TOGETHER WE CAN DO MORE

Collaboration and teams amplify learning

Conversations that foster professional growth p. 14
CALIFORNIA PROGRAM PUTS TEACHERS IN THE DRIVER’S SEAT p. 24

CHANGE TAKES ROOT AND FLOURISHES IN BHUTAN p. 50
LESSONS FROM RESEARCH: Professional learning for math teachers is a plus for students p. 58
Get your staff ready for the upcoming school year!

Whether your focus is on Common Core, PLCs, assessment, or 21st century instruction, you can rely on Solution Tree for the best professional development resources for your staff. Perfect for group studies, our books will enrich the perspective of your entire team and get everyone on the same page for even more impactful results.

--- These titles are hot off the press! ---

Order today!

solution-tree.com
888.415.0867
Discover the Three Keys to Common Core Success

Learn the three most effective things you can do to create Common Core success at your school by downloading School Improvement Network’s free white paper

No matter where you are in your Common Core implementation, this white paper will give you strategies for success, including:

1. The three steps that successful schools have taken to implement the Core and raise assessment scores
2. Best practices your teachers can use every day to help students quickly master Common Core skills
3. A list of the powerful resources available for supporting Common Core implementation

Download the white paper at commoncore-success.com
FROM THE EDITOR
BY TRACY CROW

ESSENTIALS KEEPING UP WITH HOT TOPICS IN THE FIELD
• Ideas from England
• Common Core
• Trends in Australia
• TALIS results
• Twitter talk
• Creating excellence
• Causes of poverty
• Technology and teaching
• Implementation trends
• School turnaround

FROM THE EDITOR
BY TRACY CROW

UP CLOSE DEEP SMARTS START HERE
• A clear path or clear roles?
• Norms of collaboration
• Support for professional learning teams
• What’s inside

Collaboration by design: SCHOOL CHOOSES STRATEGIES THAT ALLOW TEACHERS TO LEARN WITH AND FROM EACH OTHER.
By Jeff Keller and Marfel Kusko
Teachers at a California school use data team process, lesson study, peer observations, and lab lessons to identify needs, set goals, and plan professional learning that is job-embedded, ongoing, and focused on the curriculum.

Keys to collaboration: WHAT IT TAKES TO MOVE TOWARD COLLECTIVE RESPONSIBILITY.
By Tracy Crow
Explore critical factors for creating structures and supports that allow educators to engage in the kinds of collaborative problem solving and intentional learning that they value.

Tool
Use language that builds trust.

LESSONS FROM RESEARCH
BY JOELLEN KILLION
Professional learning for math teachers is a plus for students.

Site highlights.

@ LEARNING FORWARD
NEWS AND NOTES
• Learning Forward Academy Class of 2017
• On Board
• Book Club
• Learning Forward calendar
• Have you adopted the standards?

ABSTRACTS for June 2015 JSD

FROM THE DIRECTOR
BY STEPHANIE HIRSH

In the driver’s seat: TEACHER-LED MODEL MOVES LEARNING IN THE RIGHT DIRECTION.
By Lisa Sullivan and Theresa Westover
Teachers participating in a California program that allowed them to select their own professional learning report increased confidence and knowledge, improved instruction, and a greater ability to meet student learning needs.

Talk that teaches: HOW TO PROMOTE PROFESSIONAL DIALOGUE AND GROWTH.
By Lynsey Gibbons and Melinda Knapp
In two vignettes, 4th-grade teachers and instructional leaders examine student work and observe classroom instruction, illustrating how teachers can develop a shared understanding of teaching.
Crowdlearning: 8 districts pool resources to focus on assessment literacy.
By Paula Dillon, Cassandra Erkens, Diane Sanna, and Linda F. Savastano
Eight Rhode Island school districts join together to develop a culture of assessment literacy through ongoing professional learning focused on team-specific actions aligned to school, district, and state initiatives. Early results are promising.

What is an authentic professional learning community?
By Shirley Hord
Six research-based attributes are the defining characteristics of an authentic professional community.

Coaching side by side: one-on-one collaboration creates caring, connected teachers.
By Nancy Akhavan
After surveying teachers around the U.S. and analyzing student achievement data, an administrator gains insight into what types of coaching have a positive impact for teachers and student learning.

Create a safe space to learn: probing encourages teachers to delve deep into their thinking.
By Amy B. Colton, Georgea M. Langer, and Loretta S. Goff
Probing is a communication skill that provides the psychological safety teachers need to share their perspectives, inquire into those of others, and reconsider what they have been doing and how they have been thinking about it.

When status quo is a no-go: Maryland high school redefines its professional learning.
By Jared C. Wastler and Shannon Zepp
Liberty High School in Eldersburg, Maryland, once was a school that viewed the status quo as acceptable. Now, it’s a school where professionals look for innovation at every turn.

More lessons from Bhutan: 6 years later, change takes root and flourishes.
By Alison Telsey and Laurie Levine
Six years after they began promoting sustainable special education programs and practices in Bhutan, two U.S. educators reflect on what they’ve learned, share the successful elements, and explore how this can impact their future work.

Important lessons from a software giant.
By Stephanie Hirsh
The key to success for any educational organization is rooted in these learning fundamentals.
The season of the summer blockbuster movie is upon us, and, at the same time, the hype machine for the next *Star Wars* movie is in turbo drive. One of my favorite aspects of many of these movies is the formation of a team. I love watching individuals move from being suspicious of everyone they meet to developing dependency to forming real trust and a sense of responsibility for one another. Whether they are coming together for one last big heist or to save the galaxy from certain destruction, the motley crew of jewel thieves or action heroes or half-alien/half-human desperadoes almost always manages to transcend individual interests to save the day — or at least outwit a greedy antagonist.

In the mid-1960s, psychologist Bruce Tuckman developed a framework to describe four stages of team development, and learning facilitators sometimes use this model to help learning teams explore the human dynamics of collaboration. Interestingly, teams in movies often go through the same stages.

**Forming.** In the first stage of team development, individual members come together willingly. They are guarded, curious, and polite in their interactions. Teams at this stage often rely on a leader to guide their work. When Luke, Obi-Wan, Han Solo, Chewbacca, and Princess Leia first work together in *Star Wars*, they demonstrate elements of the forming stage. While they are willing to collaborate, they have their own interests, and aren’t entirely open about everything they know that influences their engagement in the team effort.

**Storming.** At the second stage, teams engage in more conflict. They may feel stuck and push against perceived authority as they try to advance toward their goals. While guidelines and procedures help a forming team take shape, members of a storming team may be jockeying for power or may quit. Think about how many times the characters in the first *Star Wars* movie rebel against those who exert leadership or leave to explore their own interests — even though the crew comes together at the right times to achieve their goals.

**Norming.** Members of a team working at this stage have developed trust and offer support to one another as they improve their skills to achieve their goals. The characters in the movie *Ocean’s Eleven* spend a lot of time practicing their tasks and responsibilities to pull off a casino heist, feeling an apparent accountability toward one another and collaborating for the best outcomes. Since members of this team have worked together before, it isn’t surprising that they function fairly quickly as a more mature collective unit.

**Performing.** When teams reach the performing stage, “they work collaboratively and interdependently, share leadership, and perform at high levels” (Richardson, 2005). Despite their rocky road to cohesion, the superheroes in *The Avengers* ultimately battle as a well-functioning team in high-pressure circumstances, supporting one another to achieve victory and save the day.

Obviously, teams in movies are formed and motivated in different ways than teams in schools. However, maybe the season of seeking solace in the air-conditioned movie theater offers leading learners the opportunity to bolster their understanding of human dynamics in teams by watching movies with a different lens.

**REFERENCE**

LEARNING FORWARD’S 2015 ANNUAL CONFERENCE IN WASHINGTON, DC, promises you outstanding content and invaluable tools to bring the most powerful forms of professional learning back to your workplace. Learn from the innovative work of your peers and the perspectives of national leaders. Become skilled in data-driven decision making and implementing effective school improvement. Gain deep insight into the attributes of high-functioning school teams and learning communities, and discover actions you can take as leaders to put these principles into practice.

Join your colleagues and some of the brightest minds in education at Learning Forward’s Annual Conference in Washington, DC, Dec. 5-9.

Registration now open.

Enjoy cutting-edge keynote speakers

Rehema Ellis  Irvin Scott  Michael Horn  Yong Zhao

Register by October 1 and save $50!

WHO SHOULD ATTEND:
★ Central office administrators
★ Superintendents
★ Policymakers and decision makers
★ Teacher leaders/coaches
★ School-based teams
★ Principals/assistant principals
★ Technical assistance providers
IDEAS FROM ENGLAND
Building a Lattice for School Leadership: The Top-to-Bottom Rethinking of Leadership Development in England and What It Might Mean for American Education

This report examines educational leadership development in England over the past 15 years to identify ideas American leaders and policymakers might learn from. Leadership development in England is enmeshed in a system that provides clear responsibilities for multiple levels of leadership within schools, incentives for identifying and grooming leadership within schools, pathways for leadership progression, and certification for leader attainments.

http://cpre.org/latticeforschoolleadership

COMMON CORE
Get It Right Podcasts
Learning First Alliance

The ultimate success of college- and career-ready standards demands that states and districts adapt to implementation as work progresses. Implementation requires time to align the standards with teaching, curricular materials, and professional learning. To help ensure proper implementation, the Learning First Alliance is spotlighting communities working hard to get Common Core implementation right. These podcasts tell their stories.

www.learningfirst.org/commoncore/podcast

TRENDS IN AUSTRALIA
Is School Reform Working?
Australian Council for Educational Research, 2014

The results of international surveys show that, despite reform efforts, there was little improvement in the performances of Australian students over the past decade. This paper examines trends in Australian students’ performances over the past decade and considers implications for Australian schools policies.

http://research.acer.edu.au/policyinsights/1

TALIS RESULTS
Teacher Professional Learning Here and Abroad
American Institutes for Research, 2015

Teachers’ access to professional learning supports varies widely across the world. According to the 2013 Teaching and Learning International Survey (TALIS), access to opportunities for collaboration, barriers to professional development, and sources of feedback look different in the United States when compared with other countries. In a series of infographics, the Education Policy Center at American Institutes for Research explores these differences.

http://educationpolicy.air.org/publications

TWITTER TALK
#commoncore
Jonathan Supovitz, Alan J. Daly, and Miguel del Fresno

This interactive website uses a two-dimensional approach to tell the story of the Common Core debate on Twitter. The authors tracked and analyzed more than 200,000 tweets containing #commoncore from February to July 2014. The website is organized into major categories: a prologue, four acts, and an epilogue. Viewers can see how users form informal networks on Twitter and how those networks create and amplify narratives.

http://hashtagcommoncore.com

CREATING EXCELLENCE
An Opportunity Culture for All
Public Impact

In an opportunity culture, schools use job redesign and technology to extend the reach of excellent teachers and the teams they lead — for more pay, within budget, without forcing class-size increases. This website contains resources for creating schools with an opportunity culture, including model schools, teacher career paths, and tools for districts and school design teams.

http://opportunityculture.org
KEEPING UP WITH HOT TOPICS IN THE FIELD

CAUSES OF POVERTY
CTAC Insights
Community Training and Assistance Center
CTAC is a national, minority-controlled nonprofit whose priority is addressing the root causes of poverty in low-income communities and communities of color. CTAC’s blog discusses the realities of practice and policy and the conditions that hobble or help improvements in teaching and learning. Recent posts include “Helping principals beat the clock” and “Can educators make choices that bridge the opportunity gap?”
www.ctacusa.com/blog

TECHNOLOGY AND TEACHING
Digital Innovation in Learning Awards
Digital Promise
With the Digital Innovation in Learning Awards, Digital Promise recognizes the work of the most innovative people in education and shares their strategies. Digital Promise is a nonprofit organization authorized by Congress to spur innovation in education in order to improve the opportunity to learn for all Americans. Awards for educators, administrators, and organizations span 15 categories. Deadline for videos and applications is Aug. 24.
www.digitalpromise.org

IMPLEMENTATION TRENDS
Benchmarking Readiness Standards
Southern Regional Education Board
The Southern Regional Education Board conducted a multiyear study of how states are implementing their state college- and career-readiness standards.
www.sreb.org/1600

SCHOOL TURNAROUND
Dramatic Action, Dramatic Turnaround: The Research on School Turnaround
Center for American Progress, 2015
Although evaluation of the national School Improvement Grants program is still underway, existing research offers key lessons about what methods are most effective when turning around low-performing schools. This brief summarizes much of that research and includes case studies of four schools that have successfully increased student achievement through targeted turnaround efforts.
http://ampr.gs/1DCeZQJ

JSD STAFF
Editor: Tracy Crow
Managing editor: Sue Chevalier
Designer: Kitty Black

HOW TO GET IN TOUCH
JSD is published six times a year to promote improvement in the quality of professional learning as a means to improve student learning in K-12 schools. Contributions from members and nonmembers of Learning Forward are welcome.
Manuscripts: Manuscripts and editorial mail should be sent to Christy Colclasure (christy.colclasure@learningforward.org). Learning Forward prefers to receive manuscripts by email. Notes to assist authors in preparing a manuscript are provided at www.learningforward.org/publications/jsd/writers-guidelines. Themes for upcoming issues of JSD are available at www.learningforward.org/publications/jsd/upcoming-themes.
Advertisements: Advertisements are accepted in JSD. The JSD ad rate card is available at www.learningforward.org/publications.
Correspondence: Business correspondence, including orders for back copies, memberships, subscriptions, and remittances for advertisements, should be sent to: Learning Forward, 504 S. Locust St., Oxford, OH 45056.
Telephone: 800-727-7288.
Permissions: Learning Forward’s permission policy is available at www.learningforward.org/publications/permissions-policy.

JOURNAL OF STAFF DEVELOPMENT
ISSN 0276-928X
JSD is a benefit of membership in Learning Forward. $89 of annual membership covers a year’s subscription to JSD. JSD is published bimonthly. Periodicals postage paid at Wheelersburg, OH 45694 and additional offices. Postmaster: Send address changes to JSD, 504 S. Locust St., Oxford, OH 45056.
© Copyright, Learning Forward, 2015. All rights reserved.
The views expressed in JSD do not necessarily reflect the official positions of Learning Forward, nor are products and services being advertised endorsed by Learning Forward.
A CLEAR PATH OR CLEAR ROLES?

Which is better for teamwork: a clearly defined approach to achieving a goal or clearly specified roles for team members?

Roles are the key, according to a study of 15 multinational corporations on effectiveness of their teams and collaborative practices. “Collaboration improves when the roles of individual team members are clearly defined and well understood — when individuals feel that they can do a significant portion of their work independently,” according to “Eight ways to build collaborative teams” in Harvard Business Review.

“In addition, team members are more likely to want to collaborate if the path to achieving the team’s goal is left somewhat ambiguous. If a team perceives the task as one that requires creativity, where the approach is not yet well-known or predefined, its members are more likely to invest time and energy in collaboration.”


Collaboration in any form improves when team members mindfully apply these seven norms of collaboration. Described by Robert Garmston and Bruce Wellman in The Adaptive School: A Sourcebook for Developing Collaborative Groups, team members use the norms above to improve their collaborative practice to achieve shared goals.

Learners and facilitators can use these norms to discuss what collaborative behaviors are most important to their collective advancement. Individual learners may choose to focus on a particular norm or two in a given team meeting to strengthen their own collaborative practice.


powerful WORDS

“...the ultimate goal of collaborative learning is better teaching, better student learning, better results for every learner in schools. Excellent teams — supported by committed leaders and sustained resources — create a culture where every professional in a school takes responsibility for every student.”

— Tracy Crou, “Keys to collaboration,” pp. 10-12
**SUPPORT FOR PROFESSIONAL LEARNING TEAMS**

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

### TEACHER KNOWLEDGE, SKILLS, AND INFORMATION

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

### SCHOOL ENVIRONMENT, TOOLS, AND PROCESSES

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

### INCENTIVES

*The school will encourage learning team participation through:*
- Memberships in professional organizations and education journal subscriptions.
- Conferences and workshop attendance as teams or groups.
- Opportunities for learning team presentations.
- Celebrations, appreciation, and high team visibility.
- Exchanges (e.g. professional learning credit, business cards, time trades).
- Frequent feedback.
- Involvement in decision making about professional learning teams.
- Adjusted teacher workloads.
- Spotlighting team successes.
- Spotlighting student successes.

### TEACHER MOTIVATION AND COMMITMENT

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

KEYS to COLLABORATION

WHAT IT TAKES TO MOVE TOWARD COLLECTIVE RESPONSIBILITY

TIME

LEADERSHIP

VISION

ALIGNMENT AND ACCOUNTABILITY

CLEAR TEAM GOALS

FACILITATION SUPPORT

COLLABORATION SKILLS

TOGETHER WE CAN DO MORE
By Tracy Crow

Ask educators what they need for their own learning, and more time to collaborate with colleagues generally ranks high on the list. Educators know that when they encounter specific student learning or instructional challenges, their peers typically have insights and solutions that will be helpful. Every school has an enormous body of expertise, and educators need meaningful opportunities to tap that expertise every day.

Yet having professional learning communities on the schedule doesn’t always fulfill teachers’ collaboration needs. As the report Teachers Know Best: Teachers’ Views on Professional Development demonstrated, having a team structure in place doesn’t necessarily provide educators with the valuable collective learning they seek. Teachers surveyed weren’t satisfied overall with their professional learning communities and, in focus groups, said that collaboration fell short of the ideal. While they could cite benefits of collaboration, they believed that agendas, protocols, and shared goals are essential (Bill & Melinda Gates Foundation, 2014, pp. 5-8).

The Learning Communities standard in Learning Forward’s Standards for Professional Learning highlights the essential elements of learning communities that contribute to improved educational practices and results for all students. In such communities, learners engage in a cycle of continuous improvement and share responsibility for all students. Their learning is aligned and coherent across teams, schools, and the system (Learning Forward, 2011, pp. 24-26).

So how can schools and systems create structures and supports so educators engage in the kinds of collaborative problem solving and intentional learning that they value? What do lead learners need to consider? Here are several critical factors in supporting meaningful collaboration.

Time

When educators talk about their learning needs, they cite time as the resource they need to engage in collaborative learning. Without structures that provide time throughout the workweek, educators have no hope of participating in ongoing purposeful collaborative learning. Learning Forward’s workbook Establishing Time for Professional Learning outlines a comprehensive process school and system leaders can use to create learning time (2013).

Many school systems are responding to this need for time by creating schedules that allow teams to meet regularly before, during, or after school. Unfortunately, many of those systems do so without communicating a clear plan for using the time effectively or providing the other resources and support that make meaningful collaboration possible. There is a danger in providing time without other supports. If both educators and community members see that professional learning time is wasted, they are not likely to support changed schedules for long, given that implementing such schedules can be difficult for a school system. Time is necessary but not sufficient.

Leadership

Principals and district administrators support collaborative learning when they ensure that all educators have the resources they require, including time. However, resources aren’t enough. Learning teams benefit when school and system leaders engage as learners on the teams. Leader participation supports coherence and alignment across a school and a system. Also, when principals participate as learners on teams, they become more skillful instructional leaders, and,
most importantly, demonstrate the importance of continuous learning for all, a critical factor in creating learning cultures in schools.

**Vision**

Leaders also facilitate the creation of school and systemwide vision and goals for all learners, whether adults or students. When learners share a deep understanding of the vision and goals, they become clear about their role in helping to achieve the goals.

**Alignment and accountability**

Learning Forward’s Learning Communities standard cites the importance of alignment among school and system goals along with policies and structures to support learning communities. Such alignment prevents fragmentation among learning communities. School and system leaders intentionally align learning communities vertically and across schools. When systemwide policies support and integrate learning communities, leaders can hold teams accountable for results.

**Clear team goals**

When educators understand specifically why they are meeting, they are more likely to benefit from collaboration. In a cycle of continuous improvement, teams examine many sources of data to pinpoint student learning needs and achievement gaps and go from there to determine their own learning needs. With a guiding vision in place, and a commitment systemwide and schoowide to alignment and coherence, each team is ready to establish and strive toward achieving specific goals for themselves and their students.

**Facilitation support**

While most teachers are eager to collaborate, they don’t necessarily step into their first team meeting prepared to use the time effectively. Here’s where skillful facilitation is essential. Educators in many roles can be capable facilitators — teachers, principals, department heads, instructional coaches — anyone who has had the opportunity develop the knowledge and skills to facilitate teams of adult learners. Facilitators help to structure time use, develop team norms and agendas, and use protocols for a wide range of purposes.

**Collaboration skills**

While skilled facilitators assist high-functioning teams in meeting their goals and using time wisely, each team member also needs opportunities to understand, practice, and apply a range of collaboration skills. They may build such understanding within or beyond their team learning time — wherever they have opportunities to learn foundational skills and practices in communication, decision making, and conflict resolution, to name a few. As all team learners become more experienced, they develop deeper skills in collaboration and are able to share more equally in team leadership.

**THE ULTIMATE GOAL**

The ultimate goal of collaborative learning is better teaching, better student learning, better results for every learner in schools. Excellent teams — supported by committed leaders and sustained resources — create a culture where every professional in a school takes responsibility for every student.

**REFERENCES**


Tracy Crow (tracy.crow@learningforward.org) is Learning Forward’s director of communications.
What does successful response to intervention look like when all the pieces come together? With access to recognized experts, you’ll discover how to lead the RTI process at the site and district levels. Learn how to create a proactive process to identify students who need help, place them in the proper intervention, monitor their progress, and determine when they no longer need additional support.

- Create a school or district culture that focuses on student learning.
- Build a highly effective, collaborative core program.
- Focus core instruction on rigorous core curriculum.
- Design, analyze, and utilize common assessments to improve core instruction and guide interventions.

Register today!
solution-tree.com/RTIInstitutes
888.415.0867  #rtiaw
theme TOGETHER WE CAN DO MORE

TALK THAT TEACHES
HOW TO PROMOTE PROFESSIONAL DIALOGUE AND GROWTH
Imagine having opportunities for teams of educators to come together regularly to engage in rich conversations about teaching — conversations so rich that they address problems of practice and support educators to learn on the job (Little, 2002). The instructional leadership team — principals, coaches, and other school leaders — works together to transform instruction by developing schoolwide professional communities that help teachers learn alongside their colleagues.

What types of talk promote teachers’ professional growth? In the following vignettes, 4th-grade teachers and instructional leaders examine student work and observe classroom instruction. These learning designs encourage teachers to talk in ways that develop a shared understanding of teaching, which is instrumental to their professional growth (Lampert et al., 2013). A close look at these vignettes shows how instructional leaders establish schoolwide professional communities in which teachers and leaders continually converse about their practice.

**VIGNETTE 1: 4th-grade weekly collaborative meeting**

During these weekly 30-minute conversations, the leadership team, 4th-grade teachers, and the English language teacher discuss how teaching and learning are playing out during their instruction. Notice the conversation goes beyond talking about pacing matters (i.e., who is teaching what when) to investigating students’ mathematical thinking and the implications for instruction.

The discussion focuses on how students are making sense of fractions and how to build on these current understandings. To focus their discussion, they examine a common formative assessment task given to students earlier that morning: four questions about comparing fractions.

The coach begins the conversation by asking teachers to list everything students seem to understand about fractions so far. The group looks through student work to notice how the children are making sense of the problems and what representations they have used to do so.

**Teacher 1:** I’m noticing about three-fourths of my students got the problems correct and can draw a picture to compare fractions.

**Teacher 2:** I had all but four students get the comparison fractions correct. Most of my students used drawings, too.

**English language teacher:** Are their drawings accurate?

**Principal:** It looks like most of the students are drawing both of the fractions, using the same size whole. So that’s good. They then appear to be comparing the shaded portions.

The teachers begin to look back through student work to assess more closely how students used the drawings. The math coach is glad this question came up. In these teachers’ classrooms earlier that day, she had noticed that many students were using drawings to compare fractions but not many were using their knowledge of how far away the fractions were from landmark numbers. This is a problem of practice she wanted to raise in today’s meeting.

**Principal:** When is drawing a picture helpful, and when is it not?

**English language teacher:** Don’t we always want kids to justify their thinking?

**Math coach:** We know that kids and adults use draw-
ings to solve all types of problems. Kids initially rely on drawings and partitioning to help them make sense of fractions.

Teacher 2: Right. It seems we want kids to use pictures at first. But sometimes pictures are not helpful. For example, when they get complicated fractions like 6/7, it’s hard for them to draw.

Math coach: That’s true. Eventually, we want them not to rely on drawing fractional amounts in order to compare them. For example, in the first problem, students were asked to compare 7/8 and 4/5. We would like to see them compare both fractions to a whole. Each fraction is just one piece away from a whole — where a 1/8-sized piece is smaller than a 1/5-sized piece. Therefore, 7/8 is greater than 4/5. Almost all of these pairs of fractions (points to student work) could have been compared using similar reasoning — comparing to landmark fractions.

Teacher 1: It sounds like you’re saying drawing pictures helps support students when they are making sense of what a fraction is, but eventually we want students to move away from drawings. Is that right?

During this collaborative meeting, with the support of the math coach and principal, teachers talked with their colleagues about students’ reasoning around fractions and, later in the meeting, considered changes in instruction they might want to make in response to what they learned.

VIGNETTE 2:
Reflections on a classroom observation

Here is another vignette with the same group. The leadership team had designed an activity — an observation of a colleague’s lesson in mathematics — to encourage teachers to envision how they might support meaningful student discourse. Before beginning the observations, the coach prompted the group to note evidence of student discourse and questions the teacher asked to support higher-level thinking in students. As this conversation begins, the group has finished the observation and is reflecting on the classroom visit.

Math coach: We’ve talked about the importance of the questions teachers ask to keep students thinking about the big math ideas for the day. During our observation, did you see any questions that the teacher asked that you think prompted higher-level thinking?

Teacher 1: I heard, “What generalization can you make about combining fractions with the same denominator?” and “How can you justify your understanding of that?”

Teacher 2: I heard a student say she thought 1/4 and 4/16 and 8/32 were the same amount. And the teacher asked, “How did you decide they were equivalent?”

Principal: I also heard some students in a group discussing a question the teacher had asked: “How can you combine fractions when they have different denominators?”

Teacher 3: I’m realizing it is not enough to just ask students questions. It’s the type of question being asked that allows the students to think in ways that allow them to make sense of the ideas.

Math coach: We can come up with questions that require a single answer response, or we can also press students to justify why their ideas make sense. Giving kids opportunities to make sense, listening to and watching what they are doing, helps us know how they are making sense of the math and what questions to ask next.

Teacher 3: It seems like the questions that we ask can help make the math visible. I might say, “Show me why” or “Show another way.” We saw students being asked to explain why and show their reasoning.

Principal: What will you do in your classroom tomorrow as a result of today’s work? Let’s share our plans now, and then we’ll share them with the rest of the staff tomorrow.

In this second vignette, teachers and instructional leaders engaged in a classroom visit, after which they discussed pedagogy, specifically the types of questions that elicited justifications from students and opened their thinking to others. Teachers gained images of the instructional practices of their colleague, who is, as are all teachers in the school, working toward reorganizing her practices to better address students’ immediate learning needs.

After the observation, a facilitator with expertise in teaching mathematics and supporting teachers’ learning led a targeted conversation. Teachers were able to make connections between the levels of student discourse and the types of questions teachers asked. Finally, the principal pressed the teachers to make public commitments for what they would try out in their classrooms as a result of the experience.

In the following weeks, the principal and coach will visit these teachers’ classrooms, looking for their attempts to formulate and ask questions that elicit students’ ideas. Data gathered from these visits will help the team plan learning to further develop teachers’ understanding of how to respond to ideas elicited from students.

INSTRUCTIONAL LEADERS’ ROLES

These vignettes show teachers and instructional leaders coming together to think about key matters of teaching, students, and content in the context of their own classrooms. Carving out time during the school day is challenging, but it is imperative to support teacher’s learning goals.

However, instructional leaders go beyond merely creating structures that provide teachers time and space to collaborate. Rather, effective instructional leaders play an active role in promoting and contributing to talk among teachers. While the
On-site professional learning with sustainable results

Bring Corwin authors to your school or district to advance your professional learning journey. Whether you are just starting out, or you want to improve upon the work your educators are already doing, let us support you with the expertise of our team of authors who will:

- Accommodate needs ranging from small group sessions to **multi-year, statewide training**
- **Personalize** the content to meet your school or district’s initiatives
- **Collaborate** with you to develop an ongoing professional learning plan
- Support **deep implementation** of key concepts to **build capacity**

Advance your professional development with Corwin!
Call (800) 831-6640 or visit www.corwin.com/author-consulting
principal and coach have unique roles, the pair plans supports collaboratively. Here are important features that influence leaders’ ability to create a culture of learning and growth.

**SHARED VISION FOR SUPPORTING TEACHERS’ COLLECTIVE LEARNING**

Just as children are sense makers, adults, too, are sense makers. To make sense of the content they teach in relation to how students learn it, teachers need ongoing opportunities to examine the pedagogy that supports student learning.

If leaders aim to support instructional improvement across an entire school, they must change prevailing norms in schools where teachers have typically worked individually in their own classrooms, experiencing few collaborative activities. Instead, leaders must foster a culture of collaboration that supports the collective improvement of teaching (Fullan, 2010).

Creating a culture of collaboration requires that leaders challenge long-established norms of privacy and strive to create a culture in which teachers can take risks in front of their colleagues and the leaders who evaluate them (Bryk & Schneider, 2003). A strong professional community allows teachers the degree of trust that lets them try out new instructional practices without fear of being judged. One principal enforces this norm by telling her staff, “You can’t look good and get better at the same time.”

**SHARED VISION FOR HIGH-QUALITY INSTRUCTION**

Over the past two decades, prominent professional organizations have articulated goals for student learning (e.g. NGACBP & CCSSO, 2010; NCTM, 2000; NGSS, 2013). These rigorous goals carry implications for instruction, requiring that teachers build on students’ reasoning in solving challenging tasks.

Principals and coaches need to develop a shared vision for what high-quality teaching looks like. This vision serves as an endpoint for the instructional practices they intend teachers to develop in the long run. Identifying a destination for teachers’ development allows the team to design learning that further teachers’ progress towards refining their practices.

Instructional leaders can shape conversations that encourage teachers to develop a shared conception or vision of what high-quality instruction entails. All educators continually refine their vision as they learn alongside one another.

**IDENTIFYING COHESIVE GOALS FOR TEACHER LEARNING**

Identifying goals for teachers as they design professional learning is likewise an essential aspect of instructional leadership. Such goals should grow from an assessment of teachers’ current understandings and instructional practices.

To gauge what teachers currently know and can do, leaders have to be present in classrooms regularly. For example, in the first vignette, the coach and principal had visited all 4th-grade classrooms the morning before the collaborative meeting and witnessed that many students were using drawings to represent fractions. The coach and principal used this information to prompt a conversation about instruction that supports students to reason in more sophisticated ways.

Time spent in the classroom allows instructional leaders to maintain an ongoing cycle of assessing teachers’ practices, monitoring their progress in trying new instructional strategies, and using the information to plan learning for teachers.

**DESIGNING LEARNING FOR TEACHERS**

Instructional leaders should be purposeful in designing learning for teachers that is ongoing, embedded in teachers’ daily work, and allows teachers to develop a shared language for talking about practice (Desimone, 2011; Gibbons & Cobb, 2015). Here are examples of learning designs that have proven fruitful in supporting teachers’ understanding and development of high-quality teaching:

- **Examine student work.** Look at how students responded to a task (Little, Gearhart, Curry, & Kafka, 2003);
- **Co-plan instruction.** Work with other teachers to identify instructional tasks and develop ways to assess student understanding (Smith, Bill, & Hughes, 2008);
- **View video recordings of teaching.** Share and discuss excerpts of classroom videos (Sherin & van Es, 2003);
- **Engage in lesson study or studio day.** Plan a lesson together and experience the enactment (Fernandez & Yoshida, 2004; Higgins, 2013);
- **Engage in instructional rounds.** Visit and observe other teachers’ classrooms (City, Elmore, Fiarman, & Teitel, 2009); and
- **Receive follow-up support in classrooms.** Get one-on-one assistance in classrooms to implement what teachers have learned (e.g., through co-teaching) (West & Cameron, 2013).

Ensuring teachers engage in different types of learning supports them in learning about different aspects of their work—including but not limited to the discipline itself, how students learn particular disciplinary ideas, and the pedagogies associated with student learning of those ideas (Ball & Cohen, 1999). The formal structures that allow teachers to converse with school leaders and one another about issues of teaching and learning also trigger increased informal but valuable conversations in hallways or the staff lounge.

**MOVING TOWARD RICH PROFESSIONAL DIALOGUE THAT SUPPORTS GROWTH**

Grounding conversation in classroom artifacts furnishes a key piece for professional dialogue that moves beyond generali-
ties to concrete elements of practice. The first vignette showed how the use of student work grounded the conversation in ways students were representing fractions and whether teachers needed to encourage students to move away from those representations.

In the second vignette, teachers used their observations during a lesson to examine the types of questioning associated with promoting higher-level thinking. Keeping in mind her goals for teachers’ learning, the mathematics coach targeted conversations toward ideas she wanted teachers to consider and discuss with one another. Importantly, the talk was productive because the coach consistently focused on student learning grounded in the context of mathematics the students were currently attempting.

**MAKING USE OF PROFESSIONAL DIALOGUE FOR SCHOOLWIDE IMPROVEMENT**

To support professional dialogues and growth, instructional leaders need to facilitate ongoing professional conversations around teaching and learning, coordinating a delicate balance between pressing teachers to take up new practices and providing supports for them to do so.

Rich conversations must happen not only in grade-level teams or with a department of early adopters, but schoolwide, crossing grade-level teams and departments. These interactions support the development of schoolwide professional communities (Stoll, Bolam, McMahon, Wallace, & Thomas, 2006). Effective practice becomes more widely available and accessible on a regular basis, generating commitments among educators to continually learn and improve instruction in order to strengthen student learning.

**REFERENCES**


Lynsey Gibbons (lgibbons@bu.edu) is an assistant professor of mathematics education at Boston University. Melinda Knapp (melinda.c.knapp@gmail.com) is an instructor for Oregon State University-Cascades and a mathematics coach in Bend, Oregon.
At Marylin Avenue School in Livermore, California, student achievement more than doubled from 2006 to 2013, even as the number of socioeconomically disadvantaged students increased from 66% to 88% and English language learner populations from 57% to 64%. Key to this continued growth in student achievement was the evolution of strategies that allowed teachers to continuously learn together and from each other to improve their practice.

These strategies include the data team process, lesson study, peer observations, and lab lessons. Using these practices together, teachers identified needs, set goals, and planned professional learning that was job-embedded, ongoing, and focused on the curriculum being taught (Odden, 2009).

Marylin’s learning system allowed teachers to take risks and innovate and encouraged everyone to measure for effectiveness. Any school initiative, including adult learning, has to be judged by its effect on student learning. Consequently, the effectiveness of any professional learning has to be determined by the degree to which it increases student achievement. From 2006 to 2013, since engaging in these staff learning practices, Marylin’s test scores rose from 28% to 71% proficient in math and from 24% to 58% proficient in English language arts.

Before 2006, learning occurred in isolation, was not continuous, and was rarely measured for its effect on student learning. School leaders began to ask: What are teachers learning? How does their learning connect to the school...
plan? What learning makes it back to their classrooms, and how does the school know if the new learning impacts student achievement?

THE LEARNING SHIFT

The learning shift came after staff read Douglas Reeves’ Accountability in Action (2005), which led the staff to realize that there were demographically similar schools that were much higher performing. Reading this and other research together, the staff identified highly effective practices and school systems. They began to ask what these schools were doing and also wondered whether their own expectations of students were too low.

In addition to reading research together, the staff gathered information from higher-performing schools. The principal and teachers held phone conferences with schools across the country and visited schools within the state. The visiting teams shared the strategies they learned with the rest of the staff.

The staff compared these strategies to what they were learning from their various book clubs. Their visits to other schools and reading of research led to a growing knowledge base of best practices and a culture of learning. Staff members became excited by the intellectual stimulation and by the changing mindset that they could make a difference for all students. They were becoming a learning community.

As teachers were learning together, they realized that the school’s systems were not aligned. Everyone was working hard, but they were all over the place, and much of what they were doing was disconnected from the goals in the
The process of collaboratively analyzing student work led to other effective practices for teacher learning that also resulted in improved student performance. The focused collaboration around student work led to the development of common lessons.

The data team process was a very powerful structure. It helped us fine-tune our assessments and our instruction. We could directly connect our teaching with how the students performed. It helped us fine-tune our assessments and our instruction. “The data team was a very powerful structure. It helped us fine-tune our assessments and our instruction. We could directly connect our teaching with how the students performed.”

Teacher teams formatively evaluating their instructional practices resulted in growth in student achievement. The 3rd-grade team was the first to use the data team process. From January to April 2006, 3rd-grade math scores increased from 28% to 52% proficient. The next year, student proficiency in math rose to 72%.

“The increase in scores was so affirming,” Abri said. “It showed us that our students’ outcomes were directly related to the quality of our instruction. This fueled a cycle of improvement for both teaching and learning.”

As other teams adopted this strategy, teachers began to see how their learning and efforts were connected to student gains. A growth mindset on the part of teachers started to take off and, with it, innovation.

With the data team process, Marylin had immediate success with math, but growth with English language arts was more gradual. Teachers searched for a strategy that would accelerate literacy growth. In 2008, 2nd-grade teacher Kerry Barger introduced a process for targeting and differentiating instruction in English language arts. “Because innovation was encouraged by the principal, I felt inspired to experiment and to continuously search for more effective practices,” she said.

As a result, student proficiency increased from 30% to 75%. Because there were systems in place to monitor student performance and identify effective practices, this teacher’s discovery became a schoolwide practice. Every teacher at every grade level was continuously learning from his or her own data and from the innovative practices of other teachers. Professional learning occurred every time teachers met to collaborate.

The process of collaboratively analyzing student work led to other effective practices for teacher learning that also resulted in improved student performance. The focused collaboration around student work led to the development of common lessons.

After designing a lesson together, teachers would observe each other teach the lesson. Observers provided feedback, and teachers adjusted their lessons based on those observations. Later, teachers would measure how effective they were by analyzing results from a common formative assessment, then made adjustments or revisions based on their assessment data.

While all teachers learned from this process, newer teachers especially benefitted. Most importantly, the data team process in combination with lesson study ensured that all students had access to a guaranteed and viable curriculum (Marzano, 2003) as well as greater equity among classrooms.

Peer observations grew from the data team process and lesson study. Peer observation is a learning strategy where teachers identified a practice they wanted to improve by observing another teacher or the Title I reading specialist successfully implementing the identified practice.

Other times, teachers would request another teacher to observe them teach the identified practice and provide feedback. The principal and other support staff covered classrooms. Most
of the time, teachers initiated the peer observations themselves. However, there were occasions when the principal invited teachers to observe a colleague teaching a certain strategy or practice.

LAB LESSONS
Peer observations evolved into a system that allows grade-level teams to participate in observing a teacher’s practice together. Through the data team process, a grade-level team identifies a highly effective instructional practice to observe and determine which teacher to observe teaching the practice.

After the observation, the team then debriefs the lesson with literacy coaches. The debrief includes a time to discuss what they saw and to ask questions. Later in the day, the observers teach the same lesson. Because they observed the practice, asked clarifying questions, and listened to the literacy coaches’ feedback, each teacher has a better understanding of the instructional practice.

To make this happen without the cost of substitute teachers, the team coordinates a time with an adjacent grade-level team so that observing teachers can be released to participate in the lab lesson. Students are sent to neighboring classrooms for buddy reading or writing. Lab lessons are a way to align curriculum throughout the school and further refine instructional practices.

NO MORE STAFF MEETINGS
Marylin’s staff meetings evolved into professional learning sessions. A school leadership team planned professional learning — led by the principal and teacher leaders — for the whole staff. The leadership team set student achievement goals and created the plan for achieving those goals. The leadership team also determined how to support implementation of the plan, including how to allocate resources and what type of professional learning would help the school meet its goals.

This system for providing whole-staff professional development would not have been possible before the school developed a collaborative culture focused on results, a mission and vision, and systems that allowed teachers to access the knowledge that was dispersed among various staff members.

EFFECT ON STUDENT ACHIEVEMENT
Celebrating successes and recognizing teachers and students for their achievement and efforts led to the development of a growth mindset (Dweck, 2007). Teachers began to see the connection between effort and success. They began to see learning as a continuous lifelong process. Moreover, the way they were learning together changed the school’s culture.

Teacher teams shifted their conversations to student needs and the strategies necessary to increase their learning. The immediate gains in student achievement from teacher collaboration around common formative assessments led to increased momentum and support for the school plan. Teacher learning and its effect on student learning were becoming visible.

From 2006 to 2013, the school’s Academic Performance Index increased from 645 to 834, and the similar school ranking increased from 1 to 10. Attendance increased from 94% to 97%. Students used to list their friends, teachers, and recess as their three favorite things about school. After four years of continued teacher and student learning, students listed teachers, math, and reading as their three favorite things about school.

As a result of the school’s success, visitors from around the state and the country have come to learn from the staff. Researcher and author Andy Hargreaves spent a day talking with staff about what teachers did to improve, and Victoria Bernhardt wrote two books about the school’s work with data and response to intervention. The Leadership and Learning Center asked the school to submit a chapter about its success with the data team process. The data and the attention from others validated the school’s work.

DO WHAT WORKS BEST
In All Systems Go, Michael Fullan (2010) says that, in order for schools and school systems to improve, they need to build their collective capacity. Marylin didn’t get better because the principal, a district office, or the state department imposed their vision or strategies for improvement.

Its success happened because talented and experienced teachers were encouraged to do what they thought would work for students and because school leaders created systems that allowed the whole staff to learn from one another for the benefit of all students.

REFERENCES

Jeff Keller (jkeller@stocktonusd.net) is director of educational services for the Stockton (California) Unified School District. Marfel Kusko (mkusko@lvjusd.k12.ca.us) is the Title I teacher at Marylin Avenue School in Livermore, California.
theme TOGETHER WE CAN DO MORE

In the DRIVER’S SEAT

TEACHER-LED MODEL MOVES LEARNING IN THE RIGHT DIRECTION
What happens when teachers are given funding and time to identify and develop targeted and innovative professional learning? This article focuses on lessons learned from grants funded through the California Department of Education that were designed to do just this.

As the state and the nation consider the best approaches to professional learning for educators (Gulamhussein, 2013) it is important to understand how this model worked and how it might inform state and national policy and practice. Common Core implementation is requiring the development of new models of professional growth in order to provide teachers with the support and relevant experience necessary to build their skills and expertise.

The grants were part of California’s Teacher-Based Reform (T-BAR) program. (To learn more about the T-BAR program, see box at right.) The program’s intent was to support teacher-driven professional development by allowing teachers to select professional learning that would meet their personal learning needs and be responsive to their local school context. Individual projects varied widely in subject area, targeted grade levels, and project details. The specific anticipated outcomes of each project also varied, although actionable professional learning enabling better support for student learning was a consistent theme.

The findings reported here are based primarily on a survey, administered in fall 2014, to all 287 participating teachers in one of the state T-BAR regions. We also conducted a case study examination of three teacher teams to augment survey findings. Questions probed the extent to which teachers’ T-BAR project influenced their own professional growth, collaboration, and engagement, and how what they learned and did impacted their students, schools, and districts.

TEACHER SURVEY SUMMARY
Survey results suggest that, even with the widely varying project foci and local contexts, the majority of teachers felt that their participation:

• Increased confidence and pedagogical knowledge;
• Improved classroom instruction strategies;
• Eased the transition to Common Core standards and expectations; and
• Increased collaboration and leadership.

Teacher professional growth. As the table on p. 26 illustrates, the majority of the teachers report increased confidence and skills, improved ability to identify and meet individual student needs as well as improvements in student engagement and learning outcomes.

ABOUT THE T-BAR PROGRAM
• The T-BAR program is funded by the U.S. Department of Education’s Improving Teacher Quality State Grants Program (ITQ), which is designed to provide high-quality professional learning to K-12 educators. State departments of education administer ITQ funds in their respective states.
• The T-BAR model was based, in part, on the evaluation findings from an earlier ITQ grant, the Teacher Achievement Award Program (TAAP), which found that “by linking professional development directly to school-based projects, TAAP was able to capitalize on each of the following principles: Teachers are more likely to learn those things that interest them; teachers are more likely to learn those things they perceive a need to know; and, learning is reinforced through use” (California Postsecondary Education Commission, n.d.).
• The T-BAR program has provided over $9 million in funding, most of which (about 70%) provides direct support for the professional learning of participating teachers. Between 2009 and 2012, T-BAR served 749 teachers drawn from 99 districts across California, 41% of which are federally designated as high need.
Collaboration and leadership. Other outcomes for teachers include increased collaboration opportunities and efforts, as well as growth in their ability and opportunity to provide leadership at their site and, in some cases, district. For example:

- Nearly all respondents (89% to 92%) report routinely collaborating with members of their team and other teachers at their school. Somewhat fewer (65% to 77%) report routinely collaborating with teachers outside their schools or disseminating learning with other teachers via trainings, workshops, conferences, or publications.
- A high proportion (60% or more) of the teachers report taking on additional teacher leadership roles — e.g. serving as mentors, coaches, participating in peer observations — since having participated in the grant activities. About a quarter have taken formal leadership roles as instructional coaches, department lead or chair, or providing support for beginning teachers. A few (3% to 6%) have become district or school administrators.

As one teacher said: “The ability to collaborate professionally with colleagues at my site helped prepare me to effectively do so with many teachers across my district.”

School and district changes. In terms of how this model may have contributed to systemic changes at the school or district level, evidence is encouraging but mixed. Most teachers report more collaboration and mutual respect among their colleagues and some specific systemic changes. Smaller proportions of teachers report widespread adoption of their grant-funded project, changes in organizational structures, or shifts in their interactions with their administrators. Specific survey outcomes appear in the table above left.

The final question on the teacher survey asked teachers to describe the area where the grant had the biggest impact. Most commonly mentioned were increased collaboration, a growth in confidence, and overall professional growth. Several examples from these comments include:

- “It has opened my eyes to the enormous amount of support available to teachers and how it can impact your classroom if you take the time to reach out.”
- “Looking at data regularly with colleagues, reflecting on my expectations, and creating indicators for success. Most importantly, I’ve become a leader in this kind of professional development, and each year, more teachers join us.”
- “The leadership opportunity and the passion have impacted my confidence to teach other teachers and move into a teacher mentor or trainer role.”
- “The ability to have developed a schoolwide interest in student-centered learning, spent time reflecting on my teaching practice with colleagues, and creating our own pathways toward goals, where teachers and administrators work as partners, has made for a profoundly satisfying and effective work environment.”

Overall, the teacher survey findings showed that the majority of teachers felt that participating in the T-BAR grant had a positive impact on their teaching practice, their collaborations with colleagues, and student learning outcomes. Fewer teachers cited changes in levels of administrative support, trust between

---

**SCHOOL- AND DISTRICT-LEVEL IMPACT**

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Agree/ strongly agree responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased support for teacher collaboration and leadership.</td>
<td>75%</td>
</tr>
<tr>
<td>Increased opportunities to influence teaching practices.</td>
<td>72%</td>
</tr>
<tr>
<td>Greater trust between teachers and administrators.</td>
<td>65%</td>
</tr>
<tr>
<td>Established grade- or content-level routines.</td>
<td>58%</td>
</tr>
<tr>
<td>Common professional learning time for teachers.</td>
<td>54%</td>
</tr>
<tr>
<td>School or district has formally adopted grant-related pedagogy.</td>
<td>33%</td>
</tr>
<tr>
<td>Changes in organization structures.</td>
<td>32%</td>
</tr>
<tr>
<td>Shifts in amount of support and feedback received from administrator.</td>
<td>24%</td>
</tr>
</tbody>
</table>

**TEACHER PROFESSIONAL GROWTH**

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Agree/ strongly agree responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student learning outcomes have changed.</td>
<td>94%</td>
</tr>
<tr>
<td>Increased confidence.</td>
<td>90%</td>
</tr>
<tr>
<td>Integration of new strategies into daily practice.</td>
<td>91%</td>
</tr>
<tr>
<td>Creating new curriculum to meet student needs.</td>
<td>89%</td>
</tr>
<tr>
<td>Increased capacity to meet student needs.</td>
<td>82%</td>
</tr>
<tr>
<td>Think more systematically about teaching practice.</td>
<td>75%</td>
</tr>
<tr>
<td>Shifts in expectations of and ability to engage students.</td>
<td>66%</td>
</tr>
<tr>
<td>Ability to deliver high-quality instruction.</td>
<td>66%</td>
</tr>
</tbody>
</table>
administrators and teachers, and district-level changes based on the work.

TEAM CASE STUDY LESSONS LEARNED

Case study data included team planning forms, team interviews, and team reports from three teams. The case study results align with and elaborate on the themes identified from survey responses. Each team focused on different content and grade levels, but their activities had some common features that impacted success, including:

- A focus on a specific targeted learning need and population;
- A recognition of the value of collaboration to both their own learning and the success of their project; and
- Ongoing efforts to refine their interventions and activities as they progressed over time.

Overarching themes from the case studies center on collaboration, shared leadership and administrative support, and flexibility to context.

COLLABORATION

Teachers frequently mentioned having dedicated time to collaborate as a valuable component of the grant. For example, one team of teachers said that participating in professional learning together and having discussions about shared challenges and goals helped them become a much stronger learning community. The teams spoke about the power of collaborating on shared goals. As one elementary school teacher put it, “We needed observation, planning, and discussion time. So I think that is where most of our professional development has come from. Having someone come in to model or where we can watch each other. That idea of not only talking about what we are doing but seeing it in action.”

Teachers described how building a collaborative community impacted their practice and gave them additional tools, resources, and information to build their skills and feel more successful. For example, several teachers on one team said that collaborating with their colleagues had shifted their thinking and provided support that helped them realize that they could help all students, even those who were having serious challenges. The teams also noted seeing increases in student engagement as a result of the work they were doing together.

SHARED LEADERSHIP AND ADMINISTRATIVE SUPPORT

Having administrators and district leaders support the work is important for sustainability and spread. There were contrasts among the teams in how they worked together and how active their administrators were in the ongoing work.

One team involved the principal on the project from the beginning. The teachers and principal attended a professional learning session together and developed a shared language. The principal supported the work the teachers were doing consistently and continued to provide dedicated time for the team to meet.

Another team encountered some initial resistance from the district. They reported that working to overcome this resistance brought them together and helped them learn how to advocate as a team. Eventually, this team began receiving more support from colleagues and administrators after they made initial progress and developed resources to share.

The third team reported that one key vice principal was involved and advocated for their work. By the end of the grant, this team had started to gain more support from the district and was sharing their work with teachers from other schools.

The impact of administrative support — or lack thereof — was particularly important in terms of the extent to which teams were able to share their learning across the system and impact either school or district practice as well as evaluate their efforts using student level data collected at the school or district level.

FLEXIBILITY TO CONTEXT

The case studies illuminate the importance of context. Not only does the local context shape the focus of individual projects, but it also presents many of the implementation challenges teams face.

For example, local context impacted how widely colleagues appreciated or adopted a new strategy or approach, the extent to which they had or gained administrative support, and the extent to which they actively disseminated their learning among colleagues.

In addition, giving teams flexibility to adjust and modify their original plans over the course of their work was an important component of this model. Teams commonly mentioned how important it was to be able to refine their approach as they started doing the actual work and learned what additional steps they needed to take to reach their goal. Being flexible in allowing teachers to guide their learning is an important component in any professional growth model.

RECOMMENDATIONS

Results from the T-BAR survey and case studies suggest that the majority of T-BAR teachers found strong and lasting value from their participation in the project. Teachers report increased confidence and improved pedagogical practice, learning new content and teaching strategies, and an appreciation for the value of collaborative learning with their peers. Many report increased opportunities to develop as teacher leaders, sharing their new learning with other teachers at their school and/or district, and becoming mentors or coaches.

While individual teachers report positive results in developing teaching strategies and improving student learning, there is less evidence that this learning is being translated into policy or supported via organizational changes. Survey findings suggest that administrative support is critical to system change and facili-

Continued on p. 32
In *Cultures Built to Last*, Rick DuFour and Michael Fullan (2013) argue that widespread, systemic change is possible not only within schools but across districts through a focus on building culture. A group of educational leaders in Rhode Island believe that collaborative learning through an extended professional learning community can lead to the systemic changes necessary to improve learning and teaching.

In fall 2013, eight school districts in Rhode Island formed the East Bay Professional Learning Community (www.ebecplc.org) to launch a joint effort to develop a culture of assessment literacy through ongoing professional learning focused on team-specific action plans tightly aligned to school, district, and state initiatives. To accomplish this, the districts pooled their funding to engage a national expert to coach and guide their work. The goal was to create a professional learning community that would develop understanding and application of assessment for learning at the classroom and building levels.

Using their shared understanding of research and best practices depicted in Learning Forward’s *Standards for Professional Learning* (Learning Forward, 2011), district leaders developed a three-year plan steeped in action research. They based their professional learning design on the following shared beliefs:

- Three to five years of ongoing support is necessary to change practice and school culture.
- A differentiated approach to professional development will meet the diverse needs of learners within and across schools.
- Collaboration and shared expertise of educators are powerful tools.
- Technology is instrumental in supporting collaboration and sharing of resources and artifacts. Tools include a website, shared Google Drive folders, Google Forms, Google Hangouts, team-developed resources, presentations, and videos.
- Consultation with a national expert can provide access to the most promising evidence-based practices of assessment literacy.
- Purposeful collaboration with a qualified consultant supports districts
Two 1st-grade students work on informational writing about spiders. Students give each other feedback, then edit their own writing. The process takes about two weeks to complete.

through the challenges of changing school culture and continuous improvement.

Early results of this collaborative professional development are promising. To embed professional learning into the school day, teams build action plans requiring application of assessment strategies in their classrooms. Teams then share their action plans and data for peer feedback and revision during scheduled cross-district workshops, strengthening the plans and the culture of collaboration.

The consultant personalizes the sessions to meet team needs based on survey feedback. Teams use a website to share resources, showcase work samples, and provide a safe environment for virtual collaboration across districts.

FOCUS ON ASSESSMENT

Like many districts across the United States, districts in the collaborative are rethinking effective assessment practices to balance the weight and influence of high-stakes testing with assessment data more closely connected to improving teaching and learning.

The districts’ focus on assessment serves as an overarching umbrella for related areas of concerns, such as overassessing and the misalignment and misuse of standardized assessments, the limitations of current classroom-level assessments, resistance to standards-based grading, and the lack of meaningful data discussions within schools.

Each participating district has two to five small teams of teachers that span all subject areas, kindergarten through 12th grade. Teams use a variety of best practice strategies to impact changes within their individual schools and districts, including working directly with the external consultant, engaging in self-selected action research, and embracing collaborative structures to learn with and from their colleagues.

LEARNING WITH THE BEST

Within this professional learning model, districts own the content and
Although technology use is increasing, the real work around technology will begin in year three. Teachers will use Google Hangouts to collaborate with the consultant and with each other. Teams will use technology to create flipped professional development on assessment literacy to build capacity and sustainability in the districts. This training will allow the work to spread to teachers who did not participate in the three-year project. Teachers who have been trained in the three-year project will carry this work forward in the districts.

In the first year, professional learning focused on establishing a foundational understanding of assessment for learning and the connections to other initiatives such as curriculum implementation, developing formative and summative assessments, and increased use of data to inform instructional improvements.

With this foundation in place, school-based teams engaged in action research during year two to explore, gather data, and show the impact on teaching and learning within a culture of assessment literacy.

The use of action research at the school and classroom level was new to many of the school-based teams. Teams used collaborative protocols to examine and provide feedback to each other’s developing action plans. In addition, teams developed strategies and protocols to assess student work and analyze the associated data. This work led to the questions necessary to engage in continuous improvement at the classroom, building, school and district levels.

Many teams struggled with defining their action research question, and the consultant coached them in best practice strategies to align their questions to what the data indicated. To build team members’ capacity to coach each other and facilitate data-driven conversations at the school level, the consultant modeled the process and gradually required them to engage in peer feedback within their teams and other participating teams.

Even at the early stages of action research, the districts are seeing increases in student achievement and the application of best practices across classrooms, schools, and districts. Each team has presented its learning on the shifts in assessment practices and the connected data at both the building level and in professional learning sessions. For example, at a recent whole-group session, teams from five districts brought evidence of their student achievement gains. Two teams illustrated gains in reading, another two in writing across the curriculum, and one in math. The teams associated the greatest gains from the increased expectation for student self-reflection and ownership of their data.

Collaboration within teams, between schools, and even among districts is generating shared conversation, critical re-

format. However, district leaders rely on a consultant to introduce new ideas and provide ongoing inspiration. Working with the consultant, they create coherence and clarity across districts, receive guidance on systems integration, and benefit from ongoing validation and feedback on the progress toward meeting their action plans.

The consultant supports this work by coaching teams in building comprehensive and balanced assessment systems with an emphasis on rigor, relevance, and relationships. After providing an overview of research-based strategies, the consultant gave guided feedback and coaching to each team. For example, teachers learned about student data folios, then developed and implemented the data folios to promote student ownership of their data and learning. One teacher team, after successfully integrating this process into its regular assessment routines, noted that assessment literacy training, such as the use of data folios, has had a ripple effect on improving their instructional practice with a laser-like focus on continuous improvement. Further, as students and teachers across the districts increased their understanding of the importance of learning targets, students took initiative in the learning process.

All teams reported that the increase in student initiative led to increased student engagement and voice. To further embrace student engagement, the consultant mentored teams on the use of authentic assessment for learning. Teacher teams collaborated on authentic tasks, and the consultant coached them on monitoring student achievement of the established targets as professional learning communities.

The consultant worked closely with the teams on continuing their professional dialogue to support individual and team reflection on implementation of research-based assessment strategies. Teachers report feeling empowered by their ability to provide timely, specific, and actionable feedback. As one teacher said, “Through the use of Google collaborative documents, I am able to embed actionable feedback into my student work in real time. I have seen such an improvement in writing in my class as a result.”

The use of technology and 21st-century skills is becoming ubiquitous. Teams are using technology to collaborate across districts and with the consultant. More importantly, teams are using technology to improve their assessment practices. For example, the consultant worked with teachers to build digital assessment strategies to provide immediate feedback for students and quick data analysis for teachers.

Although technology use is increasing, the real work around
view, and mutual responsibility. As teams refine their action research plans and reflect on input from their peers, they realize the benefits of feedback, questions, and coaching of their cross-district colleagues. Teams are challenging each other to consider different perspectives, resulting in more effective action plans. One district shared the strategy of plan, do, study, act cycle of continuous inquiry across districts. The adoption of this strategy is evident throughout several action research projects and team presentations beyond the originating district.

During each in-person session, the external consultant provides multiple opportunities and formats for teams to report out to the multidistrict group. Teams meet by school, district, grade level, or content area to share the status of their action research. Within this design, teams are learning from internal and external experts to develop a deeper understanding of the impact of assessment literacy across a variety of school settings, grade levels, and content areas.

The consultant has been effective in helping teams realize the power of collaboration and has encouraged teachers and leaders alike to hone their coaching skills to strengthen and sustain their professional learning. One teacher said, “As educational leaders, we need to be prepared with the right questions, prompts, and strategies to support moving in the right direction day by day, team by team, and moment by moment.”

To build leader capacity, the districts are encouraging the development of teachers as leaders. The districts have quickly realized that, as one principal said, “we need a team approach. I cannot drive this work without the dedication and commitment of my teacher leaders.”

Strong coaching is essential to the next phase to ensure that districts have the capacity to develop, carry out, and monitor action plans that will sustain continuous improvement. In the third year, participating teams will expand their role in establishing school-based models of assessment literacy in action and coaching their colleagues to engage in the practices that have positively impacted learning in their classrooms. The districts have committed to providing continued opportunity for regular collaboration and common planning time to support teachers in their continuous improvement efforts.

FEEDBACK

The collaborative teams recognized the importance of ongoing evaluation of the impact of the professional learning series on teacher practice. To measure the impact and adjust the professional learning to meet the unique needs of the adult learners, participants complete surveys regularly using Google Forms. Halfway through the three-year initiative, consistent themes and areas of success have emerged.

Significantly, over 50% of responses acknowledge the benefit of collaborative team time. One participant said, “We are getting a lot of collaboration accomplished, having the time to do so in the work periods. We are already excited at the positive change in students’ attitudes when self-monitoring progress, making goals, and in conferences with teachers.”

Trends in the early survey responses also highlight the value of feedback, modeling, protocols, and differentiated support from the external consultant. Some of the supports cited included small breakout sessions on varied topics on assessment literacy and specific feedback for the teams so that they could move forward with their action plans.

A noteworthy trend in the responses points to the value of learning from other districts and schools. As one participant said, “Getting feedback from other districts within the framework of critical friends was quite helpful — pushed our thinking and assisted greatly in the refinement of our objectives. That process in itself provides a suitable and appropriate support system.”

Another participant said, “It is beneficial to share with other districts and to be able to give and receive effective feedback about our action plans.” One elementary team noted that this work has transformed them into a team of cross grade-level teachers who have embraced the practice of sharing student goals to become instructionally agile based on student self-assessments and motivation.

Importantly, teacher teams reported that the process of attending the assessment literacy professional development empowered them with the skills necessary to motivate and engage students in self-assessment as part of daily practice. In addition, teachers report that students have learned how to accurately and efficiently self-assess their learning through the use of checklists, stamps, graphs, and responses that reflect on their daily learning.

Other evidence of the impact can be found in an end-of-session survey question on productivity. When asked if the in-person times were productive, an overwhelming 96% of participants said yes. One of the major tenets of a professional learning community is the provision of collaborative team time for teachers. The assessment literacy series was built on a commitment to this belief. As a result, sessions incorporated professional learning and coaching, but, more importantly, time and opportunity for in-team and cross-team collaboration. Teachers were given time to work on changing their practice as a professional learning community. Many teams used this time to develop assessment strategies, calibrate student scoring, and incorporate best practice strategies into their instructional and assessment strategies.

NEXT STEPS

Using feedback from school-based teams and district leaders, members of the collaborative are working with the consultant to plan for year three and beyond. With support from superintendents and school committees, the districts are collaboratively pursuing funding to continue working with the external consultant. The work in year three will focus on the professional learning experiences that have had the most impact.
on classroom practice and culture.

The districts will compile these identified areas, and the artifacts of their learning, to develop a sequence of online learning modules. These modules will be used to scale up the learning to all teachers across the districts.

School-based assessment literacy teams will share the results of their action research and open their doors to colleagues in a lab classroom model, giving all educators access to onsite support for continued professional learning around assessment literacy. Continued cross-district networking will strengthen these structures at the school level.

As indicated by the early results, student achievement in the classrooms of participating teachers shows evidence of improvement. The online learning modules, established instructional models, and onsite support from participating teachers will allow the districts to increase capacity and sustainability by expanding the professional learning throughout the districts. These school-level and cross-district structures for continuous learning provide a systematic approach to professional learning that will have a long-lasting and substantial impact on student learning.

REFERENCES


Paula Dillon (dillonp@barringtonschools.org) is assistant superintendent of Barrington Public Schools in Rhode Island. Cassandra Erkens (casserkens@anamcaracconsulting.com) is an author, speaker, and educational consultant. Diane Sanna (sannad@bw.k12.ri.us) is assistant superintendent of Bristol Warren Regional School District in Rhode Island. Linda F. Savastano (lsavastano@mpsrri.net) is assistant superintendent of Middletown Public Schools in Rhode Island. ■

Continued from p. 27

In the driver’s seat

The districts will compile these identified areas, and the artifacts of their learning, to develop a sequence of online learning modules. These modules will be used to scale up the learning to all teachers across the districts.

School-based assessment literacy teams will share the results of their action research and open their doors to colleagues in a lab classroom model, giving all educators access to onsite support for continued professional learning around assessment literacy. Continued cross-district networking will strengthen these structures at the school level.

As indicated by the early results, student achievement in the classrooms of participating teachers shows evidence of improvement. The online learning modules, established instructional models, and onsite support from participating teachers will allow the districts to increase capacity and sustainability by expanding the professional learning throughout the districts. These school-level and cross-district structures for continuous learning provide a systematic approach to professional learning that will have a long-lasting and substantial impact on student learning.

REFERENCES


Paula Dillon (dillonp@barringtonschools.org) is assistant superintendent of Barrington Public Schools in Rhode Island. Cassandra Erkens (casserkens@anamcaracconsulting.com) is an author, speaker, and educational consultant. Diane Sanna (sannad@bw.k12.ri.us) is assistant superintendent of Bristol Warren Regional School District in Rhode Island. Linda F. Savastano (lsavastano@mpsrri.net) is assistant superintendent of Middletown Public Schools in Rhode Island. ■

Continued from p. 27

In the driver’s seat

The districts will compile these identified areas, and the artifacts of their learning, to develop a sequence of online learning modules. These modules will be used to scale up the learning to all teachers across the districts.

School-based assessment literacy teams will share the results of their action research and open their doors to colleagues in a lab classroom model, giving all educators access to onsite support for continued professional learning around assessment literacy. Continued cross-district networking will strengthen these structures at the school level.

As indicated by the early results, student achievement in the classrooms of participating teachers shows evidence of improvement. The online learning modules, established instructional models, and onsite support from participating teachers will allow the districts to increase capacity and sustainability by expanding the professional learning throughout the districts. These school-level and cross-district structures for continuous learning provide a systematic approach to professional learning that will have a long-lasting and substantial impact on student learning.

REFERENCES


Paula Dillon (dillonp@barringtonschools.org) is assistant superintendent of Barrington Public Schools in Rhode Island. Cassandra Erkens (casserkens@anamcaracconsulting.com) is an author, speaker, and educational consultant. Diane Sanna (sannad@bw.k12.ri.us) is assistant superintendent of Bristol Warren Regional School District in Rhode Island. Linda F. Savastano (lsavastano@mpsrri.net) is assistant superintendent of Middletown Public Schools in Rhode Island. ■

Continued from p. 27

In the driver’s seat

The districts will compile these identified areas, and the artifacts of their learning, to develop a sequence of online learning modules. These modules will be used to scale up the learning to all teachers across the districts.

School-based assessment literacy teams will share the results of their action research and open their doors to colleagues in a lab classroom model, giving all educators access to onsite support for continued professional learning around assessment literacy. Continued cross-district networking will strengthen these structures at the school level.

As indicated by the early results, student achievement in the classrooms of participating teachers shows evidence of improvement. The online learning modules, established instructional models, and onsite support from participating teachers will allow the districts to increase capacity and sustainability by expanding the professional learning throughout the districts. These school-level and cross-district structures for continuous learning provide a systematic approach to professional learning that will have a long-lasting and substantial impact on student learning.

REFERENCES


Paula Dillon (dillonp@barringtonschools.org) is assistant superintendent of Barrington Public Schools in Rhode Island. Cassandra Erkens (casserkens@anamcaracconsulting.com) is an author, speaker, and educational consultant. Diane Sanna (sannad@bw.k12.ri.us) is assistant superintendent of Bristol Warren Regional School District in Rhode Island. Linda F. Savastano (lsavastano@mpsrri.net) is assistant superintendent of Middletown Public Schools in Rhode Island. ■
Planning and Designing Professional Learning
A new online course from Learning Forward

Available now in the Learning Forward Bookstore.

GET THE KNOWLEDGE AND TOOLS TO PLAN AND DESIGN INDIVIDUAL, TEAM, SCHOOL, OR SYSTEMWIDE PROFESSIONAL LEARNING THAT CHANGES TEACHER PRACTICE AND INCREASES STUDENT ACHIEVEMENT.

Through videos from leaders in the field, research on adult learning, and dozens of tools and protocols, participants in this course:

- **Examine the key elements** of professional learning plans for individuals, teams, schools, and systems.
- **Develop specific, measurable outcomes** for educators and students.
- **Use a seven-step model** to plan professional learning that improves student performance.
- **Apply research on how adults learn** and explore concepts outlined in the Learning Designs standard.
- **Select learning designs** that are appropriate for contexts and meet the needs of adult learners.
- **Develop theories of change and logic models** to ensure professional learning is successfully implemented, evaluated, and sustained.

**Build your professional profile**
The course constitutes **10 hours of learning** and allows you to earn **continuing education units** while becoming a stronger advocate for professional learning in your organization.

**Fully mobile compatible** for Apple and Android, this course lets you experience great learning — when and where you learn best!

**Available now in the Learning Forward Bookstore.**
**Members get 20% off!**
By Nancy Akhavan

Ask a teacher if he or she has ever been coached, and you are likely to first hear silence, then an answer that offers little information. “Why do you ask?” “There are coaches in my district.” “I met with a coach once.”

Teachers are programmed to make it look like they do it all on their own when it comes to professional learning. The problem is that this solo learner stance doesn’t provide a helpful picture of teacher learning. Sometimes the answer is mixed up in what teachers think administrators want to hear about coaching.

Different coaching models have different attributes. Most coaching models fall into two types: districts and schools that implement coaching tied to one or more initiatives, and those that implement to improve teacher practice and teacher efficacy.

This story evolves from that second practice — coaching that improves teachers’ belief in themselves and their ability to affect student learning, often employing a cycle of planning, modeling, observing, reflecting, and conferencing. This is the type of coaching that creates connected, caring teachers with the highest resiliency for making sure all students are learning.

Three years ago, as a school district administrator, I set out to find insights into optimal coaching experiences for classroom teachers. I asked, “What works for you, and why?” to groups of teachers across the United States who had received coaching in the previous school year. I wasn’t just interested in learning what teachers thought. I wondered how coaching affects student learning. As I
considered types of coaching models implemented across the United States, my inquiry evolved into three questions:

• Is there a difference in student achievement between teachers who are coached and those that aren’t?
• What was coaching like for teachers, and why did it make a difference?
• What coaching model is best and why?

After examining articles and research on coaching, I decided to define coaching as a teacher who received some assistance to work on teaching practices to improve student learning. Armed with research on peer coaching, I became less concerned about a particular model of coaching and more concerned about whether a teacher believed he or she had been coached.

What’s the difference? I wasn’t asking systems to tell me if teachers received coaching. I was asking teachers if they had received coaching. I allowed teachers to decide if they had been coached from anyone in a role to talk with him or her about teaching practices (coaches, colleagues, peers, or administrators). This viewpoint emphasized the teacher’s voice, allowing me to listen to what teachers were saying and then compare the findings to student achievement results.

**KNOW WHAT WORKS IN COACHING MODELS**

The majority of teacher change initiatives fail due to a lack of focus on teacher motivation and an understanding of change processes (Guskey, 1998; Sarason, 1990). Because coaching occurs in the classroom, it would seem to have a better prognosis in helping teachers improve their practice. But which type of coaching practice is best?

Sometimes *coaching* is a confusing term — and no wonder, as coaching can be considered to be consulting, mentoring, supporting, peer assistance, and even evaluating (Costa & Garmston, 2002). To make it more confusing, coaches are often working in a content area, calling themselves *instructional, academic, content, reading, literacy, intervention, math, data, and technology coaches*.

I knew that school leaders would want to know which type of coaching is best for supporting teachers and ensuring greater student learning (Akhavan, 2014).
I also knew that teachers who consistently get higher student achievement usually feel good about their teaching (Akhavan, 2004).

When getting to the essence of helping teachers feel more confident in their teaching, what coaches are doing is helping them have greater self-efficacy (Bandura, 1997). Tschannen-Moran and McMaster (2009) examined the relationship between teacher self-efficacy and formats of professional learning and found teacher self-efficacy to be one of the most powerful influences on receptivity to change.

In order for any research on teacher coaching to inform professional development practices, I needed to define what I wanted to know. Teacher efficacy is important to think about in relation to teachers’ daily practice. Knowing and understanding teacher efficacy reflects teachers’ confidence about their ability to teach well. I chose to define coaching through teacher self-identification because of the unlikelihood of schools and districts across the United States using similar definitions or understanding of coaching.

I also needed to find a way to measure student achievement uniformly across states. This look at student achievement proved most challenging. It was not possible to gather individual teacher data, and the state tests in different states didn’t measure the same information and skills, so I depended on state reports of Adequate Yearly Progress (AYP). I examined three years of data in order to identify any trends that exist in the fall or rise of student learning achievement scores.

COACHING SIDE BY SIDE

To collect data, I contacted district leaders across the United States, asking for teachers to participate in the study. Participants came from four regions of the United States: the West, Midwest, South, and Northeast.

Next, I surveyed and interviewed teachers. Teachers completed the survey by email, and I selected four or five teachers from each of the four regions for focus group interviews. To examine student achievement, I reviewed AYP reports available on state assessment websites.

As I interviewed teachers, I dug at knowing what really worked and why. I asked:

- How has coaching changed your teaching?
- What did the coach do that made a difference for you?
- What do you value about the coach’s expertise?
- Do you identify with the coach? If yes, in what ways?

One teacher said, “I didn’t feel like she was the boss and she was in charge. She had an attitude of cooperating with us. For example, if she came in for a writing workshop, she would actually sit down with the kids and help them with their writing while I was going around and working with the kids also.”

Another person said, “One of the things [my coach] has done for me is the infinite amount of patience she has for me.”

In the interviews, teachers volunteered to participate in focus group interviews. Teacher and coach as equals; Cooperation and teamwork; People skills and a good working relationship with the teacher; The ability to help teachers understand the use of data to plan instruction; and To focus the coaching work in each school in a side-by-side setting.

UNDERSTANDING THE FINDINGS

Two hundred forty-three teachers took the survey, and 26 teachers volunteered to participate in focus group interviews. The findings were important: Coaching had positive impact for teachers and student learning.

An analysis of Adequate Yearly Progress results over three years supports the qualitative findings of this study. Data were coded by amount of change from no change to substantial change. I conducted statistical analysis and compared the means and standard deviations between AYP results. The results showed a significant difference in student achievement, with coached teachers having higher student achievement than noncoached teachers.

The study found five important attributes that should be embedded in all coaching experiences. The coach needs:

- People skills and a good working relationship with the teacher;
- To focus on the personal development of each teacher versus rote implementation of programs;
- Time to be available to each teacher;
- The ability to help teachers understand the use of data to plan instruction; and
- To focus the coaching work in each school in a side-by-side setting.

COACHING SIDE BY SIDE

Being side by side was a theme in teacher surveys as well as comments from the interviews and the observations. Sitting side by side was defined as coaches and teachers having:

- Opportunities to learn something new together;
- Time to reflect openly on what is occurring during instruction;
- Cooperation and teamwork;
- Teacher and coach as equals.

Teachers found sitting side by side to be a symbolic action of respect, care, and equality. Teachers want their coaches to be equal with them and not above them. The responses show that teachers are willing to learn and try new instructional practices with a person beside them who won’t judge their teaching. They need someone who encourages and accepts them as they are. Sitting side by side makes the coach vulnerable to the teacher and the experience of coaching as well.

One teacher said, “I didn’t feel like she was the boss and she was in charge. She had an attitude of cooperating with us. For example, if she came in for a writing workshop, she would actually sit down with the kids and help them with their writing while I was going around and working with the kids also.”
We learn in different ways — some are slower and some are faster. … It takes me much longer to keep in my head [new information], and she doesn’t get upset or angry. She has the patience that helped us grow, and we have grown a lot.”

Another teacher said: “I think the biggest thing [about coaching] is having somebody with expertise who knows the students to sit side by side [with me] and take a look at what instruction looks like and help [teachers] be reflective.”

Coaches had a similar perspective about sitting side by side with teachers. This form of guidance was powerful also for the coach. One coach said, “I think the coaching, especially if you have the opportunity to coach the teacher side by side at the beginning, is to learn something new and then have those opportunities to stand back and reflect. I think it has great impact on driving instruction forward in positive ways.”

PERSONALITY FIT

Fit is key, participating teachers said. Many teachers shared emotional stories about how they felt when the fit between coach and teacher was not effective for the teacher. One teacher reported, “The first couple of years that I was with a [coach], I wanted to run away and head for the hills. … You had to do things a certain way, and I began to feel [unhappy] … but now … I feel like I can enjoy what I’m doing again. … So I think that this has really helped me to feel better about what I am doing and helped me to enjoy myself better.”

Additionally, the coach’s openness to help and focus on developing a positive comfort level for the coached teacher was critical for the coaching experience to positively impact teachers and coaches.

One teacher said, “No one should ever feel alone or unsupported. We have most of the answers sitting around the table if we care to look, listen, and try. So that’s been the biggest thing to help and … have a connection to a coach.”

Another teacher said, “I think that [the coach’s] expertise helped me to be a more effective teacher. Because doing stuff in the classroom, you try and it’s not working. You’re frustrated because the kids aren’t getting it, but looking at it from somebody else’s perspective helps.”

LESSONS LEARNED

I found many similarities between the research findings and my own practice as a principal and district leader, but having the empirical results in hand has helped me implement research-based practices to improve teaching and learning. The results of this study show that a teacher who has received more coaching than other teachers has statistically significant positive changes in student achievement. This is the theory-in-action that many school and district leaders lean on when implementing coaching, and now, we know it works.

Additionally, I found that how teachers believe in their ability to impact student achievement is important. Teachers who have been coached believe that they affect student achievement at a greater rate than teachers who are not coached. The coaches’ ability to focus on individual teacher needs impacted the openness of the coached teacher to the experience, increased the teacher’s ability to identify with the coach, and helped the teacher own the professional learning. These are all wins that I strive for when working with teachers and school leaders.

THE BOTTOM LINE:

TEACHERS NEED TO TAKE CHARGE

I learned lessons about what works in coaching, but I also learned some lessons about what doesn’t work. The findings revealed a negative side to coaching as well, and this is a cautionary tale. Teachers who had negative coaching experiences reported that coaching was disempowering. In fact, teachers said that they were often receivers of what others thought they needed, and they were rarely asked about what would help them learn and grow as teachers.

Teachers also reported that this desire to know, and respond to, teacher need wasn’t important, and what was more important was implementing a new initiative. This type of coaching doesn’t inspire teachers to better practice, nor does it inspire the sustained reflection on teaching practices necessary to improve student learning.

In their book The Leadership Challenge, Kouzes and Posner (2008) talk about encouraging the heart of employees. School leaders can encourage the heart of teachers by focusing on having good coaching models in their schools. Coaching encourages the heart of teachers. It provides teachers and coaches opportunities for:

• Sharing experiences;
• Developing a perspective of student learning;
• Providing resources to ensure learning; and
• Developing openness and opportunity for a comfort level for the hard work of improving practice to ensure student learning.

So what is the real work of coaching? Allowing teachers to be in control of their own learning. Coaching provides this opportunity. Through coaching, teachers and coaches appear to share experiences that make both individuals better at their jobs.

Teachers learn how to handle issues in their classrooms, and coaches learn what works for an individual teacher in a given situation and then offer that advice to other teachers in similar situations. One coach said, “We all face challenges every day, and by just sharing those out, we understand each other. While that what may not be the exact same thing [as improving instruction], we understand each other, and I can learn how they

Continued on p. 45
I hear this astute observation often. In the U.S., we pride ourselves on being creative and innovative. When a “new” practice appears, everyone is ready to use it. However, with insufficient study of what the innovation is, we implement imprecise or incomplete variations.

Further, in U.S. schools today, the multitude of demands on staff and students precludes sufficient time for clearly identifying and understanding what a specific innovation is, including what a professional learning community is and what role it might play in a school or district.

So, what is an authentic professional learning community?

From my work across the globe with schools targeting school improvement, I believe the professional learning community is the most powerful structure and strategy for enhancing educators’ effectiveness and increasing students’ successful learning. From the research and my own work in the trenches, I posit that:

Improvement requires exchanging what is not working for something that has the potential to do so — this means making a change — and to change requires learning what the change is and how to use it.

The most supportive environment for doing this learning and improvement work is the professional learning community. But what distinguishes an authentic professional learning community from others? What are

Q: While my school district says it is committed to professional learning communities, I am not sure what they mean by it. We have lots of meetings, but I don’t think things are getting better. What is an authentic professional learning community?

A: Shirley Hord, Learning Forward’s scholar laureate, has focused her career on research about and practice of effective professional learning communities. Here she answers an educator’s question about professional learning communities.
its attributes or characteristics that rigorous research has revealed to us?

**Structural conditions.** Time for the communities to meet daily — or weekly at a minimum — uninterrupted in a comfortable space is basic. Paper, electronic, and human resources as well as disaggregated data from multiple sources in easy-to-understand formats must be available.

**Supportive relational conditions.** Community members’ respect and regard for each other, their conversation styles and interactions, and how they confront conflict all contribute to trust in each other that is essential for a smoothly functioning community.

**Shared values and vision.** The community’s conversation and actions are grounded in a shared vision of what the school should be about and in alignment with a mental image of newly desired and designated strategies and processes that are implemented effectively.

**Intentional collective learning.** The professional learning community’s enduring purpose is the continuous learning of the professionals — the educators. The community’s decision about what they will learn and how they will learn it derives from their students’ learning needs.

**Peers supporting peers.** Community members invite each other to their school or classrooms to observe an identified school or classroom practice of the host member. The visitor observes, takes notes, and conducts a sharing session with the host member. Peers’ visitations provide support as well as assistance to one another in order to operate at their professional peak in service to students.

**Shared and supportive leadership.** The titled leader of the school, the principal, and the professional learning community members create opportunities for teachers to assume leadership roles and support them in developing the knowledge and skills to do so. Authority and decision making are shared, and, in this way, teachers are given voice and choice. Developing new skills and habits of mind promote the professional learning community members’ feelings of efficacy. They grow in competence and confidence and in developing trust in each other to become true professionals.

These are the six research-based attributes of effective professional learning communities. Engage in reflection about your own professional learning community or your interest in creating one. Identify one or two of the six attributes. What would it take to put these attributes in action in your professional learning community in your school or district? What resources will be needed? Who will be need to be involved? Who can help to develop this attribute? What other factors will you need to address?

Of course, implementing just one or two of the attributes will not make a successful professional learning community, but it is a place to start. I look forward to hearing your reflections.

*Shirley Hord (shirley.hord@learningforward.org) is Learning Forward’s scholar laureate.*
A collaborative culture of trust and openness is crucial to teachers’ learning and the productive analysis of student learning. Teachers engaged in group learning can feel very vulnerable when they share work from their less-successful students.

Trust in fellow group members allows teachers to bring such students’ work to the group without fear of being judged or criticized. Openness is required because many solutions require a transformation in perceptions, knowledge, or beliefs. In fact, it is often the old way of thinking about a situation and dealing with it that results in the lack of students’ and teachers’ success.

Specific working agreements and communication skills provide the psychological safety teachers need to share their perspectives, inquire into those of others, and reconsider what they have been doing and how they have been thinking about it.

Working agreements can be thought of as ground rules that define the behavioral expectations of group members. To maintain trust, group members need to know that they can rely on their colleagues to behave in a particular way. This predictability helps set the stage for all future
learning. Before beginning to analyze student work, participants need to agree upon and record their group’s working agreements. Once established, the group is responsible for revisiting and monitoring the agreements to make sure that they are understood and practiced by all.

If working agreements are the ground rules, then communication skills are the tools that group members use to help each other find ways to become as effective as possible with their students. These skills are a necessary part of transformative learning — the consideration and reframing (if necessary) of beliefs and feelings (filtering system) that may be limiting teachers’ effectiveness with particular students, especially those whose cultural backgrounds are different from those of the teachers.

To explore this terrain — let alone the possibility that teachers may need to shift their own practice — requires respect, honesty, and a safe place to learn. It also requires specific communication skills that encourage teachers to dig below the surface to consider ideas and perspectives that may not have occurred to them previously.

Although there are many different communication skills that one can use to support collaborative inquiry, six stand out: Committed listening, pausing to interpret, matching verbal and nonverbal cues, paraphrasing, probing, and putting ideas on the table. These six communication skills are integral to engaging in productive dialogue.

Three of these skills — matching verbal and nonverbal cues, paraphrasing, and probing — are types of responses teachers use to help one another analyze and reflect on teaching and learning. Each serves a critical role in promoting and maintaining a trusting environment while also supporting teachers to stay open to new ways of thinking and being.

Here we focus on probing — statements or questions that invite a deeper level of conversation about how teachers are thinking about a student’s learning.

WHAT IS PROBING?

Three kinds of probes encourage teachers to delve more deeply into their thinking: probing for clarity, empowering probes (presuppositions), and probing for beliefs and feelings.

Probes are used in a manner that maintains the teach-
er’s comfort and avoids a sense of defensiveness. It is important that the intent of the probes always be honorable by communicating respect for the teacher’s ability to understand and solve complex learning problems. This means that any teacher offering an idea must never feel corrected or judged. Thus, no suggestions are given — even if they are clothed in the language of a probe — unless the teacher specifically asks for ideas.

Imagine that a member of a study group says, “You just mentioned that Maria is struggling with place value. But haven’t you tried manipulatives with her?” The implication is that this teacher has not done enough.

The essence of shared inquiry in a study group is not to fix one another. It is to deepen teachers’ knowledge bases and build in one another the capacity for reflective analysis. So, rather than implying that the solution is the use of manipulatives, a group member might paraphrase, then probe for more information: “Hmmm, you mentioned place value. Tell us more about what you have done to try to help her understand place value.” The teacher may mention how she used manipulatives in a small group.

The next probe might ask, “How does Maria work in a group? How much does she touch the Unifix cubes when counting?” Through such a conversation, the teacher may discover that Maria’s partner is not sharing the cubes, and Maria may not have actually touched them. This leads to a discussion of how the teacher might use student roles in cooperative learning groups to increase Maria’s active involvement with the cubes.

In addition to being nonjudgmental, probes need to be open-ended. That is, they should require more than a yes or no response. Questions that start with “what” or “how” are usually open-ended and solicit more information. For example, ask, “What have you done to help the mother work with her child?” rather than, “Have you tried sending home a specific assignment?” Or “How might you respond to him the next time he doesn’t turn in his work?” rather than “Did you consider how you might respond next time?” In both examples, the open-ended questions invite more information, whereas the latter questions can result in a yes or no answer.

The question that begins with “Have you tried?” contains a not-so-hidden suggestion, which sends a message that the teacher has not thought of that tactic and has not tried it. It is better to find out what the teacher has been thinking and trying before others share ideas that might help the situation. Teachers should consider their intent when choosing one of the three types of probes.

PROBING FOR CLARITY

Listener asks the speaker to elaborate upon or add specific detail about what was said.

Purpose (intent)

- Moves beyond vague language or generalizations.
- Prompts the speaker to dig more deeply into his or her own thinking.
- Helps the speaker to become more conscious of his or her thought processes.

EXAMPLES

Presenting teacher: “My students really struggle with writing.”

Group member: “What have you seen that tells you that they are struggling?”

Group member: “What specifically would you like to see in their writing that would represent improvement?”

Group member: “You mentioned that your students never show their work. How true is this for your entire class? Which ones do show their work?”

Group member: “You said you wanted to move your students from using manipulatives in mathematics to paper-and-pencil tasks. Tell me more about how you plan to do that.”

Group member: “So, we think that peer editing might be a helpful strategy for Joe. What might that look like, specifically? What do we need to think about to make it most effective?”

PROBING FOR CLARITY

When sharing ideas, even in a study group, teachers often leave out important information. Either the teacher forgets to mention the information or she thinks that you can fill in the missing pieces. You may seek more information about the speakers’ feelings, ideas, or thought processes by asking her to rephrase, elaborate on, or get more specific about what was said. Probing for clarity shows that you are interested in what is being said and results in a better understanding of your colleagues’ thinking.

Sometimes a teacher may present an idea in a general or vague manner, and you need to ask for more specificity. When learning this skill, it is most natural to combine the probe with a paraphrase. For example, “You mentioned that Joe was having trouble with his spelling (paraphrase). What kind of trouble have you seen (probe)?”

One common probe is “Tell me more about that.” For example, a teacher might say, “I think the problem might be Mary’s attention span.” You could respond, “Tell me more about that. What led you to that conclusion?” Such probes invite speakers to
EMPOWERING PROBES (PRESUPPOSITIONS)

Communicates an expectation that the teacher has already considered the question or issue being raised. The group member presupposes that the teacher knows something about the topic being talked about but just hasn’t explicitly stated it.

Purpose (intent)

- Saves the teacher’s dignity.
- If the teacher has not thought about the topic, he or she will think about it.
- The teacher will ask this question of himself or herself in the future (self-questioning scripts).

EXAMPLES

| Presenting teacher: “I want them to show me what they know.” |
| Group member: “As you designed this assignment, what student outcomes did you have in mind?” |
| Group member: “What other ways can you make sure your students have an experience similar to a real author?” |
| Group member: “How are you planning to draw on the students’ cultural background when you read poetry?” |

clarify the details that support what they have said.

Thinking aloud in this fashion is a strong metacognitive tool and helps the speaker become more conscious of and clearer about her thought processes and decisions.

EMPOWERING PROBES (PRESUPPOSITIONS)

Empowering presuppositions raise the speaker’s efficacy by assuming that he knows (or can figure out) the solution to a dilemma. It empowers him by raising his level of cognitive functioning and building trust (Costa & Garmston, 2002). Garmston and Wellman note, “Assuming that others’ intentions are positive encourages honest conversations about important matters” (Garmston & Wellman, 2009, p. 38), which is necessary if dialogue is to grow.

To understand a message fully, the listener has to move below the surface of the spoken words. This is because messages often carry hidden meanings. You may remember times in your life when a parent asked, “Why didn’t you do what your teacher told you to do?” The disempowering message behind that question is that you were not very smart and didn’t even consider doing what you were asked. Such an accusation might have made you highly defensive and cut off further interaction or analytical thinking.

In fact, you may have been considering doing exactly what you were asked, but, after this comment, concluded that you either were unable to do it or did not feel it was the appropriate thing to do. The problem with such “limiting presuppositions” (Costa & Garmston, 2002) is that psychologically we tend to believe what we are told and act accordingly. When the message is that we are incompetent, we are apt to shut down our thinking and disengage from the conversation.

If the goal of a study group is to maintain trust and encourage teachers to raise their level of analytical thinking, then you need to use probes that suggest (or presuppose) that a teacher has already considered the issue being raised. The teacher will tend to live up to these expectations because she unconsciously senses the high regard the listener has given her.

Imagine the following situation. A teacher shares a student’s writing from a recent unit on creative writing. The work is of poor quality. One of the study group members concludes (in his own head) that the reason for the poor performance is that the teacher did not provide enough models of high-quality writing. Rather than suggesting this possibility and creating a defensive atmosphere, the participant pauses to suspend his judgment and decides to see what the presenting teacher thinks. He asks, “What do you believe are some of the reasons for the quality of writing?” The implied message is that the teacher has already considered some possible reasons for what she sees in the work.

An empowering probe can also prompt a teacher to ponder an important issue of which she is not already aware. For example, a group member might wonder whether a creative writing
What is the Collaborative Analysis of Student Learning?

The Collaborative Analysis of Student Learning is a professional learning design in which teacher groups analyze student work samples and assessments to learn how to effectively support students’ learning of complex academic standards.

Teachers’ engagement in the process is driven by their relentless pursuit to discover and apply responsive approaches for learning so that every student reaches standards of excellence. This inquiry extends over a period of months “because deep learning rarely results from a single experience, and teachers need time to conduct longitudinal studies in which they test and reconstruct their current theories of what works” (Putnam & Borko, 2000). Through collaborative inquiry, teachers move away from using uniform best practices toward tailoring culturally and linguistically responsive approaches that meet all students’ needs.

Teacher self-awareness is an important part of developing culturally responsive approaches and positive attitudes about teaching and learning. Through structured and facilitated processes, teachers examine their beliefs and practices about teaching and learning. During study group sessions, teachers actively move beyond polite conversations of simply sharing practices toward more in-depth conversations, known as dialogue, about students whom teachers feel challenged to reach and teach (Little, Gearhart, Curry, & Kafka, 1999).

The process reveals assumptions that may limit teachers’ capacity to give full attention to students’ needs. A systematic inquiry process identifies, tests, analyzes, and refines potential solutions, allowing teachers to find equitable ways for all students to reach standards of excellence.

assignment was culturally appropriate for the students. Rather than saying outright that he thinks the writing prompts that the teacher used were above students’ heads, he asks, “How did the students respond to the writing prompts you used? What sense did you get that they could relate to them?”

This implies (presupposes) that the teacher can think (or already has thought) about this aspect of the assignment. If she has, she can share her thinking. If she has not, she will usually pause and consider this idea. Visual evidence of such deep thinking is evident when a person’s eyes look up or sideways. This is how a group member knows that he has asked a really good question.

Then, the teacher might say something like, “Well, now that you mention it, Joe’s short, dry response could have been due to that — the inability to relate to the situation I posed.” After such an insight, she will be sure to ask herself this question in the future. Her self-efficacy is boosted because the group presupposed that she could figure out an answer to her dilemma by respectfully using probing questions to help her look at a different explanation for the poor quality in the paper.

**PROBING FOR BELIEFS**

Probes can also be used to help individuals examine the beliefs that get in the way of finding the new understandings required to discover equitable approaches that meet students’ learning needs. These probes help teachers step back and evaluate the accuracy of their thinking. Remember that, through dialogue, teachers discover solutions by revealing and examining all assumptions (untested beliefs) and positions. Probes for beliefs can help people see, in a dignified manner, how their thinking may be faulty.

Occasionally we find teachers who are complacent or reluctant to give up their views. Sometimes they are so sure their views are correct that they do not want to examine them closely. In such cases, we may use probes that cause cognitive dissonance or “rattle one’s brain.”

Since these more challenging questions often push a person to go beyond his or her comfort zone, you need to be tactful and sensitive when using such probes. In fact, we recommend that these kinds of probes be left initially to the group facilitator or to those who are most gentle and discerning with their use of communication skills — at least until the group becomes more artful in using communication skills.

The study group process often shakes up teachers’ assumptions in a private way as they listen to their colleagues present a point of view that is different from their own. As one teacher said, “After I listened to Carlos discuss how he was not going to give up on Larry, I really had to ask myself this hard question: ‘Do I give up too early on a child who is not succeeding?’”

She said that her low expectations were “automatic” until this crucial point when she had to rethink her assumptions about a certain child. When she did not give up on her struggling student, she saw him make more progress than she had expected.

Sometimes it is helpful to simply paraphrase the teacher’s implied assumptions, especially if you aren’t sure what those assumptions might be. You might just say, “It sounds like you think Joe is lazy.” Although the teacher did not say this directly, it was implied, and now he has a chance to clarify or expand.

You might choose a more direct route and say, “I’d like to stop for a minute and check to see what you were thinking or assuming about Joe.” This message implies that you believe the
teacher is aware of his assumptions, in itself an empowering presupposition that may encourage him to take a second look at his thinking. Or you might ask, “What makes you feel the situation is hopeless?” This might provide some insight into why the teacher feels so discouraged. Once the assumption is out in the open, the group can use communication skills to help the teacher explore its validity.

Another way to ask someone to examine his or her assumptions or beliefs in a nonthreatening manner is to ask the person to consider alternative perspectives — different ways of interpreting the same experience. Consider the case of a middle school teacher who says, “The mother doesn’t care about her daughter’s education because she never comes to parent conferences.” The teacher seems to be making the assumption that parents who don’t attend conferences don’t value their children’s education.

In this case, you might ask, “What other explanations might there be for the mother not attending conferences?” This is a gentle way of calling into question the teacher’s beliefs. If the teacher shows little willingness to see the situation differently, you might tell the group that the teacher has said the mother doesn’t care about her child’s schooling and ask, “How do the rest of us see that?”

The group can then explore other explanations for the mother not attending conferences — for example, that the mother works at the scheduled time, that she may have had bad experiences with school personnel as a child and is not comfortable coming to school, or that she is from another country and doesn’t understand what is being asked of her. After the group discussion, the teacher may find that another interpretation of the mother’s behavior is more fitting.

Viewing the world from someone else’s perspective helps teachers challenge their own beliefs. You might ask, “How do you think the mother thinks or feels about this issue?” This kind of probe asks the teacher to look at the situation from the perspective of the mother and may yield useful insights — for example, that the mother is intimidated and needs more guidance. Viewing the world from multiple perspectives increases a teacher’s cultural proficiency. It also helps the teacher to learn that there may be many different causes for the same behaviors.

REFERENCES


Amy B. Colton (acolton2@gmail.com) is executive director of Learning Forward Michigan and senior consultant for Learning Forward. Georgea M. Langer (glanger1@att.net) is an author and former professor of teacher education. Loretta S. Goff (lorettasgoff@gmail.com) is a consultant and retired educator.

Coaching side by side

Continued from p. 37

handle things and my teachers can learn to handle things. In the end, the kids win.”

REFERENCES


Nancy Akhavan (nakhavan@csufresno.edu) is assistant professor at California State University Fresno.
By Jared C. Wastler and Shannon Zepp

There are three types of teachers: ineffective teachers, good teachers, and great teachers, say Todd Whitaker and Annette Breaux (2013). The same is true of professional learning.

Four years ago, professional learning at Liberty High School in Eldersburg, Maryland, was ineffective. A majority of professional learning occurred at faculty meetings, and these were characterized by rapid-fire, sit-and-get presentations on a wide array of topics.

While there is a place for sit-and-get professional learning, that place is when the information applies to each member of the audience and has a direct application in his or her position. Liberty’s presentations were often policy changes, requests to share a program, or directed mandates. Professional learning was often directed at the entire faculty for the sake of everyone hearing it rather than everyone needing it.

Feedback from teachers, both informal and formal,
was largely negative. Teachers said there was little application to their daily interactions with students and felt that their engagement was limited to simply showing up. They expressed a desire to collaborate, yet there was little time allocated to do so. Most significantly, staff members expressed a belief that there was a failure to respect the varied needs and capacities of each staff member. The data didn’t lie: The school needed a change.

MAKING THE TURN

Three years ago, school leaders began to build a professional learning system that reflected a dynamic community of learners focused on continual improvement. They recognized that the smartest person in school was the school itself — teachers, support staff, students, and parents. The task was evident: Design and develop a system of professional learning that engages, respects, and recognizes the capacities of the school community.

The first step was to develop a vision for professional learning that reflects the school community and focuses on student learning and professional growth. The administrative team started the process by reviewing and reflecting on the Standards for Professional Learning and the four prerequisites for professional learning (Learning Forward, 2011).

The team used these reflections to start a conversation with school and district leadership teams. These conversations identified the core items needed at Liberty High School for a results-centered system: diverse professional learning opportunities, collaboration inside and outside the school walls, and personalization. The result was a vision that redefined professional learning at Liberty High School: Promote student growth by providing staff with opportunities to grow professionally, collaborate globally, and be owners of their professional learning.

Staff feedback helped school leaders identify three core principles to define professional learning at Liberty High School and support its professional learning vision: autonomy, collaboration, and trust. These three principles formed the characteristics that were necessary if the vision was to become a reality. Additionally, they provided a quick way to assess professional learning by assuring these principles were present.

FROM GOOD TO GREAT

In 2012, the school began to build on each of the principles. To build collaboration, the school eliminated traditional faculty meetings and instead engaged in professional learning communities, content conversations, and collaborative activity days.

In 2013, staff members began to select their own professional learning opportunities. Autonomy is vital to personalized learning, and this created an environment that supported and encouraged autonomy in professional growth.

In early 2014, the school entered the final stage of its professional learning transformation by building a system of trust where staff members felt empowered to take risks, share successes and failures, and link student improvement to professional learning in a safe environment.

A LEARNING SYSTEM IN ACTION

After three years of implementation and planning, the school is now a vibrant professional learning system in action. What makes this a system? School leaders believe that the most effective change originates from organic development and that the professional learning program is best termed a system because it is not one singular entity or focus. Rather, it is a collection of experiences and networks, guided by core beliefs and principles, that work in tandem to create a professional learning system that is dynamic, collaborative, and personalized.

To develop the system, the administrative team identified diverse professional learning opportunities, built a menu of options from which staff members may choose, then scheduled and promoted these learning opportunities.

In order to support the transition from one system to another, administrators initially facilitated much of the
professional learning. Today, teachers lead and facilitate all professional learning. As teachers identify new opportunities, these are added to the menu.

The process is simple:
1. Staff members select professional learning from a menu of options, or they identify their own professional learning opportunity.
2. At the end of each month, each staff member writes a reflection on his or her professional learning that addresses these questions:
   - What professional learning did you engage in this month?
   - How did your participation impact teaching and learning in your classroom?
3. Administrators review the reflections and engage in conversations with staff to identify additional needs, supports, and opportunities for growth.

Data play a key role in the process, both as an observational and an evaluative component, to support professional learning. Throughout the year, walk-throughs and observations provide real-time data for guiding teacher professional learning opportunities.

As a part of the observation process, administrators engage teachers in conversations around opportunities for professional learning and recognize opportunities for staff members to share practices that could provide meaningful professional learning for other teachers.

At the end of the annual review cycle, administrators reflect on student performance data with teachers as a part of the evaluation process through student learning objectives. This data allows for the collaborative team of the teacher, administrator, and supervisor to recognize professional learning needs and identify available options to support growth.

The professional learning system is all about personalization, recognizing where teachers need the most support, respecting choice in professional growth, and reflection focused on teaching and learning.

DATA AND RESULTS

Since implementation of the professional learning model, student performance on the School Progress Index has increased.

The School Progress Index looks at three core areas: student achievement, gap reduction, and college and career readiness. Over the last three years, data across all areas have shown improvement, particularly in the areas of gap reduction and college and career readiness — two areas that are the focus of many of the school’s professional learning opportunities.

As the school introduces new programs, staff lead and learn from one another under the professional learning model, leading to collaborative and effective professional learning and implementation of these new initiatives.

A survey taken three years ago showed that 50% of school staff members were dissatisfied with the professional learning program in 2011. Today, 92% of staff members express satisfaction with the professional learning system and 99% of staff members state that this system effectively promotes autonomy, choice, trust, and collaboration.

The school did not just change its professional learning system — it also changed its culture. Liberty has moved from being a school that viewed the status quo as acceptable to being a school where professionals look for innovation at every turn. Teacher reflections each month show a clear connection between professional learning and student results. Teachers talk frequently about using strategies gleaned from learning walks, professional learning community conversations, and other professional learning in their classrooms and identify increased engagement and student success as a direct result.

One example can be found in a book study group focused on Teach Like a Pirate by Dave Burgess (Dave Burgess Consulting, 2012). Members of the group include teachers from multiple disciplines with varied years of experience. The group’s focus is on increasing engagement and creativity in the classroom. In three months, the group moved from simply discussing the content to discussing how applying the concepts is changing the members’ teaching.

The school’s professional learning communities have also taken on a new level of teacher ownership and personalization. In the transition from sit-and-get faculty meetings, the school implemented professional learning communities that allow teachers to collaborate on topics of value to them, trusting them as professionals.

While administrators initially chose these topics and facilitated the conversation, teachers have taken ownership — identifying needs, organizing their colleagues, and doing work that is meaningful to them. Professional learning communities typically meet monthly or bimonthly, and, often, teachers are doing work between meetings that enrich the conversation and collaboration when they meet.

Other types of professional learning are also drawing interest. Teachers engage in webinars and OpenCourseWare classes that meet a specific need or interest that they have identified. They read articles and books that are relevant to their instruction and then discuss them as professionals. They attend conferences specific to their content or role and bring information

Continued on p. 53
filled with 24 learning designs, the latest edition of Learning Forward’s best-seller helps educators understand the kinds of learning experiences that result in changed practices and better results for students. The book is edited by Lois Brown Easton, with chapters authored by more than 30 of the field’s leading experts in adult learning.

Context-setting chapters help educators explore the idea of meaningful learning designs and the importance of considering system factors in professional learning.

The broad range of designs allows educators to find the best strategies for their particular needs and circumstances.

Learning designs include:
- Accessing student voices
- Classroom walk-throughs for peers
- Coaching principals
- Digital teacher portfolios
- Instructional rounds
- Lesson study
- Online coaching
- Social media
- Videos

Each chapter includes a narrative about the design in use, an overview and rationale, concrete steps for implementation, alternatives, and challenges and how to address them.

Fifteen of the 24 designs in this version are new. The others have been updated, many incorporating aspects of technology.

Purchase this comprehensive, practical handbook to professional learning designs today. The 384-page book includes a link and password to dozens of exclusive online resources.

Item: B587
Member price: $64, nonmember price: $80

GET OUR NEWEST CATALOG for a full list of professional learning resources and services to improve student achievement. www.learningforward.org/bookstore
It has been six years since we began our work promoting sustainable special education programs and practices in Bhutan, a small Buddhist country in the Himalayan Mountains. Working with the Special Education Advisory Committee, under the auspices of a nonprofit organization, the Bhutan Foundation, we have volunteered our time working as professional learning facilitators to foster the implementation of the special education program. Now it’s time to reflect on what we learned, share suc-

In April 2011, JSD published “Lessons from Bhutan: Embrace cultural differences to effect change” (Levine, Telsey, & McCormack, 2011), which described the experiences of several U.S. educators who learned their own transformative lessons while leading professional learning in special education abroad. In this follow-up article, the authors reflect on what they learned and discuss their challenges and successes after six years of working with teachers and principals in Bhutan.

By Alison Telsey and Laurie Levine

MORE LESSONS from BHUTAN

6 YEARS LATER, CHANGE TAKES ROOT AND FLOURISHES
cessful elements of our experience, and explore how the knowledge acquired can impact our future work in the field.

This special education project was initiated in 2008 by an American family in collaboration with the Bhutan Foundation and the Bhutanese Ministry of Education. Since then, teams of volunteer educators have donated their time to train Bhutanese teachers, principals, parents, and college faculty in special education assessment and instructional practices. Under the direction of our advisory committee, most of the professional development occurred during the summer months; however, planning and communication with key stakeholders occurred on an ongoing basis throughout the year.

Education for children with special needs in Bhutan now looks markedly different than it did at the inception of this project.

**SIGNS OF GROWTH**

How do we know there’s been growth? Let’s take a look at the changes that have occurred.

Before 2008:
- Special education services were limited. Most special education programs were directed toward children with visual or hearing impairments.
- The majority of teachers had little background in special education programming and practices.
- Few educational resources in the schools were designed specifically for students with special needs.
- Community awareness of the needs and capabilities of people with disabilities was limited.
- Many parents were keeping their children with disabilities at home.
- Communication among the Ministry of Education, parent groups, and other stakeholders was just beginning.

In 2015:
- Bhutan has 10 schools in which children with learning difficulties are identified and provided with services in either inclusionary settings or self-contained classes.
- Over 400 educators have participated in professional learning focusing on disability awareness, screening, identification, and effective instructional practices.
- The Ministry of Education has a separate division devoted to special education, and Bhutan has developed a national special education policy.
- Stakeholder meetings with various agencies serving individuals with disabilities are ongoing.
- All 10 special needs schools have access to special education resources, including books, manipulatives, and DVDs.
- Young adults with disabilities are participating in internships in the hospitality industry, and there are plans for additional employment opportunities. This represents an expansion of already established opportunities in traditional arts and bakeries.
- The number of students with disabilities entering the
schools has increased.
• More parents are attending parent support and advocacy groups.
• Simultaneously, Bhutan has developed other civil service organizations that are addressing special education issues.
• The Royal University of Bhutan has developed a special education module.

This progress was only possible by recognizing that building open and trusting relationships in a culturally diverse environment was as critical to the work as instilling the fundamental tenets of special education.

Trusting relationships were essential in order to create a safe environment where people could take risks, ensure open communication that resulted in both positive and negative feedback, and inspire people to make changes even when those changes were difficult and time-consuming. Attaining these outcomes enabled us to collaboratively build a new special education program. As trusting partners, we persevered and engaged in problem solving to establish the strong foundation for progress to ensue.

BUILD POSITIVE RELATIONSHIPS

The most critical element to our success was the longevity and continuity of the program. For six summers, we returned to Bhutan to engage in professional learning and provide technical assistance. Each summer, we built on the knowledge and skills of our Bhutanese colleagues, and we have witnessed an evolution in their ability to support students with special needs.

When our team returned each year, we were greeted with the words, “Welcome back to your second home. We are so glad you’ve come back.” In addition to the summer program, we remained in touch and available for consultation throughout the year. Our team provided technical assistance by creating multiple avenues of communication, including e-mails and Skype calls, to involve the Bhutanese in decision making and serve as mentors to address any questions or issues related to the special education program.

In addition to consistency of involvement, we built positive relationships by complimenting and acknowledging the efforts of the Bhutanese, no matter how small. We remained cognizant of the significant cultural differences, and we became adaptable and flexible in changing our own styles. Though our professional goals were to provide high-quality professional learning, attending social functions and visiting teachers in their homes after work helped forge our bonds.

ENSURE SUSTAINABILITY

The head of Bhutan’s special education division consistently reiterated the need for the Bhutanese to assume ownership of the special education process. We needed to build capacity to provide the Bhutanese with the skills and knowledge to sustain special education independently and ensure that the Bhutanese could assess their own progress and make the necessary changes when needed.

To do this, we worked with the Bhutanese Ministry of Education to develop its own vision, mission, and guiding principles to develop high-quality special education practices. Over time, we broadened our professional learning to include not only large conferences, but also embedded professional learning in schools, leadership training, and ultimately the train the trainer model in summer 2014.

Since the program’s inception, we recognized the important role of school leaders in moving special education forward. Initially, teams of teachers and administrators attended our large conferences together to hear the same message. We have consistently supported and developed leadership and have encouraged ongoing collaboration amongst administrators.

However, after six years, school leaders needed additional time and opportunities to work together to problem solve, discuss effective evaluation tools, and share best practices in a structured professional learning community. In 2014, we introduced summer leadership training multiday sessions. Leadership training drew high marks from principals, who no longer viewed themselves as solely managers but were now more ready and willing to view themselves as instructional leaders.

Our goal for the train the trainer model was to prepare the Bhutanese educators to become the primary professional learning providers in implementing special education. The Ministry of Education identified 20 exemplary educators — teachers, principals, administrators, and college faculty — as the future trainers. Many of the professionals had limited experience presenting to colleagues, so we decided to focus on both the art of training (the platform skills) and the science of training (the content).

In the months leading up to the Train the Trainer Institute, we developed modules focusing on the basics of special education and also highlighting best practices. The modules included scripted activities, slide presentations, and trainer notes. During the institute, we first modeled different lessons and activities from the modules. After observing, participants chose, practiced, and presented their lessons. Using coaching, videotaping, and constructive feedback, the Bhutanese reflected on their ability to engage an audience and to communicate the content effectively.

The practice sessions built confidence, knowledge, and skills and allowed Bhutanese trainers to adapt the lessons and activities to make them their own. Under our guidance, the Bhutanese...
nese turned over the special education modules to teachers and principals from two newly identified schools that will begin serving students with special needs in the near future.

Bhutanese teacher Yeshi Choeki found the two-day Train the Trainer Institute very useful. “The content was introduced to us through strategies that we could use as a facilitator,” she said. “All sessions had hands-on experiences and tips on becoming a better presenter. The video feedback together with the feedback from the U.S. specialists and colleagues were very effective in letting us see what we required to improve further. We are now more confident and prepared.”

ONE SIMPLE GOAL

Having six years to reflect on the causes and consequences of our goals and actions has been the single most influential factor in our own development as instructors, trainers, and administrators. In the midst of a chaotic and still-developing situation, we were unable to pause and articulate the process by which we moved toward our goals or to even fully determine what that success would look like until after many years had passed.

Now, looking back on the progress Bhutan has made, we recognize that the success of our team’s actions was predicated on having one simple goal: the ability to leave and rely on the Bhutanese administrators, faculty, and staff to run their program locally and independently. Indeed, from the beginning, our goal has been to turn over the reins to the Bhutanese educators with the expectation that they will have the skills and knowledge to improve outcomes for students with special needs.

That imperative has led to major change, both fostering a sense of responsibility within the Bhutanese instructors and also creating a cultural shift toward serving students with learning difficulties. Over time, educators have developed the expertise and commitment necessary to ensure the sustainability of the special education program in the country.

When status quo is a no-go

Continued from p. 48

back to share with their peers. Not only does this allow for a sense of autonomy in their own profession, but it also empowers them to lead in a very authentic manner.

CHANGE ISN’T EASY

Change is never easy. The transformation at Liberty High School has first and foremost been a process, and it has been hard. The transition has been carefully developed based on learning research, staff feedback, and reflection.

The resulting professional learning system has been designed and implemented with a keen eye to the school’s culture, built on programs and norms that have been defined by its community and stakeholders. As such, it is a living, dynamic organism within the school. Staff members are engaged and come ready to learn because they are respected as professionals and learning what they need and want to learn to improve student learning in their classrooms.

There have been implications for us, too, as teachers and administrators. We need to:

• Always keep the why of the work (the reasons behind the actions, techniques, and standards used) in the forefront of our minds and as the cornerstone of the practices and processes we promote (Sinek, 2009);

• Remember to acknowledge rather than criticize and recognize that small steps lead to big gains;

• Observe and listen to our constituents to understand the cultural implications of the work;

• Be flexible and adaptable as we offer suggestions and prepare professional learning, always keeping our audiences and the cultural context in mind;

• Consistently acknowledge the importance of trusting relationships that foster open, direct, and honest communication; and

• Collaborate with educational leaders to develop a system of accountability that defines what success looks like.

These lessons learned will continue to influence our work as professional developers in the U.S. This is the legacy that we hope we leave in Bhutan as the project ensues and the driving force as we continue our endeavors.

REFERENCES


Alison Telsey (alitelsey@gmail.com) is a professional development consultant and licensed psychologist. Laurie Levine (laurie355@msn.com) is regional special education training specialist at Rockland BOCES in New York.
IMPORTANT LESSONS FROM A SOFTWARE GIANT

By Stephanie Hirsh

The longer I serve in education, the more I realize I have so much to learn about learning and the kinds of cultures that make it central to the daily work of an organization. As part of our work with the PD Brain Trust on redesigning professional development, Learning Forward is looking outside of education to hear from learning leaders in other sectors. PD Brain Trust partners recently had the opportunity to hear about SAS, a world leader in business analytics software.

SAS describes itself as a knowledge company. It certainly is a successful one. With almost 14,000 employees worldwide, more than $3 billion in revenue last year, and continuous revenue growth since its founding in 1976, SAS serves 93 of the top 100 companies in the Fortune Global 500.

Just as we are experiencing in education, changes in the world and in technology have ongoing implications for the SAS workforce and the knowledge and skills required to succeed. SAS leaders recognize that they need meaningful recruitment and retention strategies to keep the most effective professionals.

SAS is intentional in every aspect of its human capital experience to build the environment that is central to its success. I was most struck by several cultural fundamentals the SAS visitors shared with us, and I want to focus on just three. Think about how important these are to the most successful schools, school systems, and organizations.

Culture matters: SAS has among its guiding principles mutual respect and empowerment. They also prioritize celebrations to bring energy to the workplace and recognize employees. When I think about schools with high levels of collective responsibility for all students, I know that the culture in those workplaces is central. What actions do successful education leaders undertake to create cultures that nurture success?

Learning for all: SAS tailors learning to each stage of the career pathway, from student programs and early career academies to learning for experienced professionals. Leaders at SAS know the importance of stimulating minds. They intentionally build community among their millennial employees and find ways to connect them with key leaders in the organization. How can our learning communities and networks in schools serve as places for not only problem solving and learning, but also ongoing support for each individual striving to achieve ever-higher goals as a professional?

Growth mindsets: We heard SAS reference Carol Dweck and the importance of growth versus fixed mindsets. SAS leaders know that a professional’s skills must continue to develop, so they look for the right mindset for growth. That made me reflect on how often I’ve seen school and system leaders who value growth mindsets for both their students and educators. That approach is not universal. How can we elevate that conversation in more places?

I don’t see how any educational organization with such elements at its foundation could fail. Why do we find it so challenging to achieve?

Stephanie Hirsh (stephanie.hirsh@learningforward.org) is Learning Forward’s executive director.

ABOUT THE PD BRAIN TRUST

The PD Brain Trust is a collaborative professional learning community of individuals from organizations that have demonstrated leadership in all aspects of K-12 education.

Rethinking adult learning is essential to the redesign of learning for children. By engaging a diverse group of leading thinkers and designers, the PD Brain Trust is identifying new solutions to challenges within the current professional learning system to inspire new thinking about how to create demand for — and deliver — redesigned systems of support that can guarantee that all educators have access to effective professional learning.

Visit the Learning Forward website at www.learningforward.org/learning-opportunities/Redesign-PD to find links to resources, watch videos of thought leaders, or sign up for a free digital newsletter.
USE LANGUAGE THAT BUILDS TRUST

Trust serves as the connective tissue that allows teachers to question current practices, take risks, and try new strategies because they are confident their leader supports and encourages their creativity and innovation as they work to achieve their goals. Use this tool to gain a deeper understanding of the power of language in creating and sustaining trusting relationships.

**Purpose:** Consider the effects of language on relationships that build and sustain trust.

**Time:** 1-1½ hours

**Materials:**
- Copies of pp. 56-57 for each group member.
- Pens.
- Highlighters.

**Steps**

<table>
<thead>
<tr>
<th>Steps</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ask participants to read “The power of language” on p. 56. Ask that they underline statements that resonate with them and draw boxes around key words.</td>
<td>10 minutes</td>
</tr>
<tr>
<td>2. Have them share underlined statements with a partner and explain why these statements were particularly meaningful.</td>
<td>5 minutes</td>
</tr>
<tr>
<td>3. Ask group members to read and respond silently to the four questions on p. 57.</td>
<td>20 minutes</td>
</tr>
<tr>
<td>4. Ask that group members practice a conversation with a partner or the group, responding first to question 3 and then to question 4.</td>
<td>10 minutes each round</td>
</tr>
</tbody>
</table>

**Becoming a Learning System**
By Stephanie Hirsh, Kay Psencik, and Frederick Brown

This tool is adapted from *Becoming a Learning System*. Based on Learning Forward’s definition of professional learning and Standards for Professional Learning, *Becoming a Learning System* outlines the knowledge, skills, attitudes, and behaviors district leaders need to lead, facilitate, and coach school leaders and leadership teams to embed the definition and standards into schools’ daily routines. Built on the ideas explored in *Becoming a Learning School*, the chapters in this comprehensive tool kit are supplemented by dozens of additional tools. *Learning Forward, 2014*

$64 members; $80 nonmembers  Item B576

To order: www.learningforward.org/bookstore or 800-727-7288
Let’s consider the power of our language. How is language action?

• We continuously make assertions and assessments about the world around us and ourselves in it.
• Through our language, humans coordinate action. We make declarations, requests, offers, promises, and complaints.

Language is part of the coherence between body and emotions. We use certain speech actions to maneuver our world based on our assertions and assessments.

• Assertions are the facts about the world. (The world rotates on its axis. I am 45 years old.)
• Assessments are judgments that we make based on our observations of the world. (This cookie is really good. That child is challenged to learn. That teacher does not want to change.)

Most of our language is assessments we make as we observe the world. As we view the world through our lenses, we observe results. Observations lead us to select actions. It is our observations of the world that open up opportunities for us or shut them. If I believe that I cannot learn, I won’t try. If I believe women cannot fly planes as well as men and I am a woman, I won’t try. If I see the world as full of opportunities for me and view myself as capable of anything, I will actually “see” more opportunities than if I focused on my limitations.

We coordinate action when we make:

• Declarations;
• Offers;
• Requests;
• Commitments;
• Conditions of satisfaction;
• Declines;
• Complaints; and
• Apologies.

Leaders are called upon every day to have conversations that motivate, assess, invent, and support. Leaders must discuss performance, coordinate action, and build trust. Organizations are fundamentally networks of conversations.

It is not the state of the world but our current understanding of trust that restricts our ability to have the conversations needed to nurture, build, and rebuild trust.
## DIRECTIONS

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong></td>
<td>Bring to mind an instance when someone made a promise to you and then failed to fulfill it. How did that show up in your language, body, and emotion?</td>
</tr>
<tr>
<td><strong>2</strong></td>
<td>Bring to mind an instance when you did not keep a promise. What were the consequences? How did that show up in the language, body, and emotion of the person to whom you made the promise? In your language, body, and emotion?</td>
</tr>
<tr>
<td><strong>3</strong></td>
<td>What declarations do you need to make? To whom? What language, body, and emotion do you need in order to make those declarations? Practice with your study group.</td>
</tr>
<tr>
<td><strong>4</strong></td>
<td>What conversation do you need to have with someone right now that you have been putting off because your assessment is that it will be difficult? What language, body, and emotion do you need to have that conversation? Practice with your study group.</td>
</tr>
</tbody>
</table>

Professional learning for math teachers is a plus for students

WHAT THE STUDY SAYS

Using 4th- and 8th-grade mathematics data from 2003, 2007, and 2011 Third International Mathematics and Science Study (TIMSS) assessments, researchers conducted a cross-national empirical study to examine teacher participation in professional development and its impact on student achievement. They conclude that, although 4th- and 8th-grade students in the United States had more access to teachers who participated in professional learning than similar students in other countries, one-third to one-half of 4th graders were taught by teachers who had no professional development in mathematics. They also conclude that teachers’ participation in professional development was positively associated with student achievement.

Study description

Despite an increased emphasis on the importance of professional learning and federal guidelines defining levels of investment in it for various federally funded initiatives, empirical research on the impact of professional learning on student achievement continues to be limited. This study is a multinational empirical study using data collected over an eight-year period to examine more closely the impact of professional learning on student achievement. It focused specifically on six areas of professional learning in mathematics: math content, math pedagogy, math curriculum, integrating information technology into math, math assessment, and improving students’ critical thinking or problem-solving skills.

Questions

The research study focused on two questions:

1. How does the percentage of students whose teachers participated in math professional development compare with other countries around the world from 2003 to 2011?

2. How are the national levels of students’ access to teachers who have participated in professional development associated with national math achievement?

Methodology

Researchers used both student achievement and teacher self-reports about their participation in professional learning from the 2003, 2007, and 2011 Third International Mathematics and Science Study to answer the two research questions. Data from the teacher survey about their educational backgrounds, contexts, curricular content, and instruction provide their perceptions and permit comparative analyses about trends in student achievement related to multiple factors. Since 2003, the numbers of countries participating in TIMSS has been growing steadily. In 2003, 26 countries participated in the 4th-grade study and 28 countries participated in the

At a glance

An international comparison study based on TIMSS data over multiple years demonstrates that professional learning for teachers of 4th- and 8th-grade mathematics is associated with increased student achievement.

THE STUDY

WHAT THIS MEANS FOR PRACTITIONERS

This multinational, comparative, empirical study examining data across eight years provides evidence of the positive association between teacher professional development in six areas related to mathematics and students’ mathematics achievement on an international assessment.

The research study affirms what is outlined in the Outcomes standard of Learning Forward’s Standards for Professional Learning — content-focused professional learning is a powerful vehicle for promoting student learning. These findings, when coupled with other research studies, emphasize the importance of linking the content of professional learning to specific outcomes for students, ensuring depth of teacher content knowledge and content-specific pedagogy, knowledge of curriculum, assessment practices, and technology integration into the content.

Further, it suggests that professional learning leaders, practitioners, decision makers, and policymakers have a responsibility for monitoring alignment between the content of professional learning and discipline-specific knowledge and pedagogy. The study, as researchers note, supports the implementation of policies, advocacy, and practices for professional learning as a vehicle for improving student achievement and supporting educational reform.

8th-grade study. In 2011, 52 countries participated in the 4th-grade assessment and 45 countries participated in the 8th-grade one.

Because TIMSS uses a two-stage stratified cluster sampling design of classrooms, students who were taught by teachers with specific attributes are the unit of analysis in this research study as well. The teacher questionnaire asks teachers to respond to a question about their participation in professional development in the past two years in each of the six focus areas. Teacher responses were coded as yes or no.

National mean math scores for 4th- and 8th-grade students were used as the measure of math achievement. Researchers used UNESCO Institute for Statistics data from the time periods of each of the three administrations of TIMSS about gross domestic product (GDP) per capita and education expenditure as a percentage of GDP as control variables.

Analysis

Researchers calculated Pearson’s correlation coefficients between national mean math achievement and students’ access to teachers who participated in professional development. They subsequently conducted multiple regressions using as the dependent variable math achievement of a country for a specific grade level and as the independent variable the percentage of students whose teachers had professional development in one of the six focus areas. The analyses compared students in the United States, in TIMSS countries, in high-income OECD countries, and in G8 countries.

Results

Researchers present the percentage of students in 4th and 8th grade by their teachers’ participation in math professional development that focused in the six areas in the past two years from 2003 to 2011. Overall, there is a larger percentage of students in the U.S. whose teachers participated in math professional development in all areas than in other countries. For example, teachers of 73% of 8th-grade students in the U.S. — compared to 54% of students in TIMSS countries, 52% of students in high-income OECD countries, and 54% of students in G8 countries — participated in professional development in math content in 2011.

Areas where the percentage of U.S. students whose teachers participated in professional development is substantially larger (two-thirds or more compared to one-half or less) than in other countries include math content (4th and 8th grade), math curriculum (4th and 8th grade), and integrating information technology into math (8th grade). The data indicate that, despite the large percentage of students whose teachers participate in mathematics professional development in the U.S. and other countries, nearly a quarter to a half of students do not have access to teachers with professional development in some areas and the percentage of 8th-grade U.S. students declined in all areas between 2003 and 2011.

Overall, students’ math achievement is moderately or significantly associated with professional development in four areas, including math content, math pedagogy, math curriculum, and integrating information technology into math. For example, the correlation coefficients between 4th-grade students’ math achievement and teachers’ professional development in math content are statistically significant at 0.05 or higher in 2003 and 2007 and for the pooled data. For 4th-grade students, 22 of the 23 coefficients are both positive and significant. For 8th-grade students, 17 of 24 coefficients are positive and significant.

Based on the positive association between student math achievement and teacher professional development,
researchers conducted a series of multiple regression models. The regressions indicate that, after controlling for GDP and educational expenditure, there is a statistically significant association in 2007 in five of the six professional development areas for 4th-grade students (math content, pedagogy, curriculum, integrating technology, and improving critical thinking and problem-solving skills); in 2011 in one area; and in five areas for simple pooled data.

For example, in 2007, an increase of 1.9 points in national mean math score is associated with one percentage point increase in the proportion of 4th-grade students whose teachers participate in professional development in math content. For 8th-grade students, the positive and statistically significant associations occur in 2007 in four of the five areas (math content, pedagogy, curriculum, and integrating technology); in 2011 in math pedagogy; and in pooled data in math content, pedagogy, curriculum, integrating technology, and critical thinking and problem solving skills.

For 8th-grade students, a one percentage point increase in access to teachers with professional development in math content, pedagogy, curriculum, and integration of technology increases the national mean math achievement score by an average of 1.04, 1.24, 0.93, and 1.07 points respectively.

Limitations

The researchers note several limitations. Teacher responses about their participation in professional development are self-reported and self-determined as simple yes or no without reference to the amount or quality of professional development and without explanation to guide teachers’ responses. A common limitation of research in professional learning is the lack of common definitions of constructs related to professional learning nationally or internationally. In addition, the context in which professional learning occurs varies greatly across countries.
Consulting services

Learning Forward’s high-impact consulting and programs offer a range of tools and technical support:

- Get comprehensive learning and ongoing support for coaching staff through the Coaches Academy.
- Use the Standards Assessment Inventory 2 (SAI2) to evaluate professional learning strengths and areas of need.
- Learning communities offer onsite and virtual training for principals, teacher leaders, and district staff.
- Pathway to Achievement builds capacity for sustained improvements in teaching and learning.
- With comprehensive planning, system leaders learn to plan and design professional learning aligned to educator and student needs.
- Professional Learning Policy and Impact Review helps states maximize the effectiveness of professional development.
- Consultants will customize learning experiences aligned with the Standards for Professional Learning to meet the unique needs of a school or district.

www.learningforward.org/consulting

Join the Leadership Society

The Leadership Society of the Learning Forward Foundation recognizes individuals who financially support the work of educators engaged in developing systems of effective professional learning. Foundation donors recently received certificates acknowledging their level of membership in the Leadership Society. The society recognizes donors at five levels of giving, with benefits awarded to each level. Donors have three years to reach the highest level, with benefits that include a three-day Annual Conference registration and five digital memberships. Take your leadership to the next level by donating today.

www.learningforward.org/foundation/leadership-society

Learning Forward’s permission policy

Learning Forward allows its members to make up to 30 copies of a single article for distribution in a school, school district, or regional/state educational agency. Members who want to make more than 30 copies of an article or who want permission to reprint an article in another publication must seek permission from Learning Forward. (Educators who want to distribute copies of Learning Forward articles or excerpts at the Annual Conference or other Learning Forward-authorized functions are exempt from this requirement.) All nonmembers who want to make copies or print articles should submit permission request forms, available for download on the website.

www.learningforward.org/publications/permissions-policy

Are you learning forward or backward?

Learning Forward Deputy Executive Director Frederick Brown explains the difference.

"Here are some examples of what I feel are backward learning activities:

1. Do you attend conferences or workshops year after year, yet rarely adjust your teaching or leadership as a result of what you learned?
2. Do you assess the effectiveness of your learning experience based solely on how much you enjoyed it or how good you felt when it was over?
3. Do you choose your learning based on what’s convenient versus what’s needed?
4. Do you often learn in isolation, thus removing yourself from any accountability to your peers to apply what you’ve learned?
5. Do you limit your use of coaching and assume you’ll eventually just ‘get’ whatever it was you recently learned? “If you answer yes to any of these questions, I would say that you’re inclined to learn backward. Don’t feel bad — you’re in good company.”

http://bit.ly/1dfdfbu
Learning Forward welcomes Academy Class of 2017

The Learning Forward Academy Class of 2017 brings together 51 like-minded education professionals for a 2½-year, coach-led, collaborative learning cohort to tackle their biggest challenges in advancing teaching and learning in their systems.

The Academy is a guided learning and problem-solving experience based on what we know about the causal relationships between professional learning, educator effectiveness, and student results.

What is it that participants like most about their Academy experience?

- Connecting with, learning from, and gaining the perspectives of people across the country;
- Gaining new knowledge, tools, and resources to support professional learning;
- Focused collaboration time;
- Getting to know the coaches and learning from them; and
- Working with others in job-alike groups.

Class of 2017 members will experience 12 face-to-face, team-based learning days, attend Learning Forward’s 2015 and 2016 Annual Conferences, and collaborate throughout the year by phone and virtually. An experienced coach will provide ongoing support.

For more information about the Academy, visit www.learningforward.org/learning-opportunities/academy.
Educators in successful schools and districts have found that implementing professional learning communities at the school level can be effective for sharing vision, beliefs, and strategies that align with their system’s overall strategic plans. I work in Fairfax County (Virginia) Public Schools, where professional learning communities have become the norm as a model of a changed culture and shared vision. As Frances Ivey, assistant superintendent at Fairfax County Public Schools, notes, “Our emphasis on professional learning communities has emphasized the need to work collaboratively, study the data, and focus on each child, by name and by need.”

For a professional learning community to take hold across an organization and become self-sustaining, it must be part of a shared vision and leadership model. Parents, teachers, staff, students, and the leadership team within and across all levels, roles, and functions must set goals and feel personally responsible for its success and failure, as well as enabled and empowered to demonstrate leadership skills as needed.

I remember when I first realized the importance of shared vision. I was participating in professional learning on collaborative leadership and professional learning communities. The speaker opened with an illustration showing that just because the captain of a ship can clearly see the destination, that doesn’t help at all if the crew paddles in a different direction.

As a high school and middle school principal, I found that professional learning communities were critical to student academic success. However, I knew we could go further and that it would take even deeper collaboration.

Our greatest success in achievement came when our system reorganized into regions. Within each region, schools are clustered into pyramids of feeder schools — one high school, one middle school, and several elementary schools. Fairfax County Public Schools is the 10th largest school system in the U.S., with many students who are at risk, English language learners, receive special education, or eligible for free or reduced meals. The district’s five regions are each headed by a regional assistant superintendent.

Administrators meet monthly to offer collegial support, engage in conversations on teaching and learning, and collaborate on strategies and best practices to affirm individual school, pyramid, and district goals. Principals develop goals and identify the resources they need.

Data are critical throughout the system. Ivey says, “Each pyramid develops goals based on achievement data and other important data. Most goals focus on literacy and numeracy, although pyramids have also developed goals around writing, anti-bullying, wellness and resiliency, and student and parent engagement.”

Without careful planning within each pyramid, our successes could be hit or miss. Assistant superintendent Angela Atwater notes that the various schools in the pyramids develop goals that are aligned. She says that through their aligned professional learning, teachers can make sure that when “children matriculate from elementary to middle, and middle to high, they will have the knowledge, skills, and abilities to be successful students.”

The district has defined a culture of high expectations for all through its vision, shared leadership, and practices such as professional learning communities at each level that demonstrate high expectations. With everyone paddling in the same direction, I know we’ll reach our destination: Success for every student in the system.

Deborah Jackson is president of Learning Forward’s board of trustees.
LEARNING FORWARD’S VISION: Excellent teaching and learning every day.

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
Executive director
Stephanie Hirsh
stephanie.hirsh@learningforward.org

Deputy executive director
Frederick Brown
frederick.brown@learningforward.org

Director of communications
Tracy Crow
tracy.crow@learningforward.org

Associate director of publications
Anthony Armstrong
anthony.armstrong@learningforward.org

Associate director of learning programs
Suzanne Siegel
suzanne.siegel@learningforward.org

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

Scholar laureate
Shirley Hord
shirley.hord@learningforward.org

Senior advisor
Joellen Killion
joellen.killion@learningforward.org

Learning ambassador
Carol François
carol.francois@learningforward.org

Distinguished senior fellow emeritus
Hayes Mizell
hmizell@gmail.com

BOARD OF TRUSTEES
Deborah Renee Jackson, president
John Eyolfson, president-elect
Julie Blaine, past president
Alan Ingram
Scott Laurence
Janet Samuels
Olivia Zepeda

book club
THE COLLABORATIVE ANALYSIS OF STUDENT LEARNING: Professional Learning That Promotes Success for All
By Amy Colton, Georgena Langer, and Loretta Goff

This book is a comprehensive guide to implementing a research-based approach to professional learning that drives educator effectiveness and promotes learning for every student.

Aligned with Learning Forward’s Standards for Professional Learning, the Collaborative Analysis of Student Learning (CASL) model has been directly linked to student improvement. The book includes step-by-step guidance to implementation supported by tools, protocols, and examples.

Through a partnership with Corwin Press, Learning Forward members can add the Book Club to their membership at any time and receive four books a year for $69 (for U.S. mailing addresses). To receive this book, add the Book Club to your membership before July 15. For more information about this or any membership package, call 800-727-7288 or email office@learningforward.org.

LEARNING FORWARD CALENDAR
July 16-19: Learning Forward Summer Institute, Toronto, Ontario, Canada.
Oct. 1: Last day to save $50 on registration to Learning Forward’s 2015 Annual Conference in Washington, D.C.
Oct. 6-7: Learning Forward Fall Institute, Princeton, New Jersey.
Dec. 5-9: 2015 Annual Conference in Washington, D.C.

Have you adopted the standards?

Learning Forward works with state and provincial affiliates to track which states or provinces have adopted or adapted the Standards for Professional Learning. See the latest information about standards adoption at www.learningforward.org/who-we-are/our-impact.

In addition, Learning Forward would like to hear about schools, districts, or organizations that have adopted the standards to guide their work. We want to know:
- Who has adopted the standards?
- Why was it important to adopt the standards?
- Has the adoption of standards influenced changes in beliefs, missions, or visions in organizations? If so, how?
- Has the adoption of standards influenced changes in practice? If so, how?
- What support does the school or district offer educators to implement the standards?

Learning Forward is also interested in hearing answers to these questions from educators in states that have adopted the standards.

Please contact Tracy Crow (tracy.crow@learningforward.org) if you have information related to standards adoption.
Do you know how your system aligns to the Standards for Professional Learning?

Standards Assessment Inventory 2

Quickly and easily assess the quality of your system’s professional learning with Learning Forward’s Standards Assessment Inventory 2 (SAI2).

ASSESSMENT

- Determine your system’s alignment of professional learning to the standards;
- Collect data on the quality of professional learning as defined by the Standards for Professional Learning;
- Discover teachers’ perceptions of professional learning;
- Understand the degree of success and challenges you face with professional learning practices; and
- Examine the relationship of the standards to your improvements in educator effectiveness and student achievement.

INTERPRETATION AND PLANNING

Learning Forward guides educators through data interpretation and action planning. Systems can leverage data from the SAI2 to guide the planning, facilitation, implementation, and evaluation of professional learning to maximize its impact and investment.

To learn more, call Renee Taylor-Johnson at 513-523-6029 x222 or visit www.learningforward.org/consulting
**abstracts**

**TOGETHER WE CAN DO MORE: COLLABORATION & TEAMS AMPLIFY LEARNING**

**Keys to collaboration:**
What it takes to move toward collective responsibility.
*By Tracy Crow*

Having professional learning communities on the schedule doesn’t always fulfill teachers’ collaboration needs. How can schools and systems create structures and supports so educators engage in the kinds of collaborative problem solving and intentional learning that they value? Here are several critical factors in supporting meaningful collaboration for lead learners to consider.

**Talk that teaches:**
How to promote professional dialogue and growth.
*By Lynsey Gibbons and Melinda Knapp*

What types of talk promote teachers’ professional growth? In two vignettes, 4th-grade teachers and instructional leaders examine student work and observe classroom instruction. These learning designs encourage teachers to talk in ways that develop a shared understanding of teaching, which is instrumental to their professional growth. Instructional leaders play an important role in creating a culture that encourages learning and growth.

**Collaboration by design:**
School chooses strategies that allow teachers to learn with and from each other.
*By Jeff Keller and Marfel Kusko*

Teachers at Marylin Avenue School in Livermore, California, used data team process, lesson study, peer observations, and lab lessons to identify needs, set goals, and plan professional learning that was job-embedded, ongoing, and focused on the curriculum. Marylin’s learning system allowed teachers to take risks and innovate and encouraged everyone to measure for effectiveness. Since engaging in these learning practices, student test scores in math and English language arts have increased.

**In the driver’s seat:**
Teacher-led model moves learning in the right direction.
*By Lisa Sullivan and Theresa Westover*

Grants through California’s Teacher-Based Reform (T-BAR) program allowed teachers to select professional learning that would meet their personal needs and be responsive to their local school context. A survey and case study showed that the majority of teachers felt their participation increased their confidence and pedagogical knowledge, improved their classroom instruction strategies, and eased their transition to Common Core standards and expectations.

**Crowdlearning:**
8 districts pool resources to focus on assessment literacy.
*By Paula Dillon, Cassandra Erkens, Diane Sanna, and Linda F. Savastano*

Eight Rhode Island school districts joined together to develop a culture of assessment literacy through ongoing professional learning focused on team-specific actions aligned to school, district, and state initiatives. The districts pooled their funding to engage a national expert to coach and guide their work. Their goal was to create a professional learning community that would develop understanding and application of assessment for learning at the classroom and building levels. Early results are promising.

**Coaching side by side:**
One-on-one collaboration creates caring, connected teachers.
*By Nancy Akhavan*

A school district administrator sets out to find insights into optimal coaching experiences for classroom teachers. She surveyed teachers around the U.S. and analyzed student achievement data to determine what types of coaching have a positive impact for teachers and student learning. Study results highlighted five attributes for coaching: people skills; a focus on the teacher’s needs; availability; an understanding of data’s role in planning instruction; and working side by side with teachers.

**What is an authentic professional learning community?**
*By Shirley Hord*

The most supportive environment for doing learning and improvement work is the professional learning community. Six research-based attributes that distinguish an authentic professional learning community are: structural conditions, supportive relational conditions, shared values and vision, intentional collective learning, peers supporting peers, and a shared and supportive leadership.

**Create a safe place to learn:**
Probing encourages teachers to delve deep into their thinking.
*By Amy B. Colton, Georgea M. Langer, and Loretta S. Goff*

Probes are statements or questions that invite a deeper level of conversation about how teachers are thinking about a student’s learning. Probing is a communication skill that serves a critical role in promoting and maintaining a trusting environment while also supporting teachers to stay open to new ways of thinking and being.
features

When status quo is a no-go:
Maryland high school redefines its professional learning.
By Jared C. Wastler and Shannon Zepp

School leaders at Liberty High School in Eldersburg, Maryland, developed a professional learning system by identifying diverse professional learning opportunities, building a menu of options from which staff members may choose, then scheduling and promoting these learning opportunities. Today, teachers lead and facilitate all professional learning. Data plays a key role in the process, both as an observational and an evaluative component, to support professional learning.

More lessons from Bhutan:
6 years later, change takes root and flourishes.
By Alison Telley and Laurie Levine

Six years after they began their work promoting sustainable special education programs and practices in Bhutan, two U.S. educators pause to reflect on what they’ve learned, share the successful elements of their experience, and explore how this knowledge can impact their future work. Building open and trusting relationships in a culturally diverse environment was as critical to the work as instilling the fundamental tenets of special education.

Important lessons from a software giant.
By Stephanie Hirsh

The key to success for any educational organization is rooted in these learning fundamentals: Culture matters, learning is for everyone, and a growth mindset is essential.

columns

Lessons from research:
Professional learning for math teachers is a plus for students.
By Joellen Killion

An international study based on TIMSS data shows that professional learning for teachers of 4th- and 8th-grade math is associated with increased student achievement.

From the director:
Why collaboration matters.
By Stephanie Hirsh

It’s not just by chance that Learning Communities is the first of the Standards for Professional Learning. Learning collaboratively and collective responsibility contribute to more successful learning for students.

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.

JSD 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/publications/jsd/upcoming-themes.

Write for JSD

- Themes for the 2015 publication year are posted at www.learningforward.org/publications/jsd/upcoming-themes.
- 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/publications/jsd/writers-guidelines.

INDEX OF ADVERTISERS

Corwin Press........................................................................................................ inside back cover, 17
Just ASK Publications & Professional Development.................... outside back cover
School Improvement Network...............................................................1
Solution Tree......................................................................................... inside front cover, 13
Why collaboration matters

There’s no question that Learning Forward values collaboration and community as critical elements of effective professional learning. It’s not just by chance that Learning Communities is the first of the Standards for Professional Learning. Learning collaboratively and collective responsibility contribute to more successful learning for students.

I can point to three readings that will help leaders deepen their understanding of why collaboration in schools is so important, why it is central to our definition of professional learning and why it must be embedded in the vision and values of a comprehensive professional learning system.

First is an article called “Deep smarts” by Dorothy Leonard and Walter Swap (2004). Deep smarts, according to the authors, is the valuable know-how that employees build over time in an organization. More than specific skills, more than knowledge, deep smarts is developed through years of experience and becomes part of the unconscious way an employee works.

The challenge for leaders is explicitly recognizing the value of deep smarts and finding ways to nurture its growth. And, most importantly, to retain it when someone leaves. Think about when a master teacher retires or moves on and the sheer volume of wisdom leaves your school. How can you tap into those deep smarts to spread wisdom to every teacher?

Second is “The missing link in school reform” by Carrie Leana. Through her research in New York City Schools, Leana and her fellow researchers verified the importance of peers learning together in schools. She calls the knowledge educators create together social capital. Her research shows that social capital outweighs human capital — that is, knowledge created collectively has more impact than the knowledge a single educator holds.

With these as recent touchstone pieces, I had a real aha moment when I read the book Professional Capital by Andy Hargreaves and Michael Fullan. Professional capital encompasses human capital, social capital, and decisional capital. Decisional capital is the wisdom built over years of experience to guide professional judgment and decision making.

When Hargreaves and Fullan explain their concept, they reference Leana on the importance of collaborative learning. And as I read their definition of decisional capital, I made a connection to the notion of deep smarts. The interplay of these concepts is what leads to professional capital.

Coming to understand this idea cemented for me precisely why collective learning and collective responsibility are core to what we envision for professional learning: When educators work together deeply, with trust, over time, with sufficient resources and guided by data about what students need most, they can adapt their skills, change their practices, and create ever-improving learning experiences so that every student learns at high levels.

What steps can you take to put collaborative learning at the heart of your learning system? What else do you need to learn? How can you help others to share this understanding? Do some reading this summer and get inspired.

REFERENCES


What Works Best for Raising Student Achievement?

The Visible Learning research

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student visible learning</td>
<td>1.44</td>
</tr>
<tr>
<td>Response to intervention</td>
<td>1.07</td>
</tr>
<tr>
<td>Classroom discussion</td>
<td>0.82</td>
</tr>
<tr>
<td>Feedback</td>
<td>0.75</td>
</tr>
<tr>
<td>Teacher-student relationships</td>
<td>0.72</td>
</tr>
<tr>
<td>Direct instruction</td>
<td>0.59</td>
</tr>
<tr>
<td>Peer tutoring</td>
<td>0.55</td>
</tr>
<tr>
<td>Classroom management</td>
<td>0.52</td>
</tr>
<tr>
<td>Parental involvement</td>
<td>0.41</td>
</tr>
<tr>
<td>Writing programs</td>
<td>0.40</td>
</tr>
<tr>
<td>Cooperative learning</td>
<td>0.40</td>
</tr>
<tr>
<td>Integrated curriculum</td>
<td>0.39</td>
</tr>
<tr>
<td>Computer-assisted instruction</td>
<td>0.37</td>
</tr>
<tr>
<td>Inquiry-based teaching</td>
<td>0.31</td>
</tr>
<tr>
<td>Homework</td>
<td>0.29</td>
</tr>
<tr>
<td>Teaching test-taking skills</td>
<td>0.27</td>
</tr>
<tr>
<td>Summer school</td>
<td>0.23</td>
</tr>
<tr>
<td>Class size</td>
<td>0.21</td>
</tr>
<tr>
<td>Co-/team teaching</td>
<td>0.19</td>
</tr>
<tr>
<td>Mentoring</td>
<td>0.15</td>
</tr>
<tr>
<td>Ability grouping</td>
<td>0.12</td>
</tr>
<tr>
<td>Teacher education</td>
<td>0.09</td>
</tr>
<tr>
<td>Summer vacation</td>
<td>-0.02</td>
</tr>
<tr>
<td>Retention</td>
<td>-0.13</td>
</tr>
<tr>
<td>Television</td>
<td>-0.18</td>
</tr>
</tbody>
</table>

The Collaborative Impact Program

The Visible Learning research identifies 150 factors that influence student achievement, ranking them from the largest impact to the least.

The answer is here.

The Visible Learning research focuses on a simple question: What affects student learning the most? John Hattie began his quest to find the answer more than 20 years ago. Today, the Visible Learning®plus Collaborative Impact program is the gold standard for aligning system leaders, school leaders, and teachers with a proven process for building capacity and focusing on high-effect strategies over a 3-5 year period.

What's your impact?

Find out through Visible Learning®plus seminars.
For more information about Just ASK’s consulting services, workshops, and award-winning publications and products, please visit our website.