

THE LEARNING PROFESSIONAL

THE LEARNING FORWARD JOURNAL

TOOL:

**Align
your district's
professional
learning
under
ESSA** p. 71

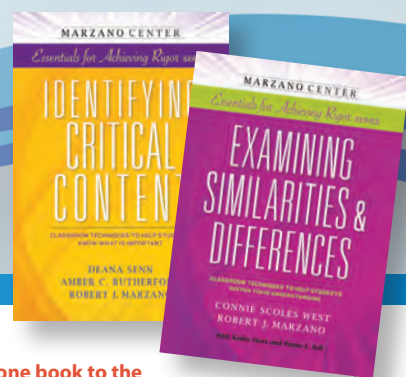
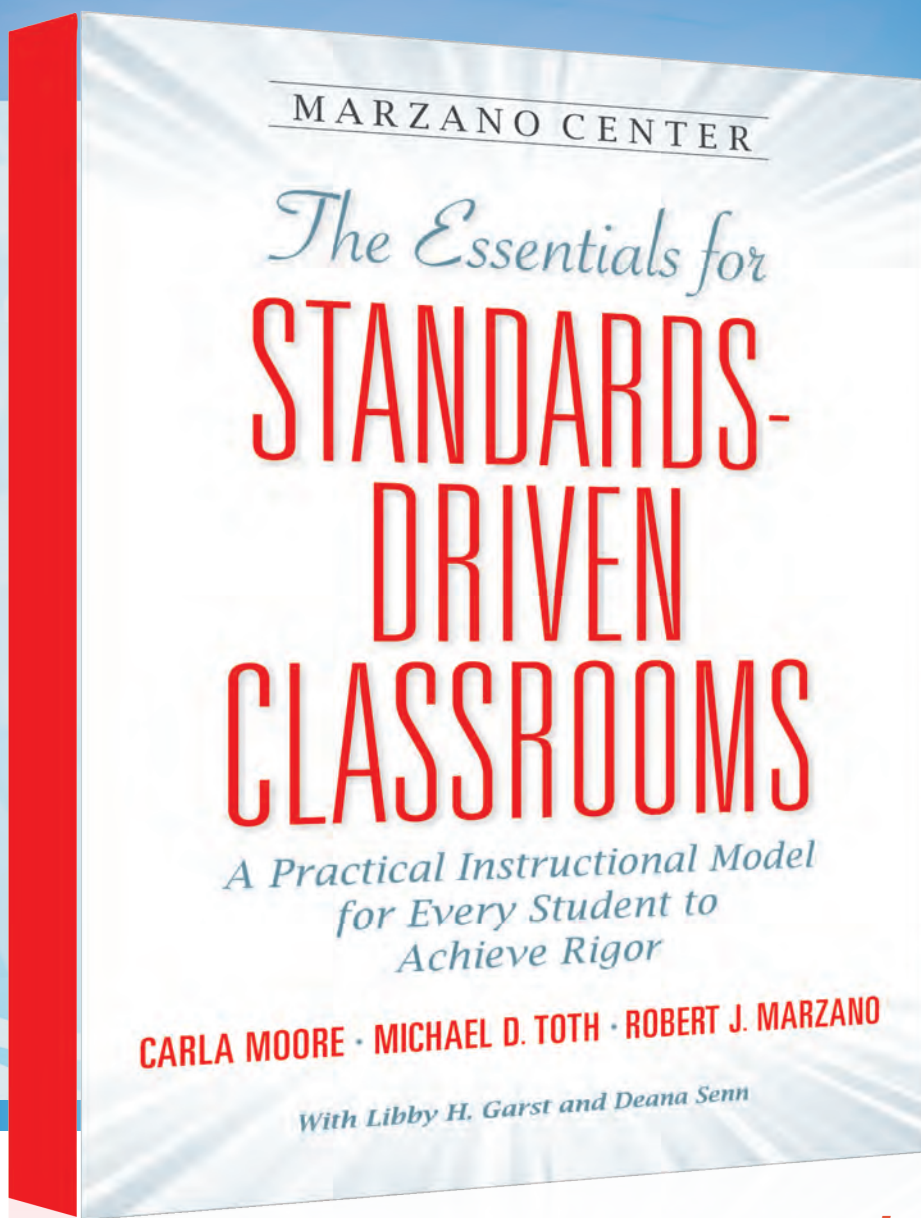


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I SAY

Pasi Sahlberg

FINNISH EDUCATOR, AUTHOR, SCHOLAR, AND SCHOOL IMPROVEMENT ACTIVIST



On what is the greatest misconception around professional learning, globally and within the U.S.:

“I think the greatest misconception around professional learning is that teaching is a mechanistic construction of separate parts that can be absorbed and that anybody can do that. In other words, that teaching is easy. ... Online teacher preparation programs without adequate clinical training elements greatly underestimate the complexity of the teaching profession and professional learning.”

Find the full Q&A with Pasi Sahlberg at www.learningforward.org/learningprofessional.

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HERE WE GO

Eric Celeste

Recognition of districts' hard work brings a measure of satisfaction

I was anxious. It was early March, and the National Council on Teacher Quality (NCTQ) was naming its first-ever winners of a new initiative called Great Districts for Great Teachers, designed to recognize districts for their exceptional programs and policies on recruiting, encouraging, supporting, and retaining great teachers. I wanted to know if any of the districts we work with at Learning Forward would be recognized.

When the eight winners were announced, I went from anxious to elated: Three of the eight inaugural winners were members of Learning Forward's Redesign PD Community of Practice — Denver Public Schools, District of Columbia Public Schools, and New York City Department of Education. (You can see the full list at www.greatdistricts.org/district/winners.do.)

I was happy for three reasons. One, the award makes clear that professional learning is key to winning such a designation. Specifically, NCTQ looks to ensure that “professional development and coaching are tailored to teachers’ needs and include sufficient collaborative planning time” and that “teachers have multiple opportunities to tackle leadership roles.” Seeing broad recognition of the importance of professional learning makes me smile.

Two, I know from talking to Denver Public Schools representatives for an article on their personal learning measurement efforts (see p. 50) how much the Redesign PD Community of



Practice has helped them to measure professional learning success.

“We had opportunities early on to engage and do some seed-planting during the Learning Forward sessions, especially some of the very first ones,” says Theress Pidick, executive director of the Professional Learning Center in Denver Public Schools. “Afterwards, we were able to come back and have our plans approved by senior leaders. Then, ongoing, we’ve been able to leverage our Learning Forward community partners to be able to get feedback and do problems of practice around some of the specific measurement work.”

Pidick notes that some of the more valuable feedback her team received was collaboration with other urban districts like D.C. and New York, often leading to revised ideas and approaches.

Three, it’s wonderful to see assessments that focus on success. So much of what you’ll read in our Focus section this month — including new pieces from two giants in the field, Joellen Killion and Thomas Guskey —

stresses the importance of professional learning measurement as a tool for goal setting and a continuous cycle of improvement, not punitive scoring methods. It’s good to see other organizations doing what Learning Forward does every day: Highlight districts that are working hard, independently and in conjunction with others, to improve outcomes through professional learning.

There is much else to see in this issue, from a spotlight on a member alternating between coaching and teaching to ESSA toolkit information for districts to exploring communities of practice to improve principal supervision. I hope these stories, each with their own perspective on the importance of professional learning to district success, make you smile, too.

Eric Celeste (eric.celeste@learningforward.org) is associate director of publications at Learning Forward. ■

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STAFF

Executive editor: Tracy Crow
Editor: Eric Celeste
Managing editor: Sue Chevalier
Designer: Kitty Black

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BUSINESS OFFICE

504 S. Locust St.
Oxford, OH 45056
513-523-6029, 800-727-7288
Fax: 513-523-0638
office@learningforward.org
www.learningforward.org

LEARNING FORWARD STAFF

Stephanie Hirsh

Executive director
stephanie.hirsh@learningforward.org

Frederick Brown

Deputy executive director
frederick.brown@learningforward.org

Anthony Armstrong

Associate director of marketing
anthony.armstrong@learningforward.org

Eric Celeste

Associate director of publications
eric.celeste@learningforward.org

Tracy Crow

Director of communications
tracy.crow@learningforward.org

Elizabeth Foster

Associate director of standards, research, and strategy
elizabeth.foster@learningforward.org

Carrie Freundlich

Associate director of conferences and meetings
carrie.freundlich@learningforward.org

Melinda George

Director of policy and partnerships
melinda.george@learningforward.org

Michael Lanham

Chief operating officer
michael.lanham@learningforward.org

Michelle King

Associate director of communities
michelle.king@learningforward.org

Tom Manning

Associate director of consulting and networks
tom.manning@learningforward.org

Matt Rodriguez

Senior web developer
matt.rodriguez@learningforward.org

Renee Taylor-Johnson

Associate director of business services
renee.taylor-johnson@learningforward.org

Carol François

Learning ambassador
carol.francois@learningforward.org

Shirley Hord

Scholar laureate
shirley.hord@learningforward.org

Joellen Killion

Senior advisor
joellen.killion@learningforward.org

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VOICES

GOAL!

Andrea von Biberstein, of Fulton County Schools, covers the field from soccer coach to instructional coach and teacher.

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ANATOMY OF AN INSTRUCTIONAL COACH

Coaching is a type of job-embedded professional development with many applications, according to a 2010 report published by the National Comprehensive Center for Teacher Quality.

“An instructional coach provides ongoing consistent follow-up by way of demonstrations, observations, and conversations with teachers as they implement new strategies and knowledge. Typically, instructional coaches have expertise in the applicable subject area and related teaching strategies. Some coaches continue to teach part-time; some come from the school; and others travel throughout the district, working with teachers.”

Source: Job-Embedded Professional Development: What It Is, Who Is Responsible, and How to Get It Done Well, www.learningforward.org/docs/pdf/jobembeddedpdbrief.pdf

MEMBER SPOTLIGHT

Andrea von Biberstein

Position: Teacher and program coordinator at Ridgeview Charter School in Sandy Springs, Georgia

In education: 21 years

Learning Forward member since: 2007

How Learning Forward helped her: The Annual Conferences are excellent. There's a wide variety of topics, the people who present are the practitioners, and you get incredibly good ideas. You get the chance to reflect and collaborate with colleagues all over the country.

On the Learning Forward Foundation:

In 2010, the Learning Forward Foundation awarded funding to a team of teachers at my school to lead a professional learning innovation as well as provided me a scholarship to participate in the Learning Forward Academy in 2016. Through participation in conference events, foundation-funded projects, coaching calls, and conferences, I have been able to collaborate and learn from experts in the field of professional learning and develop the skills and expertise to support teacher learning in ways that develop teacher capacity and build a positive school culture.



“I think, over time, when you’re supporting teachers, you get better at it. It’s essential to really channel your efforts on their professional goals, not just yours.”— Andrea von Biberstein

It’s fitting that Andrea von Biberstein began her education career coaching soccer because she’s been focused on goals ever since. After starting her teaching career more than two decades ago, she has alternated roles as teacher, coach, and a professional learning program director. She spent her first decade in the classroom as a high school teacher in Marietta City Schools in Atlanta, Georgia. Then she followed her calling to “help novice teachers who were entering public education and then supporting them” as a middle school improvement specialist, a “sort of teacher supporter/school innovation leader.” Since then, she’s mentored experienced teachers, earned her doctorate, and returned to the classroom, all part of her personal continuous cycle of learning. She’s now a half-time teacher and half-time Middle Years Program coordinator in Georgia, a job she says helps her add to the many goals she’s already achieved.

You taught for 10 years, then you were a mentor and improvement specialist. Why go back into the classroom?

After I finished my doctorate, I hadn’t been in the classroom in eight years, so I took a dive back in at the middle school level. ... I just wanted to really come to terms with how the profession had changed because my passion is supporting teachers. I went back to the classroom and transitioned to a new setting, and it’s been great. I’ve really learned a lot, and I’m supporting a personal life learning initiative, so I thought if I really

want to support this transition, I would need to experience it firsthand. ... It’s really empowered me. When you take that journey again, you see things differently.

In what way?

The learner has changed. One of the things that is essential is the way teachers have an opportunity to use all this technology at our fingertips. But to use it effectively is a challenge. When you compare when I first jumped out of teaching to now, the amount of resources that are available now is just

mind-boggling. And the extent that you can use that to engage students far outside the school walls is new. Before re-entering into the teaching role, that's something I didn't really think about explicitly.

Do you feel there is an advantage to now being both a coach and a teacher?

It does help me better understand exactly what the challenges are in that classroom setting.

How did you first get into education?

I coached soccer. I really enjoyed it. I had majored in economics in undergrad, and I just thought, "This is really fun." I decided to get my master's degree in teaching, which I did while coaching soccer. I taught abroad in Japan for a year, then I came back, and I moved to Atlanta from New York, and then I started. I loved it right away. You can inspire somebody and provide an experience for a child where they love learning, and it's really what motivates me.

Did you pick up teacher support right away, or did it take time to feel comfortable, despite your classroom experience?

I think over time when you're supporting teachers you get better at it. It's essential to really channel your efforts on their professional goals, not just yours. Where they identify the need to help or to support or need the support. So, it's been goal-oriented ... The isolation, especially for this generation of new teachers, is something that is a huge opportunity to allow collaboration within the classroom setting.

When they get that support, then, you see the appreciation?

It really exhilarates the professional, or it re-energizes. I had a colleague write me an email saying, "Yeah, this has

re-energized me." The ideas that others have either confirm that what you're doing is a good strategy or effective, or they expose you to other ideas, and that dynamic with collaboration is something that can inspire.

What does your work as a Middle Years Program coordinator include?

The Middle Years Program is an International Baccalaureate program, 6th to 10th grade. I worked with a committee of teachers to design and develop four professional learning days. It was focused around the various program initiatives, and then we have a literacy initiative as well. So what that involves is creating a committee to sit down and assess the needs of the staff based on their interests and where they felt they were. ... If people felt they were really skilled in a certain area and that was an area that we needed based on the survey data that we had, we recruited people to present sessions, and then we brought in people.

For example, one of the areas that we needed was to write clear learning targets, so we brought someone in from the district to do that. It was fun, we worked with leadership and a collaborative-type of approach, and then we evaluated the days.

You've been involved in programs and initiatives that focus on teacher empowerment, advocacy, and teacher-led learning — what we might summarize as "teacher agency." How does that manifest itself?

We did a peer-coaching initiative with Learning Forward, and that led to what we're doing now, which is a program that requires we reach out to people and be advocates for the profession. We might post blogs or find other avenues to advocate. That comes more naturally for some than others. But all these different initiatives funnel into the same goal: developing and

retaining quality teachers.

What are the biggest challenges that you face day to day in these professional learning projects?

You know, it's the change itself. A great example is: The current grant we have has given us a hundred professional release days to take time to collaborate in the classroom, classroom observation, to go to other sites and observe. And just the idea of taking a professional day ... It's just not a common part of our culture. We have a reflection in place where the teachers set professional goals. They've identified people to collaborate with. If you look at other professions, people take days, take weekdays to collaborate, but this is something brand new. Teachers aren't used to being allowed out of the classroom to develop professional learning, and they don't want to be out of the classroom, so we take baby steps.

You've also talked about how you believe measuring impact of professional learning is another huge challenge.

That was the goal of the Learning Forward Academy, to measure impact, and one of the goals of the grant we're working with is to measure impact, too. You start by looking at [Thomas] Guskey's five levels of evaluation, and you go through all five, and the last is measuring impact on students' learning. But it may take 2½ years to see those student outcomes. I'm saying 2½ years, but it may be even longer than that because it assumes that your staff is the same, your leadership's complicit, and there's no major changes in the needs of the students during that time. So, yeah, that's been my learning curve, where I'm learning what that looks like and then how to implement measurement that doesn't feel evaluative, and use those tools to help drive the change. ■



OUR TAKE

Tracy Crow

Bring your best evidence forward to show professional learning's worth

As we wrap up this issue of *The Learning Professional*, the Trump administration has just issued its budget proposal. As anticipated, it includes many cuts, including in education. Of particular interest for learning leaders is the full elimination of Title II funding. Title II covers, among other things, professional learning, coaches, and instructional support.

Those funds typically support districts in hiring staff who support teachers to be their most effective — helping them to implement evidence-based instructional strategies in literacy or math practices, for example. The funds also support participation in externally sponsored learning opportunities, new teacher mentors, teacher leadership programs, principal leadership development, and so much more related to building educator capacity throughout an organization or district.

On the radio this morning, I heard a short update on the education cuts in the proposed budget. Addressing the cuts to the grants program that funds after-school programs (supported under Title IV), the reporter noted that the Trump administration said there isn't "enough evidence that those programs raise student achievement" (Garrison, 2017). That reasoning isn't unusual when rationalizing budget cuts, even when there is evidence available.

Stakeholders and policymakers want a return on their investment in all areas of federal spending. Lacking it, programs become susceptible to deeper scrutiny

and potential elimination.

As the federal budgeting process plays out in the coming months, Congress will have opportunities to reinstate any number of programs and funding lines. Educators have the responsibility to articulate the ways in which these funds have made a positive difference for students.

Unfortunately, there are many examples of professional development that has wasted educators' time and precious dollars. As a result, we can't argue that all dollars dedicated to professional learning were spent on efforts that had a positive impact. We can, however, change the negative narrative and deepen stakeholders' understanding through the use of powerful exemplars and a commitment to continuous improvement in this area.

The persistence of negative perceptions about professional learning makes it all the more imperative that educators include evaluation as a vital component of their planning. Stephanie Hirsh shares details about addressing evidence in her column on p. 16. Educators must ask — and be prepared to answer — these questions: How will you know if your professional learning is leading to meaningful results, and how will you make adjustments so you do achieve results?

We know that professional learning, when implemented with fidelity and sustained with resources, advances student learning. We share the positive examples in this publication



and throughout Learning Forward's initiatives. The district teams in the Redesign PD Community of Practice are among those educators we are proud to amplify as exemplars, both in terms of results for students and their commitment to continually assessing their impact.

Learning Forward is proud to represent learning leaders in their need for substantive support for effective professional learning. We ask that you join us in bringing your best evidence forward and continuing your efforts to demand the most from the learning you plan, facilitate, and experience.

REFERENCE

Garrison, M. (2017, March 17). *What federal budget cuts could mean for America's school system.* Marketplace Radio. Available at www.marketplace.org/2017/03/17/economy/mid-day-update/031717-md.

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

From Our Nationally Ranked Classrooms To Her Own

Just four years after receiving her master's degree from nationally ranked Regent University, fourth-grade teacher LaKeshia Ames was named one of the nation's top educators for 2012. She's the only teacher in Virginia to receive the prestigious National Milken Educator Award for leadership, quality and innovation in education. Discover how Regent's Master of Education programs — recognized by *U.S. News & World Report* — can help you succeed.

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WHAT I'VE LEARNED

Michael McNeff

Let's focus on quality of instruction rather than quantity

First, I admit that I have arranged bad professional learning for teachers in the past. Unfortunately, school leaders often look for presenters and initiatives that fill the time allotted. Most school districts have set aside days that are assigned to professional learning. Many administrators struggle to develop a professional learning program that is individualized and meaningful for all teachers.

The easiest and least effective way to address professional development is to provide one-size-fits-all professional learning opportunities, which means only a portion of attendees finds it valuable. Many of us have sat through hours of professional development and, within the first five minutes, realized, “None of this applies to my subject area or grade level.”

This is the struggle for school leaders who plan professional learning opportunities for teachers. The goal of professional learning should be to change practice for the better. If the learning does not apply, then how will teachers change their practices for the better?

According to Jim Knight (2011), professional learning for teachers should provide opportunities to “explore, prod, stretch, and re-create whatever it is they are studying — to roll up their sleeves, really consider how they teach, really learn a new approach, and then reconsider their teacher practices and reshape the new approach, if necessary, until it can work in their classroom” (p. 43).



I doubt that we can meet the recommendations from Knight through a one-size-fits-all approach. Professional learning needs to occur throughout the school week and school year. There is a disconnect for the teacher when the learning is not part of the school day. Traditional sit-and-get professional development days are often held outside a school calendar. This structure rarely impacts instruction because it is not connected to a classroom and is not occurring throughout a school year.

Learning Forward has recommended that professional learning occur “several times per week among established teams of teachers, principals, and other instructional staff members where the teams of educators engage in a continuous cycle of improvement” (NSDC, 2009, p. 2).

Providing time for teacher

collaboration and learning is one of the most powerful things schools can do to improve learning, but collaboration that lacks a focus will do nothing to improve schools (DuFour, DuFour, Eaker, & Many, 2006). We should start by critically examining the structure of a school day.

There is some belief that the school day needs to be lengthened to improve student achievement. We seem to think that if we have more time in front of kids, they will learn more. What if we reduce the amount of instructional time and build in teacher collaboration that is focused on improving instruction? Instead of focusing on quantity of instruction, we focus on quality of instruction.

We cannot expect collaboration to occur during teacher prep time, after school, during lunch, before school, etc.

I believe we must embed a specific time for collaboration consistently across a district. This will help administrators support each professional learning community (PLC). This will also help with vertical meetings that will need to occur to address gaps and overlaps with curriculum, instruction, and assessment.

Meetings should occur at minimum once a week. If we aren't meeting weekly, we forget about our focus, and it's harder to get back on track and use time efficiently. We need to ensure that collaboration time is protected and considered sacred. People will try to consume this newly found collaboration time with meetings that do not matter. Administrators need to protect this time. That means no practices, activity meetings, or advisor meetings during collaboration. The only activities that occur during collaboration are those associated with a PLC.

We have targeted Wednesday morning for the day to implement PLCs. Wednesdays work well because there are typically fewer events and vacation days on Wednesday. We start school late on Wednesdays to avoid scheduled extracurricular and co-curricular activities. This allows coaches and advisors to take part in collaboration.

Starting school late has not been an issue for students and parents. We still allow students to be dropped off at their regular times. In elementary school, we have about 100 students that go to the library to read silently, read with a friend, or be read to. This has positively affected kids. Paraprofessionals supervise the remainder of our students.

During this time, our collaborative efforts focus on these key areas: unpacking standards, developing formative and summative assessments, defining mastery, scope, and sequence, intervention and enrichment, and a focus on data. One key area that is often overlooked is embedding learning

within a PLC model. How are teachers seeking out best practices to support key areas mentioned above?

PUT LEARNING BACK INTO PLCS

Over the past three years, our professional learning committee has revamped our professional learning practices. It has been trial and error. Our professional learning committee meets monthly to discuss the following goals: How do we make professional learning more individualized? How do we make professional learning more meaningful for all?

Before these discussions, our learning was separate from our PLC work. We began to realize that our professional learning goals should be part of our PLC work. We believe high-quality professional learning practices merge our goals together.

During our work session in June 2014, our committee had a collective epiphany.

To make professional learning more individualized and more meaningful, we needed to turn learning over to our teachers. Teachers needed to plan their learning for each year. This was an exciting breakthrough for us.

We decided to use our traditional professional development days in the following ways: Each individual PLC would develop its professional learning plan focused on improving student engagement. The professional learning plan consists of four parts: goal setting, research, observation and integrating of learning, and reflection.

1. Goal setting

The PLC meets during its collaboration time early in the year to establish a learning goal for the school. One of our school improvement goals focuses on improving student engagement. So the PLC learning goal is centered on improving student engagement.

2. Research

All PLCs are required to select at least one research-based book to study or at least three peer-reviewed recent research articles from academic journals. Journal articles are subject to approval by a professional development committee. We need to interweave research exploration into the daily practices of our teachers.

There are times when our own anecdotes override effective research-based practices because the research did not involve "my school" or "my kids," or the teacher was not aware that there was a better, more proven way to do things. Analyzing effective research-based practices is one key to effective instruction.

3. Observation and integration of learning

The best professional development is focused, timely, and job-embedded. We wanted to make sure these ideas were entrenched throughout our plan. We provided two options for teachers to choose from: They could decide between a school visitation or take part in our peer observation program.

For a school visitation, teachers select a school within our state they would like to visit based on what they learned from research. We provide teacher substitutes, and the teachers travel as a team to a school and observe a teacher for a day using an instructional technique.

It is important to note that a research-based book or journal article needs to be aligned with a school visit. We want our teachers to see effective strategies live and bring those strategies back to our school for implementation. After a school visit is complete and research-based practices are implemented, teachers record themselves for a minimum of 15 minutes using the new strategy.

We added the peer observation

program for those who didn't want to do a school visitation. Instructional coaches lead the program. When PLC teams select this option, they work with an instructional coach to identify a problem of practice. The problem of practice should be tied to the team's selected research-based book or journal articles. The instructional coach figures out the logistics to make sure that each teacher receives and gives feedback. The feedback needs to be descriptive and related to what teachers are implementing and cannot be ego-building feedback.

4. Reflective practice

Learning requires reflection. We felt that we needed teachers to reflect on their new learning near the end of the year. Last year, we added an opportunity for all teachers to receive

a credit through one of our research institutions in North Dakota when they completed their professional learning plan. I believe strongly in written reflection. When we write down our thoughts, it deepens our understanding.

FREEDOM PLUS ACCOUNTABILITY

Teachers need autonomy and personalized learning to grow. We believe we have found the right combination of freedom and accountability within our professional learning plan. The plan makes professional learning more individualized and meaningful for a teacher.

When teams of teachers are given time to research best practices, observe other teachers, and reflect on what they've learned, they grow professionally. Changes we have

made impacted our school culture in a positive way. Our teachers feel empowered and trusted to do this very difficult work.

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Michael McNeff (mike.mcneff@k12.nd.us) is superintendent of Rugby Public Schools in North Dakota. ■



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ASK

Stephanie Hirsh

How do I justify the professional learning plan for my school under ESSA?

Q I keep hearing that ESSA (the Every Student Succeeds Act) has new requirements about the evidence base required for using federal funds for professional development expenditures. At the same time, I read that there is a limited evidence base related to professional learning. So how am I supposed to justify the professional learning plan for my school?

Great question. ESSA has introduced new evidence requirements tied to expenditure of funds in a variety of areas, including professional learning. We welcome this new stipulation — as this issue of *The Learning Professional* indicates, we are committed to helping educators as they find ways to document the impact, with evidence, of the links between professional learning and improved educator practice and student results. In addition, Learning Forward’s resources guide educators through a process of planning and implementing effective professional learning and documenting its impact on educators and students.

ESSA (from Section 8101(21) (A) of the text of the law) identifies four levels of evidence. The U.S. Department of Education offers the following explanation of the four levels through its guidance documents on implementation (see p. 7 of www2.ed.gov/policy/elsec/leg/essa/guidanceuseinvestment.pdf):

Level 1 Strong: Experimental (i.e. randomized) well-designed and well-implemented study that shows a statistically significant and positive (i.e. favorable) effect of the intervention on a student outcome or other relevant outcome.

Level 2 Moderate: Quasi-experimental (i.e. matched) study that is well-designed and well-implemented and shows a statistically significant and positive (i.e. favorable) effect of the intervention on a student outcome or other relevant outcome.

Level 3 Promising: Correlational (statistical controls for selection bias) study that is well-designed and well-implemented.

Level 4 Demonstrates a Rationale: Demonstrates rationale based on high-quality research or positive evaluation that such activity, strategy, or intervention is likely to improve student outcomes and includes ongoing efforts to examine the effects of such activity, strategy, or intervention.

There are websites that provide links to programs that have met the requirements of Levels 1, 2, and 3. For example, the Evidence for ESSA website (www.evidenceforessa.org) offers information on math and language arts programs, and the What Works Clearinghouse (<https://ies.ed.gov/ncee/wwc>) covers a number of areas. More websites will soon come on board, and we will keep you informed of them.

Generally speaking, we have a limited number of professional

Each issue, we ask a learning professional to answer your professional learning questions. This month’s response comes from Stephanie Hirsh, Learning Forward executive director.

development studies at each level of evidence. We need more, and we hope that you think about that as you plan future professional learning.

When the precise study you need to justify your plan can’t be found, the Standards for Professional Learning (Learning Forward, 2011) can help you establish a Level 4 argument. Each standard has a research base (see www.learningforward.org/standards), and collectively there is a preponderance of evidence (www.learningforward.org/publications/oxford-bibliographies) you can use to build a rationale for an investment in professional learning. This assumes that your plan will implement all of the standards with fidelity.

To meet the Level 4 requirement, you will need to establish a theory of action and evaluation plan so that you can study your strategies and document your results. At its most



simple, a theory of action states that if your team undertakes certain strategies, then it will see certain results. A theory of action carefully outlines your plan for achieving goals, details the ways you will measure progress, and shows your intention to include evidence throughout your improvement process.

Most important, I would stress that you must implement with fidelity. This requires that you provide sustained support throughout your learning, use learning designs that match the learning goals you establish, and devote sufficient time for educators to build knowledge and skills. Basically, this means that you stay true to the Standards for Professional Learning throughout your entire learning process.

One possibility you might consider, if you aren't already doing so, is how you and your teams could incorporate a cycle of continuous improvement into your work. Such cycles are inherently evidence-oriented and allow you to assess your progress continually.

While the cycle varies according to the team using it, several steps are consistent. Following identification of student goals, teams set student and educator learning priorities. Teams use learning priorities to determine the educator and student learning agenda. This decision must be informed by evidence:

- What student interventions have had impact in similar settings?

- What do adults need to learn and implement to close student learning gaps?

The more solid the evidence available on a given intervention, the more secure the team can feel about its decision. If the intervention does not meet Level 1, 2, or 3 evidence definitions, the team will need to prepare a response at Level 4, particularly if federal dollars are used to support implementation. Even if they aren't, it is still important to be able to justify a particular course of action.

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BEING FORWARD

Scott Laurence

Bring stakeholders on board by gathering multiple measures of success

I'm pleased that the focus of this issue of *The Learning Professional* is about measurement of professional learning. It's important that professional learning leaders continue to find ways to document success and tie it to teacher excellence and student achievement.

The subject matter is also personal to me because advocating for multiple measures of success was key to systemwide improvements we made in the California school district I oversaw.

When I became superintendent of the San Mateo Union High School District in 2009, I shared with the board and key stakeholders that an investment in professional learning was key to student achievement — and that we'd have to find ways to measure success at key points along that journey.

San Mateo is one of the wealthiest districts in the state, but also one with pockets of poverty and diversity. That disparity presents challenges in analyzing and implementing new programs and measuring their success. You can't just look at test scores when 25% of your student population is in English language learner programs and traditionally struggle with such measures. You need to find ways to tie teacher learning to teacher and student growth.

It's easy to find agreement on this approach until it comes time for implementation, which takes commitment and an application of scarce resources. We needed buy-in for this approach. From the start, I told the board and community that the way we would

improve performance was through professional learning for teachers. Not through a new curriculum or a single program, but by helping teachers become really good at their craft.

We used multiple measures in looking at the growth in student achievement. We looked at the more traditional measures of API/AYP scores, SAT scores, AP scores, ELL movement, and student GPAs. We measured and compared student achievement in Algebra 1 and Algebra 2 over the years. We looked at the data around students meeting the University of California A-G subject admission requirements.

We watched the enrollment in our continuation high school drop because we were finding ways to help students achieve success in their home schools and remain on track for graduation.

The first thing we did was to develop a professional learning structure at the district level and at the sites. That was a challenge because we were spending more money and taking some of our better teachers out of the classroom. Immediately, the call came to measure and show success to justify the change in allocation of resources. This required a specific approach: making a deep commitment for two to three years of data analysis and assessment and being willing to evaluate, revise, or shed a program or investment if results were

not encouraging.

We tackled our concerns on multiple fronts, always driven by data. This affected professional learning in all aspects of the system. One of our most intense efforts was to focus on Algebra 2. We discovered, through analysis, that success in Algebra 2 was the key success standard in college completion.

One crucial learning area for teachers was a new commitment to social-emotional learning to better support

We discovered, through analysis, that success in Algebra 2 was the key success standard in college completion.

low-income students. The administration and teacher groups wondered why we were spending time and money on emotional

support. We explained that building relationships with students was another way to improve student achievement. Measuring improvement during implementation gathered support to scale and continue the program..

I saw firsthand how important it was to gather multiple measures of success to get buy-in for professional learning programs. If you show teachers, administrators, the board, and the community results from their investment, then you will have wonderful, strong partners in your learning leadership journey.

Scott Laurence is president of Learning Forward's board of trustees. ■

Examine. Study. Understand.

RESEARCH

THE NEW TEACHER'S TOP 5 MUST-HAVES

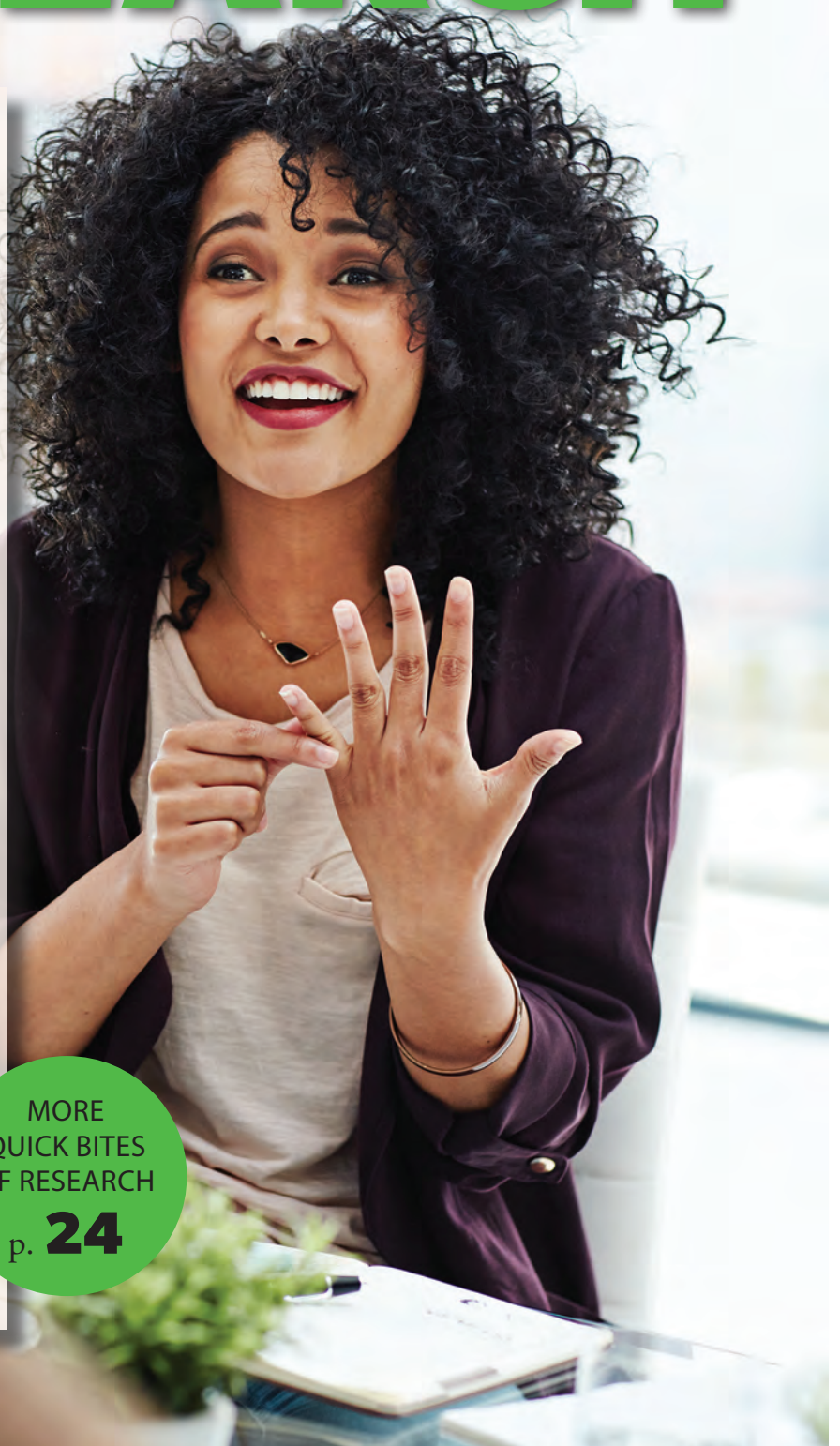
The New Teacher Center, which runs induction programs for new teachers in several districts, says high-quality induction programs must include the following:

1. Ongoing beginning teacher professional development.
2. Careful selection and training of mentors.
3. Mentoring that lasts at least two years.
4. At least one and up to 2½ hours each week that is protected by teachers and administrators for mentors and new teachers to work together.
5. Regular feedback that is specific, actionable, and data-driven to help beginning teachers grow as professionals and, in turn, help their students' learning grow.

Source: *Starting Strong: How to Improve Teachers' Entry Into the Profession*, Center for American Progress, January 2017

MORE
QUICK BITES
OF RESEARCH

p. **24**





RESEARCH REVIEW

Joellen Killion

Meta-analysis reveals coaching's positive impact on instruction and achievement

► AT A GLANCE

Teacher coaching positively affects instructional practice and student achievement.

► THE STUDY

Kraft, M., Blazar, D., & Hogan, D. (2016, November.) *The effect of teacher coaching on instruction and achievement: A meta-analysis of the causal evidence.* Brown University Working Paper.

•
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

A meta-analysis of 37 studies of teacher coaching, many focused on literacy coaching, reveals that coaching positively affects both teaching practice and student achievement. The pooled effects of both general coaching and content-specific coaching have a positive and significant effect on teacher instruction as measured by classroom observations. Both general and content-specific coaching have a positive and significant effect on student achievement. The effects of teacher coaching on student achievement pooled across reading, math, and science are positive and significant. Content-specific coaching has a positive and significant effect on reading achievement. The number of studies of math and science content-specific coaching is small, and results are not significant.

STUDY DESCRIPTION

Researchers note that the need for teacher professional development is growing as states adopt new content standards, requiring teachers to integrate higher-order thinking skills and social-emotional learning into their curriculum and instruction to meet demands for increased student achievement. Yet, they add, results for studies of the effectiveness of professional development are inconsistent and costs are growing. Coaching is “an essential feature of PD

training that facilitates teachers’ ability to translate knowledge and skills into actual classroom practice” (p. 3).

In this study, researchers examined 37 studies of teacher coaching that met the following criteria: causal or quasi-experimental design and measures of effects on instructional practice and/or student achievement.

Applying meta-analytics, researchers examined questions that a single experimental design study could not answer, including the pooled effects of different coaching models to measure the efficacy of coaching as a form of professional development; leveraging statistical power to examine the cost-effectiveness of coaching; the effects of different models and features of coaching; and the effects of smaller versus larger coaching programs to explore solutions to challenges related to bringing coaching programs to scale.

QUESTIONS

The study focused on three research questions:

1. What is the causal effect of teacher coaching programs on classroom instruction and student achievement?
2. Are specific coaching program design elements associated with larger effects?
3. What are some of the implementation challenges and potential opportunities for scaling up high-quality programs in cost-effective ways?

METHODOLOGY

Researchers used a multistep process to conduct the meta-analysis and extended exploratory analyses. They began with a working definition of teacher coaching interventions. Because they encountered so many variations of coaching in the literature — some contradictory — they situated it in the broader context of teacher professional development since it often occurs as a part of a more comprehensive program of professional development.

For the purpose of this study, they defined “coaching programs broadly as all PD programs that incorporate coaching as a key feature of the model” (p. 7). Multiple people can provide coaching, including administrators, master teachers, external experts, and others. They described the coaching process as discussions with teachers about classroom practice in a way that is:

- **Individualized:** Coaching sessions are one-on-one;
- **Intensive:** Coaches and teachers interact at least every couple of weeks;
- **Sustained:** Teachers receive coaching over an extended period of time;
- **Context-specific:** Teachers are coaches on their practices within the context of their own classroom; and
- **Focused:** Coaches work with teachers to engage in deliberate practice of specific skills (p. 8).

Following the defining phase, researchers conducted a literature search to locate and screen studies for inclusion. The four inclusion criteria included the sample (early childhood to 12th grade), the intervention (studies that included teacher coaching as a central feature, yet without a specified limit on the dosage of coaching), the research design (randomized control trials and quasi-experimental methods),



and the outcomes (at least one measure of teacher practice and student achievement).

Identified studies meeting all four criteria were coded for study characteristics; coaching model features; effect size, seeking additional information to calculate effect sizes where they were missing; standard errors; source of study; year of study; research design; level of randomization; teacher sample size; school level; coaching model type; complementary treatment elements such as additional professional development; delivery, in person or virtual; and coaching and total professional development dosage.

ANALYSIS

Researchers applied sophisticated

meta-analytic techniques to achieve “precision weights and account for clustered nature of the data” (p. 14). The results produced 142 effect sizes for outcomes relating to teacher practice and 79 for outcomes related to student achievement across the 37 included studies, using broad parameters to include as many treatment effects as possible. They examined the association between effect size outcomes and the spectrum of coaching program models and weighed the studies by degrees of precision.

Of the 37 studies chosen for inclusion, 30 studies appeared in peer-reviewed journals, 31 used experimental design, and most were published on or after 2008. Twenty-six evaluated content-specific coaching, with the

► WHAT THIS MEANS FOR PRACTITIONERS

Coaching, either alone or in conjunction with other forms of professional learning, has a significant effect on teaching practice and student achievement. This study provides evidence to support district and school investments in coaching and recommends that coaching programs emphasize substantial improvements in teaching practice to increase their effects on student achievement.

The design and implementation of coaching programs influence the potential of those programs to strengthen teacher practice and student results. When designing,



planning, implementing, and evaluating coaching programs, Learning Forward's Standards for Professional Learning (2011) provide guidance. When coaching programs more fully integrate the standards into their design, the variance will likely be reduced and the effects increased.

- **Learning Communities:** Researchers noted only briefly that the conditions within a school influence the effects of coaching. More specific attention to the school's culture for collaboration and continuous improvement and necessary structures are likely to increase the effects of coaching.
- **Leadership:** Little is mentioned in the discussion of programs studied about the role of leadership in coaching, yet it is a necessary and crucial element to address. When principals and coaches are working in alignment to achieve schoolwide goals, the overall effects are likely to be larger because of the coherence of collective efforts.
- **Resources:** The dosage of coaching varies, leading researchers to posit that the quality rather than amount of coaching is more important. For coaching to meet the attributes described by the researchers — namely sustained, focused, and intensive — it is important to

majority of those (22) in literacy and two each in math and science. Eleven studies of general coaching were included. Twenty-nine studies focused on coaching of early childhood or elementary teachers.

Nearly all (89%) of the coaching models were paired with other forms of professional development, most often group training. In 12 studies, teachers received instructional support materials in addition to coaching. Eleven studies relied on video as a coaching source, with teachers receiving virtual coaching in seven studies. The coaching dosage varied from 10 hours or less in six studies to 30 hours or more in six studies. The total hours of professional development for teachers ranged from 20 or less in eight studies to 60 or more in six studies.

RESULTS

The effect size distribution of coaching on teaching practice and

student achievement is normal with an interquartile range for effect on teaching from .14 standard deviation to .92 standard deviation and between .01 standard deviation and .21 standard deviation for student achievement.

The pooled effect size of coaching on teacher practice is .57 standard deviation ($p < .001$) across the 25 studies with a measure of instructional practice. The effects are larger (.71 standard deviation, $p < .001$) in coaching programs focused on general practices than on content-specific coaching programs (.51 standard deviation, $p < .001$).

In addition, all models of teacher coaching, across all content areas combined, have a positive effect (.11 standard deviation, $p < .001$) on student achievement when pooled across reading, math, and science as measured on standardized tests, a finding drawn from the effect sizes reported in 21 studies. Content-specific coaching in reading (22 of 26 studies) has a .12

standard deviation ($p < .001$) on student reading achievement.

The number of studies focusing on general instructional coaching and measuring student achievement is limited — only three of nine studies — and further research is needed. The effect size across the general coaching studies on teaching practice is .70 ($p < .01$). The effect on student achievement in the three studies of general coaching that measure student achievement as an outcome is not significant. With only two studies focusing on content-specific coaching in math and two in science, effect sizes are not significant.

Researchers conducted additional exploratory analyses of the pooled effect sizes by coaching program feature and found no significant effects by coaching program features. They noted that limitations of statistical power prevent ruling out some relationships. Researchers concluded that the measure

ensure that adequate coaching over a sustained period is available to support improvements in teaching and student learning.

- **Data:** Studies included used at least one measure of teaching practice and student achievement. The small effect on student achievement may have been influenced by the use of annual assessments of student achievement rather than formative classroom-based measures that more directly correlated with the practices teachers are learning to implement.
- **Learning Designs:** Coaching, as the researchers noted, is a learning design for professional learning that is more personalized, focused on classroom practice, and contextually appropriate to teachers' day-to-day work. When it is paired with other learning designs focused on building knowledge and skills in specific content areas, as in a number of the studies, and schoolwide goals for student improvement, the effects may increase with sustained coaching over time.
- **Implementation:** As with all forms of professional learning, sustained, personalized support with constructive

feedback over time is essential to promote and sustain change in practice. Coaching, when it meets the criteria characterized within this study and others not explored, such as supported by leaders and provided by well-prepared and skillful coaches, increases teaching practice and student achievement.

- **Outcomes:** The coaching programs studied measured two outcomes, and researchers examined the interaction between them. They concluded that teaching practice and student achievement are correlated and changes in teaching practice must be substantial to affect student achievement. Those using coaching to increase student achievement, then, may need to identify high-leverage, high-impact teaching practices as the focus of coach-teacher interactions.

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Learning Forward. (2011). *Standards for Professional Learning*. Oxford, OH: Author.

of dosage including the total hours for coaching and coaching paired with other forms of professional development suggest that the quality of coaching, rather than the amount, may be more important, given that the estimate of effect on both outcomes of instruction and student achievement is 0.

In further examination of the nine studies that measured both instruction and student achievement outcomes, Kraft, Blazer, and Hogan explored the effects of coaching on instruction and instruction on student achievement. The effect size is .64, suggesting that changes in student achievement require large changes in instructional quality. They estimated that one standard deviation change in teacher practice produced .15 standard deviation change in student achievement and suggested that this relationship explains why professional development focused on modest changes in teacher practice often fails to impact student

achievement.

The authors also examined issues related to scaling coaching. They noted that smaller coaching programs — those involving no more than 50 teachers — improved teacher practice by .78 standard deviation and student achievement by .17 standard deviation, more than the pooled effects for all studies.

These results are almost double the effects for larger studies. Those involving more than 100 teachers had effect sizes of .42 standard deviation for instruction and .08 standard deviation for student achievement. This finding raises questions about the challenge of scaling up coaching programs, particularly in the areas of selecting and preparing coaches, teacher buy-in, school conditions, and cost.

LIMITATIONS

Some limitations within this study that influence generalizability are the

number of studies and the variations of coaching model and coaching program features. Because research on the effects of coaching on teacher practice and student achievement is limited, this study provides a firm foundation for more rigorous studies in the future.

Researchers call for more precision in describing coaching interventions and greater standardization in reporting how coaching is operationalized within research studies. Researchers also call for increasing the statistical power of the studies by randomizing at the teacher level rather than the school or district level.

Given the paucity of random-control-trial and quasi-experimental studies of the effects of coaching on teaching practice and student achievement, this study contributes to the existing body of knowledge and offers guidance on improving the quality and effects of coaching and research on coaching. ■

ESSENTIALS

■ CALIFORNIA POLICY

An Effective Teacher for Every Student:
Developing a Research Agenda to Further
Policy Change

*Policy Analysis for California Education,
January 2017*

A two-day meeting brought together experts in teacher policy to flesh out and move forward a coherent research agenda that might help inform evidence-based policy in California and beyond. Among the topics



participants selected as most important were teacher preparation and certification, teacher selection and hiring, professional development, and principal effectiveness. Participants agreed that there is a significant opportunity and need to improve current teacher practice. Many cited promising evidence about certain kinds of supports, including specific

professional development programs that improve teacher knowledge and practice. Participants highlighted instructional coaching and feedback, often tied to rigorous evaluations, and asserted that this was a critical place for ongoing, actionable research.

<https://edpolicyinca.org/sites/default/files/Teacher%20Policy%20Conference%20white%20paper.pdf>

■ STRENGTHENING LEADERSHIP

PSEL 2015 and Promoting Principal
Leadership for the Success of Students
With Disabilities

*Council of Chief State School Officers,
2017*

This report outlines key steps every state can take to ensure all school principals are prepared to create and lead learning environments that meet the needs of struggling learners, with a particular focus on disabilities. The report highlights the aspects of leadership practice in the 2015 Professional Standards for Educational Leaders (PSEL) along with key competencies that are important for supporting the success of students with disabilities. State education agencies can use this as a tool to work with stakeholders in setting policies or launching programs to cultivate and promote these core practices and competencies to maximize success for struggling learners. The report includes a broad range of actions states can take to strengthen leadership preparation.



[www.ccsso.org/
Documents/2017/
PSELforSWDs01252017.pdf](http://www.ccsso.org/Documents/2017/PSELforSWDs01252017.pdf)

■ NEW TEACHERS

Starting Strong: How to Improve
Teachers' Entry Into the Profession

*Center for American Progress,
January 2017*

Center for American Progress explores the challenges that inexperienced teachers face, highlights early outcomes of model programs, and proposes an expansion of supported entry programs for prospective and new teachers. The authors argue that a more supported entry into the profession for teachers would go a long way toward improving student learning. Well-designed programs would provide new teachers the ability to build skills and habits before they are asked to demonstrate all of their skills concurrently as a lead teacher in their own classrooms. The report proposes increasing new teachers' access to high-quality supported entry programs, including extended clinical preparation, induction programs, and residency programs.



[www.americanprogress.
org/issues/education/
reports/2017/01/25/295885/
starting-strong](http://www.americanprogress.org/issues/education/reports/2017/01/25/295885/starting-strong)

■ DECODING ESSA

Bridging the Gap Part 2: Sustained &
Intensive

*Frontline Research & Learning
Institute, 2017*

This is the second in a four-part series designed to help practitioners decode the new federal definition of professional development and understand how new requirements align with their current practices. This report explores each of the criterion definitions and metrics, establishes a framework for employing them meaningfully in schools and districts, and discusses strategies for improvement of professional development that's falling short. The report concludes with seven key steps schools and districts can follow to set priorities for improving professional learning, making and measuring improvements, and reflecting on progress.



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Inform. Engage. Immerse.

FOCUS

MEASURING IMPACT

THE MANY FACETS OF ASSESSMENTS

- Assessments can go wrong. p. **26**
- Assessments need a destination at the outset. p. **32**
- Assessments are best embedded in the work. p. **38**

To assess the quality of your professional learning, try the Standards Assessment Inventory (SAI), a 50-item, web-enabled survey that assesses the alignment of a system's professional learning practices with the Standards for Professional Learning. The SAI helps ensure professional learning increases teaching effectiveness and gets results for educators and students.

Details at www.learningforward.org/consulting/sai.



BY JOELLEN KILLION

Evaluation is “a systematic, purposeful process of studying, reviewing, and analyzing data gathered from multiple sources in order to make informed decisions” about professional learning (Killion, 2008, p. 8).

Standards-aligned professional learning requires the use of data for continuous formative and summative evaluation to measure its processes and progress toward identified short- and long-term outcomes and to make data-informed decisions about midcourse adjustments to increase the likelihood

of positive results.

Evaluation of professional learning illuminates the interactions that occur in the implementation of planned learning experiences and the necessary supports designed to improve professional practice and its effects on students. It investigates how a set of actions designed to achieve defined short- and long-term outcomes occur over time and how they strengthen professional practice and ultimately effect student results.

In schools and school systems, however, educators who lead, facilitate, manage, and advocate professional learning as a primary means for

improving educators’ professional practice and student results struggle to find practical, meaningful, cost-effective, and timely means to evaluate this crucial work. Evaluation of professional learning is challenging work primarily for three reasons: the need for clear outcomes, clear purpose, and appropriate methodology and design. This article explores these challenges and recommends ways to avoid them.

CLARITY OF OUTCOMES

Evaluation of professional learning depends on its evaluability. Evaluability is the “ability to be evaluated” (Killion,

WHY INITIATIVES FAIL

TO ACHIEVE MEANINGFUL
RESULTS, ADDRESS THESE
COMMON CHALLENGES

2008). For professional learning, as with other change initiatives, this means that the program to be evaluated must have evidence that depicts sufficient preparation and planning for the professional learning.

These include defined outcomes that delineate the expected changes in knowledge, attitudes, skills, aspirations, and behaviors (known as KASAB), a theory of change that details the pathway toward expected changes and the assumptions on which it is based, indicators of success, and potentially a logic model that details the alignment among the program's actions, resources, outputs, and outcomes (Killion, 2008).

After planners of professional learning use data to determine student

and educator learning needs and before they determine the appropriate and sufficient actions necessary to produce the expected changes, they first delineate the specific changes they want to achieve through professional learning.

“Beginning a change project without knowing where one is going creates confusion — uncertainty and doubt about what to do differently to see changes in educator practices and improvement in student results. When educators focus on activities first, they assume that changes and improvements will result” (Killion, 2008, p. 46). Outcomes for educators specify the changes in practice expected to occur as a result of professional learning —

DATA:

Professional learning that increases educator effectiveness and results for all students uses a variety of sources and types of student, educator, and system data to plan, assess, and evaluate professional learning.

Source: Learning Forward, 2011.

changes that are necessary to achieve the desired changes in student learning (Bradley, Munger, & Hord, 2015).

One way to address the challenge of clear outcomes is to use the KASAB framework to define them. The table on p. 28 summarizes the KASABs, provides a definition of each, and offers an example for a particular professional learning initiative.

Because learning is a dynamic process that builds on the interdependent nature of knowledge, beliefs, skills, aspirations, and behaviors, the outcomes are nested together. They build on each other and are not necessarily linear. In many cases, a behavior change depends on other outcomes and may serve

EDUCATOR OUTCOMES DEFINED AS KASABS		
Student outcome: Students will apply critical thinking processes to solve problems in multiple authentic situations and explain their selection and use of appropriate thinking processes to solve the problems.		
Educator outcomes	Definition	Sample educator outcomes for each KASAB
K nowledge	Content, concepts, principles, information, etc., used as a basis for determining and implementing actions.	Educators develop a shared understanding of attributes and types of critical thinking, appropriate uses of the types, and understanding about how students at various developmental levels apply critical thinking.
A ttitudes	Beliefs about the value of particular information, strategies, processes, or actions.	Educators demonstrate the value of explicit teaching of critical thinking skills by integrating it into lessons and units and by assessing students' use of critical thinking.
S kills	Strategies and processes to apply knowledge; capacity to act.	Educators articulate procedures and strategies for explicit teaching of developmentally appropriate critical thinking skills and integrate them into planned lessons and units.
A spirations	Desires, or internal motivation, to engage in a particular practice.	Educators demonstrate the intention to implement explicit instruction in critical thinking by designing content-specific lessons and units within which they will teach and students will apply critical thinking skills.
B ehaviors	Consistent application of practices within authentic settings.	Educators design student learning tasks that provide students opportunities to learn and apply critical thinking skills in content-specific authentic learning, implement explicit teaching of critical thinking skills, assess students' use of critical thinking, and reflect on the effects of their own practice to refine future practice.

Source: Adapted from Killion, 2008.

as an approximation for the four other outcomes. In that case, a single outcome, the behavior one, could substitute for all the other outcomes in the evaluation process. However, it is essential to collect formative data on at least one or two other outcomes for the purpose of formative assessment and interim adjustments and to provide evidence of the interim changes that contribute to the final ones.

Outcomes define the changes that occur within adults, not the actions they will take to achieve them. Too often in planning professional learning, the emphasis is on the actions to achieve the results and insufficiently on the outcomes. The lack of specific outcomes defined as changes in the adults that are likely to produce the expected results in students leads to evaluations that focus on the process of completing actions rather than achievement of results. Participation,

PROGRAM OF PROFESSIONAL LEARNING: a coherent, planned set of actions and essential resources designed to result in positive changes in educator practice and student success (Killion, 2008).

satisfaction, and enjoyment aren't indications that learning occurs.

Delineating what professional learning strives to achieve by clarifying the KASABs is an essential component of the evaluability of any professional learning effort focused on measuring its outcomes.

CLARITY OF EVALUATION'S PURPOSE

Another common challenge in evaluating professional learning is understanding the purpose or focus of the evaluation. The purposes are distinct from each other, and, while they may be related, each requires a

different type of evaluation design and data to address. There are essentially three primary foci for program evaluation: merit, value, and impact of the program.

Merit refers to the professional learning's intrinsic properties, characteristics, or attributes, such as whether it meets the Standards for Professional Learning. **Worth** is the perceived value of professional learning, such as participants' perception that professional learning is worth the time invested. **Impact** is the contribution professional learning makes to the effects it intends to achieve.

In addition, evaluators might also

COMMON EVALUATION DESIGNS	
Evaluation design	Description
Descriptive	“Descriptive evaluations provide a description of the program’s actions and the results obtained. Sometimes descriptive evaluations include perceptions of program participants or observations of their behaviors, often from results of a survey” (Killion, 2008, p. 72).
Naturalistic	“Naturalistic evaluations provide an in-depth analysis of the behaviors, motivation, and attitudes of a small number of participants. Case studies are the most common form of naturalistic evaluations” (Killion, 2008, p.72).
Quasi-experimental	“Quasi-experimental design uses comparison of the program participants and nonparticipants when they have not been randomly assigned. The comparison allows the evaluator to determine whether the program had an effect” (Killion, 2008, p. 72).
Experimental	“Experimental design allows the evaluator to form a conclusion about whether the changes that occurred can be attributed to the program. That is, did the program cause the changes? Using random assignment of participants to either a control or a treatment group, the evaluator looks at the differences that occur between the two groups after the treatment” (Killion, 2008, p. 72).
Mixed method	“Mixed-method evaluations use both qualitative and quantitative techniques to answer the questions the evaluation poses. Multiple methods strengthen the validity of an evaluation by overcoming the weaknesses of any one design” (Killion, 2008, p. 72).

focus on the **efficiency, design, and equity of access**. These latter purposes become the focus of evaluations of function of the professional learning system within a school district, rather than evaluations of specific programs of professional learning.

The purpose of evaluation is to measure the effectiveness and impact of a particular program of professional learning. If, for example, district leaders want to evaluate the coaching program, the evaluation may focus on both the implementation of planned actions and resources designed to change educator practice and student success as well as the attainment of defined outcomes. Measures of outcome attainment provide evidence of impact, while measures of implementation, resource use, and identification and handling of unanticipated consequences provide information for program improvement.

Evaluations have different purposes. For example, an evaluation may strive to measure the overall evaluation of the quality of, access to, or cost-effectiveness of professional learning rather than the attainment of a set of defined outcomes associated with a

specific program.

If the evaluation focuses on measuring the quality of professional learning, it might use an instrument such as Learning Forward’s Standards Assessment Inventory (www.learningforward.org/consulting/sai). This type of effectiveness evaluation measures the degree to which teachers’ experiences within professional learning meet the specific criteria as defined by the Standards for Professional Learning (Learning Forward, 2011) and is best used to identify opportunities for strengthening professional learning.

If the evaluation seeks to measure achievement of outcomes for educators and students, the purpose is about outcome attainment rather than program quality or participant satisfaction, participation, or access. In addition, when the outcomes specify change in practice that leads to changes in student learning, the evaluation cannot focus only on knowledge acquisition, attitudes, or aspirations. In some cases, evaluations of professional learning attempt to combine these purposes, and, when they do, the evaluation must be more sophisticated

and rigorous to measure the constructs reliably and validly.

To avoid complication and improve evaluation, it is essential to determine the evaluation’s purpose and appropriate audiences as well as the specific questions the evaluation seeks to answer. Often within school systems, policymakers want to know if professional learning impacts educator practice and student achievement, yet are unwilling to invest in outcome evaluations or attempt to substitute measures of quality for outcome measures. Doing so disappoints everyone.

SELECTION OF APPROPRIATE METHODOLOGY

A challenge related to evaluating professional learning is choosing an appropriate evaluation design that will serve as the framework for the evaluation. Evaluation design can be simple or complex and depends on the necessary rigor of the evaluation.

For internal evaluations that are designed primarily for improvement purposes, a descriptive design may be sufficient. For a more rigorous evaluation designed to measure outcome

EVALUATION FRAMEWORK						
Professional learning goals (changes expected for educators and/or students) ...	Evaluation questions I want to answer (crafted from expected changes) ...	To answer the questions, I need to measure ...	By using the following evaluation design ...	By collecting the following kinds of data ...	Data will be most useful if it comes from (data sources) ...	Data will be collected using (data collection methods)...

Source: Adapted from Killion, 2008.

attainment of a particular program of professional learning, to measure the impact of particular approaches to professional learning, or to compare programs, a pre-test-post-test or quasi-experimental design might be necessary.

In fact, many evaluations of professional learning are not necessarily examining the effects or impact of a particular program but rather the perceived quality of all professional learning, a purpose accomplished with a descriptive design. The table on p. 29 outlines common evaluation methods and the best uses of each.

Many practitioners who are familiar with research and less familiar with evaluation hold misconceptions that complicate the decision regarding evaluation design. They struggle with evaluation in a natural setting that can provide valid conclusions about impact. They also face policymakers or decision makers who want proof that professional learning caused changes in educator practice and that those practices led to changes in student learning.

Not all evaluations and research studies are designed to prove a causal relationship among variables. To assess

the causal relationship of professional learning and educator practice or student achievement, the evaluator must apply a rigorous evaluation design such as quasi-experimental or experimental.

Decisions about the evaluation’s design require thoughtful consideration of the evaluation’s purpose, outcomes, questions, rigor, and use of results. Decisions regarding methodology affect the level of effort, sophistication of the evaluators, and cost of the evaluation.

TAKING ACTION

To begin planning an evaluation of professional learning, the evaluator starts by ensuring professional learning is evaluable. The goals guide the design of the evaluation questions, and the questions, in turn, guide the design of the evaluation framework. The table above is a starting point for planning an evaluation.

While evaluation may not be an area of expertise for practitioners who lead professional learning, they understand its necessity. They can increase their capacity by taking small steps to initiate evaluation such as creating a plan to

evaluate existing professional learning programs on a rotational basis and new programs as they emerge.

Evaluation ensures that professional learning achieves its outcomes, meets the Standards for Professional Learning, and provides policymakers, decision makers, and practitioners the information necessary to make crucial decisions about professional learning, including measuring and increasing its effectiveness and results, modifying processes to strengthen results, and justifying resources allocated toward it.

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Joellen Killion (joellen.killion@learningforward.org) is senior advisor to Learning Forward. ■

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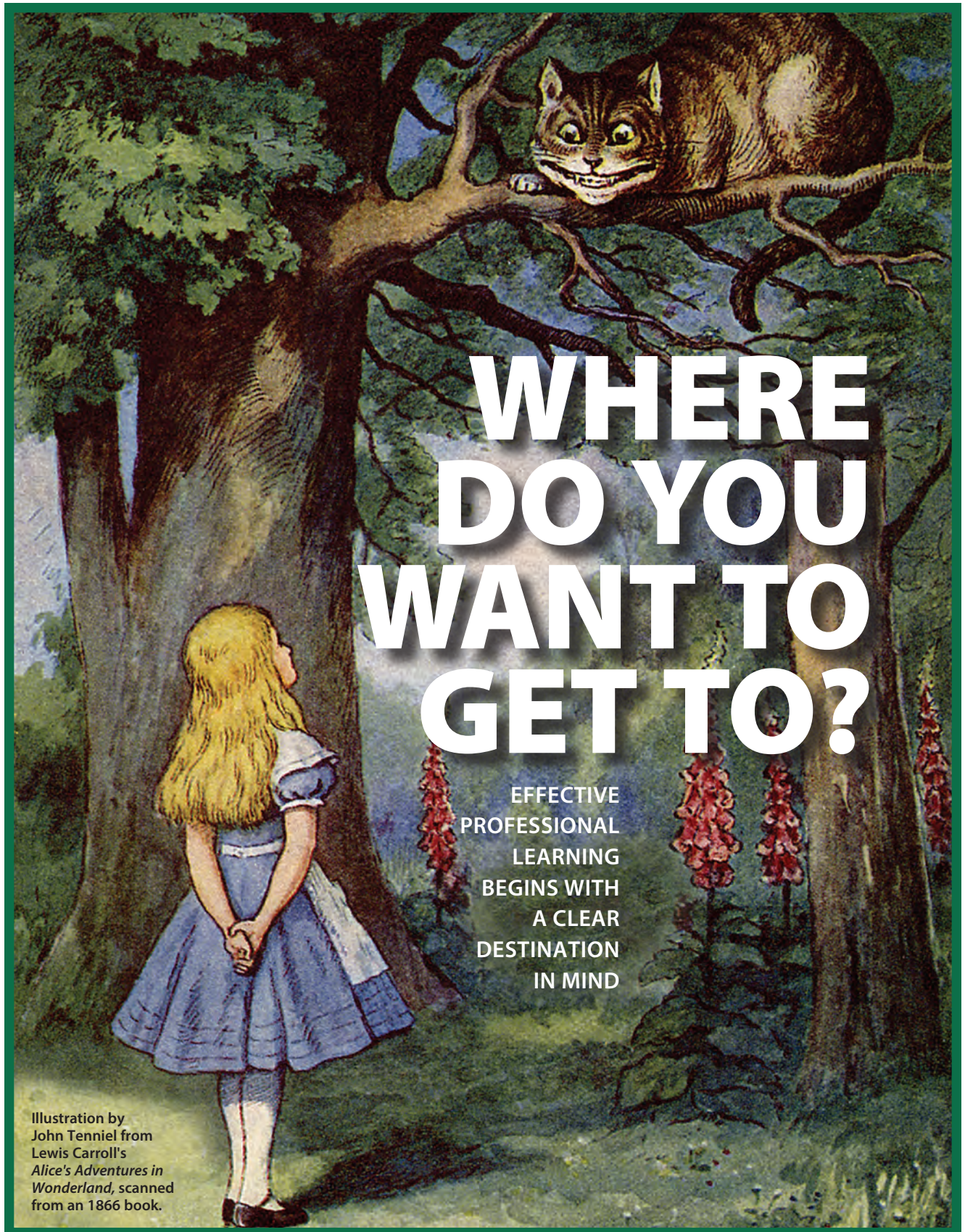
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WHERE DO YOU WANT TO GET TO?

EFFECTIVE
PROFESSIONAL
LEARNING
BEGINS WITH
A CLEAR
DESTINATION
IN MIND

Illustration by
John Tenniel from
Lewis Carroll's
*Alice's Adventures in
Wonderland*, scanned
from an 1866 book.

BY THOMAS R. GUSKEY

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In Lewis Carroll's *Alice's Adventures in Wonderland*, Alice asks the Cheshire Cat, "Would you tell me, please, which way I ought to go from here?" "That depends a good deal on where you want to get to," the cat tells her.

"I don't much care," Alice says.

"Then it doesn't matter which way you go," the cat replies.

This telling scene from Carroll's classic story describes how many educators go about professional learning. Just like Alice, they don't know where they want to get to. They are on an adventure, thrilled by new encounters and exploring possibilities with no particular destination in mind. In evaluating their adventure, they simply reflect on the experience and make judgments about how enjoyable or meaningful it was. What learning occurs is an ancillary benefit. Even if valuable, it's typically unplanned and often unanticipated.

Effective professional learning, however, is not an adventure — it's a journey. We engage in professional learning with purpose and intent.

Although there may be unexpected encounters along the way, we have a clear destination in mind. Specifically, we want to get better at our profession. That's why we label it "professional" learning.

And we have definite ideas about what "getting better" means. In education, getting better generally means having a more positive influence on the learning of our students and helping more students learn well. In other words, we know where we want to get to. Knowing our destination provides the basis for determining the effectiveness of our efforts.

ESSENTIAL QUESTIONS

Educators often shy away from evaluating professional learning experiences because they believe the process requires knowledge and skills they don't possess. As a result, they either neglect evaluation procedures completely or leave them to "experts" who come in at the end and gather data to determine if anything made a difference. But these ad hoc procedures rarely yield information that helps educators improve the quality or

effectiveness of their professional learning experiences.

In truth, evaluation is a relatively simple process that begins by answering three essential questions:

1. What do we want to accomplish?
2. How will we know it if we do?
3. What else might happen, good or bad?

The first question clarifies our destination and goals. Since our primary goal in education is to help all students learn well, the destination in professional learning is almost always improvement in student learning outcomes. These improvements may be increased student achievement in specific subjects or helping students acquire important life skills, such as collaboration, communication, empathy, and personal and social responsibility. If our own professional learning doesn't aid us in helping more students learn better, it can hardly be considered effective.

The second question identifies what evidence we trust to verify that we reached our destination and achieved our goals. Because the evidence most

trusted varies depending on who is asked, we always need to consider multiple sources of data (Guskey, 2007a, 2012). No single source of evidence tells the whole story (Guskey, Roy, & von Frank, 2014).

The third question requires us to look beyond the stated goals and consider possible “unintended consequences.” Sometimes important things happen along our journey, both positive and negative, that are not necessarily planned. Improving student learning in one subject, for example, may increase students’ self-confidence as learners and lead to improvements in other subjects. Or it may be that the improvements in student learning in one subject came as the result of taking instructional time from other subjects, and achievement in those subjects declined. Looking beyond the intended goals to the broader array of possible outcomes is an important aspect of evaluation and vital in judging effectiveness.

EVALUATION STARTS AT THE BEGINNING

Most importantly, these three essential questions show that evaluation is not something that happens only at the end. Rather, it’s where we start. As Covey (2004) reminded us, we must always “begin with the end in mind.”

Learning Forward’s Standards for Professional Learning guide educators in making thoughtful decisions about the destination of their professional learning journey. According to the standards, effective professional learning experiences increase “educator effectiveness and results for all students” (Learning Forward, 2011). This central purpose isn’t something to be considered only at the end. Instead, it must be where we begin planning all professional learning experiences (Guskey, 2001a, 2001b, 2002a, 2005b, 2007b).

Deciding what goals we want

ANALYSIS OF ITEMS ANSWERED INCORRECTLY BY STUDENTS ON A COMMON FORMATIVE ASSESSMENT			
Formative Assessment 3			
Item	Jen	Michael	Chris
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			

Source: Guskey & Jung, 2013. Copyright 2013 Corwin. Used with permission.

to achieve typically involves careful analysis of current data on student learning along with consideration of the teaching and learning context. Results from large-scale state assessments and nationally normed, standardized exams may be important for accountability purposes and undoubtedly need to be included (Brennan, Kim, Wenz-Gross, & Siperstein, 2001). School administrators generally consider these to be valid indicators of success.

But other stakeholders in the professional learning process may consider alternative sources of evidence more valid. Teachers, for example, typically see limitations in large-scale assessment data. These assessments are generally administered only once per year, and results may not be available until several months later. By that

time, the school year may have ended and students promoted to another teacher’s class. So, while important, many teachers do not find such data particularly useful (Guskey, 2007a).

Teachers tend to put more trust in results from their own assessments of student learning: classroom assessments, observations, assignments, in-class performance, and portfolios of student work. They turn to these sources of data for feedback to determine if the new strategies or practices they are implementing really make a difference.

Classroom assessments provide timely, targeted, and instructionally relevant data that also can be used to plan revisions when needed. Classroom observations and discussions with students often help pinpoint areas of concern. Interviews with teachers, focus

groups, or discussions in professional learning communities (DuFour, 2004) are especially valuable. Since teachers comprise a major stakeholder group in any professional learning endeavor, the inclusion of sources of data they trust and believe is vitally important (Guskey, 2012).

Affective and behavioral indicators of student performance can be relevant as well. These include student surveys designed to measure how much students like school; their perceptions of teachers, fellow students, and themselves; their sense of self-efficacy; and their confidence in new learning situations or positive mindset.

Data from school records on attendance, enrollment patterns, dropout rates, class disruptions, and disciplinary actions are also important. In some areas, parents' or families' perceptions may be an important consideration. This is especially true in initiatives that involve changes in grading practices, report cards, or other aspects of school-to-home and home-to-school communication (Epstein & Associates, 2009; Guskey, 2002b; Guskey & Bailey, 2001, 2010).

Considering the learning progress of students of different backgrounds and ability levels, language experiences, ethnicity, race, and gender can be particularly informative. Looking at differences between classrooms and between schools often yields new understandings of problem areas as well.

AN EXAMPLE

When analyzing data from assessments of student learning to guide professional learning, the most helpful information for guiding improvement rarely comes from comparisons of a school's results with averages from the state, province, or nation.

It comes instead from exploring and analyzing variation in students' responses to individual items or

subsections of items on assessments, especially "common" formative assessments. These assessments can vary widely in their form and structure, as can any type of assessment. What makes common formative assessments different is that they are collaboratively developed, scored, and analyzed by teams of teachers rather than by an individual teacher (Ainsworth & Viegut, 2006).

To develop common formative assessments, teacher teams first examine the standards or learning goals for each instructional unit and then collaboratively develop assessments that they believe will capture how well students have mastered those standards or goals. Many teams frame their work using "Tables of Specification" (Guskey, 2005a). Team members administer these collaboratively developed formative assessments in their individual classes at about the same time. They then get together to analyze the results and plan corrective activities when needed.

For many teams, the first step in their analysis is to construct a table like the one illustrated on p. 34. This table shows a tally of how many students in each teacher's class answered each item incorrectly or failed to meet a particular performance criterion.

This simple tally reveals several important findings. Specifically:

A. All students answered items 4 and 8 correctly. Generally, this indicates that the standards to which these items or prompts relate were taught so well by all three teachers that all students were able to demonstrate their mastery. It also may be, however, that these items or prompts were structured in a way that revealed the correct response or made the correct answer obvious. If this is true, then the teachers will need to

revise these items or prompts on the assessment.

- B. Most students in all three teachers' classes did well on items 1, 2, 5, 6, 10, and 11. This shows that the instructional practices the teachers used in teaching these particular standards worked well for nearly all students and should be continued. Only a few students will need to revisit these standards and continue to work on mastery.
- C. Although many students in Jen's class struggled with item 3, most students in Michael's and Chris' classes answered this item correctly. In this case, Michael and Chris might offer Jen advice on how to revise her instructional strategies for this particular standard or goal.
- D. For item 7, most of Jen's students did very well, but the majority of students in Michael's and Chris' classes had difficulty. Jen can share how she approached this topic or standard and the strategies she used to engage students to help Michael and Chris develop more effective strategies for teaching this particular standard. Similarly, for item 12, Michael's approach appears to have led to greater success than that of Jen or Chris.
- E. Items 13, 14, and 15 address standards that continue to be problems for students in all three teachers' classes. When this occurs, teachers need to seek solutions outside of their individual experiences and expertise. This evidence provides the foundation and incentive for these teachers' own professional learning. They might, for example, contact

an instructional coach, critical friend, district coordinator, regional service center, or subject-area experts for ideas on alternative instructional strategies. They might contact teachers in other schools who may have found ways to address similar instructional challenges. They might explore research evidence on instructional practices shown to be effective in helping students achieve these particular learning goals.

The primary purpose of this collaborative data analysis is to guide these teachers' professional learning experiences so they can improve the quality of their instruction and help all students learn well. They are beginning at the end, knowing what outcomes they want to achieve and what evidence best reflects those outcomes.

ESSENTIAL STEPS

In essence, this backward planning process simply reverses the five crucial levels of evidence outlined in *Evaluating Professional Development* (Guskey, 2000, 2014a, 2014b). In reverse order, those levels are:

5. Determine impact on student learning outcomes.
4. Implement new practices.
3. Gain organizational support and change.
2. Develop essential knowledge and skills.
1. Plan targeted professional learning experiences.

So with goals clarified and decisions made about what evidence best reflects the achievement of those goals, we are ready to move on to the other essential steps.

Next we must decide what instructional strategies or practices are most likely to produce the student learning outcomes we want and what evidence verifies those effects. We need to ask:

- How do we know these particular strategies and

The key to success is recognizing that if we plan well, beginning with a clear idea of the destination, most evaluation issues are self-evident.

practices will produce the results we hope to achieve?

- How good or reliable is that evidence?
- Was it gathered in contexts similar to ours?
- Is it the kind of evidence we consider most important?

In addition, we must identify the essential elements of these strategies and practices and determine how we will know if we are implementing those elements with fidelity.

With the strategies and practices we hope to implement well-defined, we must ensure the organizational supports are in place to implement the strategies and practices well. Many valuable improvement efforts fail miserably, for example, because of a lack of active participation and clear support from school leaders (Guskey, 2004). Others prove ineffective because schools have not provided the resources required for successful implementation, such as time, funding, instructional materials, or necessary technology.

After considering issues of organizational support, we need to determine what specific knowledge and skills educators need to implement the prescribed strategies and practices well. What must educators know and be able to do to successfully implement the new practices and bring about the sought-after improvements in student learning?

This leads us to discussions about what set of experiences will best enable educators to acquire the needed knowledge and skills. Seminars and workshops can be a highly effective means of sharing information and expanding educators' knowledge and skills, especially when paired with collaborative planning, structured

opportunities for practice with feedback, and follow-up coaching. Action research projects, organized study groups, collegial exchanges, professional learning communities, online services, and a wide range of other group and individual activities also can be effective.

The key point in these discussions is to ensure the focus remains on “educator effectiveness and results for all students” (Learning Forward, 2011). Because of concerns about professional learning processes, conversations often skip to the content and activities in which participating educators will be involved. We begin debating new ideas, techniques, innovations, programs, and instructional technologies. While these are important issues, we must remember that they are means to an important end that must be determined first. Our journey always begins by deciding our destination.

REACHING OUR DESTINATION

Evaluating the effectiveness of professional learning experiences requires careful and thoughtful planning. The key to success is recognizing that if we plan well, beginning with a clear idea of the destination, most evaluation issues are self-evident. Ninety percent of essential questions in any evaluation are addressed in the planning process, before the journey begins.

It's important to keep in mind that the decisions we make at each stage in the planning process profoundly affect those we make at the next stage. For example, the particular student learning outcomes we want to achieve directly influence the kinds of strategies and practices we need to implement.

Where do you want to get to?

Likewise, the strategies and practices we decide to implement have a direct bearing on the kinds of organizational support or change required, and so on.

The context-specific nature of this work complicates matters further. Even if we agree on the student learning outcomes we want to achieve, what works best in one context with a particular community of educators and a particular group of students might not work equally well in another context with different educators and different students.

This is why developing examples of universal best practices in professional learning is so difficult. What works always depends on where, when, and with whom. But if we begin with the end in mind and carefully plan backward, we can take many of those context-specific elements into consideration and make success much more likely. It also gives clearer direction to evaluation efforts.

High-quality professional learning is the foundation on which any improvement effort in education must build. But to be successful in determining the effectiveness of those efforts, we must plan backward. We must begin with the student learning outcomes we want to affect. From there, we can consider what strategies and practices can be implemented to achieve those goals, the organizational support required, the knowledge and skills educators must have, and optimal professional learning experiences that will help educators gain that knowledge and skills. Plan well, and evaluation takes care of itself.

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- Thomas R. Guskey (guskey@uky.edu) is a professor of educational psychology at the University of Kentucky. ■**



LEARNING THAT'S MADE TO MEASURE

EMBEDDED ASSESSMENTS
GAUGE EDUCATORS'
GROWTH AND IMPACT

BY GISELLE O. MARTIN-KNIEP AND REBECCA SHUBERT

Thirty years ago, I served as a program evaluator for the California International Studies Project, a consortium led by Stanford University that included world affairs organizations, colleges, universities, and county education offices.

The project provided K-12 educators with access to some of the best international studies resources and professional learning programs. Offerings included 80 to 100 program hours during the year, three-week summer institutes, study tours abroad, and fellowships.

One of my responsibilities was to evaluate the impact of these programs

— mostly on teachers, but sometimes on students. Many of the programs aimed at improving cross-cultural awareness, perspective taking, and conflict resolution.

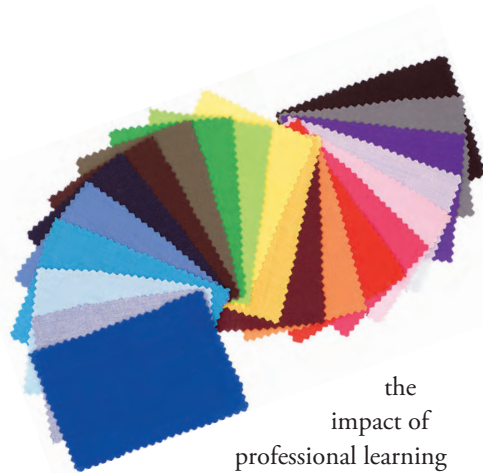
Despite a thorough search of assessment instruments, I was limited by tools that relied on perceptual and attitudinal data rather than assess whether adults or students could

understand that others can think differently, recognize the value of an alternative perspective, or assume a perspective other than their own.

After experimenting with alternative measures with my team and other colleagues, I learned that the best way to assess such outcomes was to provide learners with experiences that elicited such outcomes, such as simulations, role-plays, and other performance tasks. As I designed several of these assessments, I recognized that assessment and learning could be fused into a single experience — that asking learners to “experience” someone else’s opportunities, predicaments, and constraints could lead them to learn what it feels like to live a different reality but also activate their perspective-taking ability.

I saw how teachers and students would enter an assessment experience knowing less than when they exited it. I discovered the value of authenticity and the constructs of assessment *for* learning and assessment *as* learning. I recognized then, as I do now, that assessment is the most powerful lever for learning and that it can be a means for assessing dispositional and other hard-to-measure outcomes.

So how does this relate to the question: What do practitioners need to know and be able to do to understand



the impact of professional learning on their own practices and on student learning? For over two decades, my colleagues and I have worked for Learner-Centered Initiatives, a consulting organization based in New York, promoting best practices in curriculum, development, assessment, and leadership. A significant portion of our work is directed toward helping educators attend to and assess students’ ability to communicate, collaborate, think deeply, and apply and reflect on what they know and can do.

We have helped teachers design authentic performance assessments in which students engage in problems or issues for a real purpose and audience who can benefit from their work; create student-centered portfolios that enable students to demonstrate both their growth and achievement as learners; and design rubrics, checklists, and other tools that result in hard-to-measure outcomes, such as collaboration, open-mindedness, flexibility, and bias recognition.

Inspired by our understanding of assessment for and as learning, we design professional learning with embedded assessment opportunities

that enable participants to assess their growth and attainment of the very outcomes they are acquiring as they are learning and, in some cases, determine the impact of their learning on others.

In this article, I draw on a professional learning experience with about 50 teachers and administrators from 10 school districts in New York, New Jersey, and Connecticut over four full-day sessions between December 2015 and February 2016. These educators sought to learn about and assess critical thinking, metacognition, and problem solving. They worked collaboratively in small teams, first to uncover their understandings of these outcomes, then to determine what to assess and what metrics to use and, finally, to engage in peer reviews as they completed different drafts of their work.

Such collaborative work enabled them to draft and, in many cases, field-test 22 assessment tools aimed at evaluating or promoting these outcomes, including learning progressions, checklists, and rubrics. This professional learning experience illustrates how program- or curriculum-embedded assessment can help facilitators and learners document their learning while revealing the inherent complexities of assessing hard-to-measure learning outcomes.

This professional learning program

provided us with a ripe opportunity to assess participants' learning, deepen participants' awareness of their own growth as learners, and help them and us gather some evidence of the impact of their learning and work on teachers (for administrators) and on students (for teachers).

THE IMPORTANCE OF KNOWING WHAT WE KNOW AND DON'T KNOW

Being able to assess our impact or the impact of what we experience as learners begins with a clear sense of what we know and don't know. All participants attending the program worked in districts that had made an explicit commitment to critical thinking, problem solving, and metacognition, as evidenced in their mission or vision statement, district goals, and their participation in the Tristate Consortium.

This consortium includes more than 40 school districts that have made a commitment to using performance assessments that enable students to demonstrate their capacity to transfer and apply knowledge and promoting student metacognition in systemic and ongoing ways. Thus, it was easy to assume that there was a high level of readiness and understanding of these outcomes.

We launched the design work by reviewing and discussing different definitions and conceptualizations of each of the outcomes, sharing individuals' assumptions about these conceptualizations, and exploring how these outcomes manifest themselves in teachers' and students' discourse, behavior, and work, using videos and assessment examples.

To track changes in participants' understandings of the outcomes as they engaged in these learning experiences, we asked them to complete a concept map of each outcome before and after the first

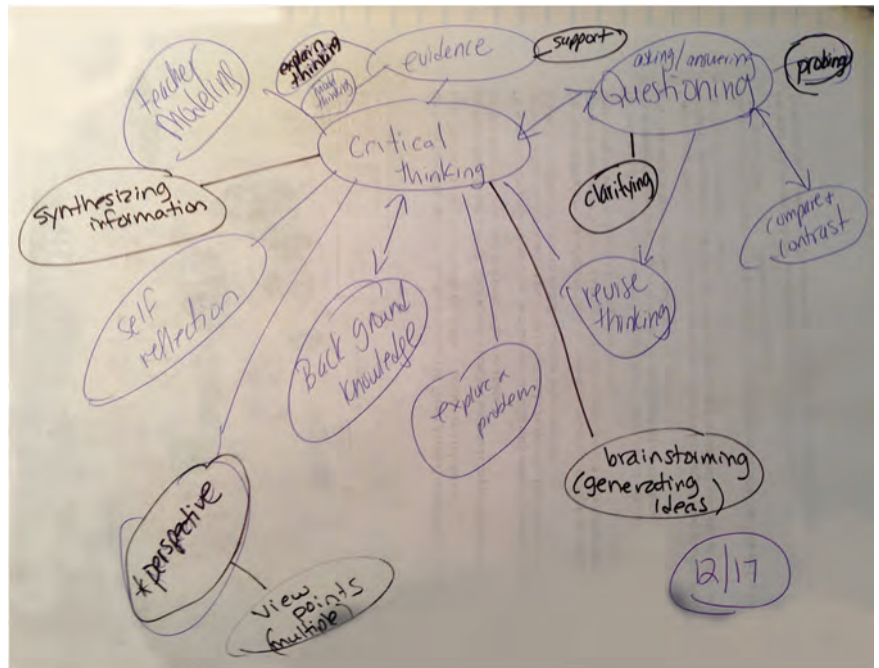


Photo by REBECCA SHUBERT

Having access to pre- and post-assessment experiences, such as this concept map, helped participants assess their own growth and motivated them to learn more about the outcomes.

set of activities. The concept map above illustrates some of these changes that one of the teams experienced. The words in blue were added before the activities, and the words in black were added after the activities.

As can be seen in the map, these individuals came to the program recognizing that thinking entailed multiple components, including skills (e.g. comparing), knowledge, and processes (e.g. questioning and revising), and required instruction. The revised map shows nuanced changes illustrated by the awareness of perspectives and of additional skills and processes.

As they examined the revised maps, participants realized that there was more to thinking than what they understood. In fact, the more they learned about the outcomes, the more they understood their knowledge limitations and what the outcomes entail. As one participant noted, "I have a better understanding of the different dimensions of problem solving. I clearly see how it can be broken down into

subcategories. In the past, I did not view it this way. This clarifies our next steps. ... We have a lot of work ahead."

As they explored these outcomes more in videos and other examples, participants were humbled by the limitations in their instructional repertoire and discovered that helping students acquire and use these outcomes required more and perhaps even different strategies than those they knew. "It turns out we don't do a great job asking students to think about their thinking and that we don't help them know what thinking entails," another participant said.

WHAT PROGRAM-EMBEDDED ASSESSMENTS CAN DO FOR LEARNERS

Having access to pre- and post-assessment experiences, such as the concept maps, helped participants assess their own growth and motivated them to learn more about the outcomes. Their motivation increased even more once participants began to design

specific metrics that assigned levels of development or quality.

Having the opportunity to design school and classroom assessment tools for their own use gave them an authentic purpose for their learning and deepened their understanding of these outcomes even more. As they drafted tools, participants discovered the importance of clear and precise language for communicating what to expect from students and how this differs from relying on evaluative and relative terms.

“We realized the importance of describing behaviors rather than relying on evaluative words,” one participant said. “We also realized how common it is to use quantitative words in a rubric. Now, we try to focus on using what is visible.”

As the design work progressed, participants were eager to bring their work to their students and teachers. Some of the tools, like the example at right, unpacked the behaviors associated with problem-solving indicators and the prompts that could elicit such indicators. This district rubric, with accompanying prompts for teachers, aims to help teachers develop students as problem solvers.

Using these tools deepened participants’ attention to and understanding of these outcomes, whether they used the tools with students, teachers, or across the system. As a 3rd-grade teacher said, “Using this tool with my 3rd graders helped me stay super focused on what it is I’m looking for as evidence of them engaging in problem solving.”

An elementary school principal said, “We see this as a tool that can be used K-12. The tool can be used at all grade levels because it can be flexibly adapted to differences in the complexity of subject-area content as well as the time frame for evolution from stage 1 to stage 5 in the progression. Younger

PROBLEM-SOLVING RUBRIC				
Dimensions	Level 1	Level 2	Level 3	Level 4
Define the key contextual components of the problem.	Expresses general interest in a problem.	Outlines what the problem is.	Describes the context of the problem (who, what, why, where, when, how).	Articulates an understanding of any real-world issue that may be a result of the problem and its context.
<ul style="list-style-type: none"> Wrestles with the discomfort of inconsistencies, contradictions, and multiple perspectives in identifying the cause(s) of the problem. Identifies and/or asks questions that contribute to defining the components or nature of the problem. Identifies relevant information. 				
<p>Question: Is the problem and its context understood? Students can be encouraged to:</p> <ul style="list-style-type: none"> Restate the problem in their own words. Think about the problem. Talk about the problem. Consider the information that is needed to understand the problem. Describe the context of the problem. List the conditions that surround the problem. Capture all related relevant information. Represent the problem in more than one way. Describe related known problems. Explain the real-world issue that is a result of the problem and its context. Monitor their thinking. 				
<p>Source: Developed by CarolAnn Smythe, North Shore School District, Long Island, New York. Used with permission.</p>				

students may move from stage 1 to stage 5 after the course of a unit or school year whereas older students may move through stages more quickly.”

The tools also provided participants with descriptive language to name and assess what was important for them to assess. They also helped us determine how well they were able to describe the different outcomes. The chart on p. 42 contains excerpts of a critical thinking rubric with an example of possible student responses for each level, which serve as anchors for the rubric that illustrates this explicitness.

In some cases, the tools became a learning opportunity for students.

“We have learned that the rubric promotes a metacognitive response in students who might not otherwise have recognized the stages of critical thinking and how it engages not only prior knowledge but other perspectives,” one participant said. “Most importantly, it suggests to students that critical thinking is not a finite process; rather, conclusions can lead to new problems or understandings.”

As teachers and administrators used them to teach others, they uncovered more nuanced behaviors associated with the outcomes and realized how the tools would need to be refined. As one participant said, “When I piloted

CRITICAL THINKING RUBRIC				
	Novice	Apprentice	Emerging expert	Expert
To what extent does the student prevent his or her own assumptions and biases from inhibiting new understandings?	Relies on own assumptions. <hr/> <i>Syrian refugees should be admitted to the U.S.</i>	Questions assumptions and seeks to make inferences. <hr/> <i>I do not believe that Syrian refugees would pose a threat to homeland security.</i>	Distinguishes assumptions from evidence-based inferences. <hr/> <i>I think Syrian refugees are not a homeland security threat, but I do not understand why.</i>	Suspends judgment of thinking until careful consideration of evidence is examined. <hr/> <i>In order for me to decide whether or not Syrian refugees should be admitted to the U.S., I need to consider arguments from both sides of the debate.</i>
To what extent does the student validate the perspectives of self and others to formulate a stance?	Acknowledges own thinking as truth. <hr/> <i>Syrian refugees should be admitted to the U.S.</i>	Acknowledges presence of other points of view but does not consider them. <hr/> <i>People who would admit Syrian refugees to the U.S. are right.</i>	Recognizes and considers opposing yet valid points of view. <hr/> <i>I believe Syrian refugees do not pose a threat to homeland security, although compelling arguments have been made to the contrary.</i>	Carefully evaluates opposing points of view to revise and/or affirm own thinking. <hr/> <i>One must acknowledge the moral imperatives of providing refuge for persecuted Syrian citizens, but the vulnerabilities in the vetting procedure must be addressed in order to limit real threats to homeland security.</i>

Source: Developed by Christine Cincotta, Michael Mezzo, Lynn Fusco, and Emily Urso.

the tool, I realized students who are amazingly metacognitive might not score very high on the tool. That means the rubric needs work, not them... I need to revise my dimensions to account for different kinds of thinkers.”

They also realized, especially after analyzing student work against the tools and metrics, that the tools sometimes communicated higher expectations than the learning opportunities they provided or that student work did not meet the expected standards.

Some teams adopted language that only reflected the actual work samples they had collected instead of fully articulating behaviors or manifestations that could be evident, but that they did not know how to develop. Such a decision raised questions for us, as professional developers, about how we can scaffold the development of outcomes that we either have not attained ourselves or do not have

sufficient knowledge or experience cultivating.

Administrators and teachers realized that producing these outcomes is not only about teaching students how to problem solve or think, but requires a culture that promotes thinking or problem solving in students and demands contexts in which teachers see themselves as thinkers and problem solvers.

“Learning about the stages of the problem-solving process and the nuances of each stage underscored for me that problem solving can be taught,” a participant said. “We often think of some students as being ‘natural’ problem solvers and the leaders in group tasks. I learned that, as leaders, we have to provide opportunities for teachers to be involved in authentic problem-solving tasks so they can identify what it looks and sounds like so they can support students in the process.”

Our program-embedded assessment experiences enabled me to learn about and from the participants in the program, while they learned about their own learning and impact on others. I realized that assessing difficult-to-measure outcomes requires a rich and elaborate language that attends to the nuances and developmental range of these outcomes, an instructional repertoire that honors their development, and the experiences and opportunities for educators to cultivate and practice these outcomes in themselves and in their practice.

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Giselle O. Martin-Kniep (gisellemk@lcilt.org) is president and **Rebecca Shubert** (beccas@lcilt.org) is research assistant at **Learner-Centered Initiatives in Garden City, New York.** ■

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THURSDAY-FRIDAY, JULY 20-21

SESSION TITLE	SPEAKER(S)	FLEX SESSION*
The Feedback Process: The Power of Learner-Focused Feedback	Joellen Killion	Yes
Technology-Enhanced Professional Learning: Blended Learning & Micro Credentials	Nanci Meza Amber Paynter	Yes
Developing & Supporting Instructional Coaches	Heather Clifton Chris Bryan	No
Assessing the Impact & Coherence of Your Professional Learning	Thomas Guskey Michelle Bowman King Nick Morgan	No

* Flex sessions may register for either one or two days.
All other sessions are two days.

SATURDAY-SUNDAY, JULY 22-23

SESSION TITLE	SPEAKER(S)	FLEX SESSION*
Elevating Teacher Leadership	Ann Delehant Cindy Harrison	Yes
Building Your Educational Leadership Skill Set	Jennifer Abrams	Yes
Becoming a Learning Team	Stephanie Hirsh Tracy Crow	No
Becoming a Learning Principal	Kay Psencik Eric Brooks	No

* Flex sessions may register for either one or two days.
All other sessions are two days.

PARTNERS IN A COMMON CAUSE

EXTERNAL EVALUATORS
TEAM WITH PRACTITIONERS
TO BUILD
DATA USE PRACTICES

BY STEPHANIE B. WILKERSON
AND MARGIE JOHNSON



For many districts, evaluation is an afterthought to implementing a new initiative. Educators participate in professional learning experiences, apply what they learn to their practice, and then, at some point, school and district staff begin wondering if the initiative is making a difference. Then they scramble for nuggets of data that provide any evidence of effectiveness. There is another way.

A partnership between educators in Metro Nashville Public Schools in Tennessee and external evaluators with Regional Educational Laboratory Appalachia (REL Appalachia), with



Collaborative Inquiry is a data-based team process that consciously uses the collaborative learning cycle and the qualities of effective groups.

— *Metro Nashville Public Schools Collaborative Inquiry Community of Practice*

funding from the Institute of Education Sciences, used a well-defined process to evaluate the implementation and effectiveness of a new data use initiative from its inception. This article highlights how the partnership approached evaluation, the process external evaluators used to build internal evaluation capacity among the Metro Nashville district staff, and the valuable lessons partnership members learned about fostering successful evaluator-practitioner partnerships.

HOW THE PARTNERSHIP BEGAN

In July 2012, Metro Nashville Public Schools hired Margie Johnson to build the capacity of educators to use data for making informed decisions. Johnson began by conducting a needs

assessment in the district and reviewing national research on data use practices.

Collaborative inquiry emerged in the literature as a promising practice for bridging the gap between data and results (Love, 2009). Simply put, collaborative inquiry is stakeholders working together to uncover and understand problems and test out solutions together through rigorous use of data and reflective dialogue (Love, Stiles, Mundy, & DiRanna, 2008; Lipton & Wellman, 2012). However, translating this research into practice can take substantial planning and capacity building.

Therefore, Johnson reached out to Stephanie Wilkerson at REL Appalachia to help build educators' capacity for using the collaborative

inquiry process. In 2014, we jointly launched this capacity-building initiative with a group of 40 Metro Nashville educators. By 2016, this group grew to include more than 300 educators across the district.

OUR APPROACH

Before implementing collaborative inquiry with schools, we determined that if our initiative is about teachers implementing a collaborative approach to using data, we needed to model what we expected of teachers. We needed to ask questions about collaborative inquiry, collect multiple sources of data, and synthesize it so that we could make informed decisions — and we needed to do so in a way that modeled the collaborative inquiry process. Therefore, we grounded our approach to evaluating collaborative inquiry in four guiding principles.

1. **Begin with the end in mind.** We identified the information needs and priorities of stakeholders and how they would use evaluation findings to address those needs. This helped us identify the key questions that would drive the evaluation. Intended use by intended stakeholders guided all aspects of the evaluation, from initial design to reporting (Patton, 2008).
2. **Engage practitioners in the evaluation process.** Contrary to typical practice, external evaluators did not develop or implement the evaluation independently. Instead, evaluators, central office staff, and school staff worked collaboratively to build the district’s internal capacity to sustain evaluation activities for the long term. A participatory approach ensured the evaluation addressed relevant questions, represented the voices of practitioners and multiple stakeholders, was feasible to implement, and would result in meaningful recommendations (Cousins, 2003).
3. **Be systematic and pragmatic.** To ensure that findings would be credible, relevant, and timely, we followed a systematic and pragmatic approach to evaluation. First, we identified the root causes of barriers to effective collaborative inquiry, then we developed logic models to define the outcomes we would expect to see if we overcame the barriers to effective collaborative inquiry. Next, we aligned evaluation questions and instrumentation with intended outcomes. We chose feasible qualitative and

quantitative data collection methods to measure outcomes that were reasonable to expect during early implementation (Wilkerson & Haden, 2014).

4. **Be transparent.** We made information regarding the evaluation activities and findings accessible anytime through a collaborative inquiry tool kit website and blog posts. We welcomed anyone who wanted to be involved in the evaluation. We created opportunities for central office and school staff to provide feedback on the evaluation plan, instrumentation, and report.

OUR PROCESS

Because of our emphasis on building internal capacity to evaluate collaborative inquiry within the district, we framed all phases of the evaluation from development to implementation as professional learning opportunities. Our capacity-building activities encompassed three phases of the evaluation: developing the evaluation plan, implementing the evaluation plan, and reporting findings.

Developing the evaluation plan

Over a six-month period, we held a series of face-to-face meetings to develop the evaluation plan. We began by considering the type of information the evaluation would need to provide to stakeholders. During this phase, we introduced the concepts of formative (*to improve*) and summative (*to prove*) evaluation, the purpose of each, and how each might meet stakeholders’ information needs.

We created the following evaluation purpose statement: *“The overall purpose of the evaluation approach is to build trust while providing information to stakeholders at all levels about teacher instruction and student learning results*

from the collaborative inquiry work. The evaluation will inform district decision making for professional learning and implementation support based on the identification of exemplary models of successful implementation and barriers in middle schools.”

The purpose statement served as the foundation for developing key and supporting evaluation questions and identifying the best evaluation design and data collection methods to address the evaluation questions. When selecting appropriate methods, we considered time burden, competing or opportunistic data collection activities for other district evaluations, how to triangulate data, and appropriate sample sizes and strategies.

We assigned tasks and responsibilities for instrument development, sampling, data collection, data analysis, and reporting that coincided with a feasible timeline. We also identified the district resources necessary to implement the evaluation plan. Once we drafted the evaluation plan, we presented the plan to a larger group of district and school staff and solicited their feedback to guide final revisions.

Implementing the evaluation plan

Implementing the evaluation plan occurred over a six-month period and included developing instruments, modeling their administration, and collecting and analyzing data. We jointly developed items for structured interview and focus group protocols with teachers, instructional specialists, and principals. We also developed and provided professional learning for using a collaborative inquiry Innovation Configuration map as both an evaluation and professional growth tool (Hall & Hord, 1987). (See sidebar on p. 47.)

Additionally, to provide the district with a validated instrument for

COMPONENT A: ESTABLISHES AND MAINTAINS A CLEAR FOCUS

THE TEAM ...

A	B	C
<ul style="list-style-type: none"> Establishes norms, purpose, and an agenda for each meeting. Uses group strategies and structures, including the collaborative learning cycle, to engage all group members and to minimize off-task behavior. Develops an action plan for next steps before leaving the meeting and makes plan on how to monitor progress. 	<ul style="list-style-type: none"> Establishes a purpose and agenda for the meeting. Addresses all the agenda topics in the allotted time. Develops an action plan for next steps before leaving the meeting. 	<ul style="list-style-type: none"> Fails to have a stated purpose or agenda for the meeting. Discusses random, off-topic, or irrelevant issues until the allocated time is over.

USING INNOVATION CONFIGURATION MAPS IN EDUCATION

What is an Innovation Configuration map?

An Innovation Configuration (IC) map is a tool that identifies and describes the major components of an innovation, capturing present practice as well as next steps for reaching implementation goals (National Comprehensive Center for Teacher Quality, 2013; Roy & Hord, 2004). An IC map unpacks each component of an innovation by describing clear and specific behaviors (practices) along a continuum of ideal to less-than-ideal levels of implementation. An IC map eliminates misconceptions about what a program looks like in practice by communicating a common set of behaviors and expectations related to implementation of an innovation.

How can educators use an IC map?

Educators can use an IC map for professional reflection and growth, research, evaluation, and dissemination. As a reflection and growth tool, individuals or teams can use an IC map to self-assess their progress in implementing an initiative, set goals, and identify areas of additional professional learning resources and support. An IC map can assist leaders in guiding change when they are observing and providing feedback and assistance to aid teachers in achieving higher levels of implementation fidelity (Hall & Hord, 1987). Researchers and evaluators can use an IC map to measure changes in practice

over time, implementation fidelity of an initiative, and impacts on practice. An IC map also is an effective dissemination tool for bringing new schools and educators on board in implementing an initiative because it clearly defines the initiative and implementation expectations.

What does the Metro Nashville Public Schools collaborative inquiry IC map look like?

The IC map includes four components of collaborative inquiry: establishing and maintaining a clear focus on data, taking collective responsibility during the collaborative inquiry process, fostering a culture of trust when using data, and using the collaborative learning cycle when investigating relevant data to guide decision making. Each component has levels and variations of practice from ideal to less-than-ideal levels (left to right). Above is an example of one component from the IC map.

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measuring teacher data use practices, REL Appalachia developed the Teacher Data Use Survey with an accompanying administration guide and reporting template (Wayman, Wilkerson, Cho,

Mandinach, & Supovitz, 2016). As part of the survey development process, district staff piloted the survey and provided feedback on its construction. District staff participated in

professional learning on administering the evaluation instruments by reviewing the survey and protocols, discussing best practices in administration, and conducting joint site visits to schools

where REL Appalachia evaluators modeled administration of the interviews and focus groups, followed by a debriefing of techniques.

Then district staff conducted the remaining interviews and focus groups and learned how to develop post-interview analytical memos to summarize their initial analyses of the data. To further support data analysis, REL Appalachia evaluators created spreadsheets for automatically calculating descriptive statistics and generating graphic data displays for the structured interview questions (e.g. yes/no) and the Teacher Data Use Survey. The spreadsheets serve as templates for district staff to use for future administrations of the instruments.

Reporting evaluation findings

As part of the capacity-building process for evaluation, our top priority was to create reporting templates that the district could use in the future to communicate findings to various audiences. As such, we designed three ways to communicate evaluation findings: a full comprehensive report organized by evaluation questions and including recommendations, a three-page executive summary, and an infographic with key findings and recommendations. Although REL Appalachia evaluators led this process based on their experience with reporting, district staff contributed to the report writing and revisions.

LESSONS LEARNED

After 18 months of developing and implementing an evaluation of collaborative inquiry, we gained many insights into what makes evaluator-practitioner partnerships successful. The partnership created greater awareness and understanding of the evaluation process along with greater buy-in than if we implemented the plan externally or within the district's research, assessment,

Engaging practitioners in the data collection process is an important component of building internal capacity for evaluation.



and evaluation department. We offer the following recommendations based on lessons learned to guide evaluators and practitioners who may be interested in establishing collaborative evaluation partnerships:

Establish shared agreements for the partnership. Shared agreements include establishing a shared purpose and goals for evaluation as well as setting clear guidelines and approaches for conducting the work collaboratively. This also includes setting reasonable expectations for the roles and responsibilities based on the strengths of each party in the partnership. External evaluators bring a wealth of technical evaluation skills that can improve the rigor and credibility of evaluations, whereas practitioners offer context-specific knowledge that enhances access to data as well as the relevance and utility of evaluation findings.

Honor commitments. Evaluations take time, so it is important for partnership members to set tenable timelines for evaluation activities. Practitioners often have competing district priorities that at times will take precedence over evaluation activities. Having central office support for the evaluation will help practitioners honor and commit to their responsibilities.

Work small, share big. A smaller group of between five and 10 partnership members is a manageable number of participants for delving into deeper hands-on professional learning around evaluation plan and instrument development, data collection, and reporting. It would have been a

cumbersome process to attempt to engage a larger group of practitioners in the evaluation development and implementation process. However, providing opportunities to invite larger groups of stakeholders to the table to provide feedback during each phase of the evaluation helps to build buy-in and ownership of the evaluation and its results. Communication channels such as internal websites, blog posts, and emails serve as effective ways to share information about evaluation activities and findings.

Scaffold support for data collection. Engaging practitioners in the data collection process is an important component of building internal capacity for evaluation. Practitioners often will have existing trust and rapport with study participants that external evaluators lack, which can be valuable in conducting interviews and focus groups. To this end, providing scaffolded support for data collection professional learning should include discussing research-based best practices, modeling data collection techniques, observing data collection, and allowing time to debrief data collection activities and ask questions.

Design evaluation tools for sustainability. Development and use of data collection and reporting templates support practitioners in conducting data collection, analysis, and reporting activities that they otherwise might not have the experience to complete. Templates for generating summary statistics, graphic displays, and

infographics equip practitioners with the tools they need to sustain evaluation activities beyond the partnership with external evaluators. When developing tools, it is important to take into account skill level, time, and resources available for practitioners to conduct evaluation activities. Including input from practitioners in the development and refinement of templates ensures that evaluators will meet their needs for data collection and reporting.

Use evaluation data to inform implementation. An evaluation conducted at the end of an implementation is like an autopsy. The data try to explain what might have happened. When evaluation is integrated at the beginning of a professional learning initiative rather than after implementation, evaluation information is more relevant, timely, and useful. By partnering with evaluators throughout the implementation process, practitioners are able to use evaluation data for monitoring the progress of implementation and providing targeted, differentiated support for schools.

GENERATE BUY-IN, SUPPORT, AND PARTICIPATION

We walk the talk when we engage in evaluation practices that will help us know if our professional learning is making the difference we seek for educators and students. Partnerships between external evaluators and practitioners draw on the strengths of both parties, which can result in evaluations that are relevant to the local context and that generate buy-in, support, and participation from multiple stakeholders.

Practices such as beginning with an understanding of how stakeholders will use evaluation information, engaging practitioners in the evaluation process, using a systematic and pragmatic evaluation approach, and inviting

ADDITIONAL RESOURCES

- **Collaborative Inquiry Toolkit:** www.mnpscollaboration.org
- **Teacher Data Use Survey, Guide and Report Template:** www.relappalachia.org/products/rel-appalachia-reports/teacher-data-use-survey-tools-and-administration-guide
- **Video:** What is an Innovation Configuration map? www.youtube.com/watch?v=OZVigcS4tA
- **Video:** Example of an Innovation Configuration map: www.youtube.com/watch?v=8TpsKlmsSLQ

multiple voices to the table increase the likelihood that intended audiences will use evaluation findings to make decisions about funding, professional learning, and resource support.

Additionally, a partnership with external evaluators can equip practitioners with the skills and tools they need to sustain evaluation activities. Building practitioners' capacity to ask relevant evaluation questions, collect multiple sources of data, and use effective strategies for communicating findings empowers practitioners to use evidence to support the impacts of professional learning. When evaluation is integrated during the early phases of an initiative, rather than as an afterthought, it can provide ongoing, formative feedback to guide implementation and improvements that will lead to intended impacts.

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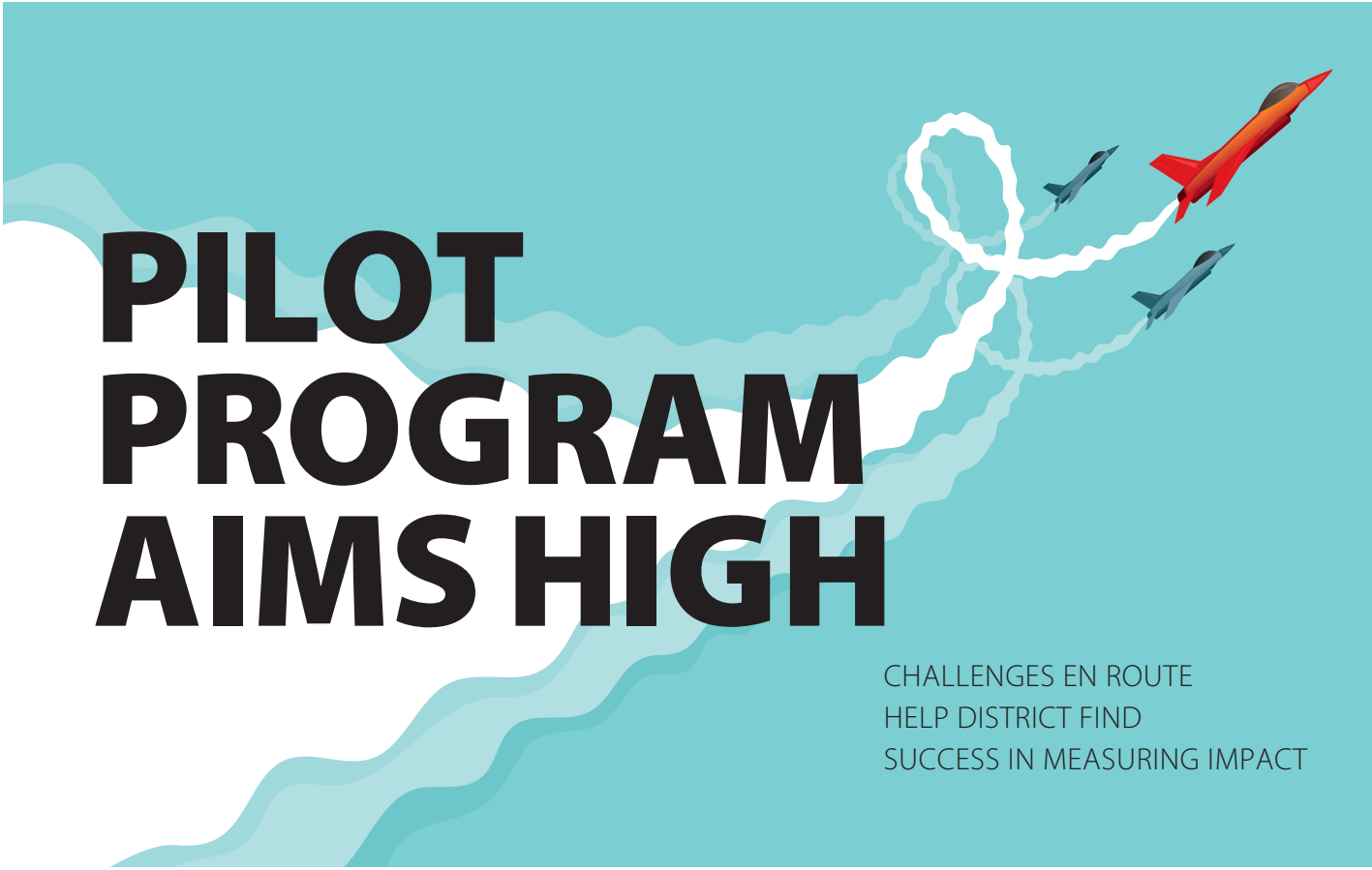
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Stephanie B. Wilkerson (stephanie@magnoliaconsulting.org) is president of Magnolia Consulting in Charlottesville, Virginia. **Margie Johnson** (margie.johnson@mnps.org) is business intelligence coordinator for Metro Nashville Public Schools in Nashville, Tennessee. ■



PILOT PROGRAM AIMS HIGH

CHALLENGES EN ROUTE
HELP DISTRICT FIND
SUCCESS IN MEASURING IMPACT

BY ERIC CELESTE

Denver Public Schools' Professional Learning Center was still relatively new when it decided to tackle a problem of practice that has vexed systems and departments across the country: How to measure the impact of professional learning. To do so, the Professional Learning Center created a new comprehensive measurement approach — one that would design, test, and apply lessons learned from Learning Forward's Redesign PD Community of Practice and the work of Thomas Guskey. The complex task came with an added challenge: That program would be tested within the

confines of another department's high-profile efforts to launch an early literacy initiative involving 2,500 teachers.

Ultimately, the initiative gave the center a strong foundation to continue measuring the impact of professional learning at the district and school level. This certainly wasn't without struggles, modifications, and lessons learned — some within the context of that community of practice, others through districtwide implementation — that eventually helped the program bear fruit.

"You can imagine, in a large urban district, there was a lot of support to allow us to do this with the department launching the initiative, but there was anxiety, too," says Theress Pidick, executive director of the Professional Learning Center in Denver Public

Schools. "They had a lot of sensible concerns. What data will we collect? What tools will we use? What's the process for collecting the data? What are we going to do when we get the data? Who is going to have access to the data? How will we use it?"

"Collaboration was essential. We had to partner closely with the early literacy team, our accountability, research, and evaluation department, and our instructional superintendents before starting. But the early literacy initiative — impacting roughly 2,500 teachers — was itself so important, we felt it was vital that our measurement efforts be a part of it."

Despite the wide scope of the early literacy initiative efforts and the ongoing challenges of setting up the

nascent Professional Learning Center itself, the center was able to pilot an impact measurement process that it is now expanding and adapting to individual departmental and school needs. The center overcame challenges along the way at least in part because of three factors: the collaborative efforts of the Denver team's partnership in the 22-district Redesign PD Community of Practice run by Learning Forward; a focus on implementation and meaningful data; and the steady belief that quality professional learning coupled with ongoing support and feedback leads to better student results.

"We went in with the intent that we would learn a lot this year, and then we would be able to generalize the tools and processes and apply them to other departments, initiatives, or schools across the district," Pidick says. "We think we've done just that."

FIXING WHAT'S BROKEN

Denver's Professional Learning Center embarked on the measuring impact initiative in part because of the findings of several 2015 district studies on the state of its professional learning. The studies revealed that the district needed to address several important areas related to professional learning quality and impact. Pidick and her new team in the Professional Learning Center developed a measurement strategy to fix what was broken and systematically collect data to better understand the quality and impact of professional learning.

One tactic they employed was to create two new roles: professional learning partners — learning leaders

who could help subject-matter experts and others provide educators with a high-quality learning experience — and a professional learning analyst. The four professional learning partners hired first planned to work with central office experts as well as with instructional superintendents who supervise principals. That direction changed after Pidick observed that some administrators didn't fully maximize the partner's intended role.

"Initially, there was some skepticism about why these roles were needed," she says, "so the professional learning partners shifted their primary workload to the central office departments. We went where we were needed and wanted the most to get traction."

The professional learning analyst was paramount to their strategy as that role assisted with the development of the measurement tools, design of the data collection processes, and completion of the ongoing analysis and report development. This was the first time that the district was dedicating a specific resource toward measuring the quality and impact of professional learning.

Another factor in improving professional learning across the district was being part of Learning Forward's Redesign PD Community of Practice, in which the 22 participating systems have committed to making dramatic progress on one of two problems of practice by mid-2017. These problems of practice are:

- How to strengthen the measurement of the impact of professional development on teacher practice and make

decisions based on these measures; and

- How to increase the coherence and relevance of professional development, such that teachers experience professional development as useful, timely, and relevant to their classroom practice, and abandon those initiatives that distract or dilute teachers' focus.

The measurement problem of practice was perfect inspiration for Pidick and her team, and they spent spring 2016 planning and preparing for what needed to be put in place before the district's summer early literacy initiative learning opportunities launched. They acknowledged that if they had a better handle on measuring quality and impact, the team would gather critical evidence that would undoubtedly create greater coherence. "It was a little bit of chicken or the egg," Pidick says, "but we dove right into the measurement of impact approach."

First, the team devised a theory of action: If the central office and schools get access to data and analysis that systematically measure the quality of professional learning and the impact of that professional learning on changing teacher practice and student achievement, this will enable central office and schools to engage in a cycle of continuous improvement.

Then came the hard part: devising and implementing a plan to collect and analyze meaningful and relevant professional learning data and tie it to student outcomes.

They started, as most learning leaders do when faced with a measurement

challenge, with Thomas Guskey. (See “Where do you want to get to?” by Thomas Guskey on p. 32.) After returning from the community of practice’s initial convening in December 2015, they pitched to the district’s senior leaders on the idea of using Guskey’s five critical levels of professional development evaluation — teachers’ reactions, teachers’ learning, organization support and change, teachers’ use of new knowledge and skills, and student learning outcomes — as a framework for their measurement approach. The steps in this process would be applied to the early literacy initiative.

Pidick and her team used early literacy as their entry to think about the following:

- What would these five levels look like in practice?
- What tools would they need?
- How would they gather the data?
- How would they create reports?

Once they could answer those questions for the early literacy initiative, their goal was to be able to apply what they’d learned to other departments, initiatives, and schools across the district.

IMPLEMENTATION CHALLENGE

Then came implementation, where, far too often, great ideas and best intentions aren’t enough to ensure success. To avoid this, the Denver team, working with district partners, gathered feedback from the ongoing check-ins with Learning Forward’s Redesign PD Community of Practice to align each step with its equivalent on Guskey’s five levels.

For level one, the group needed a mechanism to observe and measure the quality of professional learning. In collaboration with district departments, the professional learning partners developed a tool — Framework for Effective Professional Learning — for observing professional learning that

gauges the quality based on design and facilitation. (See this and other data tools on the team’s data section of its website at <http://plc.dpsk12.org/data-culture>.)

For levels two and three, the team sought to capture teacher satisfaction and perceived learning. “We had surveys that we were able to administer to participants who attended the early literacy professional learning this past summer and the follow-up modules during the school year,” says senior research analyst Brooks Rosenquist, “so that we could get their initial perceptions about how they experienced professional learning and what they thought they had learned.”

Level four, changes in teacher practice, was a bit trickier. For that, the Professional Learning Center and early literacy teams focused on doing classroom walk-throughs and monitoring — gathering data on strengths and areas of opportunity in terms of changes in instructional practices as a result of the professional learning and what could be emphasized in future opportunities. To do this, they modified tools from the Instructional Practice Guide, developed by Achieve the Core to help teachers and those who support teachers to make instructional shifts related to Common Core State Standards (see www.achievethecore.org/page/2730/instructional-practice-for-the-ccss).

Through the summer and fall of 2016, the team collected data from 200 different professional learning sessions and survey data from almost 10,000 individual survey responses. These included large summer sessions and smaller such gatherings throughout the fall.

“We had this model, but we learned some lessons along the way,” Rosenquist says. “While it was relatively easy for the literacy team to grasp the ‘quality’ concepts of professional learning, providing feedback to

colleagues using this new framework for professional learning was a bit more tricky. We had to ask ourselves, ‘What’s the best way to do that?’”

This question was important because it spoke to a real-world challenge often faced by change agents in a system. “Educators in central office are experts in their content areas and in the pedagogy of teaching and learning in the K-12 context,” Rosenquist says. “Most regularly leverage participant surveys (teacher perceptions) as the source of quantitative data to inform improvements to professional learning. However, we were asking them to expand that sphere of data to include professional learning quality, teacher knowledge, teacher behavior, and student outcomes.

“Fortunately, our central office staff is extremely dedicated to continuing to improve the ways we support teachers,” Rosenquist says. “We learned that we needed to frame the various types of quantitative and qualitative measures so that departments could see changes in their sessions over time or be able to compare the impact between different sessions to drive continuous improvement.”

Pidick agrees that the team has learned a lot of lessons from collecting data and said that, while the reports Rosenquist is creating are meaningful for the early literacy team in forming its next steps, they need to rethink how to present data to give senior leaders greater visibility into what the team is doing, how things are improving and changing, and how the team is responding and collaborating with partners and extending its reach to other departments and schools.

Some general takeaways have already emerged from this work:

- Teachers expect that the professional development sessions that they experience will incorporate active learning

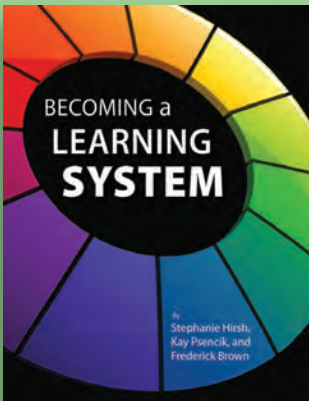


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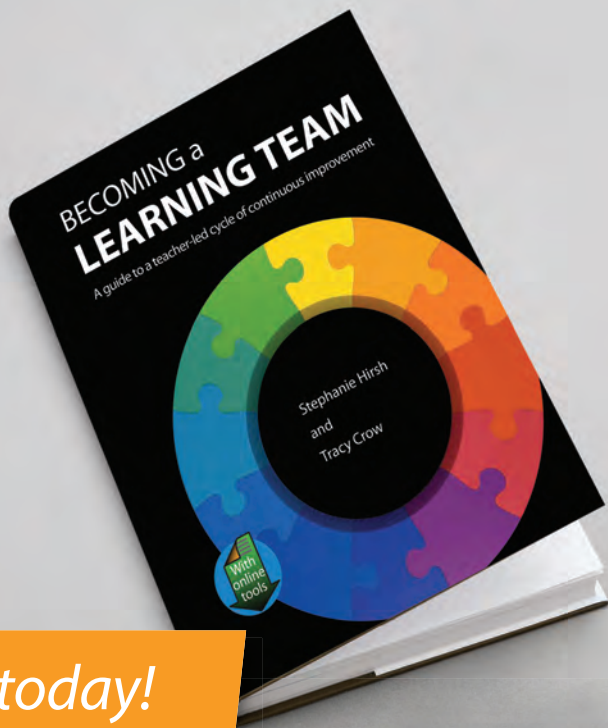
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and be differentiated to their needs.

- In general, teachers most value sessions that provide concrete tools, strategies, and resources.
- In general, teachers value bite-sized, actionable sessions over more theoretical ones and smaller sessions over larger ones, especially when those sessions are school-based rather than centrally located and delivered.

While the districtwide summer event was held centrally with the purpose of establishing across the district a common language and understanding of the foundations of early literacy, the monthly modules that have followed have been designed centrally but customized and delivered by teacher leaders at each site.

“Not only have teachers responded more positively to these sessions than the more centralized event,” Rosenquist says, “but this approach is more aligned with our district’s vision of schools as the unit of change. Although some of these takeaways may seem obvious, our recommendations are stronger and hopefully more persuasive, given that they are supported by data from within our own organizational context.”

FROM DISTRICT TO SCHOOL LEVEL

At that same time they were evaluating the best way to present the data gathered from the districtwide literacy initiative, Pidick and her team felt they needed to see how the focus on professional learning quality and impact worked at the school level, especially given the research literature, which suggests that the most effective professional learning is ongoing, job-embedded, and experienced together with colleagues, instead of individually.

While the research suggests this, they wanted to do their due diligence and collect impact data to determine

what professional learning investments were adding the greatest value within their own context. They had planned to expand their evaluation focus after the 2016-17 school year, but “we pretty much midway through were saying to ourselves, ‘I think we could do some things early on about measurement at school level that could play a valuable role for school leadership teams in assessing impact,’” Pidick says.

That’s because her group found there seemed to be a void for consistently measuring the quality and impact of professional learning at the school level as well. The district was investing a lot of staff time and school dollars in building educator capacity, but very few schools were systematically collecting and reflecting on the data that resulted from their efforts. “We quickly realized that what we were building and implementing with the early literacy group could be customized and provided for people at the school level. We could collect and provide a much richer data set to help inform them in making continuous improvement decisions,” Pidick says.

“I think that an important takeaway from this work is that we’re now using it across the board with our work in the Professional Learning Center, and the power is in seeing the impacts on student learning,” says Laura Summers, the district’s associate director for learning communities and data culture. “In the schools we’re working with, we’re actually going to each of [Guskey’s] levels and seeing how professional learning that is facilitated in schools has an impact on teacher practices, level four, as well as level five, student outcomes.”

For example: The team has created a service model to apply the tools and processes to measure the quality and impact of current school-level professional learning. They’ve observed sessions at a school, then given that

school feedback on the quality of those sessions. They’ve also conducted learning walk-throughs in classrooms to determine to what extent teacher practice changed because of the professional learning — level four of the Guskey model.

At one school, for example, they noticed coherence between the focus of a professional learning session and what teachers were implementing in their classrooms. But when they looked at student work — level five — they saw disconnects. By studying the student work, the team was able to provide the principal and instructional leadership team information to inform their discussion and decisions on how to make adjustments to their approach that would better improve student outcomes.

The keys for getting the buy-in to this approach at the school level are trust, transparency, and communication. The team worked to ensure that the schools identified their area of need and that the team was being responsive to their unique circumstances and request. They established clear roles, tasks, and timelines and developed an authentic partnership that had continuous improvement, not evaluation, at the core.

“We want to build capacity as well as look at continuous improvement,” Summers says. “Measurement is sometimes viewed alongside evaluation, and we don’t want it to feel like we’re evaluating them. We really want them to be thinking about how measurement of professional learning quality and impact is a necessary part of their overall development strategy if they are to change student outcomes. That’s the goal in everything we’re trying to do — create impact.”

•
Eric Celeste (eric.celeste@learningforward.org) is Learning Forward’s associate director of publications. ■

Reach. Investigate. Discover.

IDEAS

p. **61** ALONE NO LONGER

A community of practice makes a tough job better by bringing the principalship out of isolation.

THE COMPLEX JOB OF THE PRINCIPAL

Complexity and stress are on the principal's schedule every day. Here's what a 2013 MetLife survey found:

- **75%** of principals feel the job has become too complex.
- **7 in 10** principals say the job responsibilities are not very similar to five years ago.
- **48%** of principals feel under great stress several days a week.

Source: *The MetLife Survey of the American Teacher: Challenges for School Leadership*, MetLife, 2013

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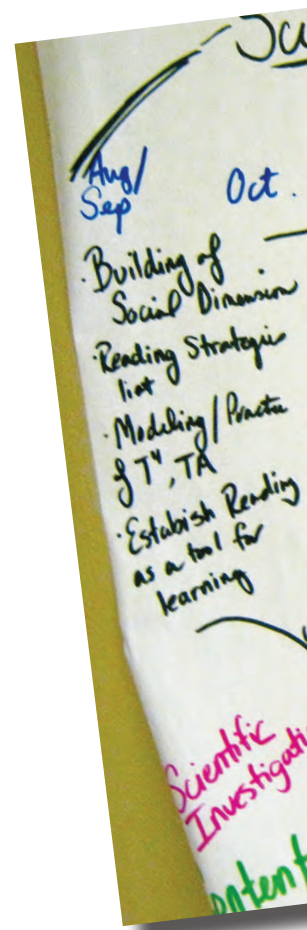
Previously, I have thought of science education as most valuable when it is hands-on and inquiry-based. However, I have begun to see that close reading and reading for meaning allow students to use their reading as a type of inquiry."

— *An Argument for Learning*

p. **56**

AN ARGUMENT FOR LEARNING

SCIENCE TEACHERS AND STUDENTS
BUILD LITERACY THROUGH TEXT-BASED
INVESTIGATIONS



BY CYNTHIA GREENLEAF AND WILLARD R. BROWN

“Argumentation is central to the practice of science. Hypotheses are constantly being tested and revised, and observations and results are spawning new questions to investigate. A focus on making argumentation a central learning process works really well with science learning.”

— Science teacher participant, California Teacher Inquiry Network

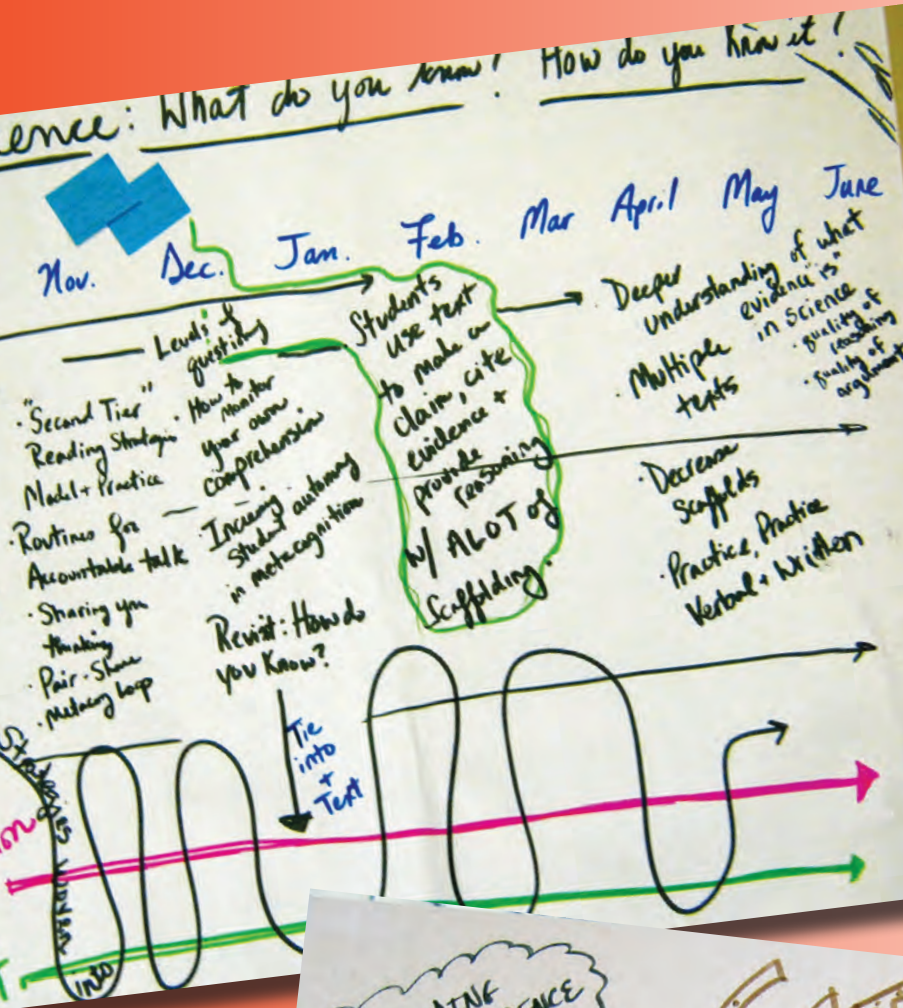
Scientists learn about the work of others largely through reading. They read publications in their field looking for what’s new, often expecting that their understanding may change as a result of compelling new evidence. They read with a critical stance, evaluating the reliability of new findings and explanations and comparing them

to existing accounts.

Most scientists also write regularly to keep track of their inquiries and share their work with others, using varied and complex forms of texts — including technical language, mathematical expressions, graphs, diagrams, models, and verbal exposition to represent their ideas. Using the inquiry process, scientists follow and engage in arguments with other scientists’ work and build models and

explanations of the phenomena they study. Through these recursive practices of reading, reasoning, modeling ideas and revising them, robust scientific knowledge develops over time.

The Next Generation Science Standards call for teaching the *practices* of science and engineering to build students’ understandings of the nature of science and increase their ability to participate in scientific inquiry, with the ability to engage in evidence-based

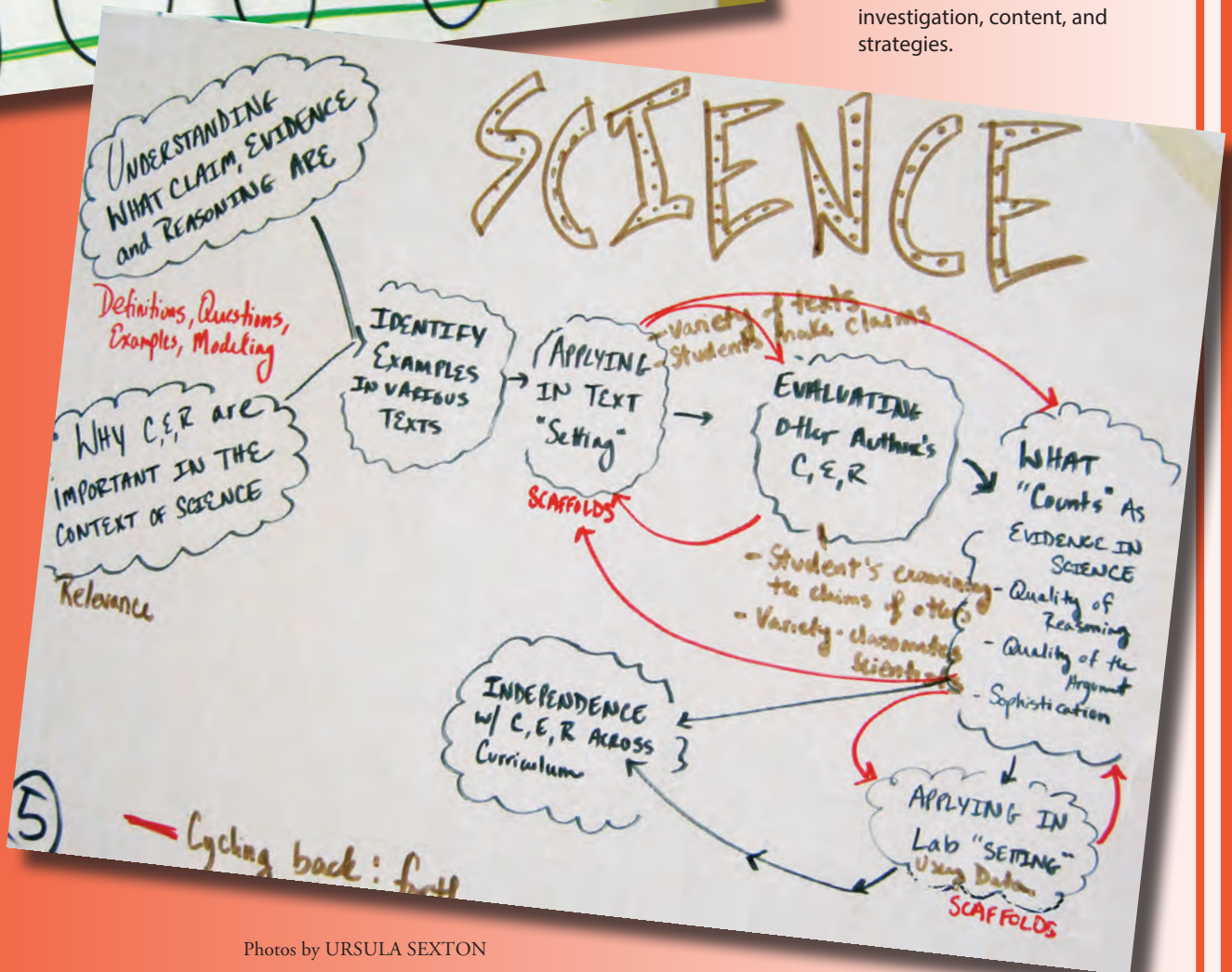


AT LEFT
YEAR 1

Teachers in the first year, creating a learning progression for argumentation, focused on explicit instruction in the structure of argument using claims, evidence, and reasoning, applying these structural categories to various settings in the classroom.

BELOW
YEAR 2

In their second year, the science teachers created a representation of a learning progression depicting three interwoven strands of instruction: scientific investigation, content, and strategies.



Photos by URSULA SEXTON

argumentation being a central aspect of these practices. The Common Core State Standards also promote evidence-based inquiry and argumentation that results from close reading and interpretation of varied forms of scientific communication.

Learning science requires shifting from learning *about* scientific ideas to figuring out *how* and *why* particular phenomena happen, and identifying, synthesizing, and evaluating evidence that supports and challenges these claims. In this vision, as learners participate in scientific practices such as reading, modeling, and reasoning about what others have found, and writing what they themselves find, students gradually gain access to the language, norms, and habits of mind of the scientific community.

However, science instruction is often framed as knowing correct answers to questions that teachers pose, and typical science textbooks present science knowledge as a set of well-established facts and theories. Thus, students are socialized to scan texts for information rather than to engage intellectually with texts to construct deep understanding or to use texts as sources for inquiry.

Instead, students need opportunities and environments for learning that positions scientific knowledge as hard-earned, discovered, and very often tentative in nature. Students need scaffolded support to question; make sense of texts, data and information; and build knowledge. This kind of orientation to science and science learning is absent from many science classrooms in the United States today (OECD, 2016).

A DISCONNECT FOR SCIENCE TEACHERS

For students to be able to learn how to engage in the scientific and literacy practices envisioned in the

Next Generation Science Standards and in the Common Core standards, science teachers themselves must first come to understand and value these practices. Many science teachers have a limited understanding of and limited opportunities to engage in evidence-based-argumentation as envisioned in these standards. At the same time, science teachers often lack knowledge and experience with inquiry and are inexperienced in the pedagogies needed to support it (Anderson, 2002).

And while science teachers are relatively skillful at reading science materials, their very expertise can make it hard for them to see the difficulties these materials would present for students. As a result, many are skeptical about the role and value of literacy in learning science.

In addition, science teachers do not see themselves as literacy teachers. They view teaching strategies and skills for making sense from text as the job of the English language arts or reading teacher. However, reading and understanding scientific ideas presented in texts is different from reading texts in other disciplines (Heller & Greenleaf, 2007).

READING APPRENTICESHIP APPROACH TO DISCIPLINARY LITERACY

Together with our colleagues in the Strategic Literacy Initiative at WestEd, we have supported discipline-specific literacy through inquiry-based teacher professional learning networks (Schoenbach, Greenleaf, & Murphy, 2016) in middle schools, high schools, and colleges using a design-based research approach (Brown, 1992). In this process, we have iteratively developed, tested, and refined and broadened the scope of a pedagogical approach we call the Reading Apprenticeship framework (www.readingapprenticeship.org).

The Reading Apprenticeship

framework emphasizes an integration of affective and academic engagement with metacognitive conversation at the core of classroom talk. Metacognitive conversation, focused on “making the invisible visible,” enables teachers to make their own sense-making processes transparent and accessible to students and to support students’ growth as more engaged and productive readers of complex sources in the subject areas (see Schoenbach, Greenleaf, & Murphy, 2012).

We have worked in-depth with science teachers using and further developing the Reading Apprenticeship framework in a variety of networks for more than 15 years. Most recently, from 2011 to 2015, we worked with science teachers in the California Teacher Inquiry Network, a network of middle and high school science teachers implementing evidence-based argumentation as outlined in both the Next Generation Science Standards and the Common Core State Standards.

The California Teacher Inquiry Network was part of Reading, Evidence, and Argumentation for Disciplinary Learning (Project READI), a multidisciplinary, multi-institution collaboration supported by the U.S. Department of Education Institute of Education Sciences (www.projectreadi.org).

We recruited teachers for the California Teacher Inquiry Network who had participated in Strategic Literacy Initiative’s Reading Apprenticeship professional learning networks. Some of the science teachers participating had experience looking closely at the invisible processes involved in reading, thinking, talking, and writing in science.

But the focus of this network on “evidence-based argumentation across multiple texts” took them into new territory and led to new ways of working with evidence, argument, and

text in teaching inquiry in science. As one participant noted, “Participating in the READI network has helped me understand the role of literacy in science education. I have learned about many techniques that have helped me help my students understand their readings better. Previously, I have thought of science education as most valuable when it is ‘hands-on’ and ‘inquiry-based.’ However, I have begun to see that close reading and reading for meaning allow students to use their reading as a type of inquiry.”

PRACTICING SCIENTIFIC ARGUMENTATION

One of the hallmarks of the Reading Apprenticeship approach to professional learning is that teachers actively inquire into the processes by which they work through comprehension problems in texts. They learn the art of making their invisible thinking processes visible. This helps them see more clearly that they have internal resources to help students master similar kinds of thinking processes.

Participants in the California Teacher Inquiry Network learned how to use texts as resources for inquiry, deepen their understanding of disciplinary argumentation, and explore what is involved in developing models to explain scientific phenomena. Teachers explored the argumentation practices specific to their disciplines through multiple readings, discussions, and re-examination of their beliefs and practices about scientific argumentation.

In the first year of the network, science teachers generated their own claims and wrote arguments as they engaged in reading complex disciplinary texts. Through this process, they became more attuned to what makes a sophisticated argument and to the kind of language and nuanced thinking

they wanted their students to begin to practice.

As teachers expanded and deepened their own notions of what constitutes argumentation in their disciplines, they were better able to articulate the discrete steps students need to “argue to learn” across texts. Teachers then began to build appropriate instructional scaffolds for students.

From the first to the second year of network meetings, professional learning led to fundamental shifts in teachers’ understanding of evidence-based argumentation. Teachers reported that their own changes in understanding of evidence-based argumentation impacted classroom practices. Key elements of the changes included using the discourse of argumentation, changing their ideas about what constituted an argumentation task, and understanding the complexity of the argumentation process.

Teachers in the first year, creating a learning progression for argumentation, focused on explicit instruction in the structure of argument using claims, evidence, and reasoning, applying these structural categories to various settings in the classroom.

In their second year, the science teachers created a representation of a learning progression for argumentation depicting three interwoven strands of instruction: scientific investigation, content, and strategies. Their progression started with supporting and building on Reading Apprenticeship routines such as building the social dimension for engaged intellectual work, constructing a reading strategies list, and metacognitive routines for fostering and mentoring close reading such as think-aloud.

Teachers viewed these supports for close reading as necessary components for supporting argumentation. To dig into argument in science, students would need not only to understand

structural features of argument, but also to monitor their own reading processes and comprehension.

In analyzing these different learning progressions, we identified a shift from year one’s focus on the structural aspects to an “immersion orientation” to argumentation (Cavagnetto, 2010, p. 351), a shift toward embedding argument *within* student explorations of science principles rather than as a culminating activity. Teachers created text-based units in which evidence-based argumentation across multiple types of text occurred throughout the inquiry as students generated questions, designed experiments, interpreted data, and constructed and defended evidence-based knowledge claims based on their evidence.

A major trend in teachers’ year-end reflections was the redefining of argumentation from a formal product such as an essay, debate, or presentation to an argumentation process and a set of routine practices (see the diagrams on p. 57).

TEXT-BASED INVESTIGATIONS

To provide students with the opportunity to carry out evidence-based argumentation, we developed what we called text-based investigations in partnership with science teachers in the network. In this approach, science text sets are built intentionally, from authentic science sources, to engage students in purposefully reading and learning to make sense of the multiple modalities characteristic of science texts to help understand and explain the science phenomenon.

Teachers engaged in investigations to design the inquiry tasks and built scaffolds for engaging students in them. They then implemented and tested the impact of this work on students’ science practices with texts in their classrooms.

Organized around developing evidence-based arguments from

IDEAS

multiple and varied sources, these investigations provided students with multiple opportunities to develop and critique their own and their peers' causal explanations for such phenomena as the emergence of antibiotic resistant strains of bacteria and the contamination of water sources in agricultural and industrial areas impacting city water supplies. Culminating tasks focused on constructing and critiquing multimodal texts — visual and verbal explanatory models for the phenomena of study.

This approach engaged students in reading authentic science texts of varied genres and modalities — data tables, maps, diagrams, informational texts, case studies, and science research reports, often in excerpted form, to carry out investigations of a phenomenon of study.

Given the complexity of reading for understanding in science and the inexperience of students in treating text as a resource for inquiry, students needed support for making sense of individual texts, synthesizing ideas across texts, negotiating conceptual changes, constructing models and explanations, and engaging in science argumentation. Engaging students in this intellectual work required that teachers foster a culture of collaboration and discussion to support knowledge building and evidence-based argumentation.

CHANGING CLASSROOM CULTURES

Many studies have found that students develop academic skills and affective dispositions by engaging in challenging work with ample instructional support, rather than in simplifying tasks or focusing solely on skill-building exercises (Yeager & Walton, 2011). Research documents the effectiveness of interventions aimed at shifting students' explanation of setbacks from stable internal causes

— “I'm no good at science” — to temporary external causes — “This is really hard, and I need help to get it.” These learning strategies involve metacognition, self-regulation, and cognitive strategies for reorganizing texts and content — processes that contribute to deeper understanding, improved academic performance, and feelings of self-efficacy.

The culture of many classrooms, however, does not support peer interaction or help students develop the dispositions needed for the hard work of comprehension. In many middle and high school classrooms, a culture of going through the motions to gain information at a surface level is pervasive.

When classroom cultures and conversations shift so that students are discussing science phenomena in the classroom, teachers also benefit from this as a form of formative assessment: Students' current conceptions become apparent and teachers can organize instruction responsively to deepen these conceptions.

CHALLENGES AND LESSONS LEARNED

While working with teachers to implement text-based investigations, we realized that these necessary pedagogies were new to many teachers. Providing support for students' close reading of a variety of complex science texts and representations and for the growing use of discourse practices to support explanation and argumentation required perseverance from the teachers involved.

Building classroom cultures that held students accountable for doing the intellectual work while providing this kind of support when students themselves sometimes questioned the need to do the kinds of deeper thinking required tested teachers' beliefs in the value of this level of rigorous inquiry.

Documentation and analysis of California Teacher Inquiry Network

teachers' initial attempts to conduct text-based investigations made it clear that we needed to help them establish classroom norms for intellectual work, close reading, and collaboration. Text-based investigations could not merely drop in to existing traditional instructional environments. To implement text-based investigations, teachers needed to learn new ways of working in the classroom.

Importantly, teachers learned to do this instructional work by carrying out text-based investigations themselves, reflecting on their own reading and reasoning processes in the California Teacher Inquiry Network, and carrying these insights into the classroom. As a result:

- Teachers' understanding of disciplinary argumentation deepened. They came to understand the processes involved in argumentation and moved from seeing argumentation as a product at the end-point of instruction to a process that permeated instruction and set the purpose for closely reading documents.
- Teachers developed instructional scaffolds and became more explicit in their support for close reading for students to build their own interpretations and arguments based on evidence they collected.
- Teachers and students gained experience working across texts simultaneously and forming arguments supported by textual evidence.

Our work with the California Teacher Inquiry Network subsequently became the basis for professional learning with a group of science teachers in Chicago. These teachers were part of a randomized control study that found

Continued on p. 70



GROWING SUPPORT FOR PRINCIPALS

PRINCIPAL SUPERVISORS COLLABORATE AND PROBLEM SOLVE IN LEARNING COMMUNITIES

BY JILL A. BAKER AND GARY S. BLOOM

There is clear consensus that school site leadership is second only to teacher quality in its potential to impact student achievement positively. It is also clear that, despite the fact that principal supervisors

can contribute to the effectiveness of site leadership, principal supervision has been a neglected, even haphazard practice in America's schools.

Many principal supervisors in the United States work in relative isolation and experience no professional development designed to support them. Principal supervisors, many of whom



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LONG BEACH UNIFIED SCHOOL DISTRICT

PRINCIPAL SUPERVISOR LAB DAY 2016-17

The Long Beach Unified School District Principal Supervisor Lab Day is designed to provide principal supervisors with an authentic opportunity to share their work, practice and build their coaching skills in service to principals, and contribute to a consistent approach to principal supervision across the district. Each component of the lab day is designed to grow the group at an individual or group level.

HOST SITE FOCUS

Opening

Principal supervisors gain an understanding of the principal's level of performance and current goals and the host principal supervisor's approach to working with the principal. This session creates a context for the lab day and prompts principal supervisors to think about a principal with similar strengths and challenges with whom he or she works.

School walk-through and coaching practice

Principal supervisors practice coaching a principal following each classroom visit and throughout the visits as patterns and trends in teaching and learning emerge. This component emulates the time spent in classrooms during principal supervisors' monthly site visits and increases the impact of those visits through practice and calibration.

Whenever possible, school-level teams remain together to build small-group calibration across a level.

Debrief: Principal supervisor's next steps

The host principal supervisor considers how to best support the school. With guiding questions, all principal supervisors have the opportunity to reflect and engage in a collaborative discussion on potential next steps for the school and principal.

APPLICATION OF LEARNING

Debrief: Learning for all principal supervisors

Principal supervisors reflect individually on new learning or new thinking and connect it to their own supervision cohort.

Case study or problem of practice

The case study or problem of practice engages principal supervisors in using one another as resources. Through dialogue, principal supervisors build trust, develop consistent approaches and practice, and help one another prepare for coaching conversations with principals.

Closure

Principal supervisors offer feedback on the lab day's impact (process and practice) on individuals and the group.

have other high-stakes responsibilities ranging from the superintendency to positions in areas such as human resources and curriculum and instruction, have not been asked to make principal development a priority.

Principals often only hear from their supervisors when there is a problem, complaint, or operational issue. One veteran principal, describing the interaction with her supervisor before participating in a principal supervisor initiative, said, "Previously, interactions with my supervisor were limited to monthly principals meetings, periodic phone calls when complaints reached his office, and a brief meeting each summer where I received and signed my evaluation."

Fortunately, principal supervision is getting much-needed attention through, among other things, the Council of Chief State School Officers' *Model Principal Supervisor Professional Standards* (CCSSO, 2015). Those standards challenge traditional practices of principal supervision, suggesting that, first and foremost, "Principal supervisors dedicate their time to helping principals grow as instructional leaders (and) coach and support individual principals ... to help principals grow as instructional leaders."

A NEW APPROACH IN LONG BEACH

With support from The Wallace Foundation, the New Teacher Center, and other individuals and organizations, the Long Beach Unified School District in California has come a long way in building a coherent model of principal supervision grounded in coaching-based support and embedded in professional learning communities.

Over the past four years, the role of principal supervisor in Long Beach Unified School District has shifted from compliance and at-a-distance supervision practices to a deeply rooted

LONG BEACH UNIFIED SCHOOL DISTRICT PRINCIPAL SUPERVISOR LAB DAY	
Component	Description
Opening	<p>The host principal supervisor describes the problem of practice related to supporting the principal and school in improving instruction.</p> <p>The presentation ends with guiding questions to address focus areas. Example: "How might I better support this principal or school with _____?"</p> <p>The host principal supervisor leads a discussion about what principal supervisors should expect to see during the classroom walk-through as indicators of the district's expectations related to the problem of practice.</p>
School walk-through and coaching practice	<p>Principal supervisors and the host principal walk through classrooms in small teams to observe instruction and take notes related to the instructional focus as discussed in the problem of practice. The notes should support a conversation about the problem of practice.</p> <p>Observation teams participate in or observe conversations between the principal and supervisor between classroom visits, focusing on improving the problem of practice.</p> <ul style="list-style-type: none"> • The host principal supervisor and principal emulate their regular walk-through routine. • The participating principal supervisors take turns in the role of principal supervisor with a site leader (e.g. assistant principal, aspiring administrator, pathway coordinator) to practice coaching skills and explore potential solutions to the problem of practice.
Debrief: Principal supervisor's next steps	<p>Principal supervisors share individual reflections on Google Drive.</p> <p>Each principal supervisor:</p> <ol style="list-style-type: none"> 1. Lists schools in his or her cohort with a similar problem of practice. 2. Reflects on the question, "What new idea, strategy, or coaching technique can I implement in the schools I supervise based on my learning or thinking today?"
Case study or problems of practice discussion and closure	<p>Case study: In level office teams, principal supervisors discuss challenges in supporting a principal and gather insights from colleagues. Principal supervisors share successes and challenges from previous case study presentations or discussions.</p> <p>Problem of practice: Teams share problems of practice related to principal supervision, using one another as resources for potential solutions.</p>
Follow-up activity for host principal supervisor	
Shared learning (within a month)	<p>Principal supervisor progress report</p> <p>Host principal supervisor uses these prompts to share progress with principal supervisor colleagues:</p> <ol style="list-style-type: none"> 1. What next steps did you discuss with the principal? Which steps did you select to implement? 2. How will the principal integrate the new ideas with existing systems and structures?

coaching orientation, support for addressing student achievement issues, and a focus on quality instruction in every classroom.

In the past, principal supervisors managed caseloads of 18 to 24 principals, preventing them from dedicating significant time to any one principal or providing support that could have an observable impact. Supervisors managed their relationships with principals primarily through phone contact, periodic visits to school sites and interaction in principals

meetings, with little calibration across principal supervisors in the district.

Since 2014, with an average caseload of 11 principals, principal supervisors now spend three to five hours a month on every campus they supervise. Principal supervisors' site visits include regular time in classrooms walking alongside the principal to monitor student achievement, collect data about instructional implementation, and develop strategies for supporting teachers.

The significant increase in time

spent with principals also includes structured opportunities for principal development in targeted areas based on the Long Beach district's principal evaluation framework, including addressing issues of environment and equity and the supervision and evaluation of school-based personnel.

Principal supervisors now spend more than half of their time in school buildings coaching, guiding, and assessing principal needs. The result is an increase in effective relationships with principals as well as new

opportunities to improve principal professional development, identify student needs, and contribute to districtwide planning efforts.

This shift in role does not mitigate the sense of isolation inherent in the position of principal supervisor. While more than half of each principal supervisor's time is now spent in schools, most of this time is in a one-to-one relationship with a principal. This has the potential to improve the practice of some principals, but it does not address calibration across principal supervisors in their coaching methodology or ensure that there is a common capacity among principal supervisors. To ensure that every principal receives support from a skilled principal supervisor equipped to coach effectively and provide targeted support, the district created a professional learning community (PLC) for principal supervisors.

EMBEDDED PROFESSIONAL LEARNING

Principal supervisors in the district participate in embedded professional learning reflecting the same expectations we have of teachers and principals.

In their job-alike group, they:

- Engage in a learning community of public practice with shared norms and expectations;
- Clarify expectations in the role of principal supervisor to ensure vertical coherence and horizontal calibration;
- Consider principal practice and align feedback and performance assessments to the district rubric; and
- Practice supporting principals using the language of coaching-based supervision with the goal of raising student achievement in all schools.

The principal supervisor group has engaged in professional development on blended coaching (see Bloom, Castagna, Moir, & Warren, 2005), worked diligently to use the principal evaluation system in concert with one another, analyzed one another's feedback to principals, and developed methods of collaboration never witnessed in this way within the organization.

Much of the professional learning community's work has been grounded in a case study approach. Feedback about coaching is now an integrated aspect of principal supervision. Outside coaches observe principal supervisors in their one-to-one interactions with principals, supervisors of principal supervisors observe interactions between individual principal supervisors, and principals and peers observe one another, all providing individual coaching feedback on their practice.

"In the PLC, we are working toward defining our shared expectations as principal supervisors," one participant said. "This work helps to calibrate our support for sites as well as bring new principal supervisors on board."

At the heart of the principal supervisor PLC is the district's lab day. Lab day gives principal supervisors the chance to practice blended coaching and their supervisory decision making in an authentic and active environment, using peer and expert feedback throughout the session.

Lab days have included the hosting school's principal and principal supervisor in a presentation about their work, a live coaching session observed by all principal supervisors that follows classroom visits, and multiple opportunities for principal supervisors to learn from one another.

In addition to a focus on blended coaching, lab day gives principal supervisors time to collaborate and problem solve with other principal supervisors about their work with

Even as expectations for principal performance are rising through clearer and more consistent implementation of the principal evaluation rubric, principal performance is improving.

individual principals. Through case study analysis, principal supervisors share their successes and offer ideas to one another, often resulting in significant rethinking of their work with their supervisees.

At the end of a recent lab day, the host principal supervisor said, "Having the opportunity to discuss what was observed with peers and to determine how to best support the principal moving forward was most helpful."

This model has built a culture of openness and vulnerability among principal supervisors, consistent with the district's vision of teacher professional learning communities as a place where professionals are open and honest in sharing their successes and failures, they look to colleagues for help with their toughest challenges, and calibration of practice is built through authentic work.

Are these lab days effective? "Having the opportunity to share problems of practice and getting the feedback of the group is the best part of the lab day," said one principal

supervisor. “It is also helpful to calibrate by going into classrooms together looking for specific items.”

Long Beach has experimented with variations in the lab day model and shared the model with the 14 districts participating in The Wallace Foundation’s Principal Supervisor Initiative, resulting in experimentation by 13 other school districts as part of the national Principal Supervisor Initiative professional learning community. The Principal Supervisor Initiative is a \$30 million, five-year effort to help 14 urban school districts improve the effectiveness of principal supervisors so they can better work with principals to raise the quality of teaching and learning in schools.

For example, the district has at times included curriculum leaders and principal leaders in the process, at other times not. We have conducted the post-visitation coaching conversation between principal supervisor and principal in a “fishbowl,” allowing all lab day participants to observe a live coaching session between the principal supervisor and principal, and in a more private setting, observed only by a consultant or deputy superintendent.

Based on our experience, we suggest that the following characteristics should be present across all configurations:

- Lab days are grounded in the notion that the primary role of principal supervisor is to nurture the growth and effectiveness of principals as instructional leaders.
- Lab days are based at a school site and dedicated to supporting an individual principal supervisor in improving his or her supervision practice through an in-depth case-study approach.
- Lab days include classroom visits and structured debriefs focused on supporting

principals as teacher coaches and instructional leaders.

- Lab days include time and protocols for all principal supervisors to share problems of practice with their colleagues.

RESULTS

In a survey at the end of the 2015-16 school year, 69% of the 87 principals surveyed strongly agreed or agreed that their summative evaluation reflected the feedback provided during the school year. When asked about working with their supervisor on blended coaching, 70% of principals rated the experience a 4, 5, or 6 on a scale of 1 to 6, with 1 being the lowest.

Early indicators used to gauge progress on principal performance include two years of the spring administration of the Vanderbilt Assessment of Leadership in Education (VAL-ED) teacher perception survey. Results show an increase in the number of proficient and distinguished principals, from 29% in 2013-14 to 44% in 2014-15.

In an analysis of 2014-15 summative evaluation data compared to 2015-16 summative data, a positive trend emerged. In 2014-15, 67% of principals were rated effective or distinguished in teaching and learning, and this percentage grew to 72% in 2015-16.

These data show that, even as expectations for principal performance are rising through clearer and more consistent implementation of the principal evaluation rubric, principal performance is improving.

BUILDING A SENSE OF TRUST

Lab days and the principal supervisor community of practice are clearly having a positive impact on the culture among principal supervisors and in the relationship between principals and principal supervisors.

“Listening to each other’s thinking helps us to grow our thinking and understand each other better.”

— Principal supervisor



Principal supervisors report that the group has built a sense of trust that allows them to experience the power of vulnerability in their own learning and that also contributes to the group’s learning. Developing a system of consistent practice across principal supervisors has emerged not only as a norm, but also as a valued aspect of the group’s work. As one principal supervisor said, “Listening to each other’s thinking helps us to grow our thinking and understand each other better.”

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Jill A. Baker (jbaker@lbschools.net) is deputy superintendent of schools for the Long Beach (California) Unified School District. Gary S. Bloom (gsbloom@gmail.com) is senior program consultant and co-founder of the New Teacher Center in Santa Cruz, California. ■

WHAT LITERACY MEANS IN MATH CLASS

TEACHER TEAM
EXPLORES WAYS
TO REMAKE
INSTRUCTION
TO DEVELOP
STUDENTS' SKILLS



BY JACY IPPOLITO,
CHRISTINA L. DOBBS,
AND MEGIN CHARNER-LAIRD

While much has been written in the last decade about the need for disciplinary literacy instruction and its potential to support higher levels of student learning and communication (Fang & Coatoam, 2013; Hynd-Shanahan, 2013; Lee & Spratley, 2010; Moje, 2007, 2008, 2015; Shanahan, 2012; Shanahan & Shanahan, 2008, 2014), relatively little is known about how current teachers are adopting and enacting disciplinary literacy practices.

Secondary teachers and leaders, many of whom are implementing the Common Core State



Standards, are seeking guidance about how to implement disciplinary literacy practices. In our own work with secondary teachers over the past eight years, we have heard countless versions of this question: What will it take for us to introduce disciplinary literacy instruction into our middle and high school classrooms?

This is perhaps most true for mathematics educators. Of the four core subjects taught in secondary schools — English, history, math, and science — we have found that math teachers are least likely to be offered support in learning about, designing, and refining disciplinary literacy practices, despite the highly specialized and prevalent literacy practices that math demands. Literacy work in math classrooms remains underspecified and underexplored.

The reduced focus on literacy practices in math classrooms is perhaps an artifact of a widely held perception that literacy and math instruction are distinct enterprises. This perception may be fueled by the persistent need to improve scores on discrete tests of reading/writing and math.

With the two disciplines often set up in opposition, it is understandable that math teachers might be hesitant initially to consider the ways in which literacy is threaded throughout math learning and how they might support students in using the literacy skills necessary to the discipline of math. When invited to take a disciplinary literacy stance toward instruction, secondary math teachers rightly ask:

- Will a shift toward disciplinary literacy instruction bolster mathematical teaching and learning?
- What might a disciplinary literacy stance mean for an entire math department?
- What kinds of professional learning might best support learning about disciplinary literacy?
- Ultimately, for math teachers, is it worthwhile to invest time and energy in disciplinary literacy professional learning and teaching initiatives?

If literacy is to be central in every classroom, and if secondary math teachers are expected to engage in disciplinary literacy work, then we must address these questions. To begin finding answers, let's examine a larger professional learning and research initiative in which math educators are collaboratively and productively engaging in disciplinary literacy

Math literacy “is literally everything. It’s communication, it’s discussion, it’s looking at graphs. It’s so many things.”

— Team leader

instructional design work.

We have learned a great deal about math disciplinary literacy from a dedicated team of six high school math teachers at Brookline High School in Brookline, Massachusetts. In 2014, the team volunteered to participate in a two-year exploration of disciplinary literacy in content classrooms as part of a larger four-year disciplinary literacy professional learning and research initiative known as the Content-area Reading Initiative.

The math team chose a well-respected colleague in the department as team leader to facilitate weekly professional learning community (PLC) meetings for two years and help guide the team’s inquiry into and exploration of various aspects of literacy instruction in math settings. As a result of the team’s two-year exploration, the teachers designed instructional routines in math classes that are sensitive to and supportive of students’ development of the literacy skills necessary for mathematics.

Supporting literacy in math classrooms means giving teachers the

IDEAS

support they need to design literacy-rich instruction, and clear professional learning routines are key to achieving this goal. In our experience, three supports proved essential: a summer institute introducing disciplinary literacy domains, scheduled time for collaborative inquiry into disciplinary literacy, and a designated team leader. Together, these supports helped the team engage deeply with the theory and practices of math disciplinary literacy and create agreed-upon mathematical habits of mind that have become keys to their current approach.

SUMMER INSTITUTE

The team first assembled and began its work by attending a week-long summer institute led by us, as university consultants, and designed to introduce key domains of literacy instruction (e.g. discipline-specific reading comprehension, academic vocabulary, discussion).

Our theory of action was straightforward: The team would learn about these domains, then spend two years using this knowledge in weekly meetings where they would work collaboratively to adopt, adapt, invent, and evaluate disciplinary literacy practices for their math classrooms. The initial institute was essential, providing the team with starting places to spark later inquiry and collaborative tools to guide investigations (e.g. discussion-based protocols, examples of successful inquiry cycles from previous teams).

One of the primary goals of the summer institute was to challenge the widely held perception that math and literacy are separate enterprises. Our goal was to help teachers frame their work as moving students from simply performing mathematical operations to taking first steps into the larger disciplinary culture (Moje, 2015) of communicating like mathematicians.

For example, we spent a half-

day of the institute focusing on how academic discussions and teacher talk moves (e.g. extending, clarifying, revoicing, probing) in math classrooms could promote deeper mathematical reasoning, which can be translated into more sophisticated problem solving. However, we understood that shifting the instructional culture would only be accomplished over time, not in the single institute week.

When team members entered the institute, they were uncertain whether the content would even apply to them. Yet they were eager to learn ways to shift their practice. This willingness paid off. By the end of the five-day review of literacy domains, the team reported brainstorming more than 40 ideas that they wanted to explore across the next two years.

For the math team, the biggest takeaway from that institute may have been a reframing of what *literacy* could mean in a math context.

The team leader described it this way: “I think the summer institute last year [is where we first] talked about ‘what is literacy.’ How it is literally *everything*. It’s communication, it’s discussion, it’s looking at graphs. It’s so many things, and how pervasive it is, and how it really is in our curriculum, and how we can focus on it and work on it. ... It’s not *English* we’re talking about. It’s *literacy*. I think that, in math and science, [we’ve] confused those two. It’s not English. We’re not reading a novel about math. It’s these common, basic communication skills. I think that was a major eye-opening thing.”

As a direct result of its summer learning together, the team chose to begin its inquiry and classroom experimentation work by focusing on academically productive classroom discussions, with a dual emphasis on encouraging students’ use of general academic language and discipline-specific mathematical language.

FACILITATED TEAM TIME

Teachers reported that the weekly, facilitated, one-hour meeting time made perhaps the most difference in their ability to generate new instructional practices together. Before the project, teachers did not have a designated time to come together as a team to investigate a topic like disciplinary literacy over time.

The collaborative inquiry time, facilitated by a team leader after school hours, provided the group with the inventive space needed to explore mathematical disciplinary literacy practices together. The only stipulation within the overall project was that the team eventually share successful practices with the rest of the department. So, week after week, over two years, the team focused on big inquiry questions such as: “What difference could it make if we were more explicit with our academic language instruction in math classrooms?” and “How might we better support students in identifying, understanding, and synthesizing key mathematical concepts when reading independently?”

With this approach, the team moved through six cycles of inquiry over the two years, focusing iteratively on: classroom discussion, academic language and vocabulary, multiple representations in mathematics, mathematical reading, engaging in productive failure, and mathematical writing.

Each of the cycles produced dozens of new instructional routines as well as related resources (e.g. a library of short math-focused readings arranged by topic and degree of reading difficulty), all of which the team shared with the larger math department. Instructional practices the team adopted include:

- **Academic discussion:** The team introduced and practiced academic discussions to coax students to describe reasoning and explain thinking processes

to others. By fostering a healthy discussion atmosphere and encouraging attempts, we saw students become more willing to problem solve collaboratively and resolve misunderstandings together. The team leader reported: “Allowing time for discussion around student questions saved instructional time in the long run because it targeted student misconceptions.”

- **The language of math and multiple representations:** As we listened to student discussion, it became clear that students needed support in using the precise language of math and understanding how words mapped onto symbolic and pictorial representations of mathematical concepts. In response to this need, teachers piloted vocabulary concept journals and modified word walls to focus student attention on key concepts. As a result, team members saw students using words more accurately and moving between representations of concepts more fluidly.
- **Mathematical reading:** Teachers quickly realized that they had sometimes avoided doing much reading in math for fear that it would be difficult for students or that it would take too much time. The team assembled a library of readings to encourage wide reading in mathematics. These readings supported not only familiarity with concepts when represented in multiple ways, but also promoted students’ acquisition of general mathematical literacy through grappling with and ultimately working to understand math in the real

RELATED RESOURCES FROM LEARNING FORWARD

Dobbs, C.L., Ippolito, J., & Charner-Laird, M. (2016). Creative tension: Turn the challenges of learning together into opportunities. *JSD*, 37(6), 28-31.

Ippolito, J., Dobbs, C.L., Charner-Laird, M., & Lawrence, J. (2016). Delicate layers of learning: Achieving disciplinary literacy requires continuous, collaborative adjustment. *JSD*, 37(2), 34-38.

Ippolito, J., Dobbs, C.L., & Charner-Laird, M. (2014). Bridge builders: Teacher leaders forge connections and bring coherence to literacy initiative. *JSD*, 35(3), 22-26.

These articles are available at www.learningforward.org/publications/jsd.

world. Over time, teachers’ inquiries resulted in instruction that included more purposeful reading in the mathematics classroom, leading to students developing deeper and clearer conceptual knowledge.

MATHEMATICAL HABITS OF MIND

As a result of its ongoing collaborative inquiry work, the math team devised a set of mathematical habits of mind (ways of thinking and working) that now guide instruction. Agreeing on these habits of mind, and making them visible for students, is at the heart of math disciplinary literacy work for the team.

These habits, such as discussing problem solving aloud, reading about mathematical concepts and famous mathematicians, being conscious of math vocabulary, understanding multiple representations of information, and embracing productive failure when working with challenging problems, have been transformed into important

routines throughout the year and across the broader math department.

The mathematical habits of mind and routines have also mapped quite neatly onto the Massachusetts Curriculum Framework for Mathematics, particularly the Standards of Mathematical Practice (see www.doe.mass.edu/frameworks/math/0311.pdf, pp. 15-17). By using these habits of mind to frame instruction, in conjunction with the math practice standards, these math teachers are bringing the authentic thinking, reading, writing, and communicating work of mathematicians into their classrooms on a daily basis.

Notably, it was teachers’ inquiries, occurring in PLCs led by a team leader and guided by new learning from the summer institute, that led to the development of new instructional approaches. As more math educators nationwide consider whether and how to engage in disciplinary literacy work, we encourage teams to focus not just on the emerging *products* of disciplinary literacy practices, but also to focus on the *processes*. Teams of teachers need support as they collaboratively explore what it means to enact disciplinary literacy in math settings so that stronger disciplinary literacy teaching and learning routines might emerge.

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Jacy Ippolito (jippolito@saalemstate.edu) is an associate professor at Salem State University. **Christina L. Dobbs (cdobbs@bu.edu)** is an assistant professor at Boston University. **Megin Charner-Laird (mcharnerlaird@saalemstate.edu)** is an assistant professor at Salem State University. ■

An argument for learning

Continued from p. 60
promising results in changes in teachers' practices and student learning.

The study found that 9th-grade biology students in the experimental condition outperformed students in control group classrooms on two measures of science comprehension across multiple texts that required reading, synthesizing, explanatory model building, and argumentation (Goldman et al., 2016).

Results such as these show the promise of preparing teachers to teach inquiry-driven literacy and science practices as a process of actively making meaning. This type of inquiry-based professional learning may be especially important in the context of science — a field driven by inquiry practices — and when teachers are being asked to teach in ways that are substantially different from how they were taught or how they learned to teach (Borko, 2004).

To do so, teachers will need support for their own learning over time with opportunities to learn that mirror these forms of inquiry (Pearson, Moje, & Greenleaf, 2010).

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Cynthia Greenleaf (cgreenl@wested.org) is co-director and director of research and Willard R. Brown (wbrown@wested.org) is a senior associate at the Strategic Literacy Initiative, WestEd. ■

Discuss. Collaborate. Facilitate.

TOOLS



OUR FINGERPRINTS ON ESSA

Learning Forward was instrumental in ensuring that federal policy contains an improved definition of professional learning, one that aligned with our Standards for Professional Learning.

“We concentrated our advocacy energy on this element of the legislation because that definition applies to the references to professional development that appear throughout the law.”

— Stephanie Hirsh, Learning Forward executive director

TOOLS FOR ALIGNMENT

Use these tools to help districts align their professional learning with the Every Student Succeeds Act (ESSA).

BLACKLINE MASTERS FOR YOUR CONVENIENCE.

p. **72**



Align your district's professional learning under ESSA

The single most important way to achieve equity and excellence is by ensuring a knowledgeable and skillful educator workforce. Ensuring the availability of excellent educators for all students requires a culture of learning and a system of support for every school and school district. This means that our goal isn't just to improve professional development experiences, but to endeavor to make each school a learning system for students and teachers.

At the center of these types of learning and improvement systems are teams of teachers who assume collective responsibility for their students' and their colleagues' success. Although these learning communities are the most important part of a learning system, it takes a shared vision at the state and district levels to establish, build, and sustain a learning and improvement system that ensures success for all

FOR MORE INFORMATION

The text and tools are taken from *A New Vision for Professional Learning: A Toolkit to Help States Use ESSA to Advance Learning and Improvement Systems* (Learning Forward & Education Counsel, 2017). Find the full toolkit at www.learningforward.org/docs/default-source/getinvolved/essa/essanewvisiontoolkit.

students and their teachers. States and districts have a responsibility to establish the conditions that foster these types of learning systems, and the Every Student Succeeds Act (ESSA) provides an unprecedented window of opportunity to advance these conditions.

Within ESSA, the federal definition of professional learning has been revised to ensure that professional development activities are “sustained (not stand-alone, 1-day, or short term workshops), intensive, collaborative, job-embedded, data-driven, and classroom-focused.” All federal funds used for professional

development must align with this definition. (For the full definition of professional learning under ESSA, see www.learningforward.org/who-we-are/professional-learning-definition.)

This updated definition provides states and districts with an opportunity to articulate or re-envision their own definition of professional learning — in alignment with the new federal definition — and use it to review their current professional learning investments and ask: Do all professional learning programs meet these evidence-based characteristics?

VISION-SETTING PROTOCOLS

This tool is designed to support a group in establishing a draft vision for systems of professional learning and identifying state and district roles for supporting these systems. You can find the handouts in *A New Vision for Professional Learning: A Toolkit to Help States Use ESSA to Advance Learning and Improvement Systems* (Learning Forward & Education Counsel, 2017), available at www.learningforward.org/docs/default-source/getinvolved/essa/essanewvisiontoolkit.

DEFINE HIGH-QUALITY PROFESSIONAL LEARNING AT THE SCHOOL LEVEL

Time: 45 - 90 minutes

Materials: Handouts: State definitions of professional learning (pp. 44-46), federal definition of professional learning (pp. 14-15), chart paper, markers, tape, sticky notes

1. Ask individual members of the group to write attributes of their definition of professional learning on self-adhesive sticky notes, one attribute or idea per note.
2. In groups of four or five, share the attributes on sticky notes, clustering similar ideas together.
3. Report similarities and record them on chart paper.
4. Use the federal definition of professional learning on pp.14-15 to compare your own characteristics.
5. Alternatively (or, in addition, if time allows), review the Kentucky, Michigan, and Connecticut definitions of professional learning and note the similarities and differences.
6. Come to consensus on the key points to include in a definition of professional learning.
7. Invite a small group to craft the definition using the key points generated and bring it back to the next meeting for review and revision. The group can move on to the next vision-setting exercise in the same day if needed. During the discussion, be sure to consider what words may be confusing to others who don't fully understand what you're aiming to do around professional learning.
8. Encourage members to share the definition with stakeholders to seek feedback. It is important to acknowledge that stakeholders will not have the same depth of background knowledge and the opportunity to cultivate an understanding about the different terms that team members have experienced, so the task is not to seek their agreement, but rather to assess if the definition makes sense and to collect the questions it generates.

TOOLS

CREATE A CLEAR PICTURE OF WHAT THE DEFINITION LOOKS LIKE IN ACTION

Time: 1 - 2 hours of prep and 1 hour of facilitation

1. Based on the definition the group has developed, the group (or a subset) may develop a document, such as a chart, narrative, or anecdote, that shows what the definition looks like in a school. Try to describe the experience of educators in a school with a high-quality learning system aligned to the definition. If the group decides to create a chart, one column might list what the vision for professional learning looks like, while a second column explains what it is not. Regardless of the format, the document might address:
 - How frequently educators meet to discuss and improve their practice;
 - How educators decide what to focus on;
 - The qualifications of those who are leading professional learning, and how they were trained and supported;
 - How educators give and receive feedback;
 - How educators know whether their efforts are resulting in improvements in practice and student learning;
 - What a professional learning conversation might sound like;
 - How leadership has created a culture that supports learning and improvement.
2. Share the document draft with the planning team and additional key stakeholders, either through written feedback or in person.
3. Revise based on feedback. If needed, facilitate a call or in-person meeting to reconcile feedback.
4. If time allows, engage additional stakeholders in discussing the second iteration of the document.
5. Prepare to publish the document more widely so that it serves as a concrete picture of what the vision would look like in practice. In preparation, consider:
 - How can we ensure that all staff share a common vision and understanding of quality professional learning?
 - Who are our best champions and messengers?

CLARIFY HOW EACH LEVEL OF THE EDUCATION SYSTEM — SCHOOL, LOCAL, AND STATE — CAN UNIQUELY CONTRIBUTE TO HIGH-QUALITY LEARNING SYSTEMS

Time: 90 - 120 minutes

Materials: Handout: Essential Roles in our Professional Learning Ecosystem graphic organizer (p. 47), chart paper, markers, tape, sticky notes

1. Facilitate a group discussion, capturing roles within a pyramidal graphic organizer (with schools at the base as the most important level in the ecosystem):
 - Based on our vision for professional learning at the school level, what must be in place — in terms of culture, leadership, expertise, systems for measurement, time structures, and resources — to effectively implement our definition/vision of professional learning in every school?
 - How can districts establish the necessary conditions to support schools in this work? How can they support increased personalization of professional learning that may be unfeasible in an individual school (e.g. providing content-focused professional learning for subjects with only one teacher in the building)?
 - What is the state's role in contributing to this system? What is the state uniquely suited to do?
2. Consult the handout if helpful to get discussion started. Be sure to cite specific examples that are unique to your context.

Connect. Belong. Support.

UPDATES

LEARNING TOGETHER IN DENVER IN JULY

Learning Forward's 2017 Summer Institutes are July 20-21 and 22-23 in Denver, Colorado.

Sessions include:

- **The Feedback Process**
Joellen Killion
- **Assessing the Impact and Coherence of Your Professional Learning**
Michelle King and Nick Morgan
- **Becoming a Learning Team**
Stephanie Hirsh and Tracy Crow
- **Becoming a Learning Principal**
Kay Psencik and Eric Brooks

For more information: www.learningforward.org/learning-opportunities/institutes.

“

I believe that, as a nation, we share a common vision that all children deserve great teaching, regardless of their ZIP code. Cutting support for the educators who strive each day to meet the needs of students drastically undermines our ability to achieve that vision."

— Stephanie Hirsh, Learning Forward executive director

p. **76**

PROPOSED TITLE II FUNDING CUTS HIT AT THE HEART OF TEACHING AND LEARNING

As noted on p. 10 in Tracy Crow's column, President Trump's budget proposal calls for the elimination of Title II funding under the Every Student Succeeds Act (ESSA). These funds are used for professional learning needs across the country. Stephanie Hirsh, executive director of Learning Forward, issued the following statement in response to the budget proposal.

BY STEPHANIE HIRSH

The research is clear — effective leadership and teaching are essential to more students achieving at higher levels. Therefore, eliminating federal funding that is directly tied to supporting educator effectiveness will be incredibly damaging to the real progress we're seeing in schools across the country.

I believe that, as a nation, we share a common vision that all children deserve great teaching, regardless of their ZIP code. Cutting support for the educators who strive each day to meet the needs of students drastically undermines our ability to achieve that vision.

With the proposed \$2.3 billion cut in Title II, Part A, many of our schools will lose funding for coaches, professional learning, instructional support, and much more. Without Title II funds, many districts will not be able to help teachers, for example, implement more rigorous curriculum that prepares students for college or careers. Without these funds, many districts will lose the ability to help principals address the myriad leadership challenges they confront daily. I hear every

day about the real impact that districts experience because of such support — impact that reaches classrooms where our most vulnerable students sit.

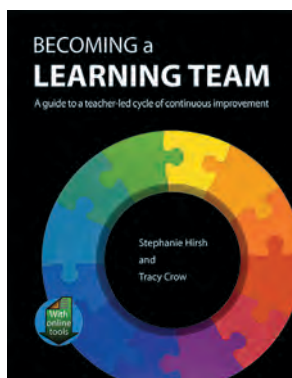
These proposed funding cuts will hit at the heart of teaching and learning in schools across the country. Our students and our communities deserve the best schools in the world, and our more than 3 million teachers in public schools alone deserve sustained support to do their important and difficult jobs.

It's important to recognize that ESSA was formed through bipartisan agreement about how best to support the nation's schools. Preserving funding to develop excellent educators was an important part of that agreement. This budget proposal runs counter to its spirit and intention.

As Congress moves forward with the budgeting process in the coming months, Learning Forward will work hand in hand with educators in schools to demonstrate the necessity of ongoing support for all educators.



Hirsh



A NEW BOOK FOR TEACHER LEARNING TEAMS

Learning Forward recently released *Becoming a Learning Team: A Guide to a Teacher-Led Cycle of Continuous Improvement* by Stephanie Hirsh and Tracy Crow.

Created to help teacher teams work step-by-step through a five-stage learning process, the book offers practical guidance, real-life examples, and supporting tools at each step of the way.

The entire cycle is designed to help teachers address specific student learning challenges by ensuring their own learning is in tight alignment.

Order your copy through the online bookstore at www.learningforward.org/store. Price: \$45; \$36 for Learning Forward members.

Florida district in Redesign PD Community of Practice partners with teachers

BY LINDA JACOBSON
AND MICHELLE KING

As one of 22 districts participating in the Redesign PD Community of Practice, facilitated by Learning Forward, Lake County Schools is learning the importance of redesigning professional learning in partnership with teachers.

When Andrea Pyatt, the district's Innovative Professional Development (iPD) facilitator, stepped in to her role in early 2015, she reviewed student data and saw low performance in math across the district. Coming from a background in health care, where she was a clinical scientist, she didn't want to roll out a new professional development program without improving the overall professional learning system. "You can't just randomly throw PD to teachers and expect it to change the system," she says.

She also wanted the process to be led by teachers and informed by their feedback. So she created a math team with middle and high school teachers, administrators, and district-level math specialists across all grade levels.

"I wanted it to come from the team and not from me," she says. Through their conversations, team members shared that because the new standards require more advanced math skills in lower grades, many teachers felt they didn't have the skills and expertise they needed to teach the content.

"This team really stepped up and told me what they needed," Pyatt says. "I'm glad that we had these conversations because they were very open and honest with me and we

learned together."

The program specialist at the secondary level, who has since moved to a state-level position, designed an in-person content training for teachers in which she presented them with a math task and challenged them to work with other teachers to solve it. Through the process, they learned other ways to approach the problems and strategies they could use with their own students.

In addition to the content training, the district also began working with Math Solutions (www.mathsolutions.com) to implement a lesson study process. Consultants partner with classroom teachers in 4th and 8th grade and Algebra 1 classes to teach lessons to students and then reflect on how it worked. Working with the consultants, Pyatt says, has "expanded their thinking of what's possible."

Now Pyatt and her team are seeing evidence that both professional

learning opportunities are making a positive difference, particularly at the elementary level.

The math team has grown from 18 to 30 people since it was formed and plans to continue providing math support to teachers through content training and lesson study cycles. The overall effort to redesign professional learning has also contributed to a stronger partnership between the professional development and curriculum departments.

The Redesign PD Community of Practice engages teams from 22 of the nation's leading school districts and charter management organizations in identifying local professional learning challenges and creating scalable solutions. Learning Forward facilitates the community, where teams participate in continuous learning cycles to improve how they manage their professional learning systems.



Lake County's vision for using data

VISION

Our teachers and leaders will have access to relevant data that drives personalization toward improving practice, which will enable a more effective and informed professional learning experience.

GOALS

1. Measure all major professional learning initiatives against quality check of systemwide criteria.
2. Assess teacher and leader reactions of professional learning initiatives with comparable and rigorous measurement tools.
3. Engage teachers and leaders in the learning cycle that uses formative assessment to become more informed, thoughtful, and responsive to improved teacher practice.

FOCUS **MEASURING IMPACT**

Why evaluations fail:

To achieve meaningful results, address these common challenges.

By Joellen Killian

In schools and school systems, educators who lead, facilitate, manage, and advocate professional learning as a primary means for improving educators' professional practice and student results struggle to find practical, meaningful, cost-effective, and timely means to evaluate this crucial work. Evaluation of professional learning is challenging work primarily for three reasons: clarity of outcomes, clarity of the evaluation's purpose, and appropriate methodology and design. This article explores these challenges and recommends ways to avoid them.

Where do you want to get to?

Effective professional learning begins with a clear destination in mind.

By Thomas R. Guskey

Educators often shy away from evaluating professional learning experiences because they believe the process requires knowledge and skills they don't possess. As a result, they either neglect evaluation procedures completely or leave them to "experts" who come in at the end and gather data to determine if anything made a difference. But these ad hoc procedures rarely yield information that helps educators improve the quality or effectiveness of their professional learning experiences. In truth, evaluation is a relatively simple process that begins by answering three essential questions.

Learning that's made to measure:

Embedded assessments gauge educators' growth and impact.

*By Giselle O. Martin-Kniep
and Rebecca Shubert*

Educators from 10 school districts

sought to learn about and assess critical thinking, metacognition, and problem solving. They worked collaboratively in small teams, first to uncover their understandings of these outcomes, then to determine what to assess and what metrics to use and, finally, to engage in peer reviews as they completed different drafts of their work. Such collaborative work enabled them to draft and field-test assessment tools aimed at evaluating or promoting these outcomes. Their experience illustrates how program-embedded assessment can help facilitators and learners document their learning while revealing the inherent complexities of assessing hard-to-measure learning outcomes.

Partners in a common cause:

External evaluators team with practitioners to build data use practices.

*By Stephanie B. Wilkerson
and Margie Johnson*

A partnership between educators in Metro Nashville Public Schools in Tennessee and external evaluators with Regional Educational Laboratory Appalachia (REL Appalachia), with funding from the Institute of Education Sciences, used a well-defined process to evaluate the implementation and effectiveness of a new data use initiative from its inception. The partnership created awareness and understanding of the evaluation process along with buy-in and produced lessons to guide evaluators and practitioners interested in establishing collaborative evaluation partnerships.

Pilot program aims high:

Challenges en route help district find success in measuring impact.

By Eric Celeste

Denver Public Schools' Professional Learning Center decided to tackle a problem of practice that has vexed systems and departments across the country: How to measure the impact of professional learning. To do so, the center created a new comprehensive measurement approach. The complex task came with an added challenge: That program would be tested within the confines of another department's high-profile efforts to launch an early literacy initiative involving 2,500 teachers. Along the way were struggles, modifications, and lessons learned that eventually helped the program bear fruit.

IDEAS

An argument for learning:

Science teachers and students build literacy through text-based investigations.

By Cynthia Greenleaf and Willard R. Brown

One of the hallmarks of the Reading Apprenticeship approach to professional learning is that teachers actively inquire into the processes by which they work through comprehension problems in texts. They learn the art of making their invisible thinking processes visible. This helps them see more clearly that they have internal resources to help students master similar kinds of thinking processes. Participants in the California Teacher Inquiry Network learned how to use texts as resources for

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inquiry, deepen their understanding of disciplinary argumentation, and explore what is involved in developing models to explain scientific phenomena.

Growing support for principals:

Principal supervisors collaborate and problem solve in learning communities.

By Jill A. Baker and Gary S. Bloom

Over the past four years, the role of principal supervisor in Long Beach Unified School District in California has shifted from compliance and at-a-distance supervision practices to a deeply rooted coaching orientation, support for addressing student achievement issues, and a focus on quality instruction in every classroom. A professional learning community equips principal supervisors with the skills to support principals.

This article is sponsored by The Wallace Foundation.

What literacy means in math class:

Teacher team explores ways to remake instruction to develop students' skills.

By Jacy Ippolito, Christina L. Dobbs, and Megin Charner-Laird

A team of six high school math teachers in Brookline, Massachusetts, participated in a two-year exploration of disciplinary literacy in content classrooms. The team chose a colleague in the department as team leader to facilitate weekly professional learning community meetings for two years and

help guide the team's inquiry into and exploration of various aspects of literacy instruction in math settings. As a result of their work, the teachers designed instructional routines in math classes that are sensitive to and supportive of students' development of the literacy skills necessary for mathematics.

VOICES

MEMBER SPOTLIGHT

Andrea von Biberstein, teacher and program coordinator at Ridgeview Charter School in Sandy Springs, Georgia.

OUR TAKE

Bring your best evidence forward to show professional learning's worth.

By Tracy Crow

The persistence of negative perceptions about professional learning makes it all the more imperative that educators include evaluation as a vital component of their planning.

WHAT I'VE LEARNED

Let's focus on quality of instruction rather than quantity.

By Michael McNeff

We seem to think that if we have more time in front of kids, they will learn more. What if we reduce the amount of instructional time and build in teacher collaboration that is focused on improving instruction?

ASK

How do I justify the professional learning plan for my school under ESSA?

By Stephanie Hirsh

Guidance documents on implementation explain ESSA's four levels of evidence.

BEING FORWARD

Bring stakeholders on board by gathering multiple measures of success.

By Scott Laurence

It's important that professional learning leaders continue to find ways to document success and tie it to teacher excellence and student achievement.

RESEARCH

RESEARCH REVIEW

Meta-analysis reveals coaching's positive impact on instruction and achievement.

By Joellen Killian

A meta-analysis of 37 studies of teacher coaching, many focused on literacy coaching, reveals that coaching positively affects both teaching practice and student achievement.

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**.

AT A GLANCE

Standards for Professional Learning: Why they matter

They promote equity:
When every educator has access to standards-based professional learning, all students have access to better teaching.

They describe what is known about professional learning that leads to improved student results.

They establish a common language for discussing and establishing what effective professional learning entails.

They offer a framework for planning professional learning and a foundation for a comprehensive professional learning system.

Learning Forward's Standards for Professional Learning are the essential elements of professional learning that leads to changed practices for educators and thus to better outcomes for students.

They require an explicit link between student learning and educator learning.

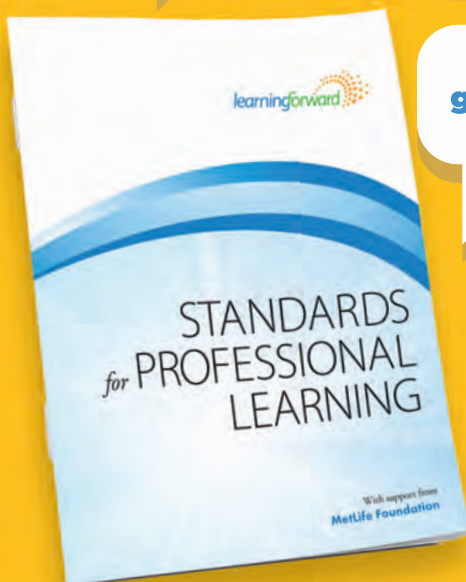
They are useful in evaluating the impact of professional learning.

They are grounded in research.

They inform policy: More than 35 states have adopted or adapted the standards.

Keep in mind

Standards can be a loaded word for many educators, including those in other nations. Some of our colleagues in Canada, for example, prefer the term principles.



Learn more about the Standards for Professional Learning at www.learningforward.org/standards.

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
 LEARNING COMMUNITIES	In "Growing support for principals," the authors say that school site leadership is second only to teacher quality in its potential to impact student achievement positively (p. 61).	 <ol style="list-style-type: none"> 1. How have roles changed for principal supervisors in Long Beach Unified, and how has the learning community supported this shift? 2. Discuss the importance of blended learning to the community's work.
 RESOURCES	In "What literacy means in math class," the authors say math teachers are least likely to be offered support in learning about, designing, and refining disciplinary literacy practices (p. 66).	 <ol style="list-style-type: none"> 1. What supports did the authors find essential to improve teachers' math literacy? 2. How did language changes in instruction lead to improved student math outcomes?
 OUTCOMES	In "Why evaluations fail," Joellen Killion says standards-aligned professional learning requires the use of data for continuous formative and summative evaluation to measure its processes and progress toward identified short- and long-term outcomes (p. 26).	 <ol style="list-style-type: none"> 1. What three reasons does Killion give to suggest evaluation of professional learning is challenging? 2. How did she address the challenge of clear outcomes? 3. What do outcomes define, and why is this important?
 FIND YOUR OWN!	There are many other examples of the Standards for Professional Learning in action throughout <i>The Learning Professional</i> . Find a story that you think exemplifies this and create your own questions.	 <p>Bonus question:</p> <p>Can you find other standards within your story that are relevant? Many data stories, for example, also deal with implementation.</p>

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

Build In-House Capacity with Just ASK PLC Packs

Meeting the Needs of Diverse Learners PLC Pack

Have your collaborative team members identified the need to expand and refine their repertoires of strategies for working with diverse learners as a priority? Or do you, as a teacher leader or administrator, need to orchestrate discussions on this topic? If so, the **Meeting the Needs of Diverse Learners PLC Pack** is just what you need.

PLC Packs include

- ✓ 25 copies of the primary text
- ✓ Visual Tools with PowerPoints
- ✓ Facilitator's Handbook
- ✓ Scavenger Hunt and Sort Cards
- ✓ and more



Instruction for All Students PLC Pack

Don't have time to plan all the data-driven professional development you would like to offer staff? This PLC Pack provides over 20 one-hour professional learning experiences that support staff efforts to design, implement, and assess rigorous lessons and units. Facilitators are guided in modeling 21st century skills and promoting their use in participants' classrooms. Staff members will be working collaboratively in no time.



For information about Just ASK consulting services and resources, please visit our website.

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