practice among participants engaged in a shared endeavor.

All but one Beyond Accountability district engaged in multiple PDSA cycles[2] related to the PoP identified during within-district meetings with key district and school personnel, such as directors of curriculum and instruction, principals, instructional coaches, and (in some cases) teachers. During the initial meetings, districts identified a strategy for addressing the PoP, developed a theory of action for how that strategy would address the PoP, and created practical measures to learn whether the strategy resulted in the intended change. In subsequent meetings, districts analyzed data collected through practical measures and determined whether they needed to adjust the strategy. In addition to participating in the inquiry cycles, district teams met several times in-person and virtually as a community of practice to engage in cross-district consultations and learn about assessing and improving teacher instructional practice, continuous improvement research, and best practices in the field. This structure provided districts the opportunity to gain insight and constructive feedback from peers by focusing on a shared area of interest.

The next sections include short vignettes about each participating district. The vignettes tell the story of each district's PoP, change strategies to address the PoP, and the process for measuring their efforts and making improvements along the way.

The sidebar presents key terms related to improvement processes that are regularly referenced throughout this report.

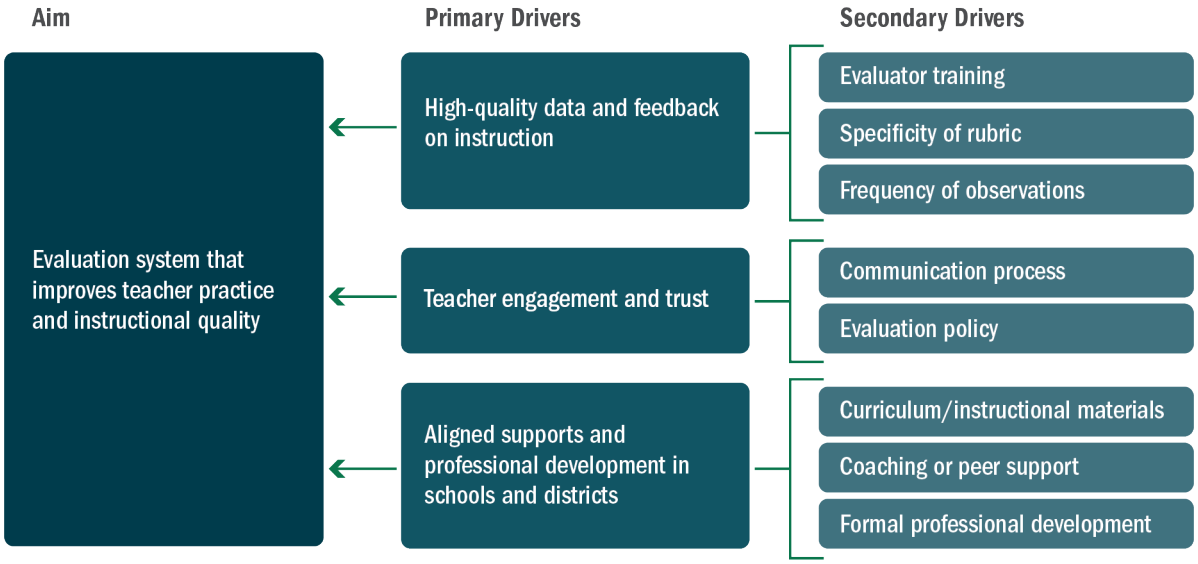
- **Problem of Practice (PoP).** A key issue to focus on for improvement.
- **Root-Cause Analysis.** A process through which participants further define and understand the problem that will be the focus of their efforts. Root-cause analysis moves participants from a broad problem to one that is specific enough on which to act. Another name for root-cause analysis is causal systems analysis (Bryk et al., 2015; Proger, Bhatt, Cirks, & Gurke, 2017).
- **Practical Measure.** Practical measures are mechanisms for measuring improvements. They are "practical" because they can be quickly collected, analyzed, and used within the daily work lives of practitioners. Practical measures identify improvement targets and allow participants to learn continuously whether the changes being introduced are improvements (Bryk et al., 2015; Yeager, Bryk, Muhich, Hausman, & Morales, 2013).

[2] One district implemented only one PDSA cycle.

District Vignettes

The four districts involved in this work are from four states: (a) Kannapolis City Schools (KCS) in North Carolina, (b) Jackson-Madison County Schools System (JMC) in Tennessee, (c) Boone County Schools (BCS) in Kentucky, and (d) School District of Osceola County (Osceola) in Florida. To guide both the focus of the districts' work as well as the overall project, AIR provided a driver diagram, shown in Figure 2. A driver diagram is a visual tool that outlines a working theory of improvement. The aim of the Beyond Accountability project was an evaluation system that improves teacher practice and instructional quality. Our hypothesis was that three primary drivers (i.e., quality data and feedback, teacher engagement and trust, and professional development) influence the extent to which such an evaluation system can be achieved. Furthermore, a host of secondary drivers sit underneath the primary drivers, and the districts concentrated their work in these areas. As a result, the identified challenges, strategies, and implementation plans varied across the four districts.

Figure 2. Beyond Accountability Driver Diagram



Each district identified its specific PoP using a self-assessment tool and data from teacher evaluation systems or related data, and the strategies to address the PoP were identified based on participants' perceptions of feasibility and hypothesized impact. The self-assessment that each district completed to inform its PoP and related strategy can be found in Appendix B starting on page 39. The self-assessment is modeled after the three primary drivers and was an important step for each district's stakeholders to come to consensus early in the project design about which primary driver was the weakest and potentially most important one in the system to address as well as which factors within the chosen primary driver (i.e., secondary drivers) were the most significant to consider as a focus for their work. The self-assessment tool helps facilitate data-driven decision making and mitigate preconceived notions about what the PoP or related strategies to address the PoP should be.

For the purposes of this section, we chose to highlight the work of only three districts—KCS, JMC, and Osceola. We wanted to tell the story of districts that completed at least two inquiry cycles to highlight the ways in which they adjusted their strategies after gathering data during a PDSA cycle. BCS began implementing its intervention much later than the other districts and was therefore able to complete only one PDSA cycle during the project. Nevertheless, the sidebar illustrates the unique and targeted approach that the BCS team initially designed to address its PoP.

BCS'S INITIAL CONTINUOUS IMPROVEMENT EFFORTS

Leveraging the State's Teacher Leadership Framework to Address Literacy Instruction

BCS analyzed district teacher observation ratings, school instructional rounds results, student test scores, and data from a self-assessment of strengths and challenges in the district teacher evaluation system. From these data sources, BCS identified the following as its PoP:

> *Despite high ratings on the Kentucky Framework for Teaching Domain 3B, Questioning and Discussion Techniques, other sources of qualitative data indicate that many classrooms lack high-level questioning, opportunities for academic discourse, and adequate use of literacy (oral and written) in the content areas.*

BCS indicated two possible root causes for its PoP: limited data use as part of the observation and feedback process and no culture of professional learning. BCS identified a single strategy to address its PoP and test in the first PDSA cycle:

> *Instructional coaches provide professional development, through formal training and book studies, and model for teacher leaders high-level questioning and facilitation of student discourse applied to literacy.*

We know that for continuous improvement and networked improvement community initiatives to be successful, they must focus on or leverage goals and objectives already in place in a school, district, or state and integrate well into the context. In designing and implementing this strategy, BCS strategically tapped into the Kentucky Teacher Leadership Framework that was already embedded in the district. BCS selected three elementary schools and one middle school to be part of the project; two of the district's instructional coaches also provided support. The theory of action for the district's project suggested that after teacher leaders engaged in trainings from the coaches focused on the key instructional areas of interest, the teacher leaders would then be able to train other teachers in the targeted schools on these practices, particularly through modeling and peer observation.

VIGNETTE

Kannapolis City Schools

Incorporating Peer Observations and Ongoing Administrator Feedback Into a Culture of Professional Development

District Background

KCS is a culturally diverse, midsized district located just outside Charlotte, North Carolina. As shown in the following tables, the district has eight schools[3]; employs close to 800 people, of which 385 are teachers; and serves approximately 5,600 students. There are six elementary schools, one middle school, and one high school. The district has an 85.9% graduation rate (2016–17 school year) and reports teacher effectiveness ratings above the state average.[4]

District	Size		
	Number of schools	Number of teachers	Number of students
Kannapolis City Schools	8	385	5,612

District	Student demographics							
	Asian/ Pacific Islander	Black	Hispanic/ Latino	Native American	White	Other	English learners	Low income
Kannapolis City Schools	1.5%	28.9%	31.0%	0.3%	33.1%	5.6%	9.1%	78.1%

In 2015, KCS released its 5-year strategic plan, which outlined that the district seeks improvements in, among other things, curriculum, instruction, and student services. The strategic plan also says that the district aims to increase student performance to meet all federal and state targets and exceed expected student academic growth by 2020. Similarly, the district aims to increase its graduation rate to 90% by the 2019–20 academic year. To improve overall curriculum and instruction, KCS seeks to align professional development to support the goals of the strategic plan.[5]

[3] In addition to the district's eight schools that serve K–12, KCS also has one Head Start/Child Development Center that serves 3- and 4-year-olds.

[4] See http://www.kannapolis.k12.nc.us/news/archived_news/k_c_s_graduation_rate_hits_record_high_in_2017 and http://www.ncpublicschools.org/docs/intern-research/reports/teachereff2014.pdf.

[5] See http://www.kcs.k12.nc.us/news/archived_news/k_c_s_adopts_new_five-year_strategic_plan/.

Problem of Practice

The current teacher evaluation system in KCS has been in place since 2009. Instruments and rubrics used for evaluation are based on the North Carolina Professional Teaching Standards and the Framework for 21st Century Learning (from the Partnership for 21st Century Skills). KCS uses observations, self-assessments, student surveys, artifacts, Educator Value-Added Assessment System (EVAAS) data, and district walk-through instruments to measure instructional practice. Ideally, teachers and principals use the data from these instruments to inform their professional learning plans and request support. Furthermore, principals should use observation and EVAAS data about teacher practice to identify teacher leaders, assign mentors, and make staffing decisions. The district uses the walk-through data to determine professional development needs and offerings. KCS wanted to revisit this process as it played out in practice as part of the Beyond Accountability project.

The KCS Beyond Accountability team consisted of a core leadership team (the district's assistant superintendent, the K–12 curriculum and professional development coordinator, the director of secondary and student services, and the director of elementary and Title I services). At times, a larger team of stakeholders (three principals, two assistant principals, three instructional coaches, one media coordinator, and one teacher) also participated. During the first within-district meeting that included both the core leadership team and the larger stakeholder group, four data sources illustrated issues in the evaluation system and helped identify the PoP to be addressed as a part of the project:

- Self-assessment of system strengths and challenges (see Appendix B, p. 39)
- Teacher Working Conditions Survey (2015–16): professional development and beginning teacher data
- North Carolina Educator Evaluator System: Summative teacher evaluation
- Instructional walk-through data

After analyzing all the data sources, the KCS core leadership team identified some of the challenge areas on which to focus its work. Specifically, the team focused on the fact that the data consistently revealed that the system was not conducive to teachers learning from one another to increase self-reflection and improve teacher practice. For example, in the Teacher Working Conditions Survey (2015–16), beginning teachers reported a lack of observations of and by mentors and peers. In addition, teachers indicated that school-level follow-up from facilitators and administrators was lacking, and feedback often was not communicated. As they analyzed these data points, the KCS team voiced difficulty in choosing "one problem" to address because some seemed contingent on or interrelated with others. In collaboration with KCS, AIR used Handout 4 on page 52, "Develop Potential Problems of Practice," to help the district hone in on a PoP they considered important, worthy of buy-in to address, and feasible. Ultimately, the KCS team felt that peer observation opportunities and a process to support professional learning were the appropriate problems to address through this process. As such, the district embraced the opportunity to use a continuous improvement process to create a structure for peer observation and test its effects on instruction and collaboration. The KCS team summarized the problem as follows:

> **Teachers do not have sufficient opportunities to learn from each other.**

Addressing the Problem of Practice Through the Continuous Improvement Process

To address the PoP that teachers do not have sufficient opportunities to improve instruction by learning from one another, KCS identified two main root causes:

- Peer learning is not prioritized.
- An existing formal structure to support peer observation is absent.

The district selected the following as the overarching strategy to address the PoP.

> **Create a peer observation structure to support teachers learning from one another's instruction.**

Plan-Do-Study-Act Cycle 1

Rather than immediately incorporate the new peer observation process with the formal evaluation process, the district chose to proceed with a phased implementation to test the observation process with a small number of staff in a few schools before expanding and formalizing the process with staff from all schools. KCS limited its work to a group of four teachers from four schools in Grades 3–9. The teachers took part in four peer observations guided by one district facilitator. The curriculum and professional development coordinator assumed the role of the observation facilitator during Cycle 1.

The coordinator and other members of the district core leadership team developed a three-part peer observation process (preobservation conference, the observation, and a postobservation conference) that would be applicable in any content area. To support the process, the district created a protocol that identified the purpose of peer observations and the learner-centered observation model, which set expectations and established the roles of those participating in the observation.

The three main participants in each observation were the observing teacher, the teacher being observed, and the observation facilitator. The observing teacher determined the instructional focus for the observation and took ownership of the learning process. The teacher being observed provided background, modeled the designated instruction, and participated in the reflective postobservation process. The observation facilitator guided the teachers though the three-stage process and coordinated follow-up support for the observing teacher. Participants conducted observations during the observing teacher's free periods and were provided with coverage and release time during observation periods.

Prior to the preobservation conference, the observing teacher and the observation facilitator defined a focus for the observation based on the observing teacher's needs. Participants were advised that the observation focus should be supported by needs evident in the teacher's self-assessment, the teacher's professional development plan (PDP) goals, and prior observations; it was to be aligned with school and district improvement goals. The observation focus was posed as a question through which the observer could collect data and identify strategies to apply in his or her own classroom.

During the preobservation conference, the observation facilitator met with the observing teacher and teacher being observed to

- clarify the focus for the observation,
- schedule the observation,
- share information about the specific lesson to be observed,
- determine the note-taking method for the observation,
- discuss other relevant observation details (e.g., etiquette, resources),
- schedule the postobservation meeting time, and
- complete the preobservation meeting form.

As mentioned above, during the scheduled observation time, the observing teacher followed the agreed-on etiquette and recorded notes relevant to the instructional focus area/PoP. As soon as possible after the observation, the observation facilitator met with the observing teacher and teacher being observed for a postobservation conference and systematically guided reflection on the observation according to the following steps:

- Review the main area of focus/PoP.
- Have the observing teacher share highlights from his or her notes and ask any clarifying questions to the teacher being observed.
- Have both the observing teacher and the teacher being observed reflect on the lesson.
- Identify strategies that the observing teacher can apply and have the observing teacher set next steps.

The observation facilitator's role was to complete a preobservation meeting form hosted on Google Docs during the preobservation conference. This form enabled the facilitator to track each observation and make brief notes on the focus and logistics of each observation. The preobservation form asked the observing teacher and the teacher being observed to answer questions such as the following:

- What is the focus area and focus question of the observation?
- When will the observation take place?
- Has the observing teacher decided on a note-taking method?
- Has the teacher being observed shared details about the students, classroom, and lesson?
- When do we plan to have the postobservation meeting?
- What substitute coverage is needed?
- Other comments or questions?

In addition, KCS created a postobservation form that prompted observing teachers and teachers being observed to review the observation and establish goals for after the observation. The postobservation section asked both individuals to review the following:

- What are the next steps for the observing teacher?
- What follow-up support is needed, and who will provide the support?

To gauge the effectiveness of these observations and whether they were perceived to improve instruction and peer collaboration, the district, with support from AIR, developed a set of surveys as practical measures. The district administered a survey to its initial group of teachers to measure their perception of the value of the peer observation process, the extent to which observing teachers felt the support was tailored to their professional development needs, and the ways in which these observations improved their knowledge as it related to their professional development goals. A survey administered to the observation facilitators measured their perception of the value of the peer observation process to the observing teacher and the teacher being observed. The survey assessed the value of the peer observation process to facilitators themselves and gauged their confidence in guiding the peer observation process. Further, the pre- and postobservation notes were used as practical measures and gave the district further insight into the practicality of the process and whether observing teachers were applying the skills learned from the observation. Ultimately, the district's understanding of the data collected by way of the practical measures led them to expand the use of creating a peer observation structure to support teachers learning from others' instruction and move to a second PDSA cycle. For example, in the Cycle 1 reflection surveys, all four teacher observers agreed or strongly agreed that their knowledge was increased through the process, particularly in areas of professional development needs (which was how their observation session was intended to be aligned). Furthermore, all observing teachers in the first cycle identified an immediate and relevant next step for classroom application. Last, the reflection surveys also suggested that the observation facilitators universally agreed that there was value in the process for the teacher observing and the teacher being observed.

Plan-Do-Study-Act Cycle 2

After the first PDSA cycle, KCS realized that the process of applying what was learned during peer observations needed to be more active. The postobservation tool was a good start; however, the district wanted to make sure that teachers followed through on applying their knowledge in a speedy and deliberate manner. Because it aimed to test the strategy with a wider range of teachers throughout the district in Cycle 2, the team worked to refine the peer observation process. The feedback generated from Cycle 1 led to the development of a Teacher Instructional Log for Cycle 2 that required teachers, within 2–3 weeks of their observation, to record and identify their applications of professional learning to their instruction and their students' reactions to new or changed instructional strategies.

Before initiating Cycle 2, the district opened the process to all teachers. One hundred twenty-nine teachers expressed interest in the peer observation process by way of a survey, and 68 teachers were selected to participate. The district expanded its peer observation structure and held as many as 27 observations led by 11 observation facilitators. The district also expanded the format of these observations and offered observing teachers and teachers being observed the opportunity to participate in individual, paired, small-group, or large-group observations. This led to 86 teachers ultimately impacted by the new observation process. In addition, 10 more observation facilitators were trained.

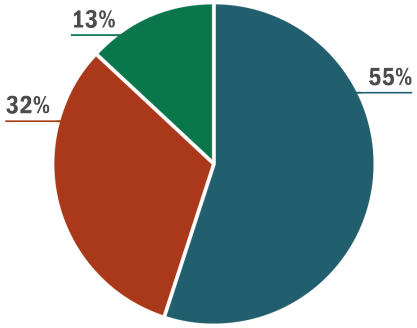
Teachers' experiences with the observation process in Cycles 1 and 2 were borne out in the internal evaluation data as well. AIR gathered teacher survey data for the pilot and comparison schools in KCS from fall 2016 through spring 2017. Respondents from both comparison and pilot schools reported a double-digit increase between fall 2016 and spring 2017 in the extent to which they said that the school or district made available opportunities to observe expert teachers modeling skills that were related to their feedback. In that same time period, teachers from the pilot schools reported a double-digit increase in the extent to which they pursued those opportunities or found those opportunities useful.

To determine Cycle 2's impact, KCS used all the measurement tools from Cycle 1 and added the Teacher Instructional Log to document the ways in which observing teachers applied the knowledge and skills gained from peer observations in their own classrooms. The results from practical measures data collected during Cycle 2 showed positive feedback from the participants—an overwhelming majority saw the process as valuable (see Figure 3 for Teacher Reflection Survey data). Most observing teachers felt that the process increased their skills in facilitating student learning and increased their knowledge of content or instructional strategy (see Figure 4 for Observation Facilitator Survey data). From the Teacher Instructional Log, 68% of the participants said that they applied their learning from the observations. The remaining 32% expressed their intention to do so next year.

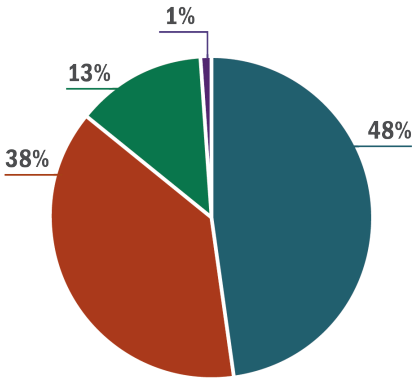
However, as Cycle 2 progressed, the district faced a new set of challenges. The timing of the work, with most of it taking place toward the end of the school year, limited teachers' ability to put skills learned from the peer observations into practice. The district team also recognized that large-group observations did not necessarily meet teachers' individual needs. In addition, despite positive feedback, not all participants recognized the connection between their observations and their larger PDP goals. As the district concluded Cycle 2, it acknowledged an emerging need to strengthen alignment of the district evaluation system and teacher PDPs with the peer observation process. KCS determined that the focus of the peer observation had to be driven more intentionally by teachers' PDP goals or areas of improvement that emerged from administrator evaluations. To do so, the district also would need to schedule peer observations as they fit into the evaluation system, with ample time before the end of the school year for teachers to apply their learning in their classrooms.

Figure 3. Practical Measures From the Teacher Reflection Survey Data From Cycle 2

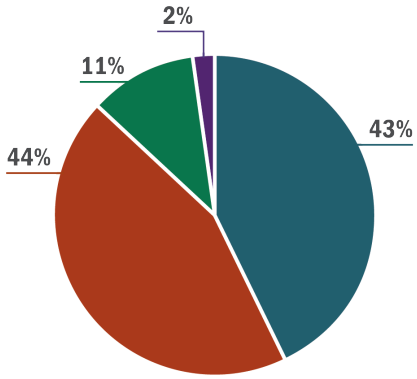
The support I received while participating in the peer observation process was tailored to my professional development needs.



Participating in the peer observation process increased my knowledge with respect to subject area content and/or instructional strategies in my professional development goal(s).



Participating in the peer observation process increased my skills to facilitate student learning as related to my professional development goal(s).



Participating in the peer observation process is valuable.

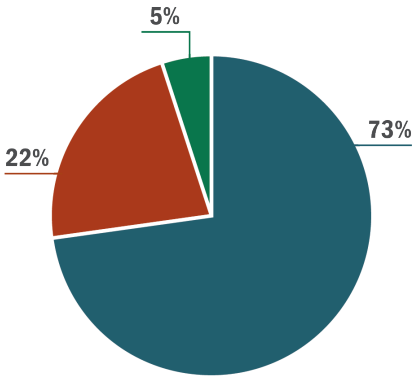


Figure 4. Practical Measures From the Observation Facilitator Survey Data From Cycle 2

Plan-Do-Study-Act Cycle 3

The district team decided that the refined peer observation process would be adopted and embedded into the teacher evaluation process as an elective, targeted professional development strategy. Still, teacher observations conducted by school administrators needed to be explicitly tied to teachers' PDP goals to create a stronger connection among goals, observation and feedback, and professional development support. For school administrators to better make those connections, administrators needed to more regularly observe classroom instruction and provide specific feedback to teachers to improve practice and suggest appropriate professional development, which could include but is not

limited to peer observations. Therefore, for Cycle 3, which was ongoing as this report was being developed, the district hopes that administrators will

- learn to make providing instructional feedback to staff a priority in their schedule,
- schedule and complete weekly observations and feedback meetings,
- use the tracking system consistently and with fidelity,
- feel confident in giving targeted feedback on PDP goals,
- increase the amount of feedback they provide teachers, and
- feel supported by their weekly central office support meetings.

The district hopes that teachers will

- feel confident that administrators could identify a specific area of feedback that would improve instruction and
- feel supported in their PDP goals by a more regular observation and feedback process.

Because of its work, KCS hopes to implement ongoing improvements to educator quality policies and practices across the district. This will allow the district to align teachers' PDP goals with feedback from observations that ultimately support professional learning. KCS continues to develop practical measures, including an Observation and Feedback Tracker for principals to chart increased observation and feedback potentially related to teacher instructional goals. Overall, KCS hopes to strengthen alignment of the district evaluation system and teacher professional development.

Working to Sustain Improvements

By conducting the continuous improvement work, the phased implementation approach allowed the district to measure and adjust the scope of its strategy to create a peer observation process so that teachers could learn from one another's instruction. The gradual and planned involvement of more teachers between Cycles 1 and 2 allowed the district to scale its initial work. The district's pivot to focusing on the formal evaluation process in Cycle 3 was informed by the need to have administrators provide more frequent and targeted observation and feedback to teachers and align the feedback with PDP goals and the needs and opportunities for professional development. It is possible that this was always the more high-leverage approach to what the district was seeking to achieve related to improving instruction and student learning; but, for a variety of reasons, they did not prioritize this early in the project as the PoP or the strategy to address the problem and instead chose to focus initially on building a culture and set of routines for peer learning. As the work progresses, the district would like to consider how to enhance and support administrators' observation and feedback processes even further by creating "look-for" documents aligned to key areas of improvement in the district or other tools and rubrics to support targeted, standards-aligned observation and feedback. These resources also may be useful for the established peer observation process.

Various district- and school-level KCS stakeholders, including the district's assistant superintendent and key central office leaders, representative principals, assistant principals, instructional coaches, a media coordinator, and a teacher, were involved in developing, implementing, extending, and supporting

this strategy. By engaging key stakeholders in designing a peer observation process and a tracking system with embedded data collection tools and then moving forward on improving feedback to teachers, KCS has started to develop an infrastructure more likely to sustain the desired change of supporting a culture of teachers as a community of learners. From its work, the district reported that it has implemented a more strategic and deliberate approach to improvement. PDSA cycles provided the district with a model to clearly identify and quantify problems and allowed the district to anchor themselves in data before planning next steps. The district also reported that through this work, administrators are motivated to prioritize inquiry cycles and improvement science as they have seen teachers use feedback to improve their instruction, and they recognize that through this work, staff are more connected to school needs and successes.

VIGNETTE

Jackson-Madison County School System

Developing Administrators' Understanding of Content Standards to Better Provide Teachers Explicit, Actionable, and Aligned Feedback

District Background

JMC is in a small city in an urbanized area in Madison County, Tennessee.[6] As shown in the following tables, the district has 27 schools, employs close to 900 teachers, and serves 12,500 students. In the 2015–16 school year, the district had a 92.4% graduation rate, which was higher than the state average of 85.5%. Almost 72% of the district's students come from low-income households.

District	Size		
	Number of schools	Number of teachers	Number of students
Jackson-Madison County School System	27	897	12,500

District	Student demographics							
	Asian/ Pacific Islander	Black	Hispanic/ Latino	Native American	White	Other	English learners	Low income
Jackson-Madison County School System	1.4%	58.4%	7.0%	n/a	30.9%	2.3%	4.0%	71.8%

The current teacher evaluation system in JMC has been in place since 2011. Several rubrics are used for teacher evaluations in Tennessee. However, JMC uses the Tennessee Educator Acceleration Model (TEAM), a model based on the Danielson and Marzano instructional frameworks. Principals use data from this evaluation tool to identify potential teacher leaders, learning coaches, and mentors. In addition, these data measure overall teacher effectiveness, and specific indicators drive professional

[6] Data are from the National Center for Education Statistics (https://nces.ed.gov/ccd/districtsearch).

development and training. Principals also make recommendations about data relative to tenure, personnel, and differentiated pay.

Problem of Practice

Prior to joining the Beyond Accountability project, JMC had already identified early literacy as a key district priority for improving student learning. The district participates in the Leading Innovation for Tennessee Education[7] network, which is a group of Tennessee districts focusing together on improving instruction and professional learning, particularly early literacy. The district had analyzed instructional rounds data that illustrated a discrepancy between the expected rigors of instruction versus what was observed in practice. These data revealed that most of the lessons illustrating this gap focused on developing students' foundational reading skills. Most phonics, phonological awareness, and other foundational skills instruction was explicit, and teachers were clearly working to build students' reading and decoding skills by the end of third grade. However, in many cases, the lessons did not yet fully align to grade-level standards, and it was not clear that students were systematically building the skills they needed to learn to read from grade to grade.[8] The district also had teacher perception survey data that provided insight regarding teachers' perceptions of the principal's role in facilitating professional learning and growth opportunities as well as in educator development and support.[9] Considering all of this information, JMC identified the following as its focal PoP:

> **Administrators lack understanding of the academic shifts required to effectively teach the standards, which prevents them from providing teachers with feedback and coaching that is explicit, actionable, and aligned with the demands for college and career readiness.**

Addressing the Problem of Practice Through the Continuous Improvement Process

JMC's Beyond Accountability team consisted of a core leadership team (the district superintendent, the chief academic officer, an academic coordinator, and a school principal) plus a larger team of stakeholders (two data coaches, the district's academic literacy coordinator, the leader of assessment and accountability, the leader of professional development, and two additional school principals) to implement the work. The district team selected the following as the overarching strategy to address the PoP.

> **Provide training to administrators to help them develop greater knowledge of instructional shifts in the appropriate content standards so that they may be better able to determine if instruction accurately addresses the demand of the standards and are better able to provide teachers with explicit and actionable feedback and coaching that is aligned with the demands of college and career readiness.**

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[7] See https://lifteducationtn.com/wp-content/uploads/2017/11/LIFT-Education-Annual-Report-2017_FINAL.pdf.

[8] Adapted from the Jackson-Madison Instructional Review Summary.

[9] From the JMC Teacher Perception Survey of spring 2016.

Plan-Do-Study-Act Cycle 1

To address its PoP, the JMC team developed a training strategy to test in the first inquiry cycle that aimed to grow administrators' knowledge of instructional shifts in grade-appropriate standards. The training focused on the following areas:

- On- and off-stage evidence
- Rubric connections (standards-aligned conversation with high-quality feedback)
- Feedback that specifically addresses shifts and the rigor of the content
- Observing standards in action and what standards-aligned instruction looks like
- Practicing with frequent accountability pieces for ensuring implementation, otherwise known as the bridge to practice

The district collaborated with AIR to design practical measures to track the outcomes of its intervention. AIR facilitated the creation of a survey instrument that gauged administrator perceptions of English language arts (ELA) instructional shifts and their ability to determine if the rigor of the standards was met in instruction. Other items on the survey helped gauge the relevance of district-led trainings on the topic, how valuable administrators found the trainings, and the confidence level and preparedness of administrators in understanding shifts in the ELA standards.

The JMC team initially piloted the work and planned to later expand it to more schools across the district. The pilot began with administrators in six elementary schools. All principals and assistant principals received the training at their regularly scheduled monthly meetings, and the practical measure gathered information from administrators in the six pilot schools.

JMC conducted a "before and after" survey of administrators in the six pilot schools: the before version was administered 1 week before the training and the after version a few days after the training. The findings between both surveys were similar, suggesting that administrators may have overestimated their knowledge and understanding of the instructional shifts in the survey administered before the training. Therefore, the district team concluded a need to break down the process and address smaller parts of the rubric at a time to delve deeper into each one during the training. Furthermore, to provide more accurate and specific data to inform decision making in the next PDSA cycle, AIR and JMC revised the practical measure and reconsidered the process for data gathering to attain more accurate data.

Plan-Do-Study-Act Cycle 2

Building on prior knowledge and leveraging existing work within the district, the team developed an ELA classroom observation tool based on a tool they had used for another initiative as well as on the Instructional Practice Guide: Coaching Tool from Student Achievement Partners. The ELA classroom

observation tool, designed to facilitate administrators' ability to identify rigorous instruction and provide better, more instructionally specific feedback and coaching, outlines three general core actions:

- Focus each lesson on a high-quality text (or multiple texts).
- Employ questions and tasks—both oral and written—that are text specific and accurately address the analytical thinking required by the grade-level-standards.
- Provide all students with opportunities to engage in the work of the lesson.

After concluding that the training needed to be broken into smaller parts, the JMC team refined the Cycle 2 plan to focus on a narrower scope and concentrate on only one of these core actions:

> **Develop administrators' capacity to identify the alignment with high-quality text(s) and grade-level standards in preparation for feedback and coaching that is explicit and actionable through instructional rounds, discussions on the data collected, modeling coaching conversations, and practicing coaching conversations.**

For the second inquiry cycle, instructional coaches and district team members partnered with administrators in the six pilot schools to provide more targeted support for the focused core action in Cycle 2. Each pair (school administrator and instructional coach/district team member) conducted "norming observations" of four ELA classrooms to gather baseline data and calibrate observations. Both the instructional coach/district team member and the school administrator gathered data using the ELA classroom observation tool. Together, they compared and discussed the collected data. The instructional coach/district team member modeled a coaching conversation based on the gathered data, and the school administrator practiced conducting a similar coaching conversation. Each pair conducted a second round of classroom observations using the same observation tool as in the norming observations.

This new approach allowed the leadership team to provide training that specifically focused on one core action of the ELA classroom observation tool. The data from the ELA classroom observation tool served as the practical measure for Cycle 2 and helped the district gather data that were more accurate of administrators' understanding of ELA instructional shifts rather than administrators' perceptions of their own understanding and ability to provide feedback.

Comparisons of the data gathered in the norming observations versus data gathered in the second round of observations revealed that as administrators gained familiarity with the tool, their observations were more aligned with those of the instructional coach and the district team members, and they improved their ability to identify high-quality texts and instruction using the tool. The team concluded that this approach facilitated the gathering of more accurate data and allowed them to better identify specific areas in which school administrators needed additional training.

Plan-Do-Study-Act Cycle 3

The data gathered in Cycle 2 helped the JMC team identify even more specific areas of need for administrator training. In Cycle 3, the team decided to focus on training administrators on additional core action areas of the observation tool. Consequently, the team developed the following strategy:

> **Prepare administrators for feedback that is explicit, actionable, and aligned to the demands of the standards and train on Core Actions 1B, 1C, and 1D.[10]**
>
> **Core Action 1B: The text(s) are at or above the quantitative and qualitative complexity level expected for the grade and time in the school year.**
>
> **Core Action 1C: The text(s) exhibit exceptional craft and thought and/or provide useful information to build knowledge.**
>
> **Core Action 1D: Students connect the acquisition of skills to making meaning from reading.**

The observation tool was revised to include space for observers to begin to identify areas of focus for the coaching conversation and notes for coaching feedback.

In the third inquiry cycle, the district team and instructional coaches provided whole-group administrator training on the additional core action areas. For this cycle, administrators and coaches used videos from prior exercises to conduct these trainings because teachers were on summer vacation.[11] Once again, instructional coaches and district team members partnered with administrators from the six pilot schools to conduct ELA classroom observations using the revised observation tool. This was followed by whole-group administrator training on identifying an individual teacher's next steps that are explicit, actionable, and aligned to the full demands of the standards. A second round of observations using the revised observation tool followed the training. Each administrator's ratings and notes in preparation for a coaching conversation were compared with ratings and notes of the partnered instructional coach/district team member.

The gathered data revealed greater alignment between administrators' observations and those of the instructional coaches/district team member for the additional core action areas. However, the team decided that the observation tool needed further revision to allow observers to cite evidence for their ratings during the instructional rounds. The extent to which teachers perceive this alignment in their experiences with the observation and feedback process as well as the influence this growth in administrators' knowledge and capacity has on teaching and learning remains to be seen and is something the district should continue to monitor.

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[10] The language for these Core Actions was adapted from Student Achievement Partners' ELA/Literacy Coaching Tools for Grades K–2 and Grades 3–12. See https://achievethecore.org/category/1155/printable-versions.

[11] At the time of the third inquiry cycle, the school year had ended, and in-person classroom observations were not possible. Consequently, the JMC team partnered with the National Board of Professional Teaching Standards to use the ATLAS library of authentic videos of National Board Certified Teachers delivering instruction as the "classroom" to be observed.

Working to Sustain Improvements

Through their continuous improvement work, the JMC team developed its understanding and capacity to engage in the continuous improvement process while also developing trainings and a practical, rigorous, and focused classroom observation tool that more school administrators throughout the district could use. The team began with broad and ambitious goals for administrator training but quickly realized a need to significantly scale back the content of its training. Although the overarching goal of the training did not change, the incremental steps toward that goal became much more focused to gradually implement smaller pieces of the training, gather data with a continually improved observation tool, and use that data to inform next steps.

VIGNETTE School District of Osceola County

Doubling Down on Standards-Based Planning and Instruction

District Background

Osceola is a culturally diverse, large district located just outside Orlando, Florida. As shown in the following tables, the district has 52 schools, employs 3,655 teachers, and serves 61,000 students. The current superintendent, Dr. Debra Pace, began her tenure in February 2016, having served in the district for 25 years and most recently as the associate superintendent of human resources in neighboring Brevard County. She brings to the district a mind-set of "using research and data to guide decision making."[12]

District	Size		
	Number of schools	Number of teachers	Number of students
School District of Osceola County	52	3,655	61,000

District	Student demographics							
	Asian/ Pacific Islander	Black	Hispanic/ Latino	Native American	White	Other	English learners	Low income
School District of Osceola County	2%	11%	59%	<1%	25%	3%	19%	63%

For its 2016–2019 strategic plan, Osceola identified goals related to academic success, talent management, fiscal responsibility, community engagement, and governance. For academic success, Osceola hopes to increase the high school graduation rate from 81% to 86% by the 2018–19

[12] See https://today.ucf.edu/educational-leadership-doctoral-grad-appointed-as-new-school-district-of-osceola-county-superintendent/.

academic year. To do so, the district established multiple strategies, including ensuring high levels of learning for all students in literacy and mathematics by cultivating teachers' deep understanding of content and instruction in these areas.

Problem of Practice

Osceola uses the Marzano Teacher Evaluation Model to evaluate teacher performance.[13] The district gathered data on the occurrence of various elements of the Marzano Learning Map from formal and informal observations conducted in classrooms across grade levels. When tallied, the district team noticed that elements from the observation rubric[14] most commonly observed were those related to helping students interact, practice, or deepen new knowledge. Those conducting the walk-throughs, including instructional coaches and other district leadership, observed very few instances that focused on rubric elements related to helping students generate and test hypotheses. Elements of instruction focused on cognitively complex tasks occurred half as often as those for practicing skills. Therefore, the district team decided to tackle the following PoP:

> **Teachers too frequently focus on students' practicing skills rather than on the more important work of engaging students in cognitively complex tasks.**

Addressing the Problem of Practice Through the Continuous Improvement Process

The Osceola core leadership team consisted of the district's director of secondary curriculum and instruction–middle school education and the principal of one of the district's elementary schools. A larger team of stakeholders, including district instructional framework coaches and school-based coaches, supported implementation of the work.

The team identified the root cause of its PoP as a lack of understanding the intent of the standards and how they connect to the instructional framework, particularly during the planning process. The team decided that if teachers better understood the application of the instructional framework and had improved skills to plan instruction that involved cognitively complex tasks to engage students, district data on this instructional strategy would improve. Based on the identified root cause, the district selected the following as the overarching strategy to address the PoP:

> **Implement common collaborative planning time with additional structures and resources, including use of the Marzano Teaching Map, modeling of effective planning by instructional leaders and coaches, and guidelines for effective instructional plans (such as guiding questions, self-assessments, samples, and a description of plan components for execution aligned with the standards and instructional framework).**

[13] See http://www.marzanoevaluation.com for more information.

[14] See http://www.marzanocenter.com/files/LearningMap_AST_Framework_Evaluator_20120226.pdf.

The district posited that providing additional guidance and support for high-quality instructional planning would lead to increased teacher understanding of the standards, the instructional framework, and their connection and, therefore, improved teaching and learning. The team used Handout 6 starting on page 56 of Appendix B, particularly the questions related to "likelihood for success," "feasibility," and "scalability" to hone in on common collaborative planning time as the vehicle by which to guide and support high-quality instructional planning. For example, they decided to leverage PLCs that were already operating in schools across the district.

Plan-Do-Study-Act Cycle 1

For its first inquiry cycle, Osceola leveraged existing teacher common collaborative planning times to focus on the use of the Marzano Teaching Map, model effective planning by instructional leaders and coaches, and provide guidelines for effective instructional plans. Osceola established the following action steps to implement its first cycle:

1. District instructional framework and curriculum coaches (IFCs) will develop guidelines for effective instructional plans.
2. IFCs will share guidelines with school curriculum coaches and staff.
3. IFCs will obtain feedback to revise and finalize the guidelines.
4. School coaches will schedule professional development to model the guidelines, teaching maps, and Florida standards in three 2-hour sessions.
5. School-based coaches and leaders, as well as IFCs, will check for implementation using walk-throughs, the reflective visit form, and instructional rounds.

Osceola recruited 44 K–5 teachers at one elementary school for the first cycle: eight teachers each for Grades K–3 and six teachers each for Grades 4 and 5. This school was selected because it had been on academic probation but had a strong, improvement-oriented principal. District IFCs were tasked with creating instructional planning guidelines for the teachers. These guidelines included identifying the cognitive complexity of the standard or depth of knowledge level, the academic vocabulary and skills needed by students, the critical content-learning targets, the strategies used to deliver the learning targets, and the success criteria.

The IFCs then provided school-based coaches with training to model the new guidelines. The two school-based coaches from the elementary school then worked to model use of the teaching map for standards-based planning to a PLC lead so they could then, in turn, model it for teachers during regularly scheduled PLC time. If that was not possible, the school-based coach attended PLC meetings to model the use of the planning guidelines. The district conducted three professional development sessions in fall 2016. The district, with AIR's support, created short surveys to assess educators' perceptions of the effectiveness of guidance and support provided by the district for instructional planning and linking standards to the instructional framework. The teacher survey asked teachers about their knowledge of Florida's standards, the teaching strategies described in the Marzano

instructional framework, the connection between the two, and the support they received for standards-based instructional planning. The district also evaluated teachers' ability to engage in high-quality planning by scoring teachers' instructional plans using a rubric reflective of the instructional planning guidelines developed by the IFCs.

The team also created observational protocols for coaches and principals to use during walk-throughs and instructional rounds to document data, reflect on their observations, and look specifically for evidence of improved alignment. Coaches and principals relied on the school reflective visit protocol to check for ongoing application of trainings and professional development.

Overall, the district learned that many teachers found the professional development to be helpful. However, two challenges emerged: (a) There was inconsistent teacher buy-in and enthusiasm for the trainings, and (b) some teachers did not fully understand how the training directly connected to the classroom and lesson plans. Based on the team's review of the data, the district decided to focus on helping teachers understand the purpose of the trainings and how the work should be embedded in day-to-day activities. The results from the instructional lesson planning rubric, developed by the district IFCs, also revealed little use by teachers of the guiding questions for standards-based planning. Therefore, the district decided to adapt its first strategy, with adjustments, to help teachers intentionally plan by using the guiding questions and other specific strategies from the instructional framework.

Plan-Do-Study-Act Cycle 2

For Cycle 2, the district narrowed the number of teachers (now only K–2 teachers) involved in the project and worked to provide support in understanding specific instructional strategies, planning for the intentional use of these instructional strategies, and implementing the instructional strategies. IFCs developed professional development for teachers related to "recording and representing knowledge" and "examining reasoning" strategies as well as modeled lessons based on those strategies. To implement Cycle 2, the district completed two tasks:

- Developed materials and additional plans that included model lessons on two instructional strategies—recording and representing knowledge plus examining reasoning—with respect to one essential standard in mathematics and ELA for each of Grades K–2.
- Delivered a full-day professional development session for K–2 teachers that included the recently developed model lessons.

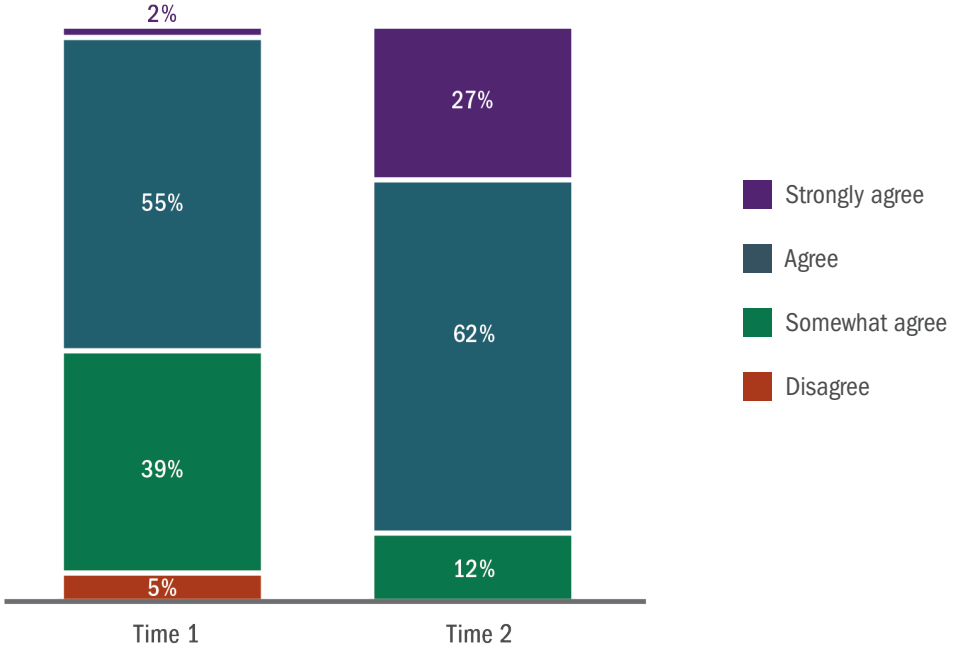
After these trainings, teachers were now required to do the following:

- Deliver a lesson on the same instructional strategies that had been modeled during professional development.
- Turn in samples of student work.

Osceola and AIR conducted short pre-post surveys to assess the application of what participants had learned during the professional development session. Figure 5 shows the results of the surveys.

Figure 5. Osceola PDSA Cycle 2 Teacher Professional Development Pre-Post Survey Results

I understand how to connect the standards and the teaching strategies in the Marzano instructional framework to design my instructional plans and materials.



Aggregate results from the pre-post surveys suggest improvements in teachers' perception of their ability to connect the standards and teaching strategies focused on "recording and representing knowledge" and "examining reasoning" to better design instructional plans and materials. Not shown in Figure 5 are disaggregated results that suggest participants had slightly less understanding of how to make these connections for "examining reasoning" than for "recording and representing knowledge."

To assess the extent to which the survey results were evident in student learning, teachers for each grade level brought in student work that directly pertained to the standards and strategies on which they had focused. A team of raters scored the student work using a common rubric. There were lessons learned about how to design and implement this practical measure, particularly for standardizing the selection of student work to rate across the group of teachers as well as better calibrating ratings. Nevertheless, analyzing student work alongside the pre-post survey results suggested to the district that the standards-based instructional strategies, particularly examining reasoning, were only partially in place in the classroom, and some teachers still were not making the connection between the professional development and their lessons.

Cycle 2 strengthened the district's understanding about how to continue to refine training and professional development, how to provide teachers with more exposure to a variety of instructional strategies, and how to refine ways to embed standards-based lesson planning into the school process.

Plan-Do-Study-Act Cycle 3

For Cycle 3, the district expanded the training it provided to a larger group of teachers across the district, including adding additional grades. The district also discussed the continued importance of having district IFCs, elementary curriculum folks, and school-based coaches at the table. In fall 2017, the district offered additional professional development, with an emphasis on the instructional strategies identified in the Marzano Teaching Map, which was scheduled during collaborative planning times. These strategies included a deeper exploration and understanding of "examining reasoning" as well as adding "elaborating on new information" and "analyzing similarities and differences." AIR and the district were revising the measures to study Cycle 3 based on learnings from Cycle 2 at the time of this report's development yet continued to focus on a combination of professional development, model lessons, and student work.

Working to Sustain Improvements

The Osceola team focused on a challenge area that was aligned to its district strategic plan and goals, and the Beyond Accountability project allowed the district to accelerate its learnings and progress on those goals. The efforts of the Osceola team during this project set the district on a path for sustained change related to the way data are collected about teacher performance, professional development to support standards-based lesson planning, and ongoing continuous improvement efforts at the school and district levels.

Through this initiative, the district adjusted the walk-through process and now has a cadre of IFCs conducting more frequent classroom walk-throughs based on the Marzano Teaching Map and the Marzano Learning Map. The district is then able to use the formative walk-through data to identify, on a regular basis, key areas of need related to teacher practice. The district provided teachers with time and professional development so that they can better understand how to effectively implement the instructional framework for standards-based planning and instruction. Teachers also benefited from having the implementation of these strategies modeled by IFCs within their classrooms. Furthermore, the work conducted by Osceola demonstrates the importance of a bridge to practice for implementation in the classroom; the district now has an improved structure for professional development that includes formal sessions plus model lessons and an examination of student work. The overall professional development "package" aimed to help teachers understand instructional strategies, plan for using these instructional strategies, and implement the instructional strategies.

Osceola is now looking forward to adapting the continuous improvement process in other schools within the district. Two elementary, one middle, and one high school have been selected as part of the next phase of the rollout. Each school will explore a different PoP based on a similar districtwide issue.

Getting Beyond Accountability: What Did We Learn? What Did the Districts Learn?

AIR supported four districts in conducting intensive, disciplined continuous improvement cycles that aimed to improve practice and supports for teachers as well as build capacity to apply this level of continuous improvement going forward. AIR and the district participants learned a great deal about this process; here we list some of the most salient lessons for others who want to engage in similar efforts to consider.

Leadership Commitment Is Crucial

School and district leadership must be on board and commit to a common set of goals and outcomes to engage in successful, disciplined continuous improvement. Much of the work related to continuous improvement will happen in classrooms and at the school level, so staff must feel confident that district leadership (a) continuously supports their time and effort, (b) will collaborate with them to inform the process, (c) invest in the success of the initiative where relevant, and (d) showcase how the work contributes to the district's overall goals and strategic plans. District leadership in the Beyond Accountability districts was essential in the following ways:

- Share performance data to guide the work.
- Create the time and space for the work to take place.
- Communicate about the initiative in a positive and common way across multiple schools and staff.
- Tap district resources, such as instructional coaches, where necessary.
- Take the lessons-learned and evidence of improvements seriously and consider pathways for broader implementation.
- Reaffirm the importance of getting better at district-level systems designed to improve instruction and learning as well as use inquiry cycles as a mechanism to do that.

Buy-in Across All Participants Is Essential, So Is Creating a Culture of Trust and Collaboration

Even though school and district staff have been engaging in continuous improvement efforts for a long time, doing it in the way that the Beyond Accountability project required was new for most of the participants. Districts need to ensure that communication about the work is clear and consistent and that participants understand not only the mechanics of the work but also the goals and their role in the effort. In addition, district administrators and project leaders need to reinforce the notion that this work goes beyond evaluation and demonstrate how these projects work to improve overall teaching and learning processes. Commitment and trust permits true partnerships, engagement,

and collaborative practices. Administrators should provide points of contact to the project for participants to weigh in and ask questions about the work. Furthermore, administrators must be willing to adapt their cycles as teachers provide feedback and as teachers' needs evolve and develop.

The Role of Data and High-Quality Measurement Cannot Be Underestimated, and Support for Data Collection, Analysis, and Interpretation Must Be Provided

Data and measurement play an important role in two distinct parts of the continuous improvement cycle. First, AIR encouraged the districts to use multiple sources of data, such as walk-through data, evaluation data, and teacher perception survey data, to best understand the PoP and, in some cases, the root cause of the problem. One district commented that the root-cause analysis process was essential to targeting its strategies. These data were shared in the early stages of each district's project and were the driving force behind conversations among district team participants about what they should focus on for improvement and why.

In addition, AIR supported the districts in developing and analyzing practical measures data for each cycle of the process, particularly during transitions from one cycle to the next and homing in on specific areas of a strategy or intervention that needed adjustment or recalibration. In many cases, this was the most challenging component of the work—identifying the right practical measure (both the content and the method) that will illustrate improvements (or not) is essential but tricky work. The district teams' understanding of and commitment to using these practical measures helped promote their strategies. Project participants from across the districts often noted that school and district staff rarely if ever took the time to measure these types of short-term outcomes and instead frequently "guessed" or "felt" how an initiative was going. In some cases, districts took a very active role in developing and using the practical measures, particularly identifying outcomes based on their theory of action, making predictions for each outcome, and collectively making sense of data to produce results for each outcome.

Put Parameters on the Focus of the Project, but, Ultimately, Schools and Districts Must Concentrate on What They Can Realistically Achieve

Beyond Accountability set out to address challenges with feedback and observation systems and the way that evaluation data were used to improve instructional practice and access professional supports. For a variety of reasons, most districts chose to identify where the data showed weaknesses in specific areas of instructional practice (using evaluation data as well as other sources of data) and implemented professional development or supports to address those areas. These districts channeled their focus on mechanisms for improving instructional practice outside the formal evaluation process and, in some cases, later considered how the findings might influence the teacher evaluation and support system. Concentrating the work in this way allowed district and school staff to build capacity for the continuous improvement process and achieve early wins in a low-risk environment.

Allow the Theory of Action to Lead the Way and Adjust It as You Learn

The districts were required to develop a theory of action to articulate the focus of each inquiry cycle. Designing and adhering to a meaningful theory of action, with short- and long-term outcomes, that has the potential for real change can be challenging. Several key questions should be considered when developing a theory of action, including the following:

- Why are we prioritizing this strategy or intervention? Does it respond to the PoP we identified?
- What, specifically, are we asking all the actors involved in the theory of action to do or do differently? The implementation of the strategy(ies) in a high-quality and targeted way is the key to moving from "if" we do this, "then" this will be our outcome. We cannot shortchange the implementation aspect of a theory of action.
- How will the strategy work to achieve the outcomes we expect to see?
    - AIR took a mostly hands-off approach to the design and implementation of the strategy itself; that work was primarily the responsibility of the schools and districts.
    - Other organizations supporting continuous improvement work may want to consider taking a more involved role in the design and implementation of the strategy.
- What makes us think that if we implement the strategy as proposed, it will ultimately achieve the outcome (e.g., improve teacher practice and student learning)? Relatedly, identify what success looks like at the outset. If the overall goal is to improve some aspect of teacher practice, what exactly does that look like? What are the measures?

Facilitating PDSA Cycles Is Intensive Work

Each Beyond Accountability district completed between one and three PDSA cycles in slightly more than 1 year with the support of school and district staff as well as at least one AIR dedicated facilitator. The plan, study, and act phases require at least daylong conversations on the front and back ends of doing the implementation work for a few months. Participants mentioned that doing disciplined PDSA cycles in this way was sometimes uncomfortable because it is very specific and concentrates on outcomes and effectiveness in a way that can be difficult in the everyday life of school and district staff. They often do not have the protected time to work through specific questions using such a process but now have a structure for sustaining the approach. Nevertheless, key questions remain for the schools and districts about how they will sustain this work, including exactly who, how, and when they will embed PDSA cycles in school and district work.

Timing and Coherence Are Everything

We quickly learned that this work must be part of a larger strategic plan and set of goals in the school or district or it will not succeed. School and district staff are simply too busy to have this level of intensive work put on their plate unless it supports them in achieving larger goals and outcomes that they are already working toward. Participants noted that starting with small focus areas allowed them to determine how best to embed the work into the larger system and scale to others in the school and/or district.

Because classrooms are situated in and inextricably linked to the broader school system, and consistent with research, we found that teachers are better able to sustain change when mechanisms are in place at multiple levels of the system to support their efforts. These evidence-based mechanisms include the following:

- The presence of a supportive professional community of colleagues in the school that reinforces normative changes and provides continuing opportunities to learn (McLaughlin & Mitra, 2001; Payzant, 2005; Stokes, Sato, McLaughlin, & Talbert, 1997)
- Knowledgeable and supportive school leadership (Anderson-Butcher, Lawson, Bean, Boone, & Kwiatkowski, 2004; Berends, Bodilly, & Kirby, 2002; Comer, Haynes, Joyner, & Ben-Avie, 1996; Datnow, Hubbard, & Mehan, 2002; Fullan & Stiegelbauer, 1990; Hargreaves & Fink, 2000; McLaughlin & Mitra, 2001; McPartland, Balfanz, Jordan, & Legters, 2002; Muncey & McQuillan, 1996; Murphy & Datnow, 2003)
- Connections with other schools or teachers engaged in similar reform (Cooper, Slavin, & Madden, 1998; McDonald et al., 1999; Muncey & McQuillan, 1996)
- Normative coherence or alignment between the district policy context and the reform (Berends et al., 2002; Comer et al., 1996; Datnow et al., 2002; McLaughlin & Mitra, 2001)

Networks, in All Their Different Forms, Should Be a Fundamental Approach to Continuous Improvement

The cycles and strategies developed by each district varied in scope and design. As indicated by the vignettes, the focus of each district's work was on a range of secondary drivers of improvement—changes that might take place at the district level rather than changes that might happen across districts. This limited, to some extent, the group of districts from operating like a true networked improvement community,[15] which often benefits from the coordination of PoPs, solutions, and data collection practices. Nevertheless, the districts came together as a community during the in-person and virtual cross-district convenings. This networking and interdistrict sharing was essential for learning about different approaches and getting low-stakes peer feedback on the content of the work as well as the approach to the PDSA cycles. Participants routinely referenced through meeting surveys and anecdotally that the cross-district consultancy was a valuable process they engaged in at the cross-district meetings to check assumptions, get peer feedback, and refine their approach.

[15] AIR defines a networked improvement community as a group of stakeholders from diverse backgrounds solving problems together through a cycle of Plan-Do-Study-Act (https://www.air.org/resource/using-networked-improvement-communities-improve-educational-practice).

Disciplined Continuous Improvement Work Provides Space to Improve on Content and Process

Supported continuous improvement has two chief benefits: the opportunity to learn about what kinds of strategies or interventions work in which contexts and at which levels (school, district, state) and the opportunity to grow the capacity of participants to apply disciplined inquiry cycles to a myriad of challenges or PoPs that emerge in their work. AIR asked key district participants to complete a "scale and sustainability" questionnaire to help each district think through next steps for continuing and spreading the work of the Beyond Accountability project. Selected responses from that questionnaire included the following:

> "There is power in the process of truly reflecting on what your areas of need/problems are and then working through the PDSA cycle. As a school, we have grown tremendously because of it."

> "The continuous model is important for us to identify a specific problem and work as a team as we try to solve the problem with a research-based approach. The data focus allows participants to constantly reflect on the effectiveness of this plan."

> "In addition to the instructional value from peer/mini observations, I believe the process has helped improve our understanding of implementation science and equipped us to better plan and implement initiatives in the district."

> "Self-reflection is necessary to improve. Using the Plan-Do-Study-Act model requires reflection but also accountability in your work to make the process become action and action become improvement."

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Appendix A.
Summary of Internal Evaluation Findings

AIR conducted an internal evaluation to determine whether AIR and its partner districts met the project goals. AIR developed a teacher survey to assess progress toward meeting two of the project goals: improve instructional quality and boost teacher satisfaction with opportunities to improve their practice. The design of the evaluation did not allow for the direct measurement of instructional quality; however, through the teacher survey, the research team was able to ask questions about conditions for instructional quality improvement, such as teachers' motivation to change. The following sections report findings from the teacher survey designed to answer two summative evaluation questions:

1. To what extent are conditions right for improvements in instructional quality? For example, are teachers motivated to change? To what extent do teachers believe that the effort required to change their practice is worth it?

2. To what extent are teachers satisfied with opportunities or mechanisms to improve their practice? For example, what feedback do teachers receive, and do they understand and agree with the feedback? Do professional development opportunities exist that are aligned with the feedback that has been received?

To answer these questions, the survey asked teachers about their teaching experience, beliefs about teacher evaluation systems, feedback received from observers, and opportunities for professional growth. AIR administered the teacher survey to pilot and comparison group teachers in three of the four participating districts.[16] Pilot group teachers participated in elements of the districts' projects aimed at improving the use of evaluation and instructional practice data and improving teacher development and support systems, whereas comparison group teachers continued with typical school and district business. This appendix provides a high-level overview of the key findings from the survey. The full set of findings is available in the cross-district survey report.

Teaching Experience

At the fall administration of the survey, pilot group teachers were slightly less experienced than comparison group teachers. They had an average of 11 years of teaching experience, whereas comparison group teachers had an average of 14 years of teaching experience. Pilot group teachers also had slightly less experience teaching in their districts and schools. They had an average of 8 years in their district and 5 years in their schools, whereas comparison group teachers had an average of 10 years in their district and 7 years in their schools. The pilot group teachers who participated in the spring administration of the survey had nearly identical teaching experience as the pilot group teachers who participated in the fall administration. The same was true of the comparison group teachers.

[16] Responses from BCS teachers are not included in this cross-district summary report because AIR staff members administered the spring survey to pilot group teachers only.

Conditions for Instructional Improvement

Overall, AIR staff members found evidence of improvements in the conditions for instructional quality improvement with respect to general perceptions of the evaluation system, perceptions of evaluators' knowledge and skills, and perceptions of feedback received. For example, the percentage of pilot group teachers who agreed or strongly agreed that the evaluation system does a good job distinguishing among teachers of different performance levels increased by 10 percentage points between 2016 and 2017, yet there was no increase for comparison group teachers. In addition, the percentage of pilot group teachers who agreed or strongly agreed that being observed or receiving feedback increases their level of stress or anxiety declined by 5 percentage points between 2016 and 2017, yet there was a decline of less than 2 percentage points for comparison group teachers.

Teachers' Satisfaction With Opportunities to Improve Their Practice

AIR asked teachers about three types of opportunities to improve their practice: meeting with instructional leaders who can support them as they implement suggestions provided in their feedback, observing expert teachers modeling skills related to their feedback, and planning for implementing new strategies based on their feedback. AIR found some evidence that pilot group teachers' satisfaction with three types of opportunities to improve their practice increased across time relative to the satisfaction of comparison group teachers. For example, between 2016 and 2017, the percentage of pilot group teachers and comparison group teachers who reported that opportunities to meet with an instructional leader were moderately or highly useful increased by 5 percentage points and 2 percentage points, respectively. In the same period, the percentage of pilot group teachers who rated opportunities to observe expert teachers as moderately or highly useful increased by 5 percentage points, whereas a slight decrease occurred for comparison group teachers. Finally, in the same period, the percentage of pilot group teachers who rated opportunities to plan for implementing new strategies based on observers' feedback as moderately or highly useful increased by 3 percentage points, but a slight decrease occurred for comparison group teachers.

Appendix B.
Project Tools and Guidance

This appendix provides an overview of the tools and resources used to support districts in the Beyond Accountability project. The materials included here are somewhat generic, although the project team customized the materials for each cycle of inquiry to specifically meet the needs of each district throughout the project. Handouts 1 and 2 were used only once. The activities in Handouts 3–8 were used, with small adjustments, for each cycle of inquiry. A short description of each handout follows. The actual handouts follow the descriptions.

HANDOUT 1. Self-Assessment

District teams may enter the project with preconceived notions of the district's PoP regarding the district's teacher evaluation and support system. This self-assessment is a good resource to help reach consensus regarding existing challenges (or PoPs) and focuses the conversation on one of three common challenges: (a) measurement/data collection and reporting/information quality, (b) the use of data and supports, and (c) teacher trust and engagement.

What you will need:

- One printed copy of the handout for each participant
- One copy of each rating table, preferably on a large poster, where the team will record the district consensus
- Approximately 2 hours

After this activity, you may want to use Handout 4 to help the team develop PoP statements and prioritize the key challenges.

HANDOUT 2. Plan-Do-Study-Act Sample

Handout 2 will help participants understand the PDSA process and help them see how each cycle builds on knowledge gained from the previous cycle. The sample in the handout also should help participants see how each cycle aims to address only a small piece that informs gradual steps toward the bigger goal of creating the continuous improvement process.

Ideally, you should first review the PDSA process and then provide the handout as an example. Discuss what the example shows about the PDSA cycle. In the discussion, make sure to point out that cycles occur rather quickly. Small changes are made, data are quickly and easily gathered, and these data inform the next steps. The overarching goal may be ambitious. However, the changes made in each cycle should be small, attainable, and easily measurable.

What you will need:

- One printed copy of the handout for each participant
- Approximately 30 minutes

HANDOUT 3. Review Data

Handout 3 provides guidance for reviewing a set of data about the district/schools that are the focus of the project. This initial data piece should be existing data to help identify the PoP. The presentation of the data may require work, ahead of the initial review, to ensure that the data are presented in a way that is easy for participants to review and interpret.

What you will need:

- One printed copy of the handout for each participant
- Printed copies of the data for participants to review
- Approximately 30 minutes

HANDOUT 4. Develop Potential Problems of Practice

In this activity, all participants will have an opportunity to share what they believe to be the biggest area of difficulty based on the data reviewed in the previous activity. The group will begin with a broad list of problem statements and gradually home in on one PoP to be addressed through this work. This activity can take time, but it will allow for small- and large-group discussion, ultimately arriving at one agreed-on PoP.

Hint: The clearer the data reviewed in the previous activity, the easier and faster it will be for the team to agree on a PoP. The facilitator will need to guide the group to identify a clear and specific PoP. A very broad problem statement will make it difficult to identify the root cause of the problem and, later, a strategy to address it.

What you will need:

- One printed copy of the handout for each participant
- Chart paper to draft and finalize the agreed-on PoP (You will likely need to revise the statement several times before reaching a consensus. It may be easier to type this using a projector and screen for the whole group to see and contribute to refining the statement.)
- Approximately 60 to 90 minutes

HANDOUT 5. Identifying Root Causes

This activity will help further refine the specific cause of the PoP that will be tackled through this work. Acknowledging that there might be multiple causes for the problem, the handout provides rating criteria to help identify a root cause that is of most importance, is more likely to be perceived as a key issue and receive support from others (stakeholders), and is most feasible.

What you will need:

- One printed copy of the handout for each participant
- Sticky notes
- Approximately 30 minutes

HANDOUT 6. Determine a Strategy and Develop a Theory of Action

This activity guides the group though the process of brainstorming possible strategies to address the root cause of the PoP and then prioritize one strategy to address through this work. The activity concludes with the development of a theory of action. This activity is a whole-group activity.

What you will need:

- One printed copy of the handout for each participant
- Chart paper or digital (computer, projector, and screen) copy of the table in Step 2
- Chart paper or digital equipment to jointly develop the theory of action
- Approximately 60 minutes

HANDOUT 7. Create a Plan for Implementation

This tool provides district teams with a template that they can use to outline plans for implementation, including who will carry out which aspects of the strategy, where and when the strategy will be carried out, what supports or resources will be needed, and what implementation challenges are anticipated. The tool also provides a set of important discussion questions regarding implementation that district teams should review and discuss together before completing the implementation plan template.

What you will need:

- One printed copy of the handout for each participant
- Digital copy of the template so that participants can type into the template to develop their own plan(s)
- Approximately 60 to 90 minutes

HANDOUT 8. Measures and Predictions

Handout 8 provides a brief overview of practical measures and some examples to help participants understand what practical measures are and begin to think about what measures they can use to determine progress in their own work. It includes a table to outline expected outcomes, measures, and data to collect to determine progress toward those expected outcomes plus predictions of what the collected data will likely review (the predictions should align with the expected outcomes).

What you will need:

- One printed copy of the handout for each participant
- Digital copy of the table so that participants can log their information
- Approximately 30 minutes (plus time for team members to draft and finalize the practical measure for gathering data)

HANDOUT 1. | Self-Assessment

Individually respond to the following self-assessment statements and answer the questions that follow. Then discuss with your district team and record your district's consensus responses in the repeated tables that start on page 46 of this appendix.

1. Measurement/Data Collection and Reporting/Information Quality

	Strongly disagree	Disagree	Agree	Strongly agree
1a. Teachers, principals, and district staff have an agreed-on definition of high-quality instructional practice that can be measured through observations, student surveys, or other means.				
1b. Teachers, principals, and district staff receive information about teacher practice often enough to help them consider changes that could support improvements in practice.				
1c. Teachers, principals, and district staff receive accurate information about teacher practice.				
1d. Teachers, principals, and district staff find the information they receive about teacher practice detailed or specific enough to be useful and actionable for supporting improvements in practice.				
1e. Teachers, principals, and district staff have easy and ready access to information about teacher practice.				
1f. Measured instructional practices relate to student learning. Staff believe that strong performance is linked to student growth and learning.				
1g. Measures of teacher practice show meaningful differences in the quality of instruction for individual teachers across time and for different teachers.				

Looking at the statements that you rated as disagree or strongly disagree, answer the following questions:

1. **Why did you disagree? Describe what you see as the challenge and give an example that illustrates it.** For example, if you disagreed that educators get accurate data about their practice, explain specifically what you mean. Is there little interrater reliability, such that teachers get inconsistent information about their practice? Is it another issue?

2. **Is this a systemic challenge (i.e., does it affect the instructional practice of many teachers)? Would most others (teachers, principals, or other district staff) agree that this is a systemic challenge?**

3. **What data or evidence do you have to demonstrate that this is a systemic challenge? Would most others agree that this is a systemic challenge if presented with the data or evidence? If you do not have data or evidence now, what would you need to collect and how could you do it?** Data or evidence might include results from surveys; interviews; focus groups with teachers, principals, or district staff; the analysis of data about teacher practice or student learning; or findings from personal observations or conversations with staff.

Looking at the statements that you rated as agree or strongly agree, answer the following questions:

4. **Why did you agree? Describe the situation and give an example that illustrates it.**

5. **Would most others (teachers, principals, or other district staff) agree with this statement?**

6. **What data or evidence do you have to support this statement? Would most others agree with the statement if presented with the data or evidence? If you do not have data or evidence now, what would you need to collect and how could you do it?**

2. Use of Data and Supports

	Strongly disagree	Disagree	Agree	Strongly agree
2a. Teachers have access to sufficient supports linked to identified needs in their practice (e.g., coaching, professional development, or peer mentoring).				
2b. Teachers have formal opportunities to build on recognized strengths of their practice (e.g., peer mentoring or coaching).				
2c. Teachers use information about instructional practice to make changes in their practice.				
2d. Principals use information about instructional practice to align resources and supports that can improve instructional practice and student learning (e.g., identify potential teacher mentors, make classroom assignment decisions, assign coaches or peer mentors, and make recommendations about tenure or other personnel decisions).				
2e. District staff use information about instructional practice to align resources and supports that can improve instructional practice and student learning (e.g., determine professional development needs/offerings for the district and evaluate professional development or instructional materials).				

Looking at the statements that you rated as disagree or strongly disagree, answer the following questions:

7. **Why did you disagree? Describe what you see as the challenge and give an example that illustrates it.** For example, if you disagreed that teachers use information about instructional practice to make changes in their practice, explain specifically what you mean. Is it because they do not have the right information to use? They do not know how to integrate the information into their practice? Something else?

8. **Is this a systemic challenge (i.e., does it affect the instructional practice of many teachers)? Would most others (teachers, principals, or other district staff) agree that this is a systemic challenge?**

9. **What data or evidence do you have to demonstrate that this is a systemic challenge? Would most others agree that this is a systemic challenge if presented with the data or evidence? If you do not have data or evidence now, what would you need to collect and how could you do it?** Data or evidence might include results from surveys; interviews; focus groups with teachers, principals, or district staff; the analysis of data about teacher practice or student learning; or findings from personal observations or conversations with staff.

Looking at the statements that you rated as agree or strongly agree, answer the following questions:

10. **Why did you agree?** Describe the situation and give an example that illustrates it.

11. **Would most others (teachers, principals, or other district staff) agree with this statement?**

12. **What data or evidence do you have to support this statement? Would most others agree with the statement if presented with the data or evidence? If you do not have data or evidence now, what would you need to collect and how could you do it?**

3. Teacher Trust and Engagement

	Strongly disagree	Disagree	Agree	Strongly agree
3a. The goals and rationale for the district's evaluation system are clear and well documented.				
3b. All staff understand the components of the evaluation system, the process of measurement, and how it is to be carried out. Systematic documentation and training are in place.				
3c. Teachers believe the evaluation system is intended to help improve instructional practice, and they welcome measurement of their practice.				
3d. Principals and other district staff believe the evaluation system is designed to help improve instructional practice.				
3e. Teachers, principals, and district staff can articulate how measures of teacher practice are used to improve practice within the district.				
3f. Teachers are involved on an ongoing basis in providing input about the evaluation system measures, implementation, and use of information.				

Looking at the statements that you rated as disagree or strongly disagree, answer the following questions:

13. **Why did you disagree? Describe what you see as the challenge and give an example that illustrates it.** For example, if you disagreed that the goals and rationale for the district's evaluation system are clear and well documented, explain specifically what you mean.

14. **Is this a systemic challenge (i.e., does it affect the instructional practice of many teachers)? Would most others (teachers, principals, or other district staff) agree that this is a systemic challenge?**

15. **What data or evidence do you have to demonstrate that this is a systemic challenge? Would most others agree that this is a systemic challenge if presented with the data or evidence? If you do not have data or evidence now, what would you need to collect and how could you do it?** Data or evidence might include results from surveys; interviews; focus groups with teachers, principals, or district staff; the analysis of data about teacher practice or student learning; or findings from personal observations or conversations with staff.

Looking at the statements that you rated as agree or strongly agree, answer the following questions:

16. **Why did you agree?** Describe the situation and give an example that illustrates it.

17. **Would most others (teachers, principals, or other district staff) agree with this statement?**

18. **What data or evidence do you have to support this statement? Would most others agree with the statement if presented with the data or evidence? If you do not have data or evidence now, what would you need to collect and how could you do it?**

District Consensus

1. Measurement/Data Collection and Reporting/Information Quality

	Strongly disagree	Disagree	Agree	Strongly agree
1a. Teachers, principals, and district staff have an agreed-on definition of high-quality instructional practice that can be measured through observations, student surveys, or other means.				
1b. Teachers, principals, and district staff receive information about teacher practice often enough to help them consider changes that could support improvements in practice.				
1c. Teachers, principals, and district staff receive accurate information about teacher practice.				
1d. Teachers, principals, and district staff find the information they receive about teacher practice detailed or specific enough to be useful and actionable for supporting improvements in practice.				
1e. Teachers, principals, and district staff have easy and ready access to information about teacher practice.				
1f. Measured instructional practices relate to student learning. Staff believe that strong performance is linked to student growth and learning.				
1g. Measures of teacher practice show meaningful differences in the quality of instruction for individual teachers across time and for different teachers.				

2. Use of Data and Supports

	Strongly disagree	Disagree	Agree	Strongly agree
2a. Teachers have access to sufficient supports linked to identified needs in their practice (e.g., coaching, professional development, or peer mentoring).				
2b. Teachers have formal opportunities to build on recognized strengths of their practice (e.g., peer mentoring or coaching).				
2c. Teachers use information about instructional practice to make changes in their practice.				
2d. Principals use information about instructional practice to align resources and supports that can improve instructional practice and student learning (e.g., identify potential teacher mentors, make classroom assignment decisions, assign coaches or peer mentors, and make recommendations about tenure or other personnel decisions).				

	Strongly disagree	Disagree	Agree	Strongly agree
2e. District staff use information about instructional practice to align resources and supports that can improve instructional practice and student learning (e.g., determine professional development needs/offerings for the district and evaluate professional development or instructional materials).				

3. Teacher Trust and Engagement

	Strongly disagree	Disagree	Agree	Strongly agree
3a. The goals and rationale for the district's evaluation system are clear and well documented.				
3b. All staff understand the components of the evaluation system, the process of measurement, and how it is to be carried out. Systematic documentation and training are in place.				
3c. Teachers believe the evaluation system is intended to help improve instructional practice, and they welcome measurement of their practice.				
3d. Principals and other district staff believe the evaluation system is designed to help improve instructional practice.				
3e. Teachers, principals, and district staff can articulate how measures of teacher practice are used to improve practice within the district.				
3f. Teachers are involved on an ongoing basis in providing input about the evaluation system measures, implementation, and use of information.				

HANDOUT 2. | Plan-Do-Study-Act Sample

This handout is adapted with permission from the Agency for Healthcare Research and Quality (AHRQ Publication No. 15-0023-EF; February 2015).

TOOL: Patient Feedback

STEP: Dissemination of Surveys

Cycle: First Try

PLAN

I plan to test a process of giving out satisfaction surveys and getting them filled out and back to us. I hope this produces at least 25 completed surveys per week during the campaign. The steps to execute are as follows:

- We will display the surveys at the checkout desk.
- The checkout attendant will encourage each patient to fill out a survey and put it into the box next to the surveys.
- We will try this for 1 week.

DO

What did you observe?

- We noticed that patients often had other things to attend to during this time, such as making an appointment or paying for services, and did not feel they could take on another task during this time.
- The checkout area can get busy and backed up at times.
- The checkout attendant often forgot to ask patients to fill out a survey.

STUDY

What did you learn? Did you meet your measurement goal?

- We had only eight surveys returned at the end of the week. This process did not work well.

ACT

What did you conclude from this cycle?

- Patients did not want to stay to fill out the survey once their visit was over. We need to give patients a way to fill out the survey when they have time.
- We will encourage them to fill it out when they get home and offer a stamped envelope to mail the survey back to us.

Cycle: Second Try

PLAN

I plan to test a process of giving out satisfaction surveys and getting them filled out and back to us. I hope this produces at least 25 completed surveys per week during the campaign. The steps to execute are as follows:

- We will display the surveys at the checkout desk.
- The checkout attendant will encourage each patient to take a survey and an envelope. Patients will be asked to fill out the survey at home and mail it back to us.
- We will try this for 2 weeks.

DO

What did you observe?

- The checkout attendant successfully worked the request of the survey into the checkout procedure.
- We noticed that patients also had other papers to manage during this time.
- Only about 30% of the customers per checkout attendant took a survey and an envelope.

STUDY

What did you learn? Did you meet your measurement goal?

- We had only three surveys returned at the end of 2 weeks. This process did not work well.

ACT

What did you conclude from this cycle?

- Some patients did not want to be bothered at this point in the visit; they were more interested in checking out and leaving.
- Once patients step out of the building, they will likely not remember to do the survey.
- We need to approach them at a different point in their visit when they are still with us—perhaps when they are waiting for the doctor and have nothing to do.

Cycle: Third Try

PLAN

I plan to test a process of giving out satisfaction surveys and getting them filled out and back to us. I hope this produces at least 25 completed surveys per week during the campaign. The steps to execute are as follows:

- We will leave the surveys in each examination room next to a survey box with pens and pencils.
- We will ask the nurses to point the surveys out or hand them out after vitals and suggest that while patients are waiting they could fill out the survey and put it in box.
- We will see after 1 week how many surveys we collected.

DO

What did you observe?

- Upon self-report, most nurses indicated they were good with pointing out or handing the survey to the patient.
- Some patients may need help reading the survey, but the nurses are too busy to help.
- On a few occasions, the doctor came in while the patient was filling out survey, so the survey was not complete.

STUDY

What did you learn? Did you meet your measurement goal?

- We had 24 surveys completed at the end of 1 week. This process worked better.
- We need to figure out how to assist people who may need help reading the survey.

ACT

What did you conclude from this cycle?

- Approaching patients while they are still in the clinic was more successful.
- Most patients had time while waiting for the doctor to fill out the survey.

Handout 3. | **Review Data**

Using the guiding questions that follow, record two or three findings in the chart (or use sticky notes, if directed by your facilitator). Findings are short statements of information, written clearly. They are quantitative or qualitative facts from the data that are meaningful to you.

GUIDING QUESTIONS

1. What were the highs, lows, and averages seen in the data? What data were about what you expected? What data were above or below what you expected? Are there any other surprises in the data?
2. What patterns or trends did you notice or would you expect in the data across time? Did the data or finding change or do you expect it to change?
3. What is your main finding? Circle it in your list.

FINDINGS

Example: Thirty-six percent of the teachers disagreed or strongly disagreed that feedback from their evaluator was evidence based.

Example: The highest proportion of teachers with less than "Effective" ratings was in the "questioning" techniques element.

Example: Twenty-two percent of the teachers reported that scheduled observations were good examples of their everyday instruction.

HANDOUT 4. | Develop Potential Problems of Practice

Step 1

Individually or in small groups, based on the major findings from your district's data, develop a potential PoP to address in this project. (If working with a group of 10 or more, work in smaller groups to help quickly identify one PoP that the whole group agrees on.)

Examples

- Many principals struggle to provide teachers with useful, authentic evaluation feedback that reflects a concrete understanding of effective instructional practice.
- Districts do not effectively use information from the teacher evaluation process to design and implement professional development and ongoing support for teachers.
- The highest proportion of teachers with less than "Effective" ratings was in the questioning techniques element.

Write the PoP in the following table and be ready to explain in what ways addressing it will improve the system beyond accountability. The problem(s) you identify must fit within one of the three "big ideas" for this project (i.e., measurement/data collection and reporting/information quality, use of data and supports, teacher trust and engagement).

Problem of practice	In what ways will addressing this problem improve systems beyond accountability?	Into which of the three "big ideas" does this problem fit?

Step 2

Share the problem statement and your rationale with the group. This can be done by either sharing orally or displaying the statements on a wall and allowing everyone to review.

Step 3

As a small group, come to a consensus on the biggest area of difficulty, considering the following factors (we suggest rating the PoP statements to help come to a consensus, but this also can just be discussed):

- **Importance.** On a scale of 1–10, with 1 (*least important*) and 10 (*most important*), how important is this issue? How much would it matter if we successfully addressed it? Would it be likely to lead to either widespread or significant improvements in teacher practice? To what extent is it connected to or contributing to other issues that affect teacher practice?
- **Perception/Buy-in.** On a scale of 1–10, with 1 (*weakest perception*) and 10 (*strongest perception*), how strongly do you think others perceive this as a problem? To what extent will others in the school support this as a real problem?
- **Feasibility.** On a scale of 1–10, with 1 (*least feasible*) and 10 (*most feasible*), how feasible might it be to address this issue? Can you imagine multiple different strategies that could be tested (perhaps on a small scale) in a relatively short period of time (e.g., one semester)? Would tackling this issue likely necessitate changes that may be extremely costly, time-consuming, politically challenging, or otherwise difficult to implement?

Step 4

Draft a problem statement that reflects the group's thinking regarding the biggest area of difficulty. This can be a problem statement shared by a group member, a combination of two or three statements shared by group members, or a completely new statement that reflects the group's thinking and discussion. A good problem statement is specific and relatively narrow. Write the problem statement in the following box.

Examples

Not so good. Teachers do not engage in standards-based planning.

- A bit broad—would need to define standards-based planning to really determine how to address this challenge; root-cause analysis might point in many different directions.

Better. Teachers are not consistently providing rigorous learning targets and performance scales.

- Gets at a specific aspect of planning, which could help focus the root-cause analysis and the development of a strategy.

HANDOUT 5. | Identifying Root Causes

Discuss the root causes behind the PoP. Brainstorm potential root causes—that is, the reasons for the problem. These root causes will become the specific challenges to address in this project.

Step 1

Using sticky notes, write an explanation for the PoP. Keep asking why until you seem to have really gotten to the root issue. Focus on system challenges, not symptoms.

Example Problem of Practice: The highest proportion of teachers with less than "Effective" ratings was in the questioning techniques element. We observe this finding for the following reasons:

- Teachers are not accustomed to asking open-ended questions.
- Curriculum or instructional materials do not identify opportunities for questioning.
- Teachers need more examples of how to implement questioning techniques.
- Teachers need more support on incorporating questioning techniques in their instruction.
- There are not enough observations to capture this element accurately.
- The rubric is not clear about what this should look like in practice, and, therefore, evaluators rate it inconsistently.
- Teachers worry that questioning will lead them off topic, thus resulting in not covering all necessary material.

Step 2

After you have listed all the potential root causes, group these causes into the "big ideas" categories. As you group them, you might discover that several root cause statements can be revised as two or three statements, resulting in a stronger and more complete statement that identifies the true root cause of the problem.

Categories:

- Measures and quality of information
  - There are not enough observations to capture this element accurately.
  - The rubric is not clear about what this should look like in practice, and, therefore, evaluators rate it inconsistently.
- Supports and use of data
  - Teachers are not accustomed to asking open-ended questions.
  - Curriculum or instructional materials do not identify opportunities for questioning.
  - Teachers need more examples of how to implement questioning techniques.

- Teachers need more support on incorporating questioning techniques in their instruction.
- Teacher trust and engagement.
- Teachers worry that questioning will lead them off topic, thus resulting in not covering all necessary material.

Step 3

As a group, select one root cause to focus on. We suggest rating the root causes to help come to a consensus, but this also can just be discussed using the following rating criteria:

- **Importance.** On a scale of 1–10, with 1 (*least important*) and 10 (*most important*), how important is this issue? How much would it matter if we successfully addressed it? Would it be meaningful improvement to the PoP?
- **Perception/Buy-in.** On a scale of 1–10, with 1 (*weakest perception*) and 10 (*strongest perception*), how strongly do others perceive this to be an issue? To what extent will others in the district believe in or support this as a real cause of the PoP?
- **Feasibility.** On a scale of 1–10, with 1 (*least feasible*) and 10 (*most feasible*), how feasible might it be to address this issue? Can you imagine multiple different strategies that could be tested (perhaps on a small scale) in a relatively short period of time (e.g., one semester)? Would tackling this issue likely necessitate changes that may be extremely costly, time-consuming, politically challenging, or otherwise difficult to implement?

HANDOUT 6. | Determine a Strategy and Develop a Theory of Action

Step 1

Using a chart similar to the one on the next page, brainstorm a list of possible strategies to address the driver/root cause that your group has identified. These are your change ideas. Strategies may include approaches or methods that you are already using or new ways to enhance existing strategies.

Step 2

Discuss each strategy using the following rating criteria. The row at the top of the table provides an example. We suggest rating them to help come to a consensus, but this also can just be discussed. Use additional sheets as needed.

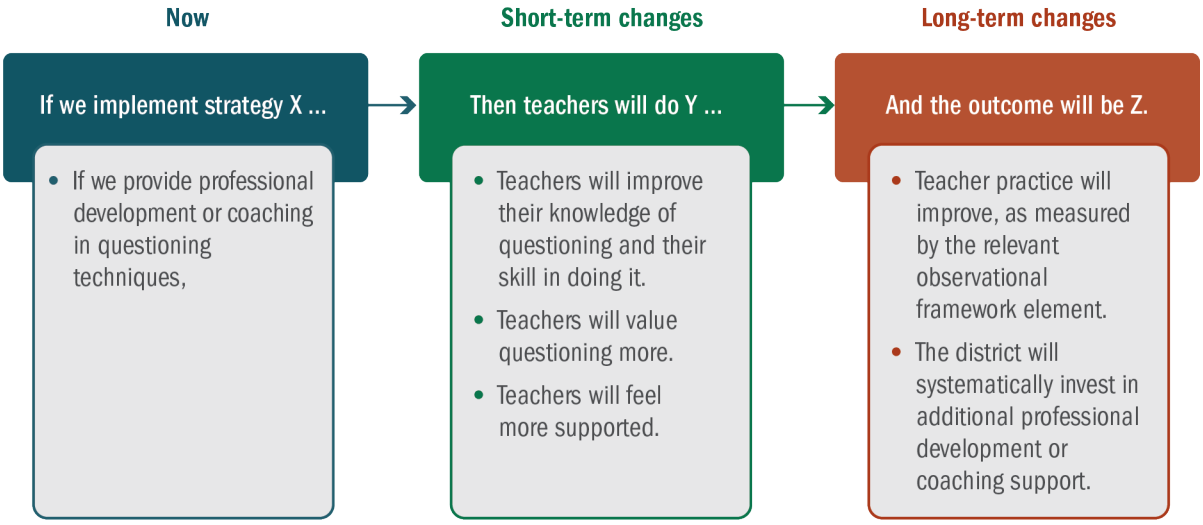
- **Likelihood for Success.** On a scale of 1–10, with 1 (*least likelihood*) and 10 (*greatest likelihood*), how likely do you think this strategy will have a positive impact on the identified problem? If implemented well, do you think this strategy can lead to either widespread or significant improvements in teacher practice or student learning? To what extent is it connected to other issues that affect teacher practice?
- **Feasibility.** On a scale of 1–10, with 1 (*least feasible*) and 10 (*most feasible*), how feasible is it to carry out this strategy? Does this strategy necessitate significant financial, human, or other resources that may not be available? Is it likely to be politically challenging or otherwise difficult to implement?
- **Scalability.** On a scale of 1–10, with 1 (*least scalable*) and 10 (*most scalable*), how easy might it be to expand this strategy (if successful) to additional teachers or schools?

Example

Selected root cause	Strategy	Likelihood for success	Feasibility	Scalability	Total
Example 1. Teachers are not accustomed to asking open-ended questions.	Example 1. Professional development or coaching in questioning techniques.	7	8	7	22
	Example 2. Develop materials or extensions to existing materials to build in open-ended questions that teachers can integrate into instruction.	3	7	7	17

Step 3

Explain your strategy as a theory of action. How will this strategy/change idea work? Use a simple graphic similar to the following to help think about how this strategy will lead to the overall goal of an evaluation system that supports teacher practice.



This diagram depicts your team's working theory of action for the strategy. Using the diagram, discuss the following questions to decide whether changes are required:

1. Why are we prioritizing this strategy? Does it respond to the problem that we identified?
2. What, specifically, are we asking all the actors involved in this theory of action to do or do differently?
3. What makes us think that if we implement the strategy proposed, it will ultimately improve teacher practice and student learning? How will the strategy work to achieve the outcomes we expect to see?

HANDOUT 7. | Create a Plan for Implementation

Fidelity of implementation for the strategy your district decides to pursue for this project will be extremely important to its success. To understand and measure the extent to which the thoughtful and innovative strategies your team implements are actually having an impact on intended outcomes, the strategies need to be implemented on time, with care, and according to the plans your team outlines at the start of the project.

This tool provides district teams with a template that they can use to outline plans for implementation, including who will carry out which aspects of the strategy, where and when the strategy will be carried out, what supports or resources will be needed, and what implementation challenges are anticipated. The tool also provides a set of important discussion questions regarding implementation that district teams should review and discuss together before completing the implementation plan template.

Implementation Discussion Questions

Before your team begins the action-planning phase for how to implement the project strategies, consider the following discussion questions as a team:

1. Is there an existing strategic plan that includes a timeline and process for revisions in this area? If so, how can it be used or leveraged for this initiative?
2. What policies, programs, or processes in this area have been modified recently? If so, what implications do these have for this work? Do we expect any district- or state-level changes in this area while we are trying to implement these strategies?
3. Will implementing these strategies impact or conflict with any other school or district priorities?
4. If we see positive change from implementing these strategies, are we willing to have a conversation about how to take the work “to scale”?
5. What partnerships can we leverage or make to implement these strategies?

Implementation Plan Template

Take a few minutes to review the example as a reference. Then use the table that follows to consider the important action steps necessary for implementing the project strategies.

Example

Implementation plan questions	Description
Example Strategy: *Our identified PoP is that teachers need more supports to successfully implement the aspects of the instructional practices framework that deal with deepening student content knowledge and skill. The strategy we will test during this cycle of inquiry is an in-depth unit- and lesson-planning process in which teachers, coaches, and district staff will work together to develop specific lesson plans and strategies to be used during the second semester, if possible. Because our district's focus is on literacy and we are especially concerned about our middle schools, we will focus our strategy on those schools and grades.*	
Where and with whom will this strategy be implemented? Be specific.	*Example: We will try this strategy for reading instruction in Red, Blue, and Green middle schools with all Grades 6–8 teachers in those schools.*
Who will be the primary person responsible for implementing this strategy? Who will be the primary person held accountable for implementing this strategy?	*Example: Mary Smith, an instructional coach, will take the lead on implementing this strategy. She will be accountable to John Jones, the project coordinator for the district.*
Which team members will be supporting the implementation of this strategy, including supporting the primary person responsible for implementation?	*Example: Jenny Davis at the district curriculum office will work with Mary to help develop the plans, and the three principals of the schools will support their teachers' participation with some release time.*
Who needs to be consulted about the implementation of this strategy along the way? Who else needs to be informed?	*Example: Principals should probably tell other teachers in the school who do not teach literacy that some teachers are participating in a special project.*
What are the key action steps for implementing this strategy (identify up to five)?	*Example:* *Step 1. Mary Smith will organize an initial meeting of relevant teachers and staff after school next week. The goal of the meeting will be to decide on five units to be developed, create a template for them, create a rubric to assess their quality/ability to incorporate desired elements, and develop a plan for pairs or groups of teachers to create unit lessons.* *Step 2. Complete drafts of five lessons.* *Step 3. Meet to review the drafts using rubric.* *Step 4. Revise and finalize the five lessons.*
What is the proposed timeline for implementing these action steps?	*Example:* *Step 1. Initial meeting—next week.* *Step 2. Complete drafts of five units—by October 31.* *Step 3. Meet to review the drafts using rubric—by November 15.* *Step 4. Revise and finalize five lessons—by December 5.*
Describe an early win for the implementation of this strategy.	*Example: Agreement on rubric for quality.*

Implementation plan questions	Description
What do you expect will be one or two challenges to the implementation of this strategy? How will your team address these challenges?	*Example: People not completing work on time or not attending meetings. We will confirm attendance and set up milestones to check on progress.*
What supports or resources are essential for implementing this strategy?	*Example: Teachers will need 20 hours to do this work outside regular time (stipend funds needed).*

Implementation plan questions	Description
Strategy:	
Where and with whom will this strategy be implemented? Be specific.	
Who will be the primary person responsible for implementing this strategy? Who will be the primary person held accountable for implementing this strategy?	
Which team members will be supporting the implementation of this strategy, including supporting the primary person responsible for implementation?	

* This example is derived from Bryk et al. (2015).

Implementation plan questions	Description
Who needs to be consulted about the implementation of this strategy along the way? Who else needs to be informed?	
What are the key action steps for implementing this strategy (identify up to five)?	
What is the proposed timeline for implementing these action steps?	
Describe an early win for the implementation of this strategy.	
What do you expect will be one or two challenges to the implementation of this strategy? How will your team address these challenges?	
What supports or resources are essential for implementing this strategy?	

HANDOUT 8. | Measures and Predictions

Practical Measurement Overview

You cannot improve what you cannot measure. Continuous improvement research involves iterative cycles of improvement that focus on a specific PoP. A key element of these cycles is practical measurement, which enables participants to track implementation and measure improvement.

What are the elements of a good practical measure?

- Tracks improvement on the desired outcome.
- Tracks improvement on the drivers or mechanisms of the desired outcome.
- Provides guidance for subsequent improvement efforts, so we know how to proceed.
- Is easy to implement.

Example*

In 2010, the Carnegie Foundation for the Advancement of Teaching, in partnership with community colleges, established the Community College Pathways Networked Improvement Community. Participants aimed to improve community college completion rates and homed in on developmental mathematics education as a primary barrier to completion.

Participants set the following aim: to increase from 5% to 50% the number of students who achieve college mathematics credit within 1 year. They hypothesized that providing students with the necessary support to put forth effort in the face of challenges would lead to attaining developmental mathematics credit. They further hypothesized that a focus on "starting strong" could help students attain the skills they need to effectively navigate the challenges. They developed an intervention that provided a package of supports.

To track progress toward their aim, they developed an outcome measure: the percentage of students assigned to developmental mathematics courses who enroll in the program and pass both semesters. They also developed a primary driver measure to provide formative feedback toward achieving that aim: changes in students' attitudes toward mathematics after 3 weeks. They administered a short survey to students that assessed their interest in mathematics, their growth mind-set about mathematics, their anxiety about mathematics, and their sense of belonging.

Each team will develop a plan to monitor progress based on its particular strategies. Use the following template to develop this plan and the associated measures. A sample is provided for reference.

* This example is derived from Bryk et al. (2015).

Example strategy: *The strategy we will test during this cycle of inquiry is an in-depth unit- and lesson-planning process in which teachers, coaches, and district staff will work together to develop specific lesson plans and strategies to be used during the second semester, if possible. Because our district's focus is on literacy and we are especially concerned about our middle schools, we will focus our strategy on those schools and grades.*

Expected outcomes	Measures and data collection	Prediction
Create five new high-quality unit plans.	*Count the number of new unit plans created and rubric scores, which will be measured by reviewing documentation.*	*The team will produce five unit plans as planned.*
Increase participants' knowledge, skill, and value of questioning techniques.	*Ask participants to complete a short survey that self-rates their knowledge, skill, and perception of the value of questioning, which will be administered during the initial meeting and at the end of the process.*	*All participants will report increases in their knowledge of questioning techniques.*

Strategy:

Expected outcomes	Measures and data collection	Prediction

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