

THE LEARNING PROFESSIONAL

THE LEARNING FORWARD JOURNAL

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A photograph of a female teacher with dark hair, wearing a light blue button-down shirt, leaning over a group of four diverse students. The students, two girls and two boys, are also looking at a globe. They are in a library setting with bookshelves filled with books in the background. The scene is brightly lit and conveys a sense of collaborative learning.

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"The quest for racial awareness and antiracist teaching should propel us to push back on negative stereotypes, correct distortions, and remedy omissions in our behavior and curriculum that stem from racism."

— Jon Saphier p. 28



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HERE WE GO Tracy Crow

With gratitude for expert guidance through complex research

In this issue of *The Learning Professional*, we're publishing the final Research Review column by Joellen Killion. Killion established the column three years ago as a way to bring to practitioners' attention recent relevant research studies.

While the clarity she brought to complex and critical studies was always useful to deepen our understanding of the evidence base in our field, even more important were the implications she identified from each study. What a gift to have a sage facilitate our ability to make meaning from new information.

I appreciated particularly reading research insights through the lens of the Standards for Professional Learning, which strengthened readers' understanding not only of the research studies in question but the standards as well.

I am grateful for the many columns Killion created for our publication and its readers. At Learning Forward's recent Annual Conference in Orlando, I heard from a number of readers about how much they value her contributions in this space.

Fear not, the magazine will still highlight new studies. Elizabeth Foster, associate director of standards, research, and strategy, will take over the Research Review column in our next issue. Foster's significant expertise in education research

will ensure that readers continue to have exposure to essential new studies. Foster's perspective will help us all apply new learning and continue to prioritize an evidence-oriented approach to professional learning.

The need to understand what works in professional learning (and what doesn't) continues to grow. As we publish this, the Title IIA funding battle continues, in part because policymakers

and stakeholders don't all understand what professional learning contributes to schools and districts.

The challenge to understand professional learning's impact is one that Killion has addressed not only through her research column. In fact, Corwin Press just released the third

edition of her seminal *Assessing Impact: Evaluating Professional Learning*, a practical guide to evaluating professional learning programs. (Learning Forward members with a Book Club membership or comprehensive membership will receive the new book shortly.)

One of my biggest takeaways from Killion's insights is one that may seem counterintuitive: It doesn't take an expert in research to prioritize and document the impact of professional learning. Killion and others have helped me understand a few impact basics:

1. Professional learning without a clear purpose is unlikely to result

in changes or improvements, or, put more simply, educators who have an outcome in mind are more likely to achieve it.

2. When educators start with an outcome in mind, they can then form a map for how to get there, whether through a hypothesis or theory of action or step-by-step plan, all useful tools.
3. It isn't enough to monitor progress and formally document impact. Educators also have a responsibility to talk about what works and what doesn't work and to do so with a range of audiences, from their peers and leaders to their communities and policymakers.

That last point is particularly important to me — and a driver behind this publication and many of Learning Forward's communication efforts. All educators have a story to tell, and until they become proficient at doing so, they aren't reaching others who might help them overcome challenges, secure resources, collectively create solutions, or advocate on behalf of themselves and their students.

I look forward to new ways that Killion will contribute to this publication, and I invite you to consider how you'll share your impact. What story will you tell?

•
Tracy Crow (tracy.crow@learningforward.org) is director of communications at Learning Forward. ■



Joellen Killion

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VOICES

OUR TAKE p. **9**

FUNDING SOCIAL AND EMOTIONAL LEARNING PROGRAMS UNDER ESSA

A new report by RAND and The Wallace Foundation, *Social and Emotional Learning Interventions Under the Every Student Succeeds Act: Evidence Review*, guides educators and leaders in selecting and funding social and emotional learning programs under the new federal ESSA legislation. While there

are no specific mentions of social and emotional learning in ESSA, states, districts, and schools still want their programs to be supported under the ESSA legislation evidence requirements. The report addresses this need. The report found that:

- 1.** ESSA supports social and emotional through several different funding streams.
- 2.** Numerous social and emotional learning

interventions meet the ESSA evidence requirements.

- 3.** Educators in elementary schools and urban communities have the most options for social and emotional learning interventions that meet ESSA requirements.
- 4.** Interpersonal competencies are the most common outcomes positively affected in studies of evidence-based interventions.



CALL TO ACTION

Stephanie Hirsh

Let's make the most of teachers' time together

Research has shown that effective collaboration results in higher levels of learning and performance by educators and students. Yet we also know that merely setting aside time and room for teams to work together does not guarantee these benefits.

So what are the essential elements of effective collaboration? Many of the answers lie in the culture of the organization responsible for supporting collective learning. Here are five things I have seen consistently in cultures that support effective collaboration.

1. Clarity of purpose. Leaders support collaboration because they believe it is a key component of the vision for the school and/or school system. In many cases, that vision emphasizes a commitment to great teaching and learning for every student. As a result, these leaders are invested in collaborative professionalism to ensure learning for all adults and children. When leaders commit to authentic collaboration, they can promise all parents that the teacher responsible for their child is just one of many who are committed to the success of their children.

2. Norms of collaboration. Norms describe the rules that a group is committed to following to ensure a respectful and productive working environment. Norms of school teams typically will address respect for the schedule (starting and ending on time); the speaker (respectful listening; no

interrupting); and the agenda (limited birdwalking and hijacking). Other norms may address roles and responsibilities of leaders as well as confidentiality, respect, and trust.

3. Resource allocation. Teams need adequate time to accomplish the tasks they undertake and comfortable, safe spaces in which to do them. They need to trust that they will be able to get additional help if they require external expertise or other resources. Not having to worry about fighting for resources enables teams to focus on what is most important to them.

4. Facilitation and support. Skillful facilitation can accelerate progress within teams. Knowledgeable facilitators and team members ensure that members engage in work that will lead to desired outcomes. Such facilitation ensures that teams have the data and evidence required to inform their decisions, the designs essential to guide their learning, and the support required to implement changes in practice.

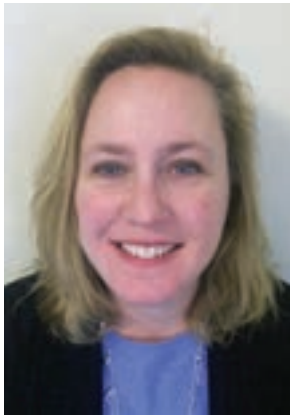
5. Accountability for results. A commitment to better outcomes is a foundation for collaboration. In education, when few decisions have exact answers, having multiple perspectives and areas of expertise contributes to the best decisions and best outcomes. Teachers are advocates for collaboration because, no matter what accountability system guides their states and school systems, they are accountable to their students and their families.



To what degree do you see these elements represented in your teams, PLCs, school leadership councils, or task forces? If your groups are floundering, are any of these elements missing? If they are successful, which are most present and what else have you seen contributing to their impact?

If you are familiar with Learning Forward's Standards for Professional Learning, I challenge you to find all seven standards represented in the five elements, once again highlighting that better outcomes for students and staff require attention to standards-based professional learning.

Stephanie Hirsh (stephanie.hirsh@learningforward.org) is executive director of Learning Forward. ■



OUR TAKE

Elizabeth Foster

As social and emotional learning takes center stage, professional learning plays an important supporting role

Learning Forward is exploring ways to deepen our collective understanding about social and emotional learning and, in particular, its implications for professional learning. How can educators best be supported to assess and promote the development of students' social and emotional skills?

To that end, Learning Forward has joined with The Wallace Foundation as a dissemination partner to increase awareness of and share resources about the research, strategies, and professional learning supports related to social and emotional learning.

We will explore a variety of resources in future issues of *The Learning Professional* to help members and colleagues understand social and emotional learning, starting with a new Wallace Foundation-commissioned report about a critical first step: how to meet federal evidence and funding requirements.

Simply put, social and emotional learning is “the process through which children and adults acquire and effectively apply the knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions” (Collaborative for Academic, Social, and Emotional Learning, 2017).

Education systems across the country are integrating social and

emotional learning into their work, from state and district strategic plans to classroom instruction, because students' social and emotional learning supports and facilitates their mastery of academic content and prepares them with life skills that will lead to future successes.

There is strong evidence that social and emotional learning can contribute positively to the academic success of students and their ability to navigate challenges and develop supportive networks, leading to improved school culture and relationships (Durlak et al., 2011). To continue this momentum, it is important to understand how to support and fund social and emotional learning programs.

A new report by RAND and The Wallace Foundation, *Social and Emotional Learning Interventions Under the Every Student Succeeds Act: Evidence Review* (Grant et al., 2017), guides educators and leaders in selecting and funding social and emotional learning programs under the new federal ESSA legislation. While there are no specific mentions of social and emotional learning in ESSA, states, districts, and schools still want their programs to be supported under the ESSA legislation evidence requirements. The report addresses this need.

The report found that:

1. ESSA supports social and emotional learning through several different funding streams.
2. Numerous social and emotional

learning interventions meet the ESSA evidence requirements.

3. Educators in elementary schools and urban communities have the most options for social and emotional learning interventions that meet ESSA requirements.
4. Interpersonal competencies are the most common outcomes positively affected in studies of evidence-based interventions.

The RAND research team found that 60 recently evaluated social and emotional learning interventions in K-12 public schools in the U.S. meet ESSA evidence requirements, suggesting there is a range of options for meeting your school or district needs with programs that meet the evidence requirements.

One recommendation that speaks to professional learning efforts is to take advantage of flexibility regarding programs that have a strong rationale and an ongoing evaluation if local needs cannot be met by interventions with stronger evidence.

The report also offers recommendations on how to leverage existing funding streams to support social and emotional learning programs and, in alignment with Learning Forward's recent ESSA advocacy work, calls for a consistent focus on measuring impact.

Of particular interest to Learning Forward members and colleagues is how this guidance relates to professional



For more about the Wallace Foundation social and emotional learning efforts, visit www.wallacefoundation.org/knowledge-center/social-and-emotional-learning/pages/default.aspx.

learning supports. The researchers found that many social and emotional learning programs that have a positive impact on students' interpersonal and intrapersonal skills (such as communication and collaboration) have a professional learning component.

The report recommends that states, districts, and schools “provide professional development and other supports to build educators’ capacity to gather and use evidence” and notes that an appropriate use of Title II funds is professional development for teachers and school leaders, including for social and emotional learning instruction and integration of social and emotional learning into academic instruction (Grant et al., 2017, p. 23).

The Wallace Foundation and RAND have published both a full report and a concise, easily accessible brief with recommendations for educators and policymakers. The full report includes tools to support a rationale for program selection and

funding, such as a sample logic model illustrating short- and long-term outcomes of social and emotional learning programs.

The report also references reports that have reviewed and summarized relevant literature and resources that can be used in support of social and emotional learning-related professional learning, coaching, and capacity building through professional learning communities.

Other reports commissioned by The Wallace Foundation are also excellent resources. For instance, *Navigating SEL From the Inside Out* by Stephanie Jones (a Learning Forward conference presenter) is a practical guidebook for school and out-of-school providers.

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ASK

Frederick Brown

What can principals do to foster collaborative learning among teachers?

Q As we look to encourage the habitual use of effective collaborative learning practices, what is the role of school leaders in creating cultures that nurture collaborative learning among teachers in their buildings? We understand that the principal is critical to implementing schoolwide shifts in how people learn and how they think about learning.

I agree completely that what the principal says and does will have great influence on whether, and how well, teachers collaborate in her or his school. There are several actions and elements for principals to prioritize if the goal is to create and support a culture for effective collaborative learning in schools.

Deeply understand and share the rationale for collaborative learning.

Principals will be in the best position to support and sustain collaborative learning cultures when they believe such learning is an effective pathway to success for all students in their schools. Learning Forward shares the research and rationale for collaborative learning through many of our resources, most notably the Standards for Professional Learning (Learning Forward, 2011) and also in our other books and this journal. Principals can educate themselves through these and other resources and may already have access to such information through learning within their districts.

Ideally, a vision for effective teaching and learning that includes collaborative professional learning is established at the district level, which means not only that the principal committed to a collaborative culture is

In each issue, we ask a learning professional to answer your professional learning questions. This month's response comes from Frederick Brown (frederick.brown@learningforward.org), Learning Forward deputy executive director.

aligned with district priorities, but also that he or she has access to support in these efforts.

The principal has the responsibility to make this vision clear and accessible to the rest of the school and may want to consider how much rationale and which resources will best support teachers in beginning, improving, or sustaining their work as collaborative learners.

Model what it means to be a collaborative learner.

School leaders demonstrate their expectation that collaborative learning will be the norm in their school when they themselves participate as learners in collaborative settings.

This may take many forms. They may participate as members of a learning team with other school and system leaders who meet to address their particular problems of practice.

When appropriate, the principal may also participate as a learner on teams within the school building. Such teams might include an instructional leadership team, where members represent different roles in the building and address schoolwide teaching and learning concerns.

Principals might also occasionally participate in teacher teams that meet around particular content area concerns, either to support the team in a facilitator or content expertise role or to monitor how to best support the team in other ways.

Principals' frequent and obvious participation in such learning teams highlights their authentic belief that collaboration among educators is important.

Create space and provide resources for collaboration.

Principals typically have the responsibility to establish the school's schedule, perhaps in collaboration or consultation with a school leadership team. The allocation of time to a task is the most visible demonstration of priorities that principals make. When teachers have time set aside explicitly for team learning, they understand its importance to principals.

Yet time alone is not enough to



support a team's learning. Teacher teams also need support in the form of knowledge, skills, and practices to effectively collaborate — they need to know how to do it. Principals can fulfill this need by ensuring teachers have opportunities to build their collaboration skill sets, whether through district-led opportunities, formal courses or webinars, or other learning resources. By the way, principals themselves need these skill sets and demonstrate their commitment to collaboration when they become more expert collaborators using similar learning opportunities.

Often teachers will need additional facilitation expertise on their teams to collaborate effectively, and principals may need to enlist facilitators from the district level or assign school-based coaches to facilitate teacher learning so teacher teams are positioned to achieve their intended results.

Principals continue to strengthen the notion that collaboration is the norm when they regularly amplify

learning teams by asking teams to share their work with their fellow teachers. They won't be doing this to evaluate the team's work but rather to confirm collaboration's importance in how the school operates.

The Professional Standards for Educational Leaders (National Policy Board for Educational Administration, 2015) include Standard 7: Professional Community for Teachers and Staff, which states: "Effective educational leaders foster a professional community of teachers and other professional staff to promote each student's academic success and well-being." I'd urge educators to read the complete standard for additional ideas.

For the past five years, I have worked with Fort Wayne Community Schools in Indiana, and that experience has helped me see that, in a true learning system, leaders at all levels put learning first. What that looks like on the ground is leaders committed to their own improvement,

superintendents making sure that their central office leaders engage in learning and provide learning for principals, and principals taking responsibility for both their learning and the teacher learning in schools.

This learning is visible, its results are celebrated, and learning is not optional. That's how cultures shift, and everyone employed by that system knows that collaboration is the way work is done every day.

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Examine. Study. Understand.

RESEARCH

WHAT TEACHERS UNDERSTAND ABOUT STUDENT THINKING

"This study takes on the task of changing how teachers think about their students as learners and the cognitive behaviors that lead to student learning. It emphasized that learning is more than a body of knowledge and a set of skills. It defines the outcome for professional learning in terms that are deeper and often difficult to measure and yet significant for those involved in professional learning."

Study examines professional learning's potential to change how teachers think about student learning

p. **14**



RESEARCH REVIEW

Joellen Killion

Study examines professional learning's potential to change how teachers think about student learning

► AT A GLANCE

Professional development on learning trajectories in mathematics has potential for transforming how teachers talk about their students as learners.

► THE STUDY

Wilson, P., Sztajn, P., Edgington, C., Webb, J., & Myers, M. (2017). Changes in teachers' discourse about students in a professional development on learning trajectories. *American Educational Research Journal*, 54(3), 568-604.

•
Joellen Killion (joellen.killion@learningforward.org) is senior advisor to Learning Forward. In each issue of *The Learning Professional*, Killion explores a recent research study to help practitioners understand the impact of particular professional learning practices on student outcomes.

► WHAT THE STUDY SAYS

Teacher discourse patterns about students' learning in mathematics reflect teachers' beliefs and expectations about student learning. These beliefs have the capacity to limit or enhance a teacher's instructional agency. This study focused on professional development as a vehicle for changing teacher thinking and examines discourse patterns as a viable indicator of how teachers think about student learning changes over time. How teachers think about students as learners affects teachers' expectations of and their interactions with students. This study demonstrates that professional development has some potential to transform teacher discourse patterns.

STUDY DESCRIPTION

Researchers examined how teachers' discourse patterns as measured by speech acts and storylines changed over a yearlong, 60-hour professional development program. The study demonstrates that some storylines about students as learners of mathematics can be transformed or altered through professional development, while other positions are harder to change and may require more deliberate, direct actions guided by defined norms for how to talk about students as learners.

While some teacher storylines changed over time, the study's findings suggest that teachers add new

understanding of how students learn mathematics to what they already understand rather than completely transforming their understanding.

QUESTIONS

Researchers sought to examine changes as a result of professional development in teacher discourse about students as learners. They posed two questions to guide the research study:

1. "Did teachers' public actions about students as mathematics learners change during the yearlong professional development on one learning trajectory?"
2. "If there were changes in teachers' speech actions, in what ways, and to what extent, did these changes also result in changes to existing positioning triads in the public, collective space of the professional development?" (p. 579)

METHODOLOGY

The researchers applied an explanatory sequential mixed methods design to answer the research questions. Using two theoretical frameworks, Vygotsky Space and Positioning Theory, both based on Vygotsky's theory of learning, they applied a method to analyze teacher discourse in professional development that extends beyond attendance and participation.

Their analysis of teacher discourse integrates both the words spoken as



► WHAT THIS MEANS FOR PRACTITIONERS

Researchers used best practices in professional learning as defined by Learning Forward's study *Professional Learning in the Learning Profession: A Status Report on Teacher Development in the United States and Abroad* (Darling-Hammond, Wei, Andree, Richardson, & Orphanos, 2009) to design the professional learning program. They emphasized collective learning, sustained over time, focused on content and content-specific pedagogy, and active participation, all attributes embedded in Learning Forward's Standards for Professional Learning (Learning Forward, 2011).

This study sheds light on two standards particularly well. The first is the **Outcomes** standard. Changing beliefs is a challenging professional learning outcome, yet one that impacts educator behaviors and potentially student opportunity to learn.

This study takes on the task of changing how teachers think about their students as learners and the cognitive behaviors that lead to student learning. It emphasized that learning is more than a body of knowledge and a set of skills. It defines the outcome for professional learning in terms that are deeper and often difficult to measure and yet significant for those involved in professional learning.

The second standard this study illuminates is the **Data** standard. It provides a way to measure change in teacher learning within the context of discourse such as what occurs in collaborative learning teams, professional learning communities, or other collective learning experiences. Examining speech actions, acts, storylines, and position triads as insights into changes in teacher thinking offers new possibilities for those interested in either summative or formative evaluation of the effectiveness of professional learning.

As researchers note, changing how teachers understand student thinking and how they learn mathematics unleashes potential for how they consider their own efficacy to teach mathematics and how their instructional actions will influence students' learning.

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well as the meaning behind the words to characterize an individual teacher's storyline, an explanation for how students learn. The analysis yields a measure of change in teacher thinking, and thus a measure of teacher learning.

Researchers engaged 22 elementary teachers from a single suburban school district in the Southeast. The school serves 600 diverse students. Teachers participated in a professional development course that included a 30-hour summer extended learning experience, monthly meetings, and a follow-up summer session in which teachers engaged in analyzing videos of classroom instruction, student clinical interviews, and student work samples on the equipartitioning learning trajectory.

Equipartitioning is the set of cognitive behaviors through which students learn to construct equal-sized parts or groups. Learning trajectories explain the progression in student thinking that occurs as students are learning about fundamental mathematical concepts and principles.

Drawn from the Learning Trajectory Based Instruction project, equipartitioning is one of the fundamental mathematics learning trajectories. During the yearlong program, teachers focused on 12 tasks to examine student learning and to construct their understanding of how students learn equipartitioning.

ANALYSIS

Researchers recorded each professional development session. In Phase 1 of the research, they quantitatively analyzed teachers' speech actions to determine if changes occurred over time. A speech action is what is spoken in the public domain within professional development discussion.

A speech action becomes a speech act when it is taken up by others



Researchers examined 322 speech actions that led to collective discourse, studied the discourse segments that followed the speech actions, and hypothesized what storylines emerged as principles of conventions in the discourse.

in a conversation and subsequently influences others' speech acts. From speech acts, shared narratives and storylines evolve.

Researchers hypothesize that when teachers engage in discourse with one another, they bring their individual narratives and positions into the public discussion. Changes in teachers' discursive patterns in public environments is a representation of their learning.

Data analysis for Phase 1 focused on 21 professional development learning tasks designed to engage teachers in discussion about students as learners of mathematics. They narrowed the study to 55 transcripts and 41 videos of teacher discussions and used multiple coders and checks for interrater reliability to analyze the discussions.

Coding focused on categories of speech actions — those that occurred in the public discussions — that explained students as learners of mathematics. The categories included fixed or innate ability, student age/grade level, luck, and amount of effort. The coded speech actions were then mapped to the sequence of the professional development to depict how speech actions changed over time.

Researchers hypothesized that speech actions that incorporated the learning trajectory would increase over time as the professional development unfolded and those without the learning trajectory would decrease over time.

In Phase 2, researchers engaged in extended qualitative analysis of teacher discourse in the public, collective environment of professional development. They examined 322 speech actions that led to collective discourse, studied the discourse segments that followed the speech actions, and hypothesized what storylines emerged as principles of conventions in the discourse. Researchers used constant comparison to summarize the storylines.

Researchers offer several examples. For instance, if a teacher says, "I didn't expect a 3rd grader to know that," the storyline might be that student ability in mathematics depends on age or grade level. The teacher position is that, from experience, a teacher knows what to expect of students at a certain age or grade level.

Student position is that their performance meets teachers' expectations based on their age or

grade. Researchers hypothesized that professional development would alter teachers' storylines from the ones they commonly hold about students as learners of mathematics to ones grounded in the learning trajectory they were studying.

RESULTS

Teachers' adherence to the four storylines of ability, age/grade, effort, and luck persisted through the year. There was a moderate statistically significant relationship between speech acts related to age/grade and ability and time.

Teachers continued to use speech actions related to age/grade, ability, effort, and luck throughout the year, although the speech acts coded as age/grade and ability changed to include more language and meaning of the learning trajectory as teachers engaged in more professional learning.

Phase 2 analyses of specific discussion episodes with age/grade and ability storylines provide further insight into the changes occurring in age/grade and ability speech acts as teachers engaged in more professional development. For example, age/grade speech acts began to include acknowledgement of students' prior experiences and opportunity to learn. Over time, teachers began to use a storyline that identified student age/grade as well as the influence of prior experiences, opportunities to learn, and other influences on students as learners of mathematics.

Changes in ability storylines over time shifted from characterizing students' ability as a fixed entity, that is, "She is a math genius" or "He is below level" to one that continued to incorporate the characterizations of who the student is as well as the language of the learning trajectory.

Unlike the changes described in the age/grade storylines, the meaning

Over time, teachers began to use a storyline that identified student age/grade as well as the influence of prior experiences, opportunities to learn, and other influences on students as learners of mathematics.



of the ability storylines did not change. While teachers included language of the learning trajectory into their public speech acts, they did not incorporate the meaning of the learning trajectory and continued to use the storyline that students as learners of mathematics were products of the teacher's perception of the students' fixed ability. Researchers note that the ability storyline is altered, yet not transformed.

A third finding emerged from the results of the Phase 1 and 2 analyses. It is that teachers may learn to use a learning trajectory for student thinking without reconceptualizing students as learners. This is evident in the changes that occurred in the ability storyline in Phase 2. Teachers integrated the learning trajectory into their speech acts, yet did not change how they viewed their students' ability to learn mathematics.

Researchers expected that leveraging professional development about learning trajectories to explain the cognitive behaviors or thinking students apply in learning mathematics would change teachers' discourse patterns about their students as learners of mathematics.

Further, by transforming teachers' storylines, researchers anticipate their instructional efficacy would change.

This study underscores the complexity of professional development required to produce changes in teachers' pre-existing storylines.

LIMITATIONS

Several limitations are noteworthy. The sample size is small and in a single school. While researchers have conducted parallel studies on the same constructs in other settings, the size and context of this study limit the implications for other subjects and contexts.

From the perspective of the design of the professional development, researchers identify changes they would integrate into future professional development, such as including more norms for how to talk about students as learners and more direct approaches.

From a technical aspect, discussions about the statistical analyses used in the Phase 1 analyses need further explication. Results of analyses are difficult to decipher because they lack sufficient explanation. Authors provide some examples of their coding scheme, speech acts, storylines, and positioning triads, yet more would enhance the explanation of each. ■

ESSENTIALS

■ REDEFINED LEARNING

Lifelong Learners: How Redefining Professional Learning Leads to Stronger Teachers and Improved Student Outcomes

Educators for High Standards, 2017

In summer 2017, Educators for High Standards partnered with Learning Forward and Teach Plus to highlight and showcase educators leading high-quality, redefined professional learning



in their schools or districts. They talked with six educators from five states implementing innovative, redefined

professional learning to better understand how they are designing and implementing learning experiences and how it impacts students and educators.

What they learned was not only instructive — showing how teachers

crave high-quality, collaborative, teacher-led professional learning and are eager to implement new strategies in their classrooms — but also illustrated the importance of strong professional learning in the future of the teaching profession.

www.educatorsforhighstandards.org/professional-learning-redefined

■ KEYS TO SCHOOL

PERFORMANCE

School Leadership Counts

New Teacher Center, 2017

The data for this study come from the Teaching, Empowering, Leading, and Learning (TELL) Survey. Study results show that the degree of both instructional and teacher leadership in schools is strongly related to their performance.



Holding teachers to high instructional standards — a key

element of instructional leadership that is conceptually aligned with enhanced accountability — is more strongly related to higher achievement. Two areas of schoolwide decision-making — establishing student discipline procedures and teachers' role in school improvement planning — are the most strongly related to higher achievement. Yet in only a minority of schools do teachers have a large role in either of these two key areas.

Data analyses suggest that schools that promote both teacher accountability and teacher leadership authority have better performance.

<http://info.newteachercenter.org/school-leadership-report>

■ TEACHER SHORTAGE

Taking Action: Strategies for Building Teacher Pipelines

Council of Chief State School Officers, 2017

Many states face a teacher shortage, particularly in specific subject areas and geographic regions. The Council of Chief State School Officers developed this online guide to assist states in building teacher pipelines to recruit, prepare, and support teachers throughout their careers. It highlights six key actions states can take.

The need, and subsequent actions, were identified by CCSSO's board of directors in 2016, when a survey of state members showed this was the top issue that state chiefs and their senior leadership teams wanted to address.



For each action, the guide provides examples, information, tools, and resources.

<https://ccssoteacherpipeline.org>

■ EQUITY AND ESSA

Fall 2017 ESSA Educator Equity Best Practices Guide

National Council on Teacher Quality, 2017

The *Fall 2017 ESSA Educator Equity Best Practices Guide* highlights exemplary work to meet ESSA educator equity requirements among the 34 state plans NCTQ analyzed in fall 2017. The guide, which outlines best practices in four key areas, is designed to recognize and share strong work as well as to support all states in developing effective plans to ensure educator equity.



When considered alongside local context and need, the work described in the guide can be useful to states working to ensure that low-income and minority students are not taught at disproportionate rates by ineffective, out-of-field, or inexperienced teachers.

www.nctq.org/dmsStage/Educator_Equity_Best_Practices

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SHIFTING DIRECTION

The principals, along with district leadership, recognized that it was time to make a shift in the district's professional development initiatives. Our system of professional development had become burdened with trainings with dwindling attendance. It was evident there was an oversaturation of traditional sit-and-get offerings.

"We needed to reflect on the importance of adult learning and on how we provided it within our organization. We needed to see adult learning as an opportunity to grow and develop, rather than as one more tedious thing that was heaped on educators' plates.

"We explored research-based strategies that led us to meaningful, educator-involved professional learning. We learned that, when implemented with intention, the layers of support that the Standards for Professional Learning provide could sustain and reinforce our learning and shift our practice as educators."

METAMORPHOSIS

p. **38**

WHEN TEACHERS BELIEVE,



STUDENTS ACHIEVE

COLLABORATIVE INQUIRY
BUILDS TEACHER EFFICACY FOR
BETTER STUDENT OUTCOMES

BY JENNI DONOHOO AND STEVEN KATZ

When teachers share the belief that, together, they can positively influence student learning over and above other factors and make an educational difference in the lives of students, they actually do.

Collective efficacy refers to the shared perceptions of educators that, through their combined efforts, they can “organize and execute the courses of action required to have a positive effect on students” (Goddard, Hoy, & Hoy, 2004, p. 4). Tschannen-Moran and Barr (2004) expand on this definition, describing collective efficacy as the “collective self-perception that teachers in a given school make an educational difference to their students over and above the educational impact of their homes and communities” (p. 190).

In fact, collective efficacy is what matters most in improving student learning, topping Hattie’s (2016) list of factors that influence student achievement in schools.

Many school leaders are asking: How do we foster a sense of collective efficacy among teachers to realize better

outcomes for students? To answer that question, let’s look at why collective efficacy is important, how collaborative teacher inquiry can enhance collective efficacy, and how school leaders can support educators’ engagement in the process.

WHY COLLECTIVE EFFICACY MATTERS

The notion of collective efficacy is not new. In fact, the research base can be traced back more than two decades. Bandura (1993) was the first to generate interest in this area by demonstrating that the effect of perceived collective efficacy on student achievement was stronger than the link between socioeconomic status and student achievement. Consistent findings have been reported in more recent studies (Eells, 2011; Goddard, Goddard, Kim, & Miller, 2015; Ramos, Silva, Pontes, Fernandez, & Nina, 2014; Sandoval, Challoo, & Kupczynski, 2011).

Collective efficacy works because it influences student achievement indirectly through a constellation of productive patterns of behavior on the part of the adults in the

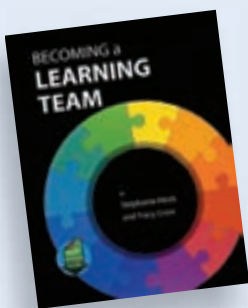
building. In schools where there is a shared sense of efficacy, teachers have more positive attitudes toward professional development (Rauf, Ali, Aluwi, & Noor, 2012); exhibit deeper implementation of evidence-based instructional strategies (Cantrell & Callaway, 2008; Parks, Solmon, & Lee, 2007); and have a stronger focus on academic pursuits (Hoy, Sweetland, & Smith, 2002). In addition, in schools where efficacy is present, students are less likely to be suspended or be removed from classrooms as a result of misbehavior (Gibbs & Powell, 2011).

Unfortunately, even though educators give their best every day, they don’t always believe they have the collective capability to change life courses for their students. Efficacy beliefs are powerful because they “directly affect the diligence and resolve with which groups choose to pursue their goals” (Goddard et al., 2004, p. 8).

The theory of action is such that teachers’ beliefs influence their actions toward students, which, in turn, influence students’ beliefs about their own abilities. Low expectations for success become barriers for



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both teachers and students because, regardless of their accuracy, they become self-fulfilling prophecies. Expectations influence efforts, and efforts influence achievement.

THE SHAPERS OF EFFICACY BELIEFS

It's encouraging to know that educators can adjust their beliefs about their ability to influence student outcomes. Four sources shape efficacy beliefs (Bandura, 1986; Goddard et al., 2004).

The most powerful of these is **mastery experiences**. When teams experience success (mastery), collective efficacy increases and teams come to expect that they can repeat effective performances.

The second most powerful source is **vicarious experiences**. When educators see others who are faced with similar opportunities and challenges perform well, they come to expect that they, too, can succeed under similar conditions.

The third source, **social persuasion**, involves individuals persuading one another that they constitute an effective team. And the fourth source of collective efficacy, **affective states**, includes feelings of excitement or anxiety associated with perceptions of capability or incompetence (Bandura, 1977).

Collective efficacy is also shaped by teachers' causal attributions of student outcomes to either external or internal factors. External attributions include influences from the home ("She would do much better if her parents were more involved in her education"); influences from the school ("The large class sizes prevent us from giving students the individual attention they need"); and influences from the student ("It doesn't appear that he studied for the test").

Internal attributions, from teachers' perspectives, include appraisals of their own ability and effort ("If we had provided additional time and



When professional learning creates the conditions for teachers to make links between their collective actions and student achievement, those efforts foster efficacy.

support, those students might not have slipped through the cracks"). When teachers attribute students' successes and failures to internal factors that are controllable — such as to instructional strategies, effective feedback, or systems of intervention — they come to believe that their actions can influence student achievement.

Georgiou, Christou, Stavrinides, and Panaoura (2002) noted that "attributions make a major contribution to the forming of expectancies that teachers hold for students' future academic success" (p. 584). Goddard, Hoy, and Hoy (2000) pointed out that the major influences on collective efficacy are "attributional analysis and interpretation of the four sources of information" (p. 486) — that is, mastery, vicarious experiences, social persuasion, and affective states.

HOW TO ENHANCE COLLECTIVE EFFICACY

Professional learning is integral to school improvement because classroom practice, an important predictor of student learning and achievement, is influenced by teacher learning. Put simply, students get better when teachers get better — and teachers get better when they come to think, know, understand, and practice differently in a demonstrable area of student learning need (Katz, Dack, & Malloy, 2017).

Effective professional learning taps into the sources of collective efficacy (mastery experiences, vicarious experiences, social persuasion, and affective states) (Donohoo, 2017). And when professional learning creates the conditions for teachers to make links between their collective actions and student achievement, those efforts foster efficacy.

Collaborative teacher inquiry is a promising practice that can positively influence educators' interpretations of their effectiveness and thus enhance collective efficacy (Donohoo & Velasco, 2016; Katz & Dack, 2013). It includes two components: collaboration (working together) and inquiry (examining teacher and student learning in search of deep understanding and evidence of impact).

It involves teachers working together to tackle challenges of professional practice by questioning what they already know and do in an area of demonstrated student learning need. And, most important, it requires that teams consider whether or not the evidence shows that their actions have had an effect on student learning.

THE PROCESS

Collaborative teacher inquiry begins with practitioners collectively developing an inquiry question, which involves identifying an evidence-based student learning need that is framed as

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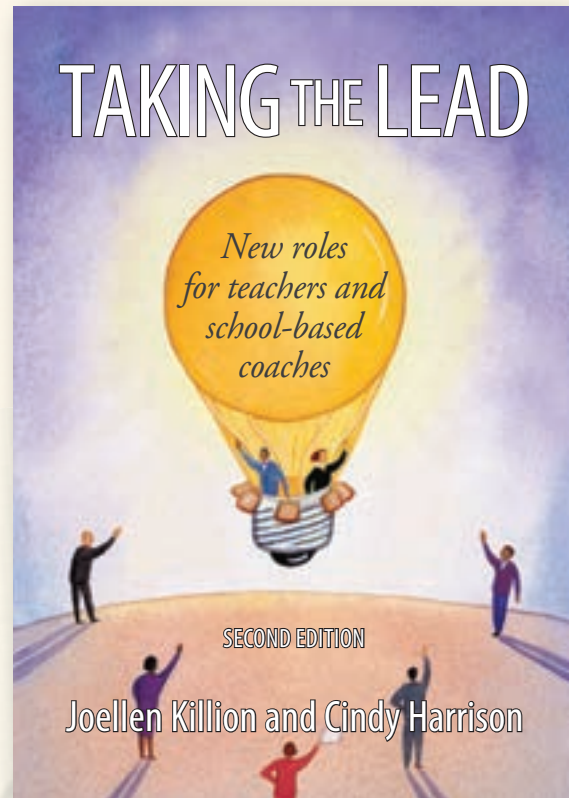
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outlines 10 practical and
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increase their capacity
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THE PROFESSIONAL LEARNING ASSOCIATION

a challenge of professional practice. For example, teachers might ask: How can we facilitate students' ability to make inferences?

From there, the team develops a working hypothesis. This often takes the form of a theory of action, which also articulates the team's plan for investigating the hypothesis. As they reflect on their inquiry question, teachers might conclude: If we draw on what we do as readers to make our instruction more explicit and if we listen to what students tell us about reading instruction, then students will understand how readers infer the significance of details and patterns in texts.

This process helps illustrate the causality between the teams' actions and expected student outcomes. Framing hypotheses as theories of action (if/then statements) compels educators to consider causes (instructional practices) that precede effects (student learning). They help to uncover relationships between teaching and learning as teams examine what they think will work against the realities of what is actually happening in their existing contexts.

As collaborative inquiry teams carry out their plans, they have opportunities to engage in vicarious experiences, such as classroom observations of effective teaching, as they work together to develop new knowledge and competencies and implement changes in practice.

They identify sources of student learning information that will help answer their inquiry question and collect evidence from the students about how their actions are affecting students' experiences at school. Concerning their inquiry question about inferences, teachers might look at records of students' drafts and their revisions of their initial understandings of texts or observe how students identify and hold on to details as they

move from confusion to clarity.

Feelings of empowerment (positive affective states) often result when teams realize success. Teachers consider next steps by identifying what they learned about the changes made to their practice and the resulting progress made by the students in their classrooms.

KEY FACTORS

Real new practitioner learning — thinking, knowing, and understanding differently than before — as well as an increased sense of collective efficacy can result from engaging in cycles of collaborative teacher inquiry. One way to enhance collective efficacy through collaborative teacher inquiry is through the analysis of attributions.

In their study, Gallimore, Ermeling, Saunders, and Goldenberg (2009) showed that teacher attributions shifted from external causes toward

specific, teacher-implemented instructional actions as explanations for achievement gains. Teachers moved from assumptions such as: "I planned and taught the lesson, but they didn't get it," to beliefs such as: "You haven't taught it until they've learned it."

In another research study, Preus (2011) contrasted results from groups of new teachers who participated in two different induction programs: a conventional new teacher induction program and one that included collaborative teacher inquiry. Teachers in the latter group defined professional growth as relating to student achievement, as opposed to the wide variety of ways — for example, progress in time management, organization, and the pursuit of advanced degrees — outlined by participants in the conventional group.

One conclusion drawn from Preus's study is that "leadership boosts efficacy" (p. 83). The author noted: "Given a leadership opportunity, even as a new teacher, there is an immediate urgency to become proficient in the content" (p. 83). In other words, leadership opportunities enabled mastery experiences, and these mastery experiences contributed to a heightened sense of efficacy.

Collaborative teacher inquiry provides a structure for meaningful collaboration, increases teachers' knowledge about their collective work, and contributes to the cohesion of a team of educators, all of which enable collective teacher efficacy to flourish (Donohoo, 2017).

Cohesion is the degree to which educators agree with one another about fundamental priorities, which include identified student learning needs, goals, expectations about student performance, high-leverage instructional approaches, and evidence to measure the impact on student progress and achievement.



It's encouraging to know that educators can adjust their beliefs about their ability to influence student outcomes.

The more cohesive a team, the more likely team members are to buy in to social persuasion (Ross, Hogaboam-Gray, & Gray, 2004). In addition, when professional learning is designed to assist teachers in making the link between their collective actions and increases in student achievement, it helps foster collective efficacy.

WHAT LEADERS CAN DO

While collaborative teacher inquiry holds promise, that promise can only be realized through quality implementation. School leaders need to support teachers' engagement in the collaborative inquiry cycle for collective efficacy, as a valued outcome, to be realized. The degree to which teachers collaborate to improve instruction is strongly predicted by principals' leadership.

Goddard and colleagues (2015) demonstrated that a principal's instructional leadership significantly predicts collective efficacy by influencing teachers' collaborative work. Effective school leaders know how to create the conditions for teachers to learn what they need to learn so that teachers, in turn, can create the conditions for students to learn what they need to learn.

PUT THE TENSION TO GOOD USE

That said, in looking to add value by influencing professional learning efforts, school leaders often find themselves caught between a set of top-down district-level forces that seek to prescribe practice expectations and a set of bottom-up practitioner-driven forces that favor experience-centered professional judgment.

Although these dual forces seem to create an oppositional dynamic, Katz and colleagues (2017) argue that this tension can be creative, that it can provide an opportunity for effective professional learning. Collaborative inquiry enables teachers to consider

prescribed expectations and experience-based professional judgments at the same time. They take what they have learned from research and best practice and apply it to their unique contexts.

TRUST THE PROCESS

School leaders often think that creating the conditions for meaningful collaborative teacher inquiry requires an established culture of trust. But if leaders spend too much time on building trust as a precondition, teachers may never get to the work of learning how to collectively improve instruction.

Leaders can help teachers build trust while engaging in the work — for example, by allowing teachers to lead and shape their professional learning. Only a minimal amount of relational trust is necessary to encourage teachers to “take a chance together” if the overarching environment is a supportive one.

An effective leader stands back and trusts the process of teachers innovating together. By doing so, leaders demonstrate “a belief in empowerment over efficiency, choice over decisiveness, and autonomy over control” (Donohoo, 2017, p. 40). Katz, Earl, and Ben Jaafar (2009) have shown that enhanced relational trust is more an outcome of an effective collaboration than an antecedent. Moreover, the collaborative mastery experiences and associated affective states integral to collective efficacy work to increase relational trust.

KEEP TEAMS FOCUSED ON THE WORK

Schools are busy places. Carving out time and space from the proverbial whirlwind to learn and improve in an intentional way is a challenge.

Collaborative inquiry is a progressive cycle, in which each successive cycle leads to better and

deeper understanding, more refined practices, and greater impact on student learning and achievement.

School leaders play a pivotal role in helping teams stay focused on the urgent, needs-based inquiry question. They buffer teams from landing in what Katz and colleagues (2009) have called activity traps — those well-intentioned doings that keep people busy but are not needs-based and that divert time, energy, and resources away from the student learning focus that matters most.

School leaders also ensure that professional learning teams keep up the necessary rhythm and discipline of the collaborative inquiry cycle. This involves working in small but regular increments (Katz et al., 2017). As a result, teams come to experience “small wins,” which, as Duhigg (2012) explains, “fuel transformative changes by leveraging tiny advantages into patterns that convince people that bigger achievements are within reach” (p. 112). The associated mastery experiences and affective states, coupled with the vicarious learning of collaborative success, in turn contribute to enhanced collective efficacy.

THE POWER OF PROFESSIONAL LEARNING

Professional learning is powerful when it's intentionally designed to influence educators' beliefs about their ability to affect student learning. If school teams share a sense of collective efficacy, they have a greater likelihood of positively influencing student learning, over and above any other factors. Fostering collective efficacy is important, and collaborative teacher inquiry, supported by strong leadership, is a promising practice that educators can harness to achieve this objective.

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THE EQUITABLE CLASSROOM

TODAY'S DIVERSE STUDENT BODY NEEDS CULTURALLY PROFICIENT TEACHERS

BY JON SAPHIER

We are sliding backward. Our country's schools are, in some cases, as segregated now as they were when Earl Warren's Supreme Court handed down the landmark *Brown v. Board of Education* decision 63 years ago.

In fact, according to new federal data, poor black and Hispanic children are becoming more and

more isolated from their white affluent peers in our public schools. The data show that the number of high-poverty schools serving students of color has doubled in recent years. And since the 1990s, progress narrowing the achievement gap has plateaued nationwide and deteriorated markedly in urban schools (Reardon, 2013).

How is that possible when schools have been instituting

sweeping changes — some of them federally mandated — for decades? No Child Left Behind, Race to the Top, Common Core, Every Student Succeeds Act — I could go on and on listing the reforms and regulations tried out on our nation's students in our time.

But hallmark reforms of the 1990s and 2000s still have not budged student achievement significantly because we have

continuously and conspicuously left off the third leg of the stool in school reform: a carefully crafted personnel pipeline for constant, career-long learning about high-expertise teaching that recognizes the size and complexity of our knowledge base.

HIGH-EXPERTISE TEACHING

There are many outstanding professional teachers at work in our schools, including those serving our most economically disadvantaged children. They had to acquire their expertise over many years and usually alone through their own initiative and perseverance. But there are simply not enough of them.

The stark fact is that there are large numbers of underprepared teachers. And blaming them for skills they haven't had access to is unfair. There is a massive gap between the knowledge and skills new teachers bring to the classroom and the knowledge and skills they should and could have with proper training and continuous development. The fundamentals of high-expertise teaching have not been provided to or expected of large portions of our teacher corps.

In many ways, this is a policy problem. The officials we entrust with creating standards and policies to assure quality schools don't focus on high-expertise teaching and learning for all students. They don't acknowledge the significance and complexity of high-expertise teaching.

But it is also a school system and school building problem. In too many cases, the culture in the school district that comes from the central office and the school's front office has not been established to foster an expectation — and practical implementation — of continuous professional learning.

For those who believe that teaching is intellectually complex, difficult, and demanding and that, like any other true profession, its knowledge is based on repertoires and matching, then the doors of professional dialogue open wide.

The need to learn with colleagues in deep collaboration by examining situation-specific questions comes to the fore, as does the need to reach out for new strategies and ways of thinking in the established knowledge base about teaching and learning (Bellon, Bellon, & Blank, 1991; Marzano, Pickering, & Pollock, 2001; Hattie, 2009; Saphier, Haley-Speca, & Gower, 2018).

PROFESSIONAL KNOWLEDGE

Think about why it is often so difficult for teachers to share their good ideas and successful practices openly at faculty meetings and other forums. Teachers who believe in the effectiveness paradigm assume there are right and wrong ways of doing things — effective and ineffective (or at least less effective).

Suppose you share a successful practice that is different from what I do. The tacit inference, based on my effectiveness belief system, is that

only one of us is right. You are either showing me up or trying to tell me how to do it right.

But if a school culture has internalized the belief in the complexity of teaching and the view of professional knowledge held as “repertoire and matching,” then I can view your successful practice as an interesting alternative for my consideration, not a prescription for how to do it instead. Here's why.

The effectiveness paradigm for pedagogical knowledge implies there are effective ways of accomplishing things. “Best practices” is another phrase that suggests this one-best-way. But true professional knowledge in any field acknowledges that, while there are constant tasks to accomplish (in teaching, e.g., to check for understanding, make expectations clear, maximize student engagement), there are many ways to accomplish them — a repertoire of ways, in fact. Skillful practice means choosing well from one's repertoire to match the student, the situation, or the curriculum.

That view of professional knowledge not only accepts the legitimacy of different ways of doing things, but also encourages debate and professional problem solving. Thus one belief essential to fruitful teacher learning and a strong professional community is about the nature of professional knowledge itself. It is based on repertoires and matching, not effective behaviors.

Fully professional teachers must

participate actively with their colleagues to shape the school as a learning environment for adults as well as for children. They must learn how to play a role in strengthening the institution and see themselves as players beyond the classroom, responsible for the system of the school.

For this to happen, collegiality and interdependence need to be built into the fabric of their working relationships. Interdependence requires that they function as both leaders and team players and that they support a balance of autonomy and cohesion in curriculum and teaching practices.

Fully professional teachers are leaders who take the initiative to influence colleagues toward ideas they value and move the school toward practices they believe will strengthen everyone. They are team players, collaborating with colleagues to improve the school and help individual students, and they are willing to give up some autonomy for actions implied by common visions and agreements.

The connection between teacher learning and this belief in interdependence and collegiality is that only teachers who have *regular interaction with their colleagues through joint work* can experience the benefit of their knowledge and the synergy of creating new knowledge with others. This is where the principal comes in.

Structuring interdependence means the charter of common planning time teams needs to attend to that. This important idea becomes even more important when it comes to a core component of successful teaching and learning in schools: cultural proficiency.

CULTURAL PROFICIENCY

Today, more than half of the children in American schools are children of color. Their families have come from Central and South America, Asia, Eastern Europe, Africa,

the Middle East, and the Caribbean. Like all children in all schools, they need to feel known and valued to have their energy available for learning (Hammond, 2015).

Such changing demographics have made a “should” into a “must” for American teachers. Cultural proficiency produces behaviors that acknowledge and value the culture of those different from oneself. It develops out of being curious and wanting to learn about other people and their cultures.

We are culturally improficient when we lack any understanding of people whose cultural backgrounds and traditions are not the same as our own. Cultural improficiency in the classroom leaves students who are culturally and linguistically diverse feeling misunderstood and excluded.

When a teacher is culturally proficient, all students feel that they have a place in the classroom because cultural difference is acknowledged and recognized as having value. This shows up in the artifacts of the class and the examples used in lessons. Cultural diversity is viewed as enriching the classroom experience for everyone.

As teachers of all children, each of us has an obligation to learn about the different cultures of our students and find ways to make their cultures appear in validating ways in our curricula and instructional examples. That is the starting point for cultural proficiency, and cultural proficiency is a new skill set that all American teachers must have to provide every student with the best learning environment.

How do school systems create a culture where these kinds of skills are expected, expertly taught, and honed over time?

That question has stumped many a school system — particularly because the very topic of race often brings discussions to a halt. In fact, too many times, the mention of culture or race

in schools immediately gets categorized — mistakenly — as an accusatory conversation about racism instead of an opportunity for learning about our students.

RACISM

Racism is certainly a first cousin of cultural blindness and cultural improficiency, but it is profoundly different. Cultural improficiency arises from lack of interest, awareness, and respect for other cultures. It assumes the dominant white culture is just “normal.” But racism comes from an ancient tradition of dominance and control.

Racism *is* something to tackle, to be sure. Racism is a social construct that operates as a system of oppression based on race. It operates everywhere, even inside the best-intentioned of educators.

Racism is built on stereotypes and expressed in various forms of oppression. It shows up as internalized racism in individuals belonging to marginalized groups, in micro-aggressions committed by unaware individuals, and in the implementation of school procedures for student placement into special education, tracking, and unequal application of discipline. Facing all this invites difficult conversations that need to take place in schools across the country.

The presumed inferiority of nonwhite racial groups also shows up in a range of places throughout our history. We can see this bias systemically in unequal distribution of governmental resources to schools. We see this bias compounded by views of intelligence as innate and fixed and consequently differential teacher behavior toward students believed to be less academically able.

One consequence of our history of racism is what Claude Steele identified 25 years ago as “stereotype threat.” Stereotype threat induces an

unconscious loss of edge in performance based on racial cues. His 2010 book, *Whistling Vivaldi*, summarizes his research on this topic in engaging and nonjudgmental prose. I recommend it to anyone who wants to broaden understanding of this very important and challenging topic.

As teachers, we can deepen our understanding of racism by studying the manifestations of white privilege and racism from the beginning, in the history of our country and other countries. It is, in fact, an often unexamined history and one whose consequences for people of color can be hard for white Americans to comprehend completely without a conscious effort to learn and talk openly about it.

The quest for racial awareness and antiracist teaching should propel us to push back on negative stereotypes, correct distortions, and remedy omissions in our behavior and curriculum that stem from racism. Most powerfully, it should inspire us to ensure that if some students of color doubt themselves, it is our job to make them believe they can grow their ability and teach them how to act effectively from that belief. In the process, we will have to work hard to convince ourselves, since we are all, without exception, tainted by traces of racism and belief in the bell curve of ability. But we cannot, and should not have to, do this alone.

VULNERABLE AND STRONG AT THE SAME TIME

Schools and school systems ought to create a culture wherein this process of exploring one's own biases and assumptions — and working unflinchingly toward challenging them for the good of our students — is baked in, like flour in a cake.

I contend that it is crucial that teachers and school communities

When a teacher is culturally proficient, all students feel that they have a place in the classroom because cultural difference is acknowledged and recognized as having value.

have important and often difficult conversations about cultural diversity and race. These ongoing conversations can and should lead to action that creates a more inclusive and productive school experience for everyone. Although this can be difficult work, the rewards are well-documented.

As teachers of all children, committed to equality of opportunity and raising capable and involved citizens, we must figure out how to make students from diverse cultural backgrounds believe that we, as individual teachers, and we, as a school community, know and value their cultures. This is where school systems and building administrators come in.

Districtwide professional development is important for showing commitments and creating common language and common understandings about the words we use when discussing cultural proficiency. But it is individual buildings and the teams within them that host conversations where views are shared honestly and opinions are challenged and shaped. The adult professional culture either invites these conversations and makes it safe to have them, or it walls them out.

Building such a culture comes from the top. And in my 50 years of being inside school organizations, I have consistently seen that leaders who build such cultures are vulnerable and strong at the same time. They are strong in that race and cultural proficiency must be topics we all learn about from the inside out. They are strong in that this learning has implications that must influence our teaching practices concretely. They are vulnerable in that

they acknowledge their own feelings of risk in taking this on, uncertainty about the best ways to proceed, and immersion in side-by-side learning with staff members.

Developing a full-fledged profession for educators based on high-expertise teaching is the missing link in our education reform movements. And our concept of high-expertise teaching must include cultural proficiency and antiracist teaching if education is to play the central role that is meant for it in our democracy — to ensure a fair chance at a good life for every child.

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KNOWLEDGE SEEKERS

NEW YORK PROGRAM CREATES A CULTURE OF INQUIRY
AMONG HIGH SCHOOL TEACHERS AND THEIR STUDENTS



BY JAMES KILBANE AND CHRISTINE CLAYTON

At its core, inquiry — whether conducted with students or teachers — is a process of making observations, asking questions, working with evidence, and interpreting data. Even though research (Newmann, Marks, & Gamoran, 1996; Scheuermann, Deshler, & Schumaker, 2010) shows well-documented benefits to understanding content, secondary teachers often hesitate to incorporate inquiry for learning.

As professors of education with a deep interest in inquiry learning, we surmised that teachers needed experience using inquiry both as a pedagogical tool and as a learning tool

for themselves. The question was where and how to structure that experience across content areas.

We both had experience with collaborative inquiry, in which teachers, as part of a group, ask a question about their own work, design a study to answer that question, and analyze the data to draw a conclusion, all with support from colleagues. These basic steps outline the inquiry process that we use for both teacher and student learning.

Our insight was this: Teachers can learn a great deal about inquiry from doing it themselves, and this process will not only inform their work with student inquiry, but also develop a culture of inquiry in the classroom.

As a result, we designed a professional development project to support secondary teachers' inquiry into the workings of student inquiry in various content areas.

The Inquiry Learning Collaborative at Pace University recently completed its eighth year. More than 200 high school teachers in New York City and surrounding areas have participated in the project, serving a diverse range of students in various content areas.

THE CORNERSTONES OF INQUIRY

Two qualities are crucial to inquiry: autonomy and authenticity.

Autonomy suggests that the learner should be asking the question,

VISUAL MODEL OF STUDENT INQUIRY					
	Traditional hands-on	Structured	Guided	Student-directed	Student research
Topic	Teacher	Teacher	Teacher	Teacher	Teacher/student
Question	Teacher	Teacher	Teacher	Teacher/student	Student
Materials	Teacher	Teacher	Teacher	Student	Student
Procedures/design	Teacher	Teacher	Teacher/student	Student	Student
Results/analysis	Teacher	Teacher/student	Student	Student	Student
Conclusions	Teacher	Student	Student	Student	Student

Source: Bonnstetter, 1998.

designing the investigation, and drawing the conclusion. To enable teachers to start using inquiry at a spot that is comfortable for them, we use the work of Bonnstetter (1998) to help them see autonomy as a continuum of changing responsibility from teacher to student (see “Visual model of student inquiry” above).

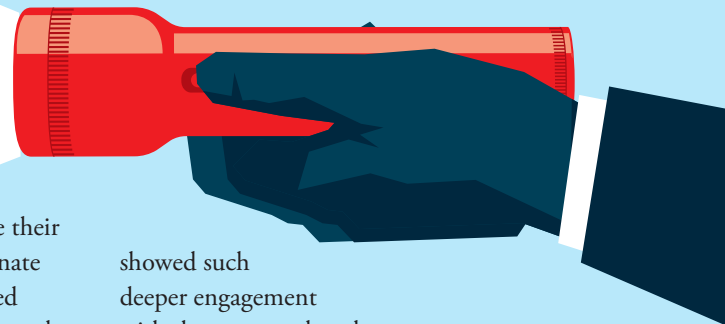
Authenticity suggests that the inquiry should be allied with questions asked by a given discipline. We rely on the work of McDonald and Songer (2008) to help teachers see how authenticity and autonomy intersect along a continuum of development (at right).

We find that teachers are more willing to design for student inquiry when these two qualities are present for them: when they are looking at their own practice (authenticity) and are choosing their own question (autonomy).

For example, one math teacher wanted to understand how she could better help her students see real-world

connections. She began by asking students to write their own word problems that modeled problems in the real world. Ultimately, her inquiry led her students to create their own cities on a Cartesian coordinate plane, providing geometry-backed justifications for planning decisions that would make their city more sustainable. Student surveys revealed the positive impact of this work.

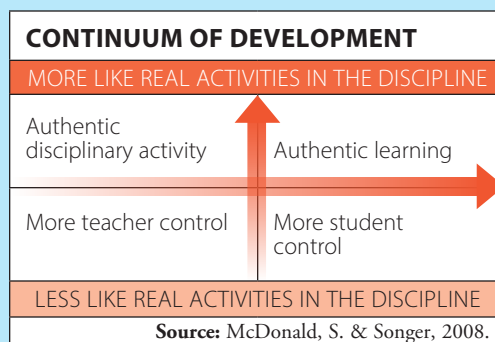
Seeing the value of these qualities for themselves and their students helps teachers conceptualize the value of inquiry for the classroom. Fostering student autonomy while engaging in disciplinary investigations changes the dynamic of the classroom. In the case of the math teacher, her students



showed such deeper engagement with the content that she decided that such projects need to anchor each of her upcoming math units in order to shift the relationship kids were having with math. Inquiry changes the culture of relationships in the classroom — between students and the content, between students

and teacher, and among students themselves.

This culture of inquiry moves beyond the work of a single teacher to a



wider transformation of classrooms, schools, and the university-based professional learning networks of which we are a part. Such systemic approaches are necessary to realize new shifts toward internal accountability, as well as higher expectations for student thinking across the content areas.

Let's now look at the anchoring concepts and core practical structures that will enable inquiry learning for pedagogical and professional learning to transform secondary schooling.

FROM TEACHER INQUIRY TO COLLABORATIVE INQUIRY

Collaboration is necessary to realize an ambitious vision of learning for students and teachers. This model of collaborative inquiry has three crucial characteristics: It's a cycle, a stance, and a public experience.

Collaborative inquiry is a cycle. Whether we're speaking about student or teacher inquiry, we develop the conception with our teachers that inquiry is cyclical and ongoing. We use a simple visual to describe the general process for teachers and their students (see "Inquiry cycle" above). This image shows a process in which answering a question can lead to new and deeper investigations.

For example, one participant started with a question about students writing their own lab procedures. Over time, she grappled with the core issue of autonomy, balancing teacher support with independent investigations, and her question changed to reflect that shift. This process suggests that the end is not really a stopping point but simply a pause before the start of something new.

Collaborative inquiry is a stance. Over time, participants come to discuss their inquiry practice as an ongoing approach to student learning. They move from time-bound, project-based



instruction to a way of thinking about content and interactions with students that promotes inquiry on a daily basis.

Inquiry as a daily practice honors the work on "inquiry stance" by Cochran-Smith and Lytle (2009). This stance recasts the relationship of teachers and students more as partners with each other. As they undertake inquiry, they co-construct knowledge and participate in the larger community of school.

For instance, one group of teachers who were inquiring into how they could support seniors in completing a required senior project found that their high school needed to promote a questioning stance in students much earlier on in their high school careers for them to do well on the project. The democratic impulse of the method demands a deep commitment to using it consistently with all students across all content areas. The method also requires continuous reflection to assess success and improve practice.

Collaborative inquiry is public. Although the work of inquiry may sometimes appear as though it could be done in isolation, our conception necessarily embodies a public component. Enacting a reflective

inquiry stance that is cyclical will not, on its own, bring about the cultural change needed to sustain an individual's inquiry practice.

To sustain the individual, collaborative inquiry must be public. Knowledge must be shared to have a lasting and transformative effect over time for both individuals and the school community. A professional learning community uses public space to create a culture that supports inquiry as both cycle and stance. In this way, the public presentation of teachers' learning helps the larger system, whether a school or a network of schools, to learn (Senge, 1990; Senge et. al, 2000), while solidifying the individual teacher's own learning.

This commitment to collaborative inquiry is grounded in an important need in these times: to create a space where teachers can collaborate, risk, and share what happened in their classrooms. Taking risks and sharing mistakes are crucial to any learning — and especially for learning through inquiry. In our model for professional learning, we designed structures and experiences that encourage risk taking, which we will look at now.

FOUR KEYS TO COLLABORATIVE INQUIRY

Our program has four key structures for professional learning that promote collaborative inquiry: the inquiry plan, the collaborative inquiry group, network events, and co-facilitation. "Inquiry cycle with program structures" on p. 35 shows how the various structures sync with the inquiry cycle.

The Inquiry Plan

The inquiry plan represents a purposeful commitment to take action: to design learning for students that is inquiry-oriented and to assess its

success. The inquiry plan encourages teachers to engage in inquiry practices over time, as opposed to in a single gourmet lesson. (See “Sample abridged learning plan” below.)

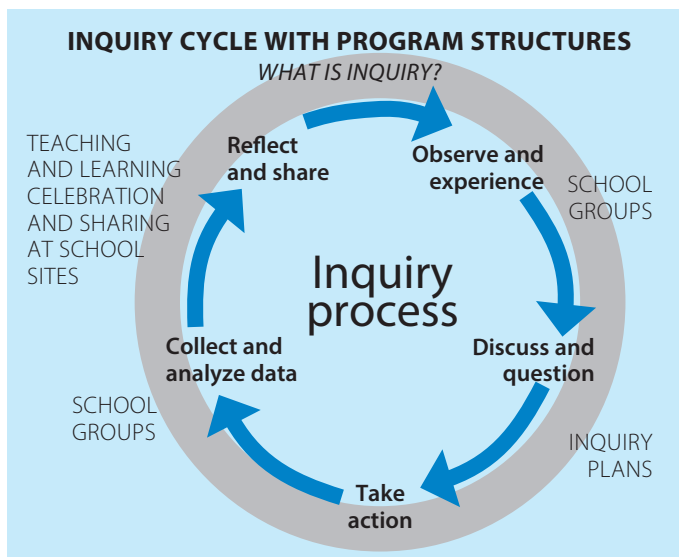
Our intent for the plan is twofold: First, teachers design learning experiences that engage students in using inquiry on a daily basis to meet curricular goals; second, they design an investigation that explores the effect of the inquiry process on students. In the inquiry plan, teachers articulate teacher and student inquiry questions, a plan for instructional intervention, and a way to measure the success of the intervention.

For example, one science teacher framed this question for his students: What conditions are necessary for a self-sustaining system? He wondered whether students could build a self-sustaining biosphere and learn the necessary information on ecosystems, biogeochemical cycles, and sustainability. He used traditional measures such as project assessment, exam grades, and observation of classroom discussion to evaluate whether students had acquired these concepts.

The inquiry plan, then, becomes a written road map to guide the work of the teacher for the year, as well as for us, the teacher educators, in providing development and ongoing support.

Collaborative inquiry groups

Collaborative inquiry groups involve six to 10 teachers from different content areas and grade levels who collaborate at each school to support one another in developing and enacting the inquiry plans over the course of 10 two-hour after-school sessions throughout the year. By



design, collaborative inquiry groups are public places where teacher inquiry of student inquiry is front and center. Facilitated by a university facilitator and a school-based teacher leader, the work of designing, implementing, and analyzing inquiry plans provides a convergence point for collaboration and conversation.

Additional learning opportunities at each session include looking at student work and discussing texts and videos based on the work of others. Usually

there’s a progression over the course of the year from a willingness on the part of teachers to examine lessons generated by others to sharing their own. Over time, teachers develop a stance toward inquiry as an approach to learning, be it student learning in the classroom or their own professional learning.

Network events

Network events bring teachers together from different collaborative inquiry groups for support and challenge. We incorporate two professional development opportunities: a teaching and learning conference and, where funding allows, summer work such as summer institutes, curriculum planning, and, in some cases, support of teachers to prepare their work for presentation and publication.

Network professional days focus on aspects of the inquiry process for students and teachers, such as assessing inquiry, gathering evidence, and specific

SAMPLE ABRIDGED LEARNING PLAN

Title: Promoting critical thinking skills using real-world connections in mathematics.

Description: This project will be geared toward developing teaching practices that promote critical thinking and connections to the real world.

Who: Grade-level 9 algebra students.

Teacher inquiry: If we train students to connect material in the classroom to real-world situations, they will perform better on modeling linear and quadratic equations and on making overall mathematical connections.

Student inquiry: How can I connect and apply the topics I am learning in algebra to real-world situations?

How: First, students will decipher word problems in each unit that connect the material to real-world situations. Next, students will create their own word problems based on a given topic or equation. Finally, students will be presented with decisions they will need to make in the real world, and they will decide what approach to take to make an educated decision.

Data reviewed: In-class assignments, test scores, observations, pre- and post- student surveys, samples of student work at the beginning, middle, and end.

instructional strategies that support inquiry learning. This gathering of teachers enables collaboration across content areas and schools, while deepening connections to the university.

Through these events, we create a larger community of support and feedback, particularly in the culminating teaching and learning conference, where teachers share a variety of insights, such as how to balance the need for scaffolding with the desire to support student autonomy. Others learn new strategies or gain an appreciation for the complexity of questioning. Still others learn that inquiry is not a strategy or a project but a way of being in relation to content that becomes integrated into all aspects of their teaching.

Network events are important because they extract individual teachers and school cohorts from their daily contexts, giving them a chance to pause and focus on classroom practice and connect with others across content areas, schools, experience levels, and interest areas.

Co-facilitation

Teachers change their practice, and eventually their conception of teaching, because of pressures and supports both internal and external to the school and classroom. Co-facilitation capitalizes on this reality by using an arrangement of a university-based facilitator and a school-based facilitator, each providing something unique to the team.

The university facilitator provides an external push on the practice of inquiry. He or she keeps the focus on inquiry, providing outside resources, challenging data, or suggesting moves along the continua. That push is counterbalanced by the co-facilitator's internal pull on keeping the inquiry (and the push) connected to the initiatives of the school. The more idealistic push is grounded by the

realistic pull.

For example, one school began a writing initiative that was very scripted. The teacher co-facilitator identified a need to connect the efforts of this initiative to the inquiry work that had emphasized student ownership of the learning process. The university-based facilitator then engaged the principal, who attended a network day to learn how inquiry could support the school's literacy efforts. In this way, two efforts became a single effort, combining thinking with writing.

By design, co-facilitators together ensure that the work is ongoing, public, and focused on building more than a repertoire of strategies. Active and thoughtful facilitation is crucial to sustaining all the structures in our model that support the inquiry cycle, which is at the heart of a culture of learning.

RESULTS

Is inquiry, which is ongoing, slow, and sometimes indirect, worth it? We think this is a question worth asking because it gets at the purpose of our work to build cultures of inquiry within and across schools.

Engaging teachers and students in inquiry is fundamental to building democratic communities that can address our most pressing problems in the service of ensuring more justice and equity for all members of the community. Not only do we think it's worth it, we have seen evidence that it is.

More than 200 secondary teachers from five urban and suburban schools participated in our professional development model. Evidence from our most recent end-of-year survey shows that, as a result of the program, teachers had a better understanding of student inquiry (87%), had new ideas about how to develop student thinking (87%), and valued school site conversations (97%). In the last year, 90% of reporting teachers said that they

had tried activities or lessons farther along the inquiry continuum than in the past, and 97% said they would continue to develop their knowledge of inquiry. These results have mirrored those occurring in previous years.

As the program designers, facilitators, and researchers, we also noted an improvement in the quality of student and teacher inquiries over time, alongside improved effects on student learning. In the first year of our program, the 2009-10 school year, we evaluated 18% of year-end inquiry results as strong inquiries; by the fourth year, that proportion increased to 56%.

Initially, we saw more inquiries that focused solely on increasing engagement. Inquiry learning was typically used as a hook as a way into content. Over time, teachers designed inquiries that engaged students with the content or particular skills and, ultimately, fostered critical thinking. Inquiry learning was not just a hook for learning; it was the way into and through learning.

Consistent with prior results, 72% of teachers from the seventh year of the program reported student success in learning outcomes, with improved scores on classroom tests, improved standardized test scores, improved classroom engagement, and stronger inquiry practices. As one teacher observed, "It is really amazing to see how much students with well-developed skills from inquiry-based learning are able to advance in their learning and transfer their skills across various topics, compared to other students who struggle with basic skills in organization, reading comprehension, and writing."

Some teachers report that the parallel learning embedded in our model solidifies commitments to inquiry. As one teacher noted, "One of my lasting takeaways from this year is realizing ... that we do inquiry in order

to take profitable risks in the classroom and that ultimately we do that to help our students.”

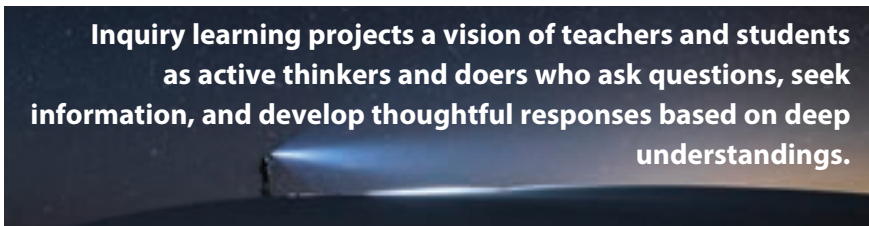
AN EFFECTIVE ANTIDOTE

These results are most remarkable, given the more open-ended nature of this model and the more narrowed reform context in which it emerged.

On the one hand, the new standards, from the Common Core State Standards to the Next Generation Science Standards, focus more on disciplinary practices and, increasingly, on the higher-level thinking and complex literacy skills required in an information age. These rigorous expectations require that teachers employ a complex repertoire of learning approaches sustained through collaboration and reflection with peers. These standards cannot be realized without shifts in school culture toward inquiry as both a strategy and an outcome for learning.

At the same time, policy approaches for teacher accountability in the last decade have aimed to link student achievement on standardized testing to teaching quality as a key measure. Although rigorous standards project a vision of 21st-century learning consistent with our view of inquiry, the standardized nature of the tests limits the value of the complex thinking and working skills supported by inquiry. As teachers focus more on the outcome of these tests, the accountability reforms can jeopardize the environment for the necessary risk taking that fosters true inquiry.

Our interest in inquiry learning sits at this point of conflict. We see inquiry as an apt response to new and potentially richer expectations for student learning. Simultaneously, we see our work as a way of resisting the prescriptive nature of accountability reforms that narrow the range of what’s possible for true learning.



Inquiry learning projects a vision of teachers and students as active thinkers and doers who ask questions, seek information, and develop thoughtful responses based on deep understandings.

The program structures that support collaborative inquiry are ones that others can replicate — and, indeed, must create — to realize ambitious learning expectations embodied in rigorous, new standards. In doing so, there is a shared accountability for quality between and among students and teachers engaging in complex and rigorous learning.

Supporting teachers to be inquirers improves their ability to work with students in doing inquiry, even as the context complicates it. The process of inquiring is an experiential activity. The ability to help others do it well requires that the teacher has some practice with it.

If we’re going to hold ourselves to the skill set that the new standards demand of our students, learning through inquiry needs to occur in our classrooms. For teachers to possess the commitment and capacity to facilitate such learning, inquiry into their own practice needs to occur. Our model suggests a way to accomplish both objectives simultaneously.

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GALVESTON COUNTY LEARNING LEADERS

Galveston County Learning Leaders is a three-year initiative funded by a grant from Houston Endowment to Learning Forward. The goal of the project is to improve professional learning and leadership across the county by supporting Galveston County superintendents, their leadership teams, and selected principals in a community of practice and professional learning seminars.

ORPHOSIS

BY ALAN ELLINGER, KERI LAUNIUS, AND ANNETTE SCOTT

Like many districts across the United States, Galveston, Texas, is focused on building a culture of excellence.

The district is a study in contrasts. On one hand, it is laced with opulent vacation homes and resort hotels used by out-of-town owners. On the other, the median household income level is \$28,895, with 22% of the population living below the poverty level.

Of the 7,000 students enrolled in the Galveston Independent School District, 74% are economically disadvantaged and 74% are minority. More than one-fourth (26.5%) of families speak a language other than English, primarily Spanish.

One challenge the district faces is a high mobility rate among its teachers, as the district human resource team seeks educators to “come teach at the beach.” Attracting and retaining educators are among the district’s highest priorities.

THE BEST OF INTENTIONS

Five years ago, the district began to address these concerns by engaging in crucial conversations around recruitment and retention. As school leaders, we had thoughtful discussions about the definition of effectiveness as

The restructuring of the school into four communities had a tremendous impact on the culture of the high school. Professional learning became the focal point for building a cohesive team within each of the communities.

related to the teachers and principals within our district. We wanted our professional learning experiences to be meaningful for all stakeholders — new hires as well as veteran educators.

We began to pilot strategies to take educators to the next level. We implemented instructional rounds and professional learning communities. We developed teacher and administrator appraisal instruments intended to improve educator performance and thus increase student performance. We hired external evaluators to assist in the transformation of our instructional practices. These evaluators observed in teachers’ classrooms, provided feedback, and moved on.

What was the result of our efforts? Not only did we note little change

in student performance, but we also witnessed increased anxiety among our teachers. We saw teachers exit from the district. We realized that we were making teachers marketable for other districts because of the professional development we provided.

As reflective practitioners, we sought to learn from our experiences. We knew that we had increased the level of conversation around teaching and learning within the district, as evidenced by surveys and focus groups that we used to gather feedback. However, the district leadership was doing the work, rather than the work occurring from the campus. We struggled to create a framework that would help us deepen our skills in leading change and in building a learning system.

Three years later, the district leadership team joined neighboring districts (Clear Creek ISD, Friendswood ISD, and Santa Fe ISD) in a collaborative effort to build effective frameworks for improving professional learning. During fall 2015, the Galveston County Learning Leaders stretched our thinking with the introduction of Learning Forward’s Standards for Professional Learning (Learning Forward, 2011) and a revisit

of the continuous improvement model.

We worked to articulate our vision by incorporating such tools as the knowledge, attitude, skills, aspirations, and behavior (KASAB) chart used within a learning system — a system in which all members of an organization are continuously involved in the learning process (see Hirsh, Psencik, & Brown, 2014). As a district leadership team, we knew it was important to create the structures that enabled each educator to have ownership.

In addition, the district's middle school principals and teachers teamed up in 2014 to align curriculum and instructional strategies across the district. At monthly meetings, they looked at avenues for validating and sustaining the work they were doing.

THE SHIFT

With encouragement from the Learning Forward facilitators, the Galveston leadership team invited the middle school principals to become part of the cohort in fall 2016. The principals were introduced to the cycle of continuous improvement during their first Galveston County Learning Leaders meeting. They quickly realized that the cycle was the missing piece from their middle school unit planning design.

The middle school principals worked as a team to take the first step in the cycle. They began by defining a problem of practice: “Campus leaders will develop a shared understanding and systems to support adult learning, a positive culture, and trust.”

Principals deepened their understanding of two components: *the learning agenda*, which is a coherent series of courses of studies that promote adult learning and are based on student outcomes, and *learning designs*, in which adult learning focuses on determining the effect on student outcomes, such as through action research or lesson study. The principals

then applied their knowledge of the tools to their problem of practice.

The principals, along with district leadership, recognized that it was time to make a shift in the district's professional development initiatives. Our system of professional development had become burdened with trainings with dwindling attendance. It was evident there was an oversaturation of traditional sit-and-get offerings.

We needed to reflect on the importance of adult learning and on how we provided it within our organization. We needed to see adult learning as an opportunity to grow and develop, rather than as one more tedious thing that was heaped on educators' plates.

We explored research-based strategies that led us to meaningful, educator-involved professional learning. We learned that, when implemented with intention, the layers of support that the Standards for Professional Learning provide could sustain and reinforce our learning and shift our practice as educators.

We worked as a cohesive group to build capacity for our new learning systems, and we integrated the Standards for Professional Learning into our cycle of continuous improvement. As we reflected on the standards and examined how they aligned with our team, we found that we were already acting as a learning community. On further investigation, we realized that we needed to provide opportunities that would enable leaders to grow as learners.

If we were, in fact, transforming our culture and shifting practice to involve learning systems, then we needed to share what we were learning. One way to do this was to replicate what the middle school principals had done with elementary school principals and curriculum facilitators. Learning Forward consultants assisted us as

we dove into what a learning system is and how to incorporate the cycle of continuous improvement in our professional learning.

We then created learning agendas for a series of summer professional development sessions, to take place in summer 2018, so we can continue to build capacity with middle school principals while teaming with elementary principals.

The first learning agenda will include both teams meeting together. The middle school principals will present an overview of the work they've done as a learning community. Then, in conjunction with district leadership, they will incorporate some team-building activities to connect with the elementary principals.

During the remaining summer meeting dates, each principal team, elementary and secondary, will work separately. However, every time the groups meet, there will be a designated period of time during which they can continue to learn from one another as the district principal team.

THE METAMORPHOSIS

Not only has the middle school principal team made a shift in professional learning, but also its high school counterpart has restructured its approach.

During the 2013-14 school year, Ball High School, with the support of the district, created four academic communities: the Media Arts and Digital Technology Community; the Science, Technology, Engineering, and Math (STEM) Community; the Biomedical Engineering and Medical Professions Community; and the Innovation and Entrepreneurship Community.

As part of the transformation, the high school put systems in place to support a new way of learning and collaborating with teachers as they

worked to develop cross-disciplinary curriculum.

The restructuring of the school into four communities had a tremendous impact on the culture of the high school. Professional learning became the focal point for building a cohesive team within each of the communities.

The principal of the campus assigned two administrators to be directors of two communities each. The two directors were responsible for assisting the teams in developing the vision for their community, as well as for fostering a culture for learning in each of the communities. Although each group grew independently, they drew from one another for resources and professional learning.

The learning teams formed learning triads composed of an administrator, a counselor, and a lead teacher. These teams of three helped establish learning systems within their respective communities and empowered lead teachers within each community to engage in meaningful work around cross-disciplinary curriculum development, data analysis, and professional learning to increase student academic performance. The communities now hold weekly meetings to collaborate and drive a culture of excellence.

To achieve the desired outcomes of the curriculum standards, the educators within these groups shared research-based systems that focused on various instructional strategies and classroom management techniques.

To sustain this effectiveness, core as well as career and technology education teachers are almost exclusively scheduled with students who are members of their community. Administrators and teachers sharpen their leadership skills by learning how to lead teams, empower others, and establish goals through their action plans.

THE RESULTS

Today, these four communities are no longer just collaborating within their own teams. They have expanded their connections across all learning communities. These educators have not only developed and sustained a vibrant culture true to their communities, but also reached out and built a global alignment.

Success is evident in a variety of data points — such as students' elective course selections, choice of extracurricular activities, and academic success — which administrators and teachers consistently monitor to ensure that teacher performance, community culture, and student success are achieving their intended outcomes.

Three years later, the four communities are thriving and have all developed a successful focus on their specific theme. The organization, established themes, and implemented systems ensure that learning is taking place in the communities — not only by students, but also by educators.

Educators are taking part in meaningful professional development that meets the needs of helping students while also building their own leadership influence. Fledgling communities that were developed in the shadow of the already existing STEM community are catapulting educator performance, student interest and success, and community support.

WHAT LIES AHEAD

Becoming a learning system means giving every adult working in the district the opportunity to be part of a mission-driven community that establishes a norm of learning for all. We are optimistic about the strides that our district can make using the tools and resources that Learning Forward has made available to us.

As we continue our challenge with recruiting and retaining talented

educators, we take to heart what we have learned about the learning system — and we have committed to this in a series of “we will” statements:

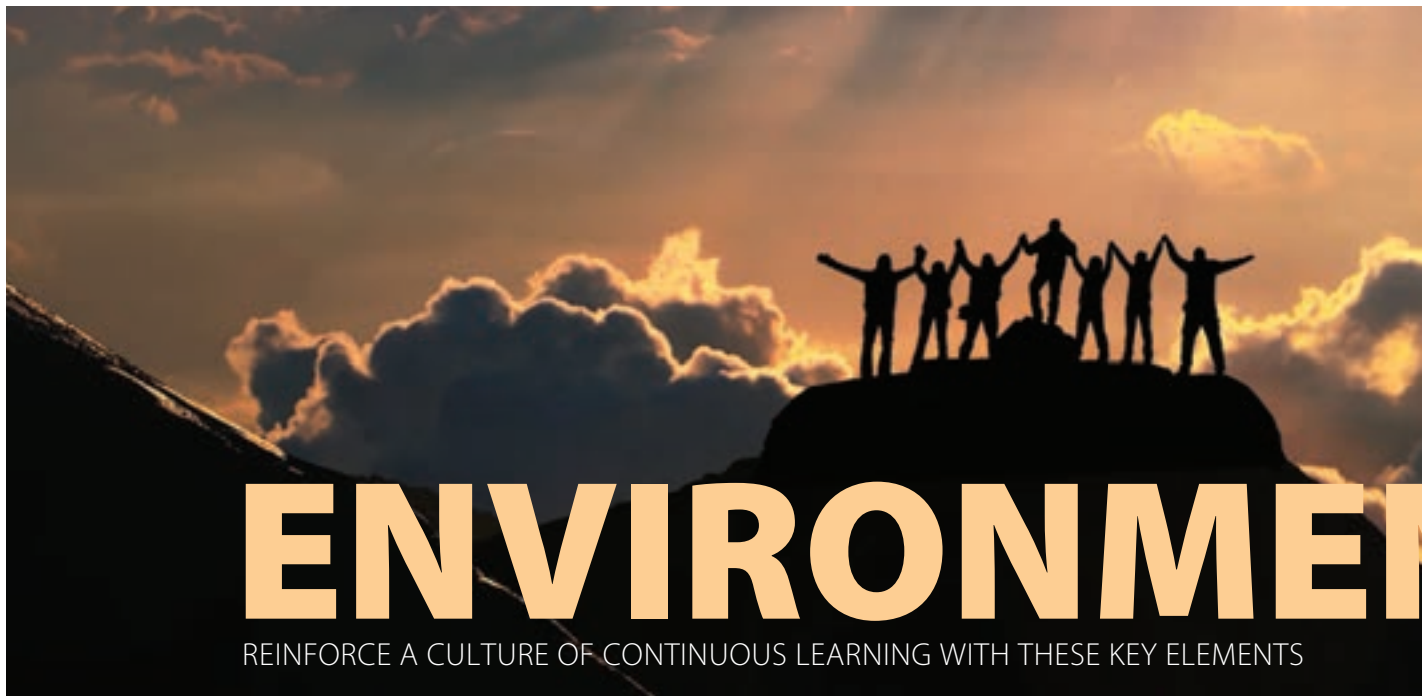
- We will make time for professional learning so that educators can learn and practice what they learn.
- We will fund professional learning adequately to include instructional coaches, professional developers, and mentors.
- We will support advanced degrees and continuing education to help all educators meet standards of excellence.
- We will strengthen our induction program and provide our mentor teachers with opportunities for professional learning.
- And we will collaborate with our teachers in developing their professional learning plans because we agree that personalized professional learning can supplement and complement school-based, collaborative professional learning.

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REINFORCE A CULTURE OF CONTINUOUS LEARNING WITH THESE KEY ELEMENTS

BY BRIAN EDWARDS AND JESSICA GAMMELL

Maintaining a robust professional learning culture in schools is vital for attracting and retaining high-caliber talent. Given this, education leaders are looking for guidance on how to establish and sustain an environment that fosters continuous learning.

From our experience in helping educators design and implement professional learning systems, we have come to understand the elements that reflect and reinforce a culture of continuous learning and how schools can bring about that type of environment.

KEY ELEMENTS

Many factors must be present if a school is to have an environment that promotes continuous learning. Here are several key factors. The list is informed by our experience working with dozens of schools as well as interviews with teachers, coaches, and principals.

1 FOCUS

Schools can be pulled in different directions by a variety of forces such as state policies, economic trends, and technological developments, but no school staff can simultaneously address all of those factors well. Schools must choose a small handful of areas to improve in and focus their professional learning on those topics.

Substantial growth and learning only occur when educators can engage subjects deeply and iteratively, and there is only time for that level of engagement in a few areas.

2 RESULTS ORIENTATION

Setting ambitious, measurable goals for improving instruction and striving to achieve those goals fuel continuous learning. Staff members need to have a vision of themselves as high-performing and a sense of urgency about realizing that vision.

3 SELF-REFLECTION

Educators will not make the needed improvement unless they periodically reflect on their strengths and challenges. Improvement is only possible if staff members have a realistic assessment of how they are performing and whether their efforts to improve are paying off.

4 GROUNDING IN MULTIPLE FORMS OF DATA

Findings from formative and summative student assessments, as well as classroom observations, help educators monitor their progress and continually raise the bar for themselves in order to raise student achievement. This data also informs the coaching and professional development that staff members receive.

Additional information can be gathered, perhaps through surveys or conversations, from educators about the professional learning being provided



NTAL IMPACT

so that it can be improved. These different types of data create a valuable information loop.

5 DEDICATED TIME

Reflection and analysis take time, and education leaders need to set aside time for staff members to engage the data. In some cases, schools have to reimagine the way time is used to ensure that educators have opportunities for professional learning, according to Maria Reyes, principal of Santee Elementary School in San Jose, California. When a school's professional learning is not robust, it is often because school leaders have not dedicated substantial time to it.

6 COLLABORATION

When trying to hone their craft, educators benefit greatly from collaborating with peers. Having colleagues who act as sounding boards, supportive listeners, and critical friends helps educators improve much more quickly than they would on their own.

Collaboration not only taps into

collective intelligence and wisdom but also creates esprit de corps and internal accountability, both of which help keep staff members focused on achieving goals.

Finally, collaboration promotes calibration, meaning that, when staff members work together to design lessons, assessments, and professional development, they develop shared definitions of quality and proficiency, and therefore common goals.

7 TRUST

Being in a learning mode exposes gaps in knowledge and confidence, which can leave people feeling vulnerable. For educators to engage in collaborative professional learning and continually make themselves vulnerable, they need to trust that their colleagues and supervisors will help them learn, celebrate successes, and shore up weaknesses. Trust allows educators to experiment and admit when a strategy does not work so that all team members can learn from the experience.

Several educators have confirmed

in interviews that trust is vital to continuous learning. For example, Linda Grilli, an instructional coach at Edenvale Elementary School in San Jose, California, says that “teacher teams and coaches should focus on building trust so they feel safe opening up their practice to their peers and bringing student work to share with each other.”

Similarly, Karen Orozco, a teacher at Santee Elementary School, believes that trust is a key ingredient in the positive professional learning culture at her school. “I really trust my administrators so when they tell me to try something, I do,” says Orozco. “But they also trust me. If I say something is not working for me and I’d like to change it up, they tell me to try it and see how it goes.”

8 AGENCY

All educators at a school should be encouraged to help shape the building's professional learning. When all team members are asked to contribute their strengths, opinions, and questions, staff

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members feel valued, and the school's professional learning is more likely to address everyone's needs. Having team members play an active role in designing adult learning can also help bring skeptics on board because they have the power to address any shortcomings they see.

9 ACTIONABLE ADVICE AND FEEDBACK

To foster professional learning, school leaders need to offer educators clear and specific feedback. The information provided can come in the form of coaching, modeling, lesson study, or other modes, as long as educators can readily apply what they are learning.

Donna Yazdani, a teacher at Santee Elementary, confirms the value of actionable advice about her instruction: "I like getting specific feedback, not something broad. Something you can really apply. It's exciting to grow as a professional when you receive specific feedback."

CREATING AND SUSTAINING A STRONG CULTURE

How does a school develop a culture of professional learning that has the elements described above? Certain tools and systems will help a school make great progress.

One tool is a theory of change regarding professional learning. A theory of change is a description of how and why a desired change is expected to happen (Clark & Taplin, 2012). It maps out long-term goals for professional learning and the activities that are assumed to lead to those outcomes.

A theory of change acts as a reference point and focuses the staff's attention on a few high-priority areas along with the desired results in those areas. Thus, a theory of change helps bring about the focus and results

orientation discussed above.

Ideally, several staff members — not just the principal — develop the theory of change so that it reflects a consensus on the school's challenges as well as the proposed solutions.

After a theory of change has been articulated, it is helpful for a school to set up structures or forums that implement the actual professional learning. One such structure is an instructional leadership team, which generally includes the principal, instructional coaches, resource and specialist teachers, and a teacher leader from each grade, grade span, or department.

This group takes the lead on setting the school's goals and strategies, overseeing professional development, and monitoring progress. A motivated, representative subset of educators can drive a school's professional learning forward while ensuring that all voices are heard and a variety of issues and interests can be addressed.

At Santee Elementary, the instructional leadership team plays an important role in professional learning. Principal Reyes explains that "the team shares leadership of the school, and it's a forum for members to teach each other. We also work with the rest of the staff to help them improve their instruction and data analysis so that the school is not reliant on the instructional leadership team."

In other words, Santee's instructional leadership team promotes two components of a strong professional learning environment: *agency*, in that it involves teachers in the design of professional learning; and *actionable feedback*, in that it helps all staff members in specific ways that are crucial to the school's success.

While an instructional leadership team keeps a schoolwide perspective, other teams focus on the professional learning of individual grades or departments. Ideally, these other teams,

or professional learning communities (PLCs), collaborate to determine what students will learn, how students' improvement will be monitored, and how academic struggles will be addressed (DuFour, 2004).

If functioning properly, professional learning communities continually assess progress on these issues and adjust their approaches and goals. In addition, professional learning communities allow educators to learn from and support one another and hold each other accountable.

Yazdani, one of the teachers at Santee Elementary, believes that her grade-level teaching team, with its collaborative, trustful ways of working, plays a very positive role in her professional learning. "When our team meets, we share what's working well in our classrooms and ask each other for help because oftentimes someone on the team is doing something really well that the rest of us haven't thought of. That's where trust comes in," she says.

Yazdani also describes how multiple forms of data inform her team's learning: "The district's benchmark assessments are useful, but in between we often gauge student performance informally with exit slips and quizzes. We use all that information to help us figure out what instructional strategies are working," says Yazdani. She and her colleagues also learn from feedback that Principal Reyes provides based on frequent classroom walk-throughs and periodic performance evaluations.

Orozco's teaching team also supports her learning in an ongoing way. She says, "My team doesn't just get together on our designated meeting day. We check in after school for 10 to 15 minutes almost every day and ask, 'What went well? What do we need to change? What do we need to do tomorrow?'"

Orozco believes that her team functions well partly because the team members click with each other.

However, she thinks a team can be effective even without that same level of chemistry. “As long as the group bases its work on data and about doing what’s best for our students, it’ll be successful,” she says.

Part of the reason that the grade-level teams at Santee are effective is that Principal Reyes and the instructional leadership team have found ways to ensure that teaching teams have time to analyze student data, reflect on successes and challenges, and plan lessons collaboratively.

For example, the school has converted three of four traditional schoolwide staff meetings per month into grade-level planning sessions so that teachers can focus on instruction rather than administrative issues. In addition, physical education teachers come to school on Fridays and take the students from each grade for one hour, which gives each grade-level teaching team some time to analyze and reflect on data.

In addition to the tools and systems discussed above, professional development and coaching play a major role in creating a culture of continuous learning. The latter components are most effective when they work in concert and address topics in a sustained way.

For example, Orozco describes how professional development and coaching reinforce each other at Santee: “We have professional development sessions every other Thursday. We’ll do several sessions on a given topic and then get support. Our coaches will follow up and see how the learning from the sessions is being integrated in the classroom. If we’re struggling with something, my principal and coach are here to help me make it work.”

Orozco’s coach is in her classroom at least three times a week. He observes, co-teaches, and models instruction. In addition, he meets with her after school

in coaching cycles. Because Orozco is in only her third year of teaching, she gets more time with the coach than her more experienced counterparts do, but he provides a great deal of support to all teachers in the building because of the staff’s commitment to continuous improvement.

The professional development that Santee’s teachers participate in promotes continuous learning in yet another way: It gives teachers agency. For example, as part of a four-session professional development series, teachers were asked to help design the sessions so that they would focus on topics that the teachers were most interested in. As a result, Orozco and her peers were able to focus on issues such as addressing the needs of both guided reading groups and independent readers in their 1st-grade classes.

ADDRESSING THE HUMAN ELEMENT

Teaching quality is the most influential school-related factor affecting student achievement, and teaching quality can be improved through professional learning. By employing certain tools and structures, a school can put in place the building blocks for a strong system of professional learning.

However, to ensure that a school’s system of professional learning is truly robust requires more than establishing structures. Human factors are hugely important. These human factors can be simple — for example, whether teachers have been given time to transition from teaching students and all that entails to participating in team meetings. Or they can be more complex — for example, whether educators feel appreciated and have a healthy work-life balance. If education leaders do not attend to the human factors, structures and tools will have limited impact.

Conversely, accounting for people’s

needs can intensify improvements set in motion by the tools and systems described above. If staff members feel valued, and systems are set up to address people’s needs and interests, a school will likely see collaboration and problem solving happen not only within those systems but outside them as well. For example, teachers may go the extra mile to help a colleague on a different grade-level or departmental team with an instructional issue.

One way to attend to human factors is to apply some of the key principles of good classroom instruction to professional learning. Specifically, good professional learning assumes that the adults in the building bring strengths to the table, and it builds on those assets.

In addition, effective professional learning gives educators choices as well as support. Designing professional learning in these ways respects educators’ skills, helps them situate the new learning in their experiences, and tailors it to their specific needs and contexts.

If school leaders can get both the technical and human aspects right, they can create an environment in which educators thrive, one that attracts and retains highly talented educators.

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Reach. Investigate. Discover.

IDEAS

The gallery walk p. 48

Morgan Hart, a teacher at Center Drive School in Orrington, Maine, examines a middle school case study during a gallery walk.

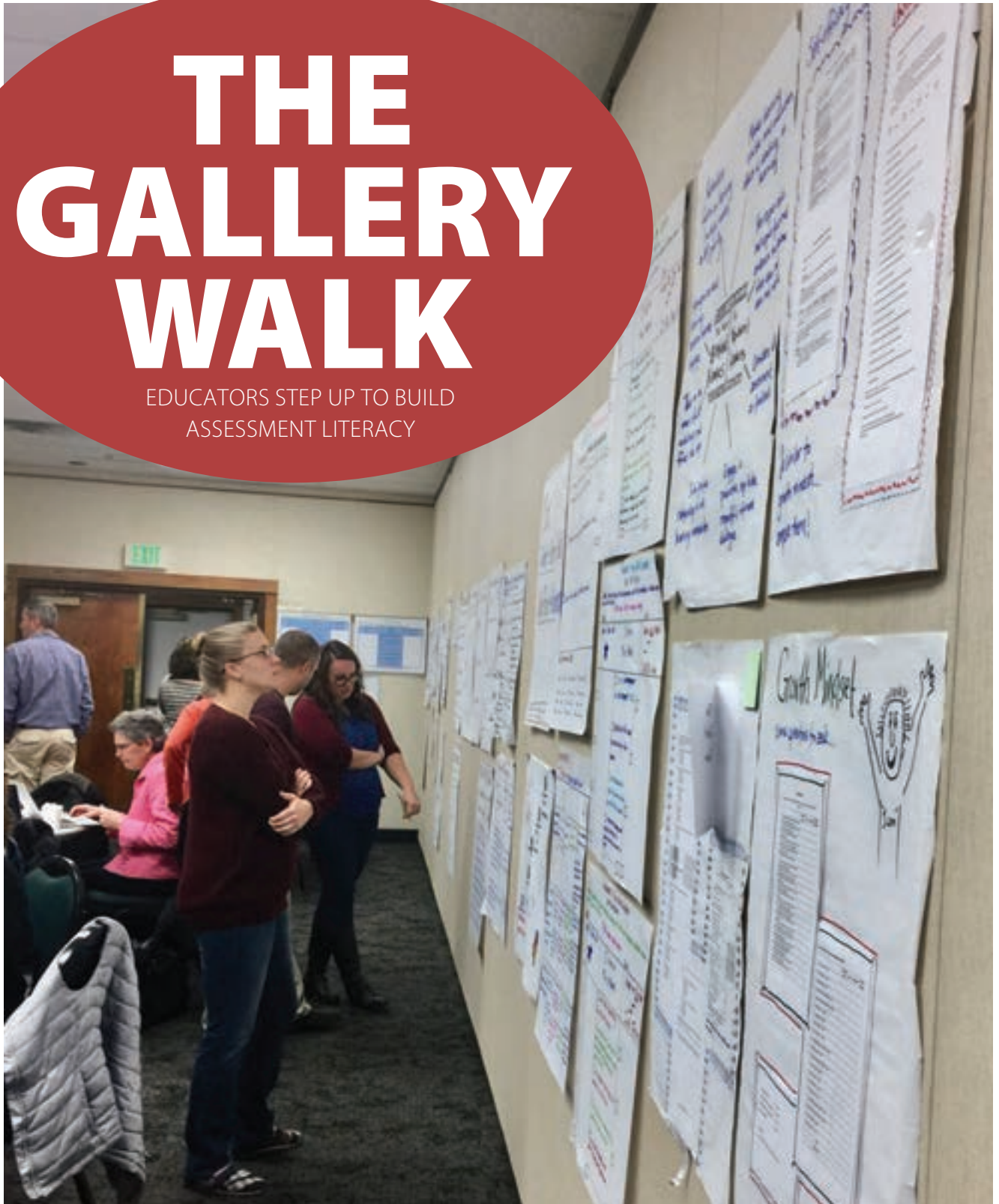
LEARNING ON THE MOVE

“In designing this kind of professional development, we chose movement over sitting, sharing with colleagues over listening to experts, imagery over words, and short written reflections over no reflection. Our aim is to demonstrate a differentiated approach to professional learning that places the educator in an active role, while providing human and material resources to facilitate each learner as he or she takes the next step in learning more about classroom assessment (or the specific topic of the gallery experience). Educators deserve to engage in professional learning that models effective learning strategies in a ‘do as I do’ manner, not a ‘do as I say’ manner.”

Photo by ANDREA JARVIS

THE GALLERY WALK

EDUCATORS STEP UP TO BUILD ASSESSMENT LITERACY



Photos by ANDREA JARVIS

Amy Robinson, foreground, an elementary teacher from Elm Street School in Mechanic Falls, Maine, joins other participants experiencing the gallery walk during an assessment literacy event sponsored by the Penobscot River Education Partnership in Brewer, Maine. Some of the participants engage in dialogue with colleagues at the gallery, while others have gravitated to tables to complete prompts electronically.



Teams reflect on the gallery walk experience and plan next steps. Teams of teachers and administrators from 19 districts as well as a team from the University of Maine attended the two-year event series.

BY ANITA STEWART McCAFFERTY AND JEFFREY BEAUDRY

If you were given a two-hour time block for professional development on a Friday afternoon just before the school district is to go on a week-long vacation, what kind of professional learning would you offer to maintain adult learners' interest and meet their learning needs? Your audience includes 175 K-12 teachers and administrators from a school district in Maine, and your topic is assessment literacy. How would you make the best of a challenging situation?

We chose an interactive immersion *gallery walk* to present information about foundational classroom assessment literacy concepts and skills. A gallery walk is a discussion technique that gets learners out of their seats

and invites them to become active participants in the learning process. We added new strategies to engage small and large groups of adult learners and their mobile technology.

The gallery consists of images, graphics, and text on posters of various sizes with embedded hot links, QR codes, and stations for hands-on activities. Participants move through the gallery to interact with, reflect on, and discuss ideas with peers. Participants are encouraged to bring their electronic mobile devices so they can take photos of posters that resonate with them, access QR codes for more information, tweet about something they're learning or thinking about, or access an established Google Drive for more templates, samples, and exemplars.

In addition, the gallery is arranged in stations or sections that are clearly delineated. In this case, the various sections focused on strategies of assessment *for* learning and the keys to quality classroom assessment.

OUR APPROACH

The gallery's core message is that sound classroom assessment literacy is at the heart of learning. To help students fulfill their learning potentials, educators need strong skill sets in assessment *for* learning strategies. These strategies include establishing clear learning targets; providing descriptive feedback; helping students self-assess, set goals, reflect, and track their learning; using learner-friendly rubrics; and so on.

IDEAS

Sound skills in classroom assessment *for* and *of* learning are a prerequisite for effective standards-based education; for assessing student growth (for example, using student learning outcomes and student learning objectives) as part of teacher and principal evaluation; and for meaningful implementation of curriculum.

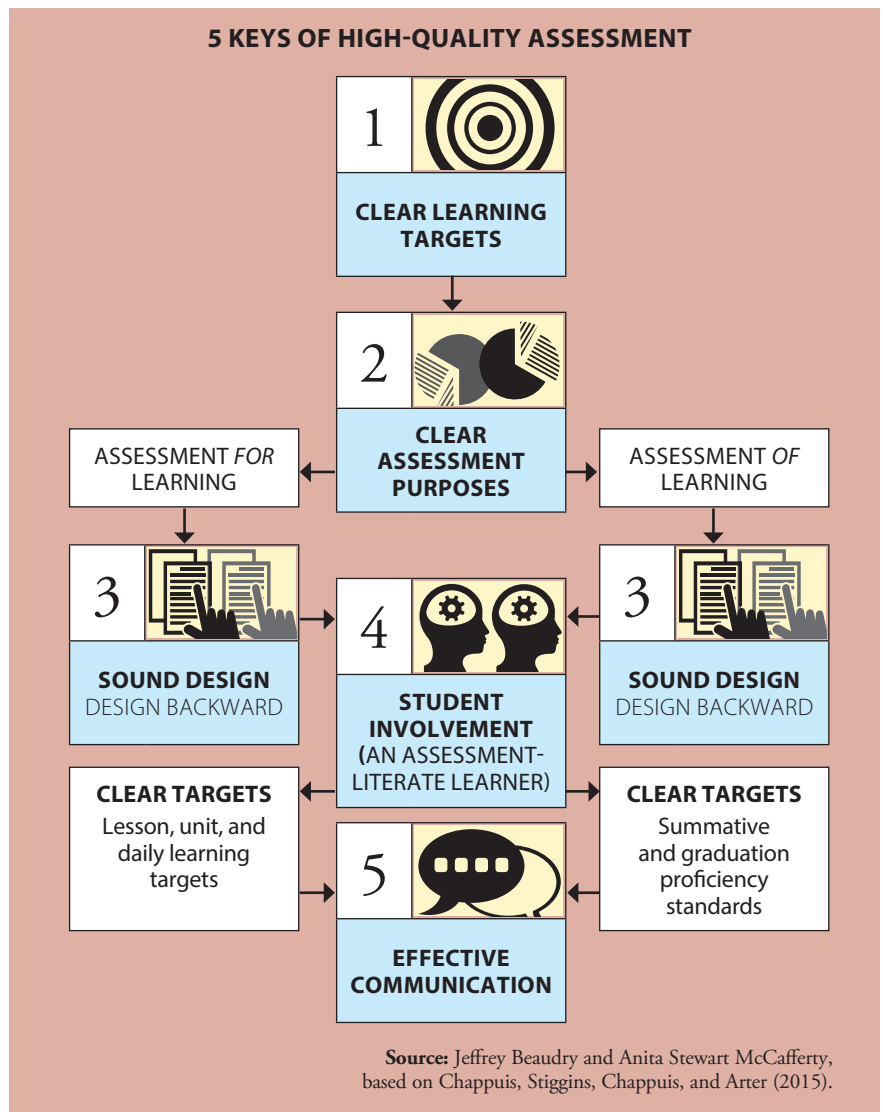
Our approach familiarizes participants with five keys of high-quality assessment (Chappuis, Stiggins, Chappuis, & Arter, 2012), as well as seven strategies of assessment *for* learning (Chappuis, 2015). Consequently, we have called the approach 5 + 7 High-Impact Strategies = Assessment Literacy.

The five keys (at right) include:

1. Clear learning targets;
2. Clear assessment purposes;
3. Sound design;
4. Student involvement (an assessment-literate learner); and
5. Effective communication.

The seven strategies of assessment for learning (p. 51) center on three guiding questions:

- **Where am I going?**
 1. Clear learning targets (teacher clarity).
 2. Models of strong and weak work with rubrics (success criteria and examples).
- **Where am I now?**
 3. Timely, descriptive feedback that directly affects learning.
 4. Student self-assessment and goal setting.
- **How do I close the gap? What are my strategies to get there?**
 5. Teachers use evidence of student learning to determine next steps.
 6. Focused practice and revision.
 7. Student self-reflection,



tracking, and sharing learning and progress with others (for example, with peers).

In addition, Hattie (2009, 2012) underscores the role of high-impact strategies for teaching, learning, and assessment. The relative impacts he assigns to the various strategies are represented by effect sizes (ES =) that we have laid over the assessment framework (p. 51) and have clearly marked on posters and accompanying electronic resources.

We ask participants to consider two essential assessment literacy questions

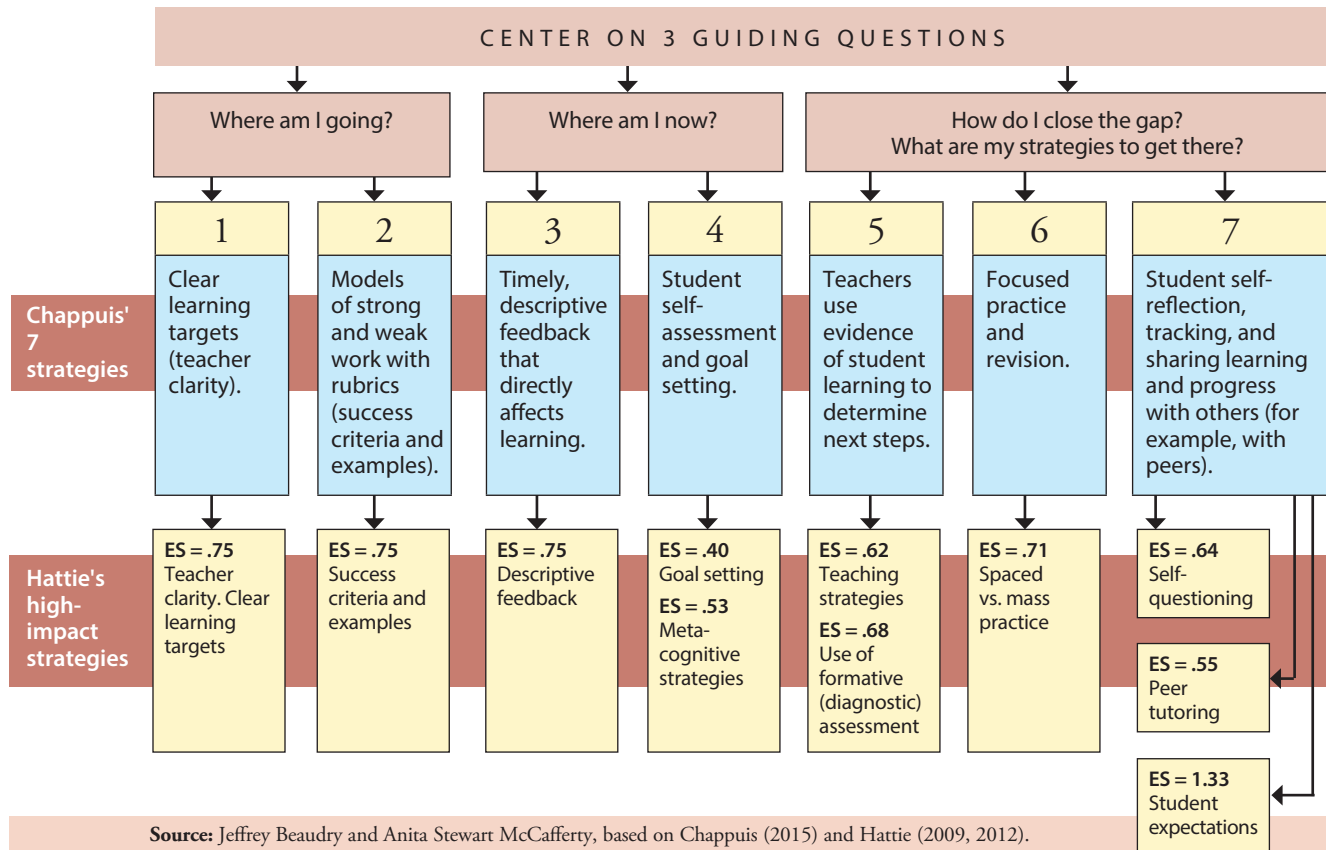
during the gallery experience:

1. How can you apply new strategies using the five keys of high-quality assessment?
2. How can you apply the seven strategies of assessment for learning to your teaching practice?

A PROFESSIONAL LEARNING STRATEGY

The 5+7 gallery consists of more than 80 posters with accompanying interactive learning stations and spaces. For example, the effective descriptive feedback portion of the gallery features a table on which various items are

7 STRATEGIES OF ASSESSMENT FOR LEARNING



displayed, such as pliers, a paintbrush, a squishy ball, ribbon, chopsticks, a key, a paperclip, a puzzle, a flashlight, and duct tape. Participants are asked to select one item that represents the way they like to receive professional feedback and then talk with colleagues about those items and about what they represent symbolically to them. This is a fun way to engage educators in thinking about receiving and giving feedback. Table prompts help guide the conversation.

In the self-assessment, goal setting, and reflection portions of the gallery, participants use sticky notes to self-assess their understanding and application of the assessment for learning strategies, as well as indicate — and commit to — a strategy to explore more deeply. Then they apply the strategies and tools to their own contexts through “now you try” icons

that provide them with hard copy and electronic templates and exemplars.

Participants travel through the gallery with sticky notes, which they use to jot down their thoughts on what they’re learning and observing. They then place the notes on various posters for others to consider. Participants also carry a gallery passport, which includes the following reflection prompts for each of the seven strategies and five keys: *A question I have...* *I noticed...* *One thing I would like to try.*

The gallery passport and sticky notes are formal tools to encourage participants to slow down, take notes, reflect on their learning, and plan action steps. For example, some participants realize they do very little to teach students to self-assess their progress in meeting complex standards. Consequently, they will often create a goal for clarifying the next steps they

need to take to teach and practice self-assessment and goal setting with their students.

Additional stations include a book and article station for those who prefer to read more about particular classroom assessment concepts or strategies and a listening/viewing station that includes video clips specifically created for this professional learning purpose that further explain 5+7 ideas.

Another component of the interactive gallery walk is a feature we call pop-up sessions, an opportunity for participants to engage with presenters in minilessons around specific strategies or tools, such as the next steps rubrics or concept mapping. The presenters, as well as other teacher or administrator leaders, volunteer to present these sessions. Pop-up sessions generally last 10-15 minutes. Participants sign up for offerings and add suggestions for topics.

IDEAS

The pop-up sessions occur during the gallery walk and provide direct instruction for those who prefer that learning style.

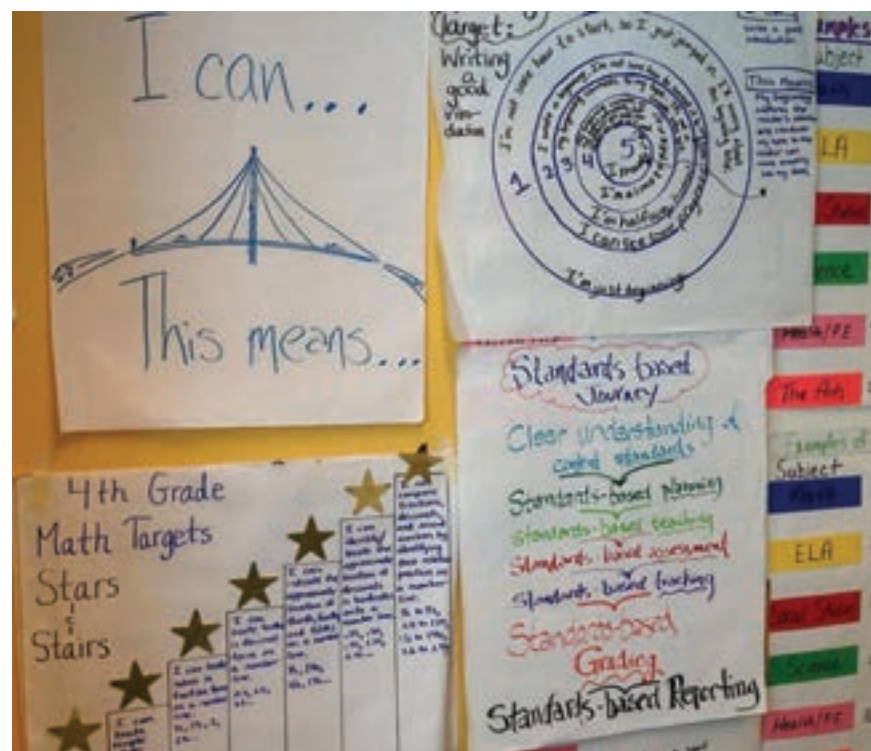
To aid learners during and after the interactive gallery experience, we provide a host of resources, including a 5+7 Google Drive with subfolders of supplemental materials. Using VoiceThread, we created a virtual gallery experience by photographing the gallery and adding narration, comments, and video clips. We invite gallery participants to use the virtual gallery to revisit their experience, extend the dialogue, and refresh their learning over time. We also use Twitter and hashtags specific to the content or context to share the experience with participants' personal learning networks and to extend the conversation over time and beyond physical boundaries.

In designing this kind of professional development, we chose movement over sitting, sharing with colleagues over listening to experts, imagery over words, and short written reflections over no reflection. Our aim is to demonstrate a differentiated approach to professional learning that places the educator in an active role, while providing human and material resources to facilitate each learner as he or she takes the next step in learning more about classroom assessment (or the specific topic of the gallery experience). Educators deserve to engage in professional learning that models effective learning strategies in a “do as I do” manner, not a “do as I say” manner.

WHAT PARTICIPANTS HAD TO SAY

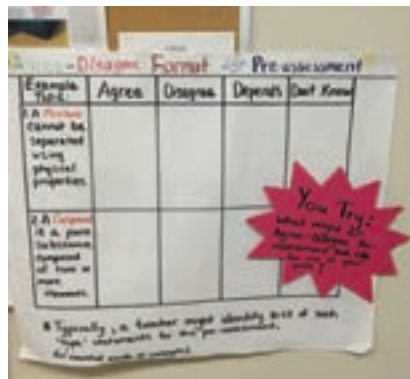
One of the challenges of professional development is to expose participants to complex concepts and models in an engaging and efficient way. We seek to balance the complexity of conceptual frameworks with the need to learn in digestible chunks.

Over the past two years, we have



Above, part of the gallery focused on teacher clarity/clear learning targets.

Left, an example of the interactive prompts (e.g. “You Try”) found throughout the gallery walk.



used this strategy repeatedly for varied professional learning opportunities and in graduate courses. We have offered it for K-12 professional development days, early release workshops, summer institutes, summits, conferences, and regional partnership leader sessions. We have used it with graduate students, STEM educators, arts educators, administrators, and teacher leaders.

We have created gallery walks for 20 participants as well as for a few hundred, with the walks ranging from 45 minutes to 2½ hours. In all cases, participants have reported an increased understanding of assessment literacy

concepts and overall satisfaction with the professional learning opportunity.

We use a series of closed and open-ended questions to gauge the effectiveness of the gallery walk. We ask participants to respond to five writing prompts on an exit ticket. The open-ended writing stems include the following: *I used to think... Now I think... One thing I will try... What I liked best about the gallery... One thing to improve about the gallery...* We carefully analyze the data and refine and improve each subsequent gallery experience.

Some participants have noted that the sheer size of the gallery can be overwhelming. As a result, we have created smaller, more concise galleries when introducing a complex topic for the first time. Other feedback has led us to more carefully label posters and

organize them into strategy clusters. We created posters with condensed information, which now serve as markers for each strategy.

For example, the poster for the strategy of descriptive feedback is an information-rich display. Other posters in that same cluster list effect sizes and design steps for that strategy. The goal is to find a balance between information scarcity and overload. Using the same visual icon on handouts, electronic resources, and posters about the same concept is another organizing feature we have added to the gallery.

ONE SCHOOL DISTRICT'S EXPERIENCE

Let's revisit the Maine school district we mentioned at the beginning of this article. From the start, district leaders announced that assessment literacy would be a major professional development theme. All teachers and administrators in the district viewed the interactive gallery.

Based on a follow-up survey of teachers to determine interest in future professional development, we scheduled a three-part series and two summer professional development days on assessment literacy for 35 teachers who volunteered for the offering. We found that teachers readily identified with and incorporated two of the assessment for learning strategies: clear learning targets and self-assessment and goal setting.

Teachers used the models in the gallery walk to create their own versions of stars and stairs (the star indicating what the student is doing well and the stair indicating the steps the student needs to take to improve) and of our new assessment tool, the next steps rubric. School district leadership, including the superintendent, attended many of these events, marking a visible commitment to the focus on assessment literacy.

Although we provided the initial

professional development experiences, teachers became leaders as they designed workshops to share with other teachers in district, regional, and statewide events. In the year following the initial gallery walk, the school district engaged a core group of teachers as "assessment pioneers."

Eight teachers, a high school administrator, and the curriculum coordinator met with us to delve deeper into the application of assessment strategies in their classrooms and hone their assessment leadership skills. The "pioneers" then were tasked with educating others in their departments and schools about what they learned. They took advantage of professional learning community time, as well as faculty early release time, monthly meetings, and professional development days to accomplish the task.

Interestingly, our assessment gallery has become well traveled in Maine. Each group of teachers that has engaged in the immersive experience tries various strategies and tools in the classroom and then creates a gallery item to add to the experience for others.

For instance, teachers might work collaboratively on creating a stars and stairs learning progression, a concept map, a visual representation of a standard, or a self-assessment tool. As a result, the gallery has expanded exponentially. The digitized version is available to participants through Google Drive. Thousands of educators have viewed it and regularly share their own applications of the resources by dropping examples in the "share your creation" folder. Hundreds of teacher-created examples now occupy the drive.

WALKING THE WALK

The gallery walk is a continuous design process that reflects our best understanding of assessment literacy as well as our understanding of adult learning as it develops over time. We

are always finding fresh areas of interest — such as diagnostic/hinge questions, visual thinking strategies, and grit and self-control surveys — as we develop the gallery and add new posters.

By creating new posters and technology-rich add-ons, we're continually adding new ideas to 5+7 High-Impact Strategies = Assessment Literacy. The gallery of poster papers is relatively easy to move, set up, take down, and store. The physical gallery adds an old-school feel to our cadre of professional learning strategies and helps create a 360-degree immersion in the topic at hand.

Coupled with technology and social media, the interactive immersion gallery walk creates a professional learning experience that employs sound principles of learning and provides an entry point for a plethora of interests, learning preferences, and professional growth.

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TECHNOLOGY TAKES COACHING TO SCALE

INVESTING IN INNOVATION GRANTEES SHOW HOW IT'S DONE



WHAT IS i3?

The Investing in Innovation Fund (i3), established under the American Recovery and Reinvestment Act of 2009, is a federal discretionary grant program at the U.S. Department of Education, within the Office of Innovation and Improvement. It provides funding to support school districts and nonprofit partners to implement and scale innovative, evidence-based practices. The i3 program has invested \$1.4 billion in 172 projects across all 50 U.S. states. For more information, visit www.i3community.ed.gov.

BY NICOLE BRESLOW

In recent years, there has been increasing interest in the use of video and other technology tools to support professional learning. A growing body of evidence shows how these tools are improving teachers' practice (Borko, Jacobs, Eiteljorg, & Pittman, 2008; Grant & Kline, 2010; van Es & Sherin, 2010). However, there has been less focus on the potential of technology tools to bring promising and proven professional development models to scale. Let's look at how eight grantees of the Investing in Innovation Fund (i3) are using video and other technology tools to strengthen, scale, and sustain their instructional coaching models.

TECHNOLOGY SUPPORTS EXPANSION

Instructional coaching can be a powerful strategy for improving teacher practice and raising student achievement. However, the high cost of implementing these models and the challenge of finding high-quality coaches often make it difficult to expand and sustain coaching in schools and districts. Technology helps i3 grantees address these challenges by

- **Reducing the costs of coaching.** Virtual coaches who provide off-site coaching support can manage a larger caseload than in-person coaches by eliminating the time spent

traveling from school to school. Collaborative coaching models, aided by technology that supports virtual communication and collaboration, also enable coaches to manage larger caseloads, reducing the cost of coaching per teacher.

- **Enabling teachers to have access to high-quality, content-specific coaches, regardless of where they live.** Although geography limits the pool of qualified coaches in an in-person coaching model and can make expansion difficult, virtual coaching models benefit from an expanded pool of

i3 GRANTEES' COACHING MODEL FEATURES								
Feature	Texas Tech	New Teacher Center	Aspire	California Education Round Table	The New Teacher Project	ELLA-V	ExCELL-E	National Board for Professional Teaching Standards
Interaction between coaches and teachers is primarily in person.	•	•	•					•
Interaction between coaches and teachers is primarily virtual.				•	•	•	•	
Incorporates web-based resources that can be accessed asynchronously.		•	•		•		•	•
Uses videos of exemplary instruction (video libraries).			•				•	•
Uses videos of teachers' own practice.			•		•	•	•	
Teachers participate in PLCs or group professional development sessions that connect with the coaching.	•	•		•	•	•		
Uses videos of coaching conversations as a learning tool for coaches.	•	•			•			

- potential coaches.
- **Reducing scheduling and other logistical challenges** that can make coaching difficult to sustain. Finding time for teachers and coaches to meet for pre- and post-observation conferences and for teachers to visit model classrooms is less of a challenge with technology tools that enable teachers

- and coaches to communicate and collaborate anytime, anywhere.
- **Giving teachers access to high-quality resources to support their learning**, such as videos of exemplary teaching and related instructional materials. Although the instructional resources available in in-person coaching models may vary

depending on the proficiency of other teachers in the school or the ability of the coach to model lessons in a particular content area, video libraries can give all teachers access to high-quality resources that can address their specific needs. This helps coaching models maintain a high quality while scaling their reach.

THREE SURE APPROACHES

i3 grantees are using technology in a variety of ways to enhance their coaching models and address barriers to scale and sustainability (see table on p. 56). Here are three approaches they're taking to integrate technology into coaching.

Content-rich platforms

Many grantees have designed content-rich resource platforms that enable teachers to control the time, place, pace, and path of their learning. These platforms often incorporate video libraries of exemplary teaching and complementary instructional resources with integrated coaching supports that help teachers use these videos more purposefully and connect them to their own classrooms. Some platforms provide coaching and reflection tools that allow teachers to communicate and collaborate with one another and with coaches asynchronously.

For example, the National Board for Professional Teaching Standards has developed ATLAS, an online library of accomplished teaching. Each video is paired with instructional materials and written reflections and analysis from the teacher. Together, each "video case" provides a clear picture of what accomplished teaching looks like, as well as insights from the teacher about his or her planning and intentions for that lesson and reflections for improvement, according to Caitlin Wilson, senior manager of improvement coaching at the National Board for Professional Teaching Standards, and Christina Carlson, instructional specialist in the Yakima School District in Washington.

The videos are tagged to a number of common teaching frameworks, such as the Common Core State Standards and Next Generation Science Standards, as well as to various subjects and grade levels, making it

PARTICIPATING i3 PROJECTS

- Aspire Public Schools, *Transforming Teacher Talent*
- Texas A&M University, *English Language and Literacy Acquisition Validation Study (ELLA-V)*
- Temple University, *Exceptional Coaching for Early Language and Literacy-Enhanced*
- National Board for Professional Teaching Standards, *Building a Pipeline of Teaching Excellence*
- New Teacher Center, *Launching the Next Generation of Effective Educators*
- Texas Tech University, *Competency-Based Educator Preparation and School Intervention*
- The New Teacher Project (TNTP), *Teacher Effectiveness and Certification Initiative*
- California Education Round Table, *STEM Learning Opportunities Providing Equity*

easy for users to find resources that meet their needs. The National Board for Professional Teaching Standards is piloting ATLAS in teacher preparation programs and local education agency sites across the United States.

Temple University's ExCell-e developed an online, asynchronous version of its face-to-face professional development program for early childhood teachers to reduce costs while maintaining quality, making it possible to scale the program to other sites, says associate professor Annemarie Hindman. Teachers complete nine online modules addressing specific instructional strategies to help students build language and vocabulary skills.

The modules incorporate videos of accomplished teachers using the classroom practices addressed in

that module. At the end of each module, teachers must implement the instructional strategies in their classroom and record their practice. Coaches view these videos remotely and provide written feedback to the teacher before having a phone or video call to discuss the feedback.

Videos of teacher practice

Other grantees are recording teachers' practice to enable coaching from a distance, deepen teacher reflection, and improve coach feedback. Tools that allow coaches and teachers to annotate these videos of teacher practice, such as Torsh TALENT or Teachscape, are particularly useful. They enable coaches to be more specific in their feedback, and they tighten the focus of the coaching conversation on the relationship between teacher practice and student learning.

The New Teacher Project has shifted from in-person coaching to virtual coaching as a way to scale and bring more consistency to its coaching approach across multiple sites, says project director Erin Martin. Teachers use a smartphone, video camera, or webcam to record their teaching and then upload the video clips to an online portal. Within three days, coaches provide detailed feedback, including time-stamped comments and specific action steps. The coach and teacher then debrief and discuss next steps by phone.

Tools for virtual communication

As part of their coaching models, grantees are also using tools for live virtual communication to allow teachers and coaches to collaborate and share resources anytime, anywhere. These tools enable synchronous and asynchronous collaboration across schools and support the sharing of student work and instructional resources. They also facilitate

IDEAS

relationship building, which is crucial to successful coaching relationships.

For example, in its STEM initiative, the California Education Round Table has coaches working with small groups of middle and high school mathematics teachers to guide them through the responsive teaching cycle, a reflective process that helps teachers collaboratively design instruction to meet students' learning needs.

Groups of teachers meet together and with coaches virtually using Google Hangouts, a platform that is freely available and can be used with any device. They also use Google Drive to store all their instructional resources. These technology tools enable teachers to collaborate across school districts. Because they're free, they will support the continuation of this work beyond the life of the grant, say Sharon Twitty, executive director of the Alliance for Regional Collaboration to Heighten Educational Success, and Ivan Cheng, secondary education professor at California State University, Northridge.

LESSONS LEARNED

Here are key lessons learned in i3 grantees' efforts to strengthen, scale, and sustain their coaching models, as well as the role technology has played in their efforts.

Integrate coaching into teachers' day-to-day work.

Integrating coaching into the local context is crucial for models that are primarily virtual and don't have a physical presence in the school. Many grantees are connecting their coaching work to the work of professional learning communities (PLCs) to integrate their coaching support into a larger network of supports.

School leaders also play a key role in helping to strengthen connections between coaching and teachers' daily work. When coaches and principals are



The quality of the coaches is the greatest factor in the success of any coaching model.

in frequent communication about the goals and progress of teachers in their school, principals are able to reinforce this work in their conversations with teachers.

For example, Aspire Public Schools has developed a comprehensive system of support for teachers that integrates its teacher evaluation process with its targeted approach to professional development, which includes coaching. Aspire's teammate effectiveness program manager Anne Marie Ferruzzi, director of solution delivery Heather Berkley, and project manager Dawn Albert say embedding coaching in this larger system of support makes it highly relevant to teachers on a daily basis.

On Aspire's BloomBoard resource platform, teachers have access to a video library of self-recorded clips from exemplary Aspire teachers and instructional resources such as lesson plans, lesson materials, and interviews with the recorded teacher, all tagged to specific indicators of effective teaching and to specific grade levels and content areas. Teachers use these resources to support their self-directed professional development, as well as in their work with coaches.

When teachers are observed as part of the evaluation process, they can view their observation results on the BloomBoard platform and link directly to resources that align with the areas they are working to improve. Integrating the systems for teacher evaluation and teacher support has

helped teachers view the process of evaluation as useful for their growth and has strengthened the connections to their day-to-day work.

Build coaching relationships intentionally.

With increasing opportunities for technology-supported interactions between coaches and teachers and less time spent developing relationships in person, schools need to build trust more intentionally than before.

Creating occasional opportunities for face-to-face interactions is useful, particularly at the start of a relationship. If this is not possible, videoconferencing technology can help, such as Skype and Google Hangouts. Many grantees require coaches to hold an initial introductory conversation with teachers that focuses on getting to know their context, establishing credibility, and building trust.

At the New Teacher Center, establishing trust is particularly important when asking teachers to record and share videos of their teaching practice. When coaches record their coaching conversations with teachers, they explain that they also will receive feedback about their own coaching practice from coach peers to support their improvement as a coach. Modeling the use of video as a learning tool for coaches can help ease the way for teachers who are hesitant to record their instruction.

Some New Teacher Center coaches

GRANTEES' KEY TECHNOLOGY TOOLS			
Project	Key technology tools	Purpose	Custom (C) Existing (E)
Aspire	BloomBoard	Stores a resource library of exemplar videos and a recommendation engine.	E
California Education Round Table	Google Hangout	Collaborative coaching conversations with groups of teachers.	E
	Google Docs	Houses a shared repository of curriculum activities and resources.	E
ELLA-V	IRIS video camera, ear piece, and microphone	Live virtual coaching.	E
	TeleForm	Recording and sharing student data.	E
	Citrix GoToMeeting	Virtual meetings with individual teachers who need additional coaching support.	E
ExCELL-e	ExCELL-e website	Houses the training modules.	C
	YouTube and MoviePro	Uploading and sharing teachers' videos.	E
National Board for Professional Teaching Standards	ATLAS	A searchable video library of accomplished teaching with instructional materials and written reflections from the teacher.	C
New Teacher Center	Learning Zone	Stores coaching tools and resources.	C
	Torsh TALENT	Uploading, sharing, and annotating teachers' videos.	E
Texas Tech	Teachscape	Uploading, sharing, and annotating teachers' videos.	E
The New Teacher Project	Different platforms are used depending on the project, including BloomBoard, Blackboard, Teachscape	Uploading, sharing, and annotating teachers' videos.	E

also send teachers a brief introductory video message and ask teachers to record and send one back. This helps teachers get comfortable using the technology and seeing themselves on video, say Victoria Hom, director of federal grant programs, and Taiesha Woodson-Durham, induction coach at the New Teacher Center.

Invest in coach training and support.

The quality of the coaches is the greatest factor in the success of any coaching model. As i3 grantees expand their coaching models, many have established a lead coach role as a key

lever for building coach capacity. These lead coaches observe coaches' conversations with teachers, often using video recordings, and provide feedback about their practice.

Coaches also work with lead coaches to set and monitor goals to guide their growth. In this way, coaches are engaged in a professional learning process that mirrors the process they facilitate for teachers. Establishing a lead coach role also ensures that there is dedicated time and focus for coach support and development.

Texas Tech's evaluation is finding that coaches who have the most training

and support and who are consistently implementing the coaching model with fidelity are showing the greatest improvements in student achievement and teacher practice, say Irma Almager, assistant professor of educational leadership, and Fernaldo Valle, associate professor of educational leadership.

School-based coaches working with Texas Tech University record their coaching conversations with teachers, as well as the coaching conversations that take place during the PLC meetings they facilitate, and they share these videos on Teachscape, their technology platform of choice.

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- **District and school leaders** responsible for the selection and implementation of college- and career-ready standards and materials.
- **Instructional coaches and teacher leaders** who support teacher teams and PLCs to strengthen their capacity to teach all children.
- **Teacher teams** tasked with using OER who want to align those resources and work with standards using best practices.

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Grant leaders who provide coach training and support review these videos and provide feedback to coaches based on rubrics that define effective coaching practice. Coaches also meet in their own PLC to learn together and build a community of coaches.

Select technology tools to support coaching with sustainability in mind.

When making decisions about what technology tools to use, project directors need to be realistic about initial and ongoing technology costs and the ability of schools and districts to support these costs beyond the life of the project. Using existing technology that schools already have or that is freely available goes a long way toward enabling sustainability.

i3 projects use many different technologies for a variety of purposes (see table on p. 59). Some projects custom-built their own tools, whereas others used or adapted existing tools. Grantees agreed that it's preferable to use or adapt an existing platform for video storage and teacher/coach collaboration rather than building one's own when possible.

It takes an enormous amount of money, time, and effort to build a platform, and many existing tools can be customized. Custom technology is also harder to manage and more expensive to sustain.

Texas A&M University's ELLA-V project is unique to i3 in its use of bug-in-ear technology, which allows coaches 500 miles away to give immediate, actionable feedback to teachers in the classroom. This live coaching enables teachers to alter their pattern of teaching in real time and see immediate results with their students.

Rafael Lara-Alecio, regents professor of educational psychology, Beverly Irby, professor and associate dean for academic affairs, educational administration and human resource



Using existing technology that schools already have or that is freely available goes a long way toward enabling sustainability.

development, and Fuhui Tong, associate director of the Center for Research & Development in Dual Language & Literacy Acquisition, explain that teachers use IRIS Connect technology, which includes a video camera that provides a 360-degree view of the classroom, as well as earpieces and microphones. ELLA-V has found the high expense of the cameras and platform to be a significant challenge in expanding and sustaining the work. Project leaders are working to develop a more cost-effective platform and hardware that will maintain the high quality at a much lower cost.

RESULTS: IMPACT AND SUSTAINABILITY

One goal of the Investing in Innovation program is to generate high-quality evidence about the implementation and outcomes of innovative practices to inform policy decisions. Six of the eight projects highlighted in this article have final evaluation data available. The other two projects will be completed later this year. Let's take a look at this final and preliminary data.

ExCELL-e. A randomized controlled trial study showed that teachers who receive a full year of the ExCELL-e professional development, including nine modules of evidence-based content and monthly sessions of personalized coaching, make significant gains in the quality of their language

and literacy instruction using the gold-standard Classroom Assessment Scoring System measure.

Gains were apparent in concept development, language modeling, and the quality of feedback provided to students. The greatest teacher gains involved supporting dual-language learners in building English language and vocabulary (Hindman et al., 2015). Because this model involved web-mediated coaching, coaches were able to serve at least 30% more teachers than in traditional face-to-face models.

New Teacher Center. Evaluation studies find that a higher percentage of new teachers supported by New Teacher Center demonstrate proficiency in engaging students in learning and in using assessment in instruction compared to teachers who are not supported by the center.

After two years of support, students of New Teacher Center-supported teachers in grades 4 through 8 demonstrated three to five months of additional learning in reading compared to students of the control group teachers, who received traditional new teacher support.

Further, after two years of support, the students of New Teacher Center-supported teachers demonstrated learning gains at the same level as students of veteran teachers for both elementary and secondary levels in math and English language arts. In 2015-16, New Teacher Center reached

more than 40,000 teachers, 7,500 mentors/coaches, and 3.4 million students. By 2019-20, the center hopes to reach 135,000 educators and more than 8.5 million students.

Aspire Public Schools. Aspire Public Schools substantially improved teachers' practice after introducing the Transforming Teacher Talent (t3) system of technology tools and support. There was a positive and statistically significant gain in teachers' scores on the Aspire Instructional Rubric.

STEM Learning Opportunities Providing Equity (SLOPE). Sixteen of the 28 Algebra I teachers involved in the program participated regularly enough and for enough time to reach the threshold for fidelity. Students with low-fidelity treatment teachers scored significantly lower than control students and students with high-fidelity treatment teachers.

The lessons learned from i3 have been applied to the SLOPE professional development model and are currently being implemented as Applying College and Career Equity-based STEM Strategies (ACCESS). ACCESS is currently being implemented in 20 districts and 41 school sites, involving more than 145 teachers and 25 coaches.

The New Teacher Project. Teachers who are randomly assigned to yearlong coaches receive higher scores on classroom observations than teachers who are not working with a coach. Further, teachers have reported that video is helping to make feedback more specific and useful, suggesting even more potential for this approach. Virtual coaching has had a similar impact on in-person coaching, and virtual coaches can serve double the number of teachers as in-person coaches and get the same results.

Texas Tech University. Four of the seven secondary schools that participated in the instructional coaching collaborative made significant

gains in math performance. In addition, schools with the greatest gains in students' math performance had the highest levels of school principal support.

English Language and Literacy Acquisition Validation Study (ELLA-V). Preliminary results from the randomized control trial study using the Transitional Bilingual Observation Protocol revealed that 1st-grade bilingual teachers who received virtual professional development and virtual mentoring and coaching allocated 10% more instructional time to teaching cognitive content involving higher-order thinking and reasoning.

They also spent an average of 10% more instructional time in English as a Second Language strategies, including questioning, academic language scaffolding, and collaborative/cooperative grouping.

Students in these classrooms were also more engaged in their learning as compared to their peers in control classrooms. In summary, teachers have benefited from virtual professional development and virtual mentoring and coaching (Tong et al., 2017).

In the past year alone, web-mediated virtual professional development and virtual mentoring and coaching enabled coaches to provide effective support to 77 1st-grade bilingual teachers on 40 elementary campuses within seven school districts across Texas.

National Board for Professional Teaching Standards. Preliminary results indicate a higher level of self-efficacy and self-reflection in preservice and early career teachers who used its online library of accomplished teaching, ATLAS, in comparison to their peers. ATLAS access has now grown to over 80 institutions of higher education, 20 school districts, and two state departments of education.

GOING FORWARD

As we shift to a more personalized instructional model for both students and teachers, there's an even greater need for coaches who can provide skillful support targeted to teachers' specific learning needs. The evidence from these i3 projects points to the promise of technology as a tool to strengthen and expand the impact of coaching on teacher practice.

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Discuss. Collaborate. Facilitate.

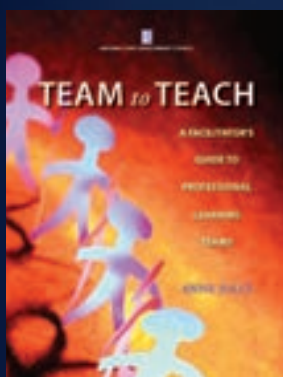
TOOLS



TOOLS IN THIS SECTION

BLACKLINE MASTERS FOR YOUR CONVENIENCE

- 1 The ideal start-up**
- 2 Support structures for professional learning teams**
- 3 Learning team options**
- 4 Team logistics**
- 5 Time to meet**



ABOUT THE BOOK

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By *Anne Jolly*

This step-by-step book includes all the necessary guidelines for facilitators to help educators build a successful professional

learning team. Includes 150 pages of tools for facilitators and learning team leaders. To order: www.learningforward.org/bookstore or 800-727-7288.

TEAM BASICS

"Getting teams off to a good start involves addressing two sets of logistics. First, what support structures should school leaders put in place to ensure a successful beginning for professional learning teams? This decision requires carefully analyzing teachers' knowledge and skills, the existing school culture, how motivated teachers are to collaborate, and incentives that encourage participation.

"Second, what organizational logistics must be addressed prior to launching the teams? Organizational logistics include deciding who will participate, what teams will look like, when and where they will meet, who will act as team leader and recorder, what resources they will need initially, and how the team will communicate its work."

Source: Jolly, A. (2008). *Team to teach: A facilitator's guide to professional learning teams*. Oxford, OH: NSDC.

TOOL 1: THE IDEAL START-UP

Directions: Answer the questions below to generate ideas about what would ideally be in place for a successful rollout of professional learning teams. While these ideas may not materialize, the gap between the actual and the ideal can provide useful information for planning purposes and can help you identify issues to address early on.

1. Ideally, what knowledge, skills, and information about professional learning teams would teachers have?

2. Ideally, what attitudes would teachers have about participating in professional learning teams?

3. Ideally, what school policies and procedures would be in place to support professional learning teams?

4. Ideally, what incentives would be in place to support professional learning teams?

Source: Jolly, A. (2008). *Team to teach: A facilitator's guide to professional learning teams*. Oxford, OH: NSDC.

TOOL 2: SUPPORT STRUCTURES FOR PROFESSIONAL LEARNING TEAMS

Directions: How ready is your school to begin the professional learning team initiative? Do a quick front-end analysis to see how many of these factors that influence team performance are in place. Place a check mark in the box next to items you agree currently describe your school. Discuss which boxes you checked in small groups. Which items can be addressed before beginning professional learning teams? Which will need attention during the course of the initiative?

Teacher knowledge, skills, and information

The faculty knows:

- How to collaborate with other adults.
- Why teachers are using professional learning teams.
- How learning teams are structured.
- What to do in a learning team meeting.
- How to manage resistance and conflict.
- How teachers can get needed information, resources, and assistance.

Teacher motivation and commitment

The faculty:

- Sees professional learning teams as relevant.
- Values the opportunity to work collaboratively.
- Feels confident teachers can succeed in this initiative.
- Exhibits enthusiasm.
- Believes this effort will help students.

School environment, tools, and processes

- Policies and procedures are in place that will support learning teams.
- The school culture and organization are structured in a way that makes learning teams a natural outcome.
- Resources are available.
- Existing teacher workloads and expectations allow for learning team work.
- Teachers' noninstructional responsibilities are minimal.

Incentives

The school will encourage learning team participation through:

- Memberships in professional organizations and education journal subscriptions.
- Conferences and workshop attendance as teams or groups.

- Opportunities for learning team presentations.
- Celebrations, appreciation, and high team visibility.
- Exchanges (e.g. professional learning credit, business cards, time trades).
- Frequent feedback.
- Involvement in decision making about professional learning teams.
- Adjusted teacher workloads.
- Spotlighting team successes.
- Spotlighting student successes.

Source: Jolly, A. (2008). *Team to teach: A facilitator's guide to professional learning teams*. Oxford, OH: NSDC.

TOOL 3: LEARNING TEAM OPTIONS

Directions: Discuss each option and record your thinking. Which option would ideally produce the best results for your students? Which are realistic for your staff?

Option	Description	Student learning needs that could be addressed with this option	Advantages/ disadvantages of this option
Faculty-wide teams	The entire faculty participates in learning teams focused on the same initiative.		
Special topic teams	Teachers group themselves in teams around topics of interest that relate to instruction.		
Interdisciplinary teams	Teams of teachers who share common planning times and the same students work together.		
Grade-level teams	Teachers work together on effective instructional practices for students at a particular grade level.		
Vertical teams	Teachers work together across grade levels to address specific student needs across grades.		
Subject-area teams	Teachers address instructional and learning needs within their subject areas.		
Between-school teams	Teachers from different schools work together on a common initiative.		

Source: Jolly, A. (2008). *Team to teach: A facilitator's guide to professional learning teams*. Oxford, OH: NSDC.

TOOL 4: TEAM LOGISTICS

Directions: Use this activity to help with initial team logistics. Work with other team members to brainstorm ideas for each question. The bullet points in the column at left suggest issues you may need to consider in making these decisions. After discussing each question in the column on the right, write the team’s decisions in the space provided beneath each question.

Guidelines and suggestions	Decisions
<ul style="list-style-type: none"> • Keep team small (three to five people). • Consider personalities, diversity of ideas, and teaching styles, forming a critical mass of positive people. • “Teachers only” is recommended; however, to get off to a good start, teams may begin by using a different composition. 	<p>Who is on our professional learning team?</p>
<ul style="list-style-type: none"> • Meeting during the school day lends value and credibility to the process. 	<p>When will our team meet?</p>
<ul style="list-style-type: none"> • At the school, in comfortable surroundings. • In an area safe from interruptions. • In an area where teachers can sit facing each other. 	<p>Where will our team meet?</p>
<ul style="list-style-type: none"> • Access to computer during meetings. • Articles, books, and other sources of information about the topic of study. • Basic supplies (pens, sticky notes). • A team notebook (three-ring binder) and a set of tabs. 	<p>What resources will our team need to begin?</p>
<ul style="list-style-type: none"> • A process and schedule for rotating team roles and responsibilities. 	<p>Who will be team leader and recorder?</p>
<ul style="list-style-type: none"> • A variety of methods for communicating with other teams and the principal. 	<p>What methods of communicating our work will we use?</p>

Source: Jolly, A. (2008). *Team to teach: A facilitator’s guide to professional learning teams*. Oxford, OH: NSDC.

TOOL 5: TIME TO MEET

Directions: Place a check mark by ideas that appeal to you and an asterisk (*) by those you think are most workable for your school. Talk over your choices with others from your school or with nearby participants.

Bank time

- Lengthen the regular school day. Save the extra minutes to create larger blocks of time when teachers can plan or learn together.
- Adjust arrival and dismissal times so that school begins 30 minutes early on Monday through Thursday and dismisses two hours early on Friday for teachers to have time to meet collaboratively each Friday.
- Create regularly scheduled early dismissal/late start days.
- Shave minutes off the lunch period and save that time for teacher learning time.
- Total the number of hours teachers meet after school in learning teams, and do not require teachers to report to school for that amount of time on regularly scheduled teacher workdays.

Buy time

- Use paraprofessionals to release teachers during the school day for meetings.
- Hire a team of rotating substitute teachers to release teachers and enable them to plan or learn together.
- Hire one or two permanent subs to fill in regularly for teachers to free them for professional learning team meetings.
- Schedule a team of substitute teachers for a day a week to release teachers on a rotating basis for learning team meetings.
- Hire more teachers, clerks, and support staff to expand or add learning time for teachers.

Use common time

- Use common planning time to enable teachers working with the same students, the same grade level, or the same subjects to meet in professional learning teams.
- Organize special subjects into blocks of time to create common time for teachers to meet.
- Link planning periods to other noninstructional times, such as lunch periods, giving teachers the option of using time for shared learning.
- Create double planning periods.

Use resource personnel for student learning activities

- Enlist administrators to teach classes.
- Allow teaching assistants and/or college interns to monitor classes.
- Pair teachers so one teaches while the other meets with his/her professional learning team.
- Plan off-site field experiences for students and use the block of time created for teacher professional learning team meetings.
- Ask parent volunteers to take classes for an hour for a learning team to meet.
- Arrange educational activities for students led by professionals from local colleges, businesses, governmental agencies, or community agencies, and use this time for professional learning team meetings.

Free teachers from noninstructional requirements

- Use non-homeroom teachers to occasionally perform homeroom duties so teachers can meet for an extended time before school and through homeroom.
- Reassign school personnel to allow teachers to meet during pep rallies and assemblies.
- Provide more time for teachers to engage in collaborative work by removing noninstructional administrative, clerical, and school management tasks from teachers' duties and encouraging teams to use that extra time to meet and focus intently on instruction.

Add professional days to the school year

- Create multiday summer learning institutes for teachers to give them needed depth in the areas of focus for the professional learning teams.
- Create a midyear break for students, and use those days for teacher learning.

Use existing time more effectively

- Set aside faculty meeting times for professional learning, and put all general faculty announcements in newsletters and/or e-mails to teachers.
- Spread time from existing planning days across the calendar to provide more frequent, shorter school-based opportunities to learn.

Source: Jolly, A. (2008). *Team to teach: A facilitator's guide to professional learning teams*. Oxford, OH: NSDC.

Connect. Belong. Support.

UPDATES

“ FOUNDATION’S IMPACT ON EDUCATORS

The Learning Forward Foundation awards grants and scholarships to individuals, schools or teams, principals, and superintendents to further Learning Forward’s vision, “*Excellent teaching and learning every day.*” Recent awardees reflect on the impact this has had on their practice.



ANDREA VON BIBERSTEIN,
Learning Forward Foundation Academy Scholarship, 2016 and Learning Forward Foundation Team Grant, 2010



“THE LEARNING FORWARD Academy experience developed the skills to craft, execute, and evaluate a plan that put teacher-led job-embedded professional learning into focus at my school.

The award gave our school’s work instant credibility and developed the confidence to move our school’s personalized learning initiative forward. Through the Learning Forward Academy and the foundation’s follow-up coaching calls, I gained a deeper understanding of the dynamics of the school change process and grew professionally.”



SHANNON TERRY,
Patsy Hochman Academy Scholarship, 2016

“THE LEARNING FORWARD

Foundation grant offered me the opportunity to serve as an extension of a passionate group of individuals who share my same level of high conviction and advocacy around the power of learning as an agent for transformation — individual, institutional, and societal transformation.”



SHANNON BOGLE,
Learning Forward Foundation Academy Scholarship, 2017

“THE OPPORTUNITY to be a part of the Learning Forward Academy Class of 2019 has provided me with opportunities to focus on teacher leadership in my district. The practice of digging into data, connecting with colleagues, and problem solving has provided me with new perspectives on supporting teacher growth at school sites.”





The Lincoln Heights Middle School learning leaders team, left to right: Beth Weatherall, Melanie Coffey, Krishanna Langhans, Jaime Greene, Joe Ely, and Derek Voiles.

LINCOLN HEIGHTS MIDDLE SCHOOL WINS 2017 LEARNING TEAM AWARD

The learning leaders team from Lincoln Heights Middle School in Morristown, Tennessee, has won the 2017 Shirley Hord Teacher Learning Team Award. The annual award, named for Learning Forward Scholar Laureate Shirley Hord and sponsored by Corwin, honors a school-based team that successfully implements a teacher-led cycle of continuous improvement.

In 2015-16, Lincoln Heights' learning leaders team began a two-year focus on the development of research-based professional learning community practices. Team members collaborated to develop and model practices that ensured that PLCs were meeting regularly, acting purposefully, and focusing on student work.

This year, the team increased the emphasis on the adult learning aspect of its work. Using the book *Becoming*

a Learning Team (Learning Forward, 2017) as its primary guide, the team has transformed the teaching and learning experience by transforming the teacher learning experience.

"This team models every day what we know about effective professional learning," said Learning Forward Executive Director Stephanie Hirsh. "The team uses student data to identify its teacher and student learning goals, they extend educators' knowledge through their professional learning, they apply their learning in their classrooms, and refine their practice. And they assume collective responsibility for the success of all teachers and students in their school."

Teams from across the United States submitted applications for the award. Applications included documentation of each team's work and its impact on teaching and learning,

as well as a video showcasing the team engaging in the cycle of continuous improvement.

Members of Lincoln Heights' learning leaders team are: science teacher Melanie Coffey; social studies teacher Krishanna Langhans; English language arts teacher Derek Voiles; math teacher Beth Weatherall; principal Joe Ely; and assistant principal Jaime Greene. Located in Hamblin County in northeast Tennessee, Lincoln Heights serves 520 students in grades 6-8.

The Lincoln Heights team was recognized at Learning Forward's 2017 Annual Conference in Orlando in December. The award, sponsored by Corwin, includes funds to support conference attendance for team members, \$2,500 to support collaborative professional learning, and a gift of Corwin books for the school's library.

New trustees, new leaders for Learning Forward board

Two new trustees have been elected to Learning Forward's board: **Shawn Joseph**, director of Metro Nashville Public Schools of Nashville, Tennessee, and **Wendy Robinson**, superintendent of Fort Wayne Community Schools in Fort Wayne, Indiana. Joseph and Robinson joined the board at the end of Learning Forward's Annual Conference in December.



Alan Ingram



Leigh Wall

education consultant of Midwest City, Oklahoma, assumed the office of president of the board, and **Leigh Wall**, superintendent of Santa Fe Independent School District in Santa Fe, Texas, became president-elect.

Scott Laurence is now past president. Other board members include: **Valeria Brown, Steve Cardwell, Sharon Contreras,** and

Monica Martinez. John Eyolfson, who served as board president in 2016, ended his term on the board.

In addition, the board named new leaders. **Alan Ingram**,

MEET THE NEW BOARD MEMBERS



Shawn Joseph

SHAWN JOSEPH

Shawn Joseph is an experienced educator who has fought for excellence and equity for every student he has served in his more than 20-year career. Joseph has served as a teacher, principal, district administrator, deputy superintendent, and superintendent.

Before moving to Nashville, he was the head of teaching and learning in Prince George's County Public Schools in Maryland. Before that, he was the superintendent of the Seaford County District in Seaford, Delaware.

He is also a published author and researcher, with articles in top peer-reviewed journals of education on topics like strategic planning and principal development. In 2012, Joseph published the book *The Principal's Guide to the First 100 Days of the School Year: Creating Instructional Momentum*.

He was responsible for enrolling his school system in Learning Forward's Student Success Learning Network (formerly Redesign PD Communities of Practice) and participates in the annual team convening.



Wendy Robinson

WENDY ROBINSON

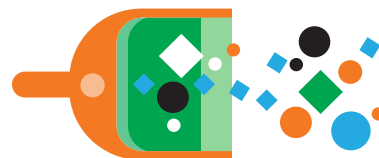
In her 35 years with the Fort Wayne district, **Wendy Robinson** has served as a classroom teacher, assistant principal, principal, central office administrator, and deputy superintendent. She was appointed superintendent in July 2003.

Robinson is a Broad Academy Fellow and a recipient of the National Alliance of Black School Educators 2009 Joseph E. Hill Superintendent of the Year. She serves on numerous boards as an active member of her community and has formed partnerships with local agencies and businesses to increase educational opportunities.

Robinson was appointed to the Learning Forward Redesign PD Partnership in 2014. She is a former summer conference keynote speaker, conference presenter, and contributing author to Learning Forward journals and books. Robinson was selected this year by the state of Indiana as its 2018 Superintendent of the Year and was recently named as one of four finalists for AASA's (The School Superintendents Association) National Superintendent of the Year.

PARDON OUR DIGITAL DUST

Learning Forward's website is getting a new look, starting with the home page, **www.learningforward.org**. Clearly defined categories and new navigation aids will help you find the resources you need quickly and make it easier for you to connect with colleagues. New content is under development, so check back often to see our progress.



Learning Forward launches learning network

Learning Forward has launched the Student Success Learning Network, a collaboration among 15 U.S. school districts and organizations dedicated to addressing specific student learning challenges within each district through a continuous improvement process.

Learning Forward facilitates the network's learning through face-to-face and virtual convenings, expertise, resources, and organizational management tools. The network uses improvement science principles as described by the Carnegie Foundation for the Advancement of Teaching, which is supporting the work by coaching network facilitators.

PARTICIPATING DISTRICTS

- Broward County, Florida
- Denver, Colorado
- ESC Region 4, Houston, Texas
- Fort Wayne Community Schools, Indiana
- Fulton County, Georgia
- Guilford County, North Carolina
- Hillsborough County, Florida
- JeffCo, Colorado
- Knox County, Tennessee
- Metro Nashville, Tennessee
- Pittsburgh, Pennsylvania
- Prince George's County, Maryland
- Riverside, California
- Spring ISD, Texas
- Syracuse, New York

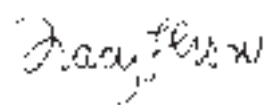
Leading organizations, including UnboundEd, Institute for Learning,

Education Resource Strategies, and WestEd will provide additional expertise and support.

The process helps participating educators accelerate local improvement through a carefully designed process of setting and achieving meaningful goals specific to their contexts.

With an emphasis on improving educator practice and student outcomes, participants will focus on predictive graduation and college success factors and measure change at the classroom and school level, necessitating the inclusion of principals and other school-based practitioners on each district's participating team.

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LEARNING BEYOND THE HORIZON

ORLANDO

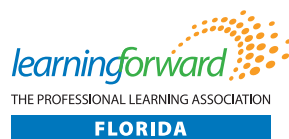
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FOCUS CREATE A VIBRANT LEARNING CULTURE

When teachers believe, students achieve:

Collaborative inquiry builds teacher efficacy for better student outcomes.

By Jenni Donohoo and Steven Katz

When teachers share the belief that, together, they can positively influence student learning over and above other factors and make an educational difference in the lives of students, they actually do. Many school leaders are asking: How do we foster a sense of collective efficacy among teachers to realize better outcomes for students? To answer that question, the authors look at why collective efficacy is important, how collaborative teacher inquiry can enhance collective efficacy, and how school leaders can support educators' engagement in the process.

The equitable classroom:

Today's diverse student body needs culturally proficient teachers.

By Jon Saphier

As teachers of all children, each of us has an obligation to learn about the different cultures of our students and find ways to make their cultures appear in validating ways in our curricula and

instructional examples. That is the starting point for cultural proficiency, and cultural proficiency is a new skill set that all American teachers must have to provide every student with the best learning environment.

Knowledge seekers:

New York program creates a culture of inquiry among high school teachers and their students.

By James Kilbane and Christine Clayton

At its core, inquiry — whether conducted with students or teachers — is a process of making observations, asking questions, working with evidence, and interpreting data. Teachers can learn a great deal about inquiry from doing it themselves, and this process will not only inform their work with student inquiry, but also develop a culture of inquiry in the classroom. A professional development project from Pace University supports secondary teachers' inquiry into the workings of student inquiry in various content areas.

Metamorphosis:

Texas district opts for learner-centered professional learning.

By Alan Ellinger, Keri Launius, and Annette Scott

One challenge facing the Galveston

Independent School District in Texas is a high mobility rate among its teachers. Attracting and retaining educators are among the district's highest priorities. District leaders joined with neighboring districts to create a framework for building a learning system that would enable all educators to have ownership in a continuous learning process. Today, educators are taking part in meaningful professional development that meets the needs of helping students while also building their own leadership influence.

Environmental impact:

Reinforce a culture of continuous learning with these key elements.

By Brian Edwards and Jessica Gammell

Maintaining a robust professional learning culture in schools is vital for attracting and retaining high-caliber talent. Given this, education leaders are looking for guidance on how to establish and sustain an environment that fosters continuous learning. Drawing on their experience in helping educators design and implement professional learning systems, the authors outline the elements that reflect and reinforce a culture of continuous learning and how schools can bring about that type of environment.

WRITE FOR THE LEARNING PROFESSIONAL

- Themes are posted at www.learningforward.org/learningprofessional.
- Please send manuscripts and questions to Christy Colclasure (christy.colclasure@learningforward.org).
- Notes to assist authors in preparing a manuscript are at www.learningforward.org/learningprofessional.

SHARE YOUR STORY

Learning Forward is eager to read manuscripts from educators at every level in every position. If your work includes a focus on effective professional learning, we want to hear your story.

The Learning Professional publishes a range of types of articles, including:

- First-person accounts of change efforts;
- Practitioner-focused articles about school- and district-level initiatives;

- Program descriptions and results from schools, districts, or external partners;
- How-tos from practitioners and thought leaders; and
- Protocols and tools with guidance on use and application.

To learn more about key topics and what reviewers look for in article submissions, **visit www.learningforward.org/learningprofessional**.



IDEAS

The gallery walk:

Educators step up to build assessment literacy.

By Anita Stewart McCafferty and Jeffrey Beaudry

If you were given a two-hour time block for professional development on a Friday afternoon just before the school district is to go on a week-long vacation, what kind of professional learning would you offer to maintain adult learners’ interest and meet their learning needs? The authors chose an interactive immersion gallery walk to present information about foundational classroom assessment literacy concepts and skills. A gallery walk is a discussion technique that gets learners out of their seats and invites them to become active participants in the learning process.

Technology takes coaching to scale:

Investing in Innovation grantees show how it’s done.

By Nicole Breslow

In recent years, there has been increasing interest in the use of video and other technology tools to support professional learning. However, there has been less focus on the potential of technology tools to bring promising and proven professional development models to scale. Eight grantees of the

Investing in Innovation Fund (i3) are using video and other technology tools to strengthen, scale, and sustain their instructional coaching models.

VOICES

CALL TO ACTION

Let’s make the most of teachers’ time together.

By Stephanie Hirsh

What are the essential elements of effective collaboration? Many of the answers lie in the culture of the organization responsible for supporting collective learning.

OUR TAKE

As social and emotional learning takes center stage, professional learning plays an important supporting role.

By Elizabeth Foster

Learning Forward has joined with The Wallace Foundation to increase awareness of and share resources about the research, strategies, and professional learning supports related to social and emotional learning.

ASK

What can principals do to foster collaborative learning among teachers?

By Frederick Brown

Principals can help shift a school’s culture by sharing their vision for collaborative learning, modeling what it means to be a collaborative learner, and creating space and providing resources for collaboration.

RESEARCH

RESEARCH REVIEW

Study examines professional learning’s potential to change how teachers think about student learning.

By Joellen Killion

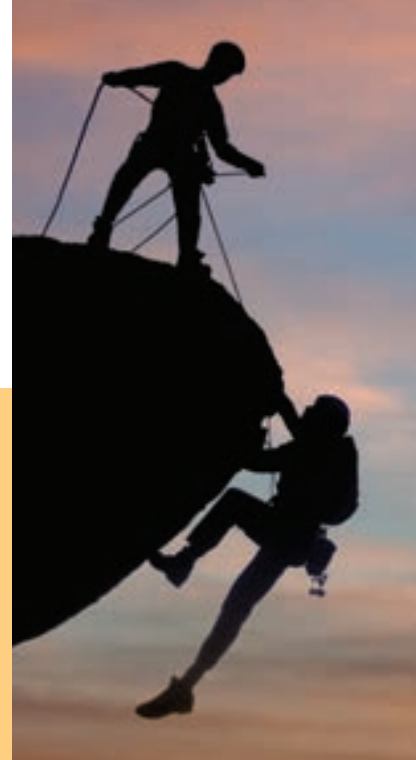
How teachers think about students as learners affects teachers’ expectations of and their interactions with students. This study demonstrates that professional development has some potential to transform teacher discourse patterns.

INDEX OF ADVERTISERS

National Education Association..... inside front cover
Just ASK Publications & Professional Development... outside back cover

AT A GLANCE

TRUST IS CENTRAL TO LEARNING CULTURES



What is trust?

One critical element to supporting collaborative learning in schools and school systems is the presence of trust. "Trust is an individual's or group's willingness to be vulnerable to another party based on the confidence that the latter party is benevolent, reliable, competent, honest, and open," according to Megan Tschannen-Moran, who reviewed literature from several fields to find a common definition of trust.

Source: von Frank, V. (2010, Fall). Trust matters — for educators, parents, and students. *Tools for Learning Schools*, 14(1), 1-3.

Five elements of trust

Benevolence

Confidence that one's well-being or something one cares about will be protected by the trusted party.

Honesty

Acceptance of responsibility for one's actions.

Openness

The extent to which relevant information is shared.

Reliability

Consistency of behavior; knowing what to expect from others.

Competency

Ability to perform as expected according to standards appropriate to tasks.

Source: Hoy, W.K. & Tschannen-Moran, M. (2003). The conceptualization and measurement of faculty trust in schools. In W. Hoy & C. Miskel (Eds.), *Studies in leading and organizing schools* (pp. 181-208). Greenwich, CT: Information Age Publishing.

Higher levels of trust = higher student achievement

Anthony Bryk and Barbara Schneider cemented educators' understanding of the importance of trust with their longitudinal study of 400 elementary schools in Chicago. They looked at trust between teachers and principals, parents, and school leaders. Thanks to their research, we know that schools with low trust scores had a one-in-seven chance of academic improvement. Yet half of the schools

that scored high in relational trust improved academically. Most notably, "schools with chronically weak trust reports throughout the period of the study had virtually no chance of improving in either reading or mathematics."

Source: Bryk, A.S. & Schneider, B. (2003, March). Trust in schools: A core resource for school reform. *Educational Leadership*, 60(6), 40-45.

How do leaders nurture trust?

Becoming a Learning System (Learning Forward, 2014) outlines three concepts leaders use to build trust in an organization:

Source: Hirsh, S., Psenick, K., & Brown, F. (2014). *Becoming a learning system*. Oxford, OH: Learning Forward.

Leaders demonstrate coherency.

Their words, actions, body language, and emotions all say the same thing to other educators.

Leaders recognize how their actions affect themselves and others.

They exhibit honesty and do what they say they will do. They are authentic in their words to others.

Leaders are self-aware and nurture their own positive attributes.

They presume that others hold positive intentions and they have the best intentions for others.

THROUGH THE LENS

OF LEARNING FORWARD'S STANDARDS FOR PROFESSIONAL LEARNING

LEARNING FORWARD'S STANDARDS FOR PROFESSIONAL LEARNING

Professional learning that increases educator effectiveness and results for all students ...

Learning Communities

... occurs within learning communities committed to continuous improvement, collective responsibility, and goal alignment.

Leadership

... requires skillful leaders who develop capacity, advocate, and create support systems for professional learning.

Resources

... requires prioritizing, monitoring, and coordinating resources for educator learning.

Data

... uses a variety of sources and types of student, educator, and system data to plan, assess, and evaluate professional learning.

Learning Designs

... integrates theories, research, and models of human learning to achieve its intended outcomes.

Implementation

... applies research on change and sustains support for implementation of professional learning for long-term change.

Outcomes

... aligns its outcomes with educator performance and student curriculum standards.

Many of the articles in this issue of *The Learning Professional* demonstrate Learning Forward's Standards for Professional Learning in action. Use this tool to deepen your own understanding of what standards implementation might look like and to explore implementation in various contexts. In this issue, we highlight three examples.

STANDARD

IN ACTION

TO CONSIDER

LEADERSHIP

In the article "Metamorphosis: Texas district opts for learner-centered professional learning," learning leaders create a shift in how they approach continuous improvement and support change efforts so that learning at the school level undergoes transformation (p. 38).



1. What do district and school leaders need to learn for learning practices to change at the school level?
2. What learning designs and considerations support leaders in not only building their capacity but also in helping them support learners at other levels throughout a system?

LEARNING DESIGNS

Learning walks are at the heart of "The gallery walk: Educators step up to build assessment literacy" as educators collaborate to bolster their assessment knowledge and practices (p. 48).



1. How does a mix of learning designs within one gallery walk support several kinds of learners?
2. How do learning leaders decide when to use particular learning strategies? What considerations do they take into account?

OUTCOMES

In "When teachers believe, students achieve," the authors explore how teachers' sense of shared efficacy leads to better student outcomes and the contribution that collaborative inquiry makes to shared efficacy (p. 20).



1. How do collaborative processes shape educators' beliefs about their ability to improve student outcomes?
2. What role does cohesion or coherence play in changing educator practices and student outcomes? How can collaborative inquiry contribute to cohesion?

FIND YOUR OWN!

There are many other examples of the standards in action throughout *The Learning Professional*. Find a story that you think exemplifies this and create your own questions.



Bonus question:

Can you find other standards within your story that are relevant? Many data stories, for example, also deal with implementation. Good luck!

Learn more about Learning Forward's Standards for Professional Learning at www.learningforward.org/standards-for-professional-learning.



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