JSD

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THE AUTHORITY ON PROFESSIONAL LEARNING

Technology

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"In professional development, as in student learning, we need to think about an ecology of different types of learning that matches different people's needs and preferences so they can navigate to whatever part of that ecology for that particular goal they bring to it."

— *Chris Dede*

p. 10

theme TECHNOLOGY

Photo by MARK HARMEL/ICIFuture.com

JSD is changing, growing, learning — and so are the ways we change, grow, and learn

Welcome to the ever-innovating *JSD*. We've been up to our ears in change lately. Not only are we increasing the number of issues we publish each year, but now you hold in your hands a redesigned magazine. You'll find some new features and a different look and feel.

Why do we innovate? I suspect it's for many of the same reasons you do:

1. **We want to be better.** New concepts and new tools give us the power to meet needs in new ways and to take what we've always done a few steps further.

2. **We want to keep up.** We want to make sure that we keep up with the audiences we serve. No one is staying in the same place they were five years ago — not NSDC members, not your students, not the teachers you work with. As the needs of students and educators change, we must do the same.

3. **We like to change.** There are decades of research on change and how difficult it is, and we see evidence of that all around us. At the same time, learning *is* change. Learning is why we do what we do. As hard as it is, change won't be. Technology users can cite the same

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reasons for adapting the latest innovations in their professional and personal lives. I know that the innovations I have adopted help me do my job more efficiently and more effectively. I suspect that within the explosion of Facebook users are millions of us trying to keep up, whether it is with students or family members or co-workers. And in terms of liking to change — how many of you have picked up a new piece of technology just for fun?

Within the articles in this issue of *JSD*, you'll meet innovators who have used technology as a tool to create the professional learning contexts and conditions many of us aspire to: communities with the ability to share resources and examine instruction, access to data about student progress and specific needs, convenient and sustained connections to peers with the knowledge that will help change practices, and skillful learning leadership and facilitation. These innovators have shaped technology as a means to take effective professional learning to new places, both literally and figuratively. As always, the learning is the point of these efforts — technology is the tool. And what a powerful tool it can be.

There are several new *JSD* features I'd

Up Close introduces the technology theme and launches JSD Professional Learning Guide.

like to point out: We created **Up Close**, pp. 8-9, to give you an engaging entry point into the magazine's theme. We hope you'll find some guidance to save you time in getting the most from each issue. There you'll also find the first part of **JSD Professional Learning Guide**, designed to support you and your colleagues in using *JSD* as part of a reflective learning experience. The complete guide is online at www.nsdc.org/news/jsd/. You'll also see **Tell Us**, an invitation to respond to a key question on the theme via NSDC's blog. I hope you'll take the opportunity to interact with other readers around these questions.

Those of you who flip from back to front will begin your reading with **From the Director** (p. 76), where Stephanie Hirsh will offer her perspective on the theme. A page leading you to the latest on NSDC's web site (**nsdc.org** on p. 75) is another addition, and other NSDC information is located in the back (**nsdc@work** on p. 72).

I'm eager to hear what you think, and more importantly, what you need next. E-mail me anytime.

By the way, we're not done changing. We can't afford to be, and neither can you. ■

EDUCATION RESOURCES

AERA webcasts
American Education Research Association

The American Education Research Association (AERA) web site hosts a wide variety of resources for educators and soon-to-be educators, including publications, webcasts, fellowship and grant information, and links to other research associations. AERA seeks to improve education through promoting educational research, sharing information, and encouraging real-world, practical application of inquiry results. Twelve divisions within AERA address specific areas of interest, including teacher education, administration, human development, and educational policy and politics. Webcasts include lectures and addresses by Lauren Resnick, Linda Darling-Hammond, Deborah Loewenberg Ball, and Stephen Raudenbush.
www.aera.net/Default.aspx?id=6112

KEEPING GOOD TEACHERS

"What keeps good teachers in the classroom"
Teachers Network, the Center for Teaching Quality, and the Ford Foundation, December 2009

Professional collaboration, supportive networks, and strong leadership and professional development are valuable elements in producing quality teaching and teacher retention — and teachers' positive impressions of their work. A majority of the more than 1,200 teachers who participated in a national survey reported that opportunities to collaborate with colleagues strengthened their feeling of effectiveness, enhanced their teaching skills, and improved their teaching experience. In fact, colleagues' support was the only school culture factor found to affect teachers' expressed plans to remain in the classroom. Survey results and a documentary video are available on the web site.
www.teachersnetwork.org/keepinggoodteachers

THE PEOPLE FACTOR

"Taking human capital seriously: Talented teachers in every classroom, talented principals in every school"
Strategic Management of Human Capital, November 2009

Based on the premise that quality teachers and principals are essential to successful education reform, this report urges reconsidering and reprioritizing the people side of efforts to improve student success and close the achievement gap. Recruiting and retaining effective educators and administrators by aligning school district academic goals with district-level structures and practices can have a powerful impact on student success. The report lays out 20 state and local policy recommendations and six general principles for finding and keeping effective teachers and principals with strong leadership skills.
www.smhc-cpre.org/resources/

SCHOOL TURNAROUND

"**Competencies for turnaround success"**
Public Impact, June 2008

The Competencies for Turnaround Success Series offers school districts four resources to help find and hire teachers and leaders who can help move schools from failure to success. Such turnaround requires strong leadership and staff collaboration, and the guides help district officials identify and understand the traits research has found to be most effective in accomplishing this goal. Two guides, one for leaders and one for teachers, outline the competencies and provide examples and resources. The leaders' guide also includes a detailed competency scale. Two companion tool kits provide questions, interview tips, information about competency levels, and scoring rubrics.
http://publicimpact.com/act-strategically-when-schools-fail/competencies-for-turnaround-success
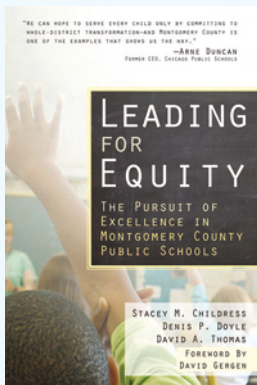
POSITIVE TRANSFORMATION

"Leading for equity: The pursuit of excellence in Montgomery County Public Schools"
Montgomery County Public Schools, 2009

A book and several case studies by Harvard University researchers draw on one school district's success story to provide a road map for other schools seeking to achieve educational reform. Montgomery County Schools (Maryland) used a differentiated treatment approach — allocating resources to and maintaining a focus on the district's struggling schools — to improve not only student achievement but also the professional development of staff, teachers, and principals. Districtwide curricular changes, teacher training, and new support programs ultimately resulted in a positive turnaround.
www.montgomeryschoolsmd.org/leadingforequity/

VALUABLE DATA
"The value of value-added data"
The Education Trust, November 2009

Value-added data provide diagnostic information about the performance of students, teachers, schools, and districts. Monitoring and analyzing student achievement and teacher impact can offer opportunities for changing classroom practices and providing more focused professional development. Assessments of value-added data provide a framework for developing targeted professional development, ensuring that teachers use effective information and methods and that training focuses on each teacher's specific needs.
www.edtrust.org/dc/publication/the-value-of-value-added-data

Tip of the tongue

TERMINOLOGY IN TECHNOLOGY-ENHANCED LEARNING

Asynchronous. Describes events that don't require learners to gather at the same time; they can participate at their convenience.

Blended (or hybrid) environment. Learning experience that includes face-to-face interaction along with technology-supported learning.

Learning management system. Software for districts to plan, document, and monitor classroom, student, and teacher data.

Learning objects. Digital learning resources (lesson plans, video clips, animations, web sites, etc.).

Podcast. Recordings released on the web and available for download through syndication services.

Social bookmarking. A way to make web bookmarks available to others; services allow users to categorize bookmarks with keywords.

Streaming video or audio. Content that is displayed as it is delivered to your computer (as opposed to being downloaded before viewing/listening).

Synchronous. Describes events that require learners to gather at the same time for collaboration, such as a chat or phone call.

Web 2.0. Sites or services that foster the creation and sharing of content along with user interaction and collaboration.

Webinar. Web-based seminar or presentation; often includes phone or web-based audio capability for interaction.

Wiki. Web site or page that allows multiple users to add or edit content.

IN THIS ISSUE OF *JSD* THE LEARNING STARTS HERE ▼

If you're interested in …	Start with the article on page …
• EFFECTIVE online professional learning	**10**
• TECHNOLOGY that builds community	**18, 24, 48**
• TECHNOLOGY that helps educators examine classroom practice	**42, 54**
• POWER of districtwide systems	**30, 36**
• SYSTEMS that document evidence of impact and change	**36, 42**
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Data sheet

Americans who use the Internet.	**74%**
Americans with broadband access at home.	**60%**

I communicate online with out-of-district counterparts at least once a month.	**27%** of teachers
	62% of principals
I have taken a course online.	**39%** of teachers
	41% of principals

Implications for teacher learning in 5 years?

Proportion of recreational time 8- to 18-year-olds spend in various online activities:

SOCIAL NETWORKING **25%** • GAMES **19%** • VIDEO SITES **16%** INSTANT MESSAGING **13%** • OTHER SITES **12%** • E-MAIL **6%** GRAPHICS/PHOTOS **5%** • OTHER **5%**

Sources: (from top) *Internet, broadband, and cell phone statistics.* Pew Internet and American Life Project, December 2009. *The MetLife survey of the American teacher: Past, present and future,* MetLife, October 2008. *Generation M²: Media in the lives of 8- to 18-year-olds.* The Henry J. Kaiser Family Foundation, January 2010.

JSD Professional Learning Guide

One way for educators to expand their knowledge base and learn about new practices is to read and discuss articles from professional journals and magazines. Beginning with this issue of *JSD*, NSDC is publishing an online companion to the magazine to facilitate the use of *JSD* articles with school faculties, teams, district staff, or other groups of education stakeholders.

DETERMINE AND COMPARE YOUR VIEWS

The debate about the effectiveness of technology-mediated professional learning compared to that of face-to-face professional learning is nearly a decade old. Many have written about the advantages and disadvantages of technology-mediated professional development. Before discussing the articles in this issue, consider your views on this topic.

> This is the first piece of the JSD Professional Learning Guide. Start here as you dive into this issue. Download the entire guide at
> **www.nsdc.org/news/jsd/**

1. Each person draws and fills in a T-chart as shown below.
2. Individuals share in small teams what they wrote.
3. Each team member selects a different article to read.
4. Each person draws a second T-chart and fills it in from the perspective of the article's author(s).
5. People share this second T-chart in small groups, citing evidence from the articles that supports the views.
6. After discussing the perspectives of various authors and comparing them with yours:
- How do your views of technology-mediated professional learning change?
- What did you learn that you hadn't thought about previously?
- What else do you need to know?

ASSESSING TECHNOLOGY-MEDIATED PROFESSIONAL LEARNING

Advantages	Disadvantages

One of the appeals of technology solutions is the convenience of 24/7 access. You can learn at a time that fits your schedule.

- **What does that do for school teams or learning communities?**
- **How can professional learning be job-embedded if our time for learning is after the dishes are done and kids are in bed?**

What are your thoughts on this question? Respond at the URL above to Tracy Crow's blog post introducing this issue of *JSD* online.

Quotable

" Online discussions and shared practice bind a collection of individuals into a collaborative community. Without this interaction and collaboration, learning becomes a solo endeavor."
— Mary Burns, p. 21

" If we were working as individual teachers, we would still be struggling. As a team of educators across the district, our professional learning has enabled us to be successful and, in turn, we have better served our students."
— Derrick Hershey, North Forsyth (Ga.) High School math teacher, p. 33

A pioneer probes the merits of online vs. face-to-face professional development

Q&A with **Chris Dede**

Learning,
NO MATTER WHERE YOU ARE

By Tracy Crow

JSD: **When we hear about districts and schools using technology for professional development, often we'll hear about the convenience that technology offers. Yet we know that professional learning that is sustained and job-embedded in a collaborative environment delivers results for schools. What is your perspective on this?**

Dede: There is no single best model for learning, either for student learning or for teacher learning. Everything we know about learning suggests that it's not something that's quite similar among people, like sleeping, but instead, something that's quite different among different people, like whom they choose to bond with. And so, some people are going to love online-only professional development, and some people are not. Some people are going to want face-to-face only, and some people are not. Some, probably many people, will like blended or hybrid models, because they give you the advantages of both. Too often the mind-set in education — not just for professional development, but in general — is that there's one best way to do this, and, if we just find that best way, then everyone's going to love it. In fact, in professional development, as in student learning, we need to think about an ecology of different types of learning that matches different people's needs and preferences so they can navigate to whatever part of that ecology for that particular goal they bring to it.

JSD: What are essential elements to creating a high-quality online learning experience?

Dede: In many ways, most of those elements are similar to what would create a high-quality face-to-face learning experience. Interactivity and individualization are central to learning, whether the experience is face-to-face or online. In a face-to-face setting, you don't want to be just sitting in lectures, you want to have lively discussions where your voice is frequently heard, and online, you don't just want to be reading PDFs or watch-

CHRIS DEDE

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His research interests include the use of emerging technologies in education, with emphases on online professional development, scaling up innovations, and immersive interfaces for learning.

A frequent speaker for education, research, and policy audiences, Dede's recent published work includes:

- "Building university faculty and student capacity to use wireless handheld devices for learning," by Ed Dieterle and Chris Dede. In Mark van't Hooft and Karen Swan (Eds.), *Ubiquitous Computing: Invisible Technology, Visible Impact*, 303–328. Mahwah, NJ: Lawrence Erlbaum Associates, 2007.
- "Collaborative design of online professional development: Building the Milwaukee professional support portal," by David Eddy Spicer and Chris Dede. (2006, October). *Journal of Technology and Teacher Education, 14*(4), 679-699.
- "Immersive interfaces for engagement and learning," by Chris Dede. (2009, January 2). *Science, 323*(5910), 66-69.
- "Lessons learned from studying how innovations can achieve scale," by Christopher Dede, Saul Rockman, and Allyson Knox. (2007, Spring). *Threshold*, 4-10.
- " 'Neomillennial' learning styles propagated by wireless handheld devices," by Edward Dieterle, Chris Dede, and Karen Schrier. In Miltiadis Lytras and Ambjorn Naeve (Eds.), *Ubiquitous and Pervasive Knowledge and Learning Management: Semantics, Social Networking and New Media to Their Full Potential*, 35-66. Hershey, PA: Idea Group, 2007.
- *Online Professional Development for Teachers: Emerging Models and Methods*, by Chris Dede (Ed.). Cambridge, MA: Harvard Education Press, 2006.
- "Studying situated learning in a multi-user virtual environment," by Diane Jass Ketelhut, Chris Dede, Jody Clarke, Brian Nelson, and Cassie Bowman. In Eva Baker, Jan Dickieson, Wallace Wulfeck, and Harold F. O'Neil (Eds.), *Assessment of Problem Solving Using Simulations,* 37-58. Mahwah, NJ: Lawrence Erlbaum Associates, 2007.
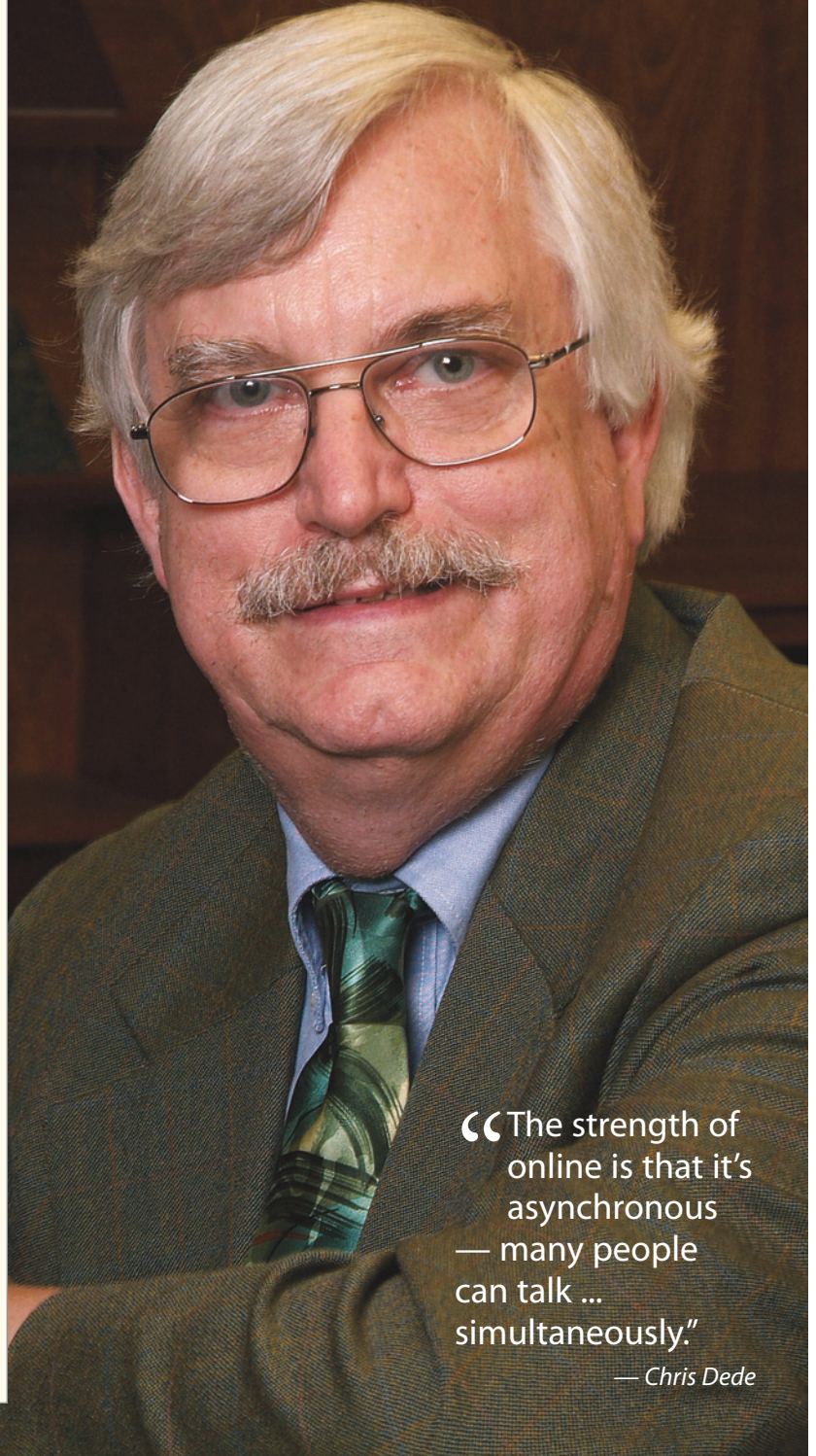
❝The strength of online is that it's asynchronous — many people can talk … simultaneously."
— *Chris Dede*

ing streaming videos, you want to be part of a lively, interpretive community that's sorting out these different types of things. Now, one thing that is different about online and a strength of online is that it's asynchronous — many people can talk, if you will, simultaneously. That is, if everybody puts in two hours online, there will be a much richer dialogue than if everybody put in two hours face-to-face, just because face-to-face, the number of utterances is restricted. And many people, even teachers, will not talk face-to-face, but they will find their voice online.

There are also disadvantages to online. Sometimes communicating online feels like publishing to people, and so they're worried about expressing ideas that they're just sorting out, because they're afraid that the online record can come back to haunt them. Some people find that the asynchronous medium isn't a good match for them. They like the lively, semisocial interchange that face-to-face allows. Just as we need a range of pedagogies to match different styles of learning, we need a range of media to match different styles of learning. A really good professional development experience online is going to have as many media as are feasible, from wikis to social bookmarking to asynchronous discussions to synchronous chats to streaming videos, because that's how we create that ecology.

JSD: What is research telling us so far about how online professional development compares to face-to-face, and what else do we need to know?

Dede: For a long time, there was direct comparative research between online learning and face-to-face learning that tried to establish whether online learning was somehow equivalent or whether it was inferior. And that literature kept coming back with the conclusion "no significant differences." On the one hand, this was reassuring to people who were worried that online was inferior, but on another level, it just showed that the research was off target, because there were significant differences. It's just that we weren't using the kinds of research instruments that were capable of measuring the significant differences. There were significant differences in which people were learning with each method, how people were learning, and how people were feeling about it.

Now, research that compares online to face-to-face is much more nuanced. We really try to examine what works when, or for whom, and why. So face-to-face will work better for some people than others, online will work better for some people than others. If there's a way that we can predict, and teachers can predict, what's going to work well for them to fulfill a specific need that they have, then we can customize something that is going to meet that need. For any specific capability that we want teachers to develop, some are going to want to do it online only, some are going to want to do it face-to-face only, and many are going to want to do it blended.

JSD: I've heard an assumption that there is a huge generational difference in how people respond to new technologies. Are you seeing that this assumption holds true — that people who have been in the field longer are less likely to embrace using technologies, whether it's for professional development or for use with students, and that younger educators are more adept and more willing to jump in and try new things?

Dede: There is a part of that discussion that's on target and a part of that discussion that's off target. We do know that there are media-based learning styles, and that people who use a particular medium have their learning strengths and their learning preferences shaped by the fact that they use that medium. An example that I frequently use is word processing. Unfortunately, I'm old enough that I remember the world before word processing. I did my doctoral thesis with a typewriter and correction tape and Wite-Out, which was a nightmare. When word processors became available, I originally used them as I used a typewriter. That is, I'd think for a couple of minutes, and I'd put a sentence down that was as close to perfect as I could get it, because I knew how hard it was to change what was written on a typewriter. And now, like everybody else, I use a word processor in a completely different way, where I think for 10 seconds and put something down that's probably not very good at all, and then I work for the other

> "Just as we need a range of pedagogies to match different styles of learning, we need a range of media to match different styles of learning. A really good professional development experience online is going to have as many media as are feasible, from wikis to social bookmarking to asynchronous discussions to synchronous chats to streaming videos, because that's how we create that ecology."

minute and 50 seconds on doing successive revisions of it. It's a much more powerful way of writing. Nobody taught me to change how I write. It's just something that I fell into because the tool made that powerful. And that happens with all the media that we use. So that part of it is accurate, that people's pattern of media usage determines a lot about how they like to learn.

The part that's off target is the assumption that older people don't use media, or at least don't use modern media, and younger people do. In fact, research shows us that this assumption is unfounded. We see that there are people like me that have neomillenial learning styles,

> "These Web 2.0 tools — social bookmarking, video sharing, social networking, wikis, all the things that let people create and share knowledge — are really very powerful for professional development because they reinforce the message that we want professional development to be an experience where everybody learns from everybody else."

like kids who are 10, because we're so involved with the different media of today, and there are kids who are 10 who have learning styles that might be similar to a 70-year-old person who doesn't use media at all, because they don't use media at all. The digital natives/digital immigrants argument is not accurate, but what is true is that you have to design professional development for people who have a range of learning strengths and preferences, because regardless of their age, they're coming out of a range of how they use media.

JSD: How does the increasing use of social networking tools for personal and professional purposes change the online professional development landscape?

Dede: Let me give you a really simple example that I use in my own teaching at Harvard. I teach a blended course, partly face-to-face and partly online. I use academic social bookmarking. At the start of every semester, I show the students who don't already do bookmarking how to take a tool like Diigo and bookmark things. And I tell them that, if they're out messing around on the Internet and they come across something they think is related to the course, they should bookmark it and make one of the tags the course number. Then I have an RSS feed set up on the top of the course

site so that every day, five or 10 or 15 different bookmarks are showing up from the 40-something students in the course, who are sharing what they're finding on the Internet that they think is related to the class.

When you think about something like this from a professional development perspective rather than as a means of casually sharing resources you find, it can become very powerful. Students find things that I would not find, even though, in a sense, I'm paid to find things in this field. Some of those can be very useful, so they enrich the course experience. And when I do use those things, it gives the students a real sense of ownership and co-creating that's very engaging and that helps them buy in to what's happening. There's a sense that it's not an expert transmitting information to novices, but a community of people putting the elephant together, where one understands the trunk and one the ear and one the tail and so on. That's exactly what we know is effective in professional development — teachers have knowledge and experience that they bring to the table. So these Web 2.0 tools — social bookmarking, video sharing, social networking, wikis, all the things that let people create and share knowledge — are really very powerful for professional development because they reinforce the message that we want professional development to be an experience where everybody learns from everybody else. And we're also modeling what we want teachers to do with students, which is to create active learning situations, where everybody learns from everybody else. So the medium is reinforcing the message.

JSD: How does that play out in networks and communities and teams? What's the online element to educators learning and working together and pushing their practice forward?

Dede: The strength of the online element is that the learning community can be widely distributed. Even if there isn't somebody locally that you regard as a peer whom you could learn from and share with, out on the Internet, there's a bunch of people who wear exactly your shoes. When you're learning online, you have direct access to them. The whole idea behind designing a learning community, whether it's face-to-face, online, or blended, is that it has to be rewarding enough for each of its participants that they'll participate regularly even though they're busy and that they will share their knowledge with other people in the community, know-

ing that in turn the community is going to share with them and help them. That's a complicated culture to set up and to maintain. Web 2.0 tools offer a lot of help with that, because it makes the process of sharing things that are very concrete and that are interesting to learn from much easier than was true before Web 2.0. For example, teachers like to share student products. They like to share video clips of lessons that they've done and get feedback on how those are going. They like to share fairly complex artifacts, in other words, and those are more easily shared online than they are shared by somehow lugging something into a face-to-face workshop. However, while there's a lot of power to the online experience, online is not magic. Just setting up a social networking site does not mean that you have a com-

> " Teachers like to share student products ... and those are more easily shared online than ... by ... lugging something into a face-to-face workshop."

munity. In fact, the challenging issues are not the technical issues, they are the cultural issues of getting the community going.

JSD: The same is true in face-to-face communities — for example, the time and energy that goes into establishing trust and a shared sense of goals and mission and so on. What are the difficulties and benefits of building community online?

Dede: The benefit of building a community online is that many people feel disinhibited online. They're more likely to express themselves online than they are sitting in a face-to-face group, even teachers, even with skilled facilitation. The counterargument to that, though, is that it may be harder to build trust, because face-to-face you have a greater bandwidth with the other people, and so you see what they look like and you get a feel from them, using all the nonverbal dimensions of human interaction. It may be easier for you to feel you know them well enough that you can take some risks with them. Whereas online, where you're in a low-bandwidth medium, you really don't know some things about other people to the same depth that you would face-to-face.

Online design often involves culture building in a different way than face-to-face culture building. In a face-to-face setting, you're trying to take advantage of high bandwidth and nonverbal interaction and highly social synchronous interaction. Online, you're trying to

take advantage of being able to richly share complicated things and foster extended discussions about them. We're still learning to do the latter, since we know less about how to build effective cultures online. As with anything else, we're learning through experience and through research, and hopefully then sharing those insights, so it becomes easier over time.

JSD: From whom do you learn? Are there resources out there to support you as an online leader?

Dede: Yes, definitely. The book that my colleagues and I put together in 2006 on online professional development came out of the research conference held at Harvard in 2005, where we looked at 10 exemplary models of online professional development at that time. These projects had been around for awhile and had some research evidence that they were effective, and we talked about how the models were similar and different and what kind of design strategies that might suggest. Now, with Web 2.0, it's even easier to do that kind of sharing without having to create a research conference at Harvard and bring everyone together for a few days and have papers written in advance so that people can learn from each other. We have a much richer set of tools that can be used to share across distance. There are a lot of different models out there now. Many of them are not very good, but quite a few of them are, and as we talk with one another about our successes and our challenges, it's a rich dialogue that can only help the field. The technology is fueling a kind of evolution that was more difficult five years ago than it is today.

JSD: It's been four years since you put that book together. What are you seeing now that excites you? What models are changing the field?

Dede: There are two big changes in the last four years that are really dramatically opening up new possibilities. They're not small changes. One is the Web 2.0 tools, because the models that we looked at in that book were really prior to the explosion of Web 2.0. And the other is immersive interfaces, because the ability to meet inside of a shared virtual world can also be very powerful for learning. This is less well-developed in our thinking about professional development, but there's an enormous upside potential. When teachers are able to immerse themselves together in a shared virtual classroom environment and be very specific about aspects of the use of space and time effectively within a partic-

ular kind of classroom setting, that's going to greatly enrich the discussions that they're able to have, just as going on a physical tour of another school can greatly enrich your own thinking and your own discussions. It's not simple to set up these virtual environments for professional development; we have a lot to learn about how to do those well. But I do think that they are going to be very powerful as they come along.

JSD: Where will these immersive learning experiences come from for professional development? Will they come from people demanding it, or developers seeing this as an opportunity, or a transition from gaming?

Dede: We're finding that immersion is powerful for learning, and there is growing evidence that games and simulations that are immersive are very effective for learning certain kinds of things. Recently, I was part of a National Research Council workshop on games and simulations and science education (see papers from this meeting at www7.nationalacademies. org/bose/Gaming_Sims_Commissioned_ Papers.html).

There's a growing amount of research evidence that this can be very powerful for learning scientific inquiry and scientific practices and scientific concepts. Well, teaching is like science. It's a complicated profession in which content knowledge and process knowledge and culture are all important, as they are in science, and so if we can use immersive interfaces to teach science, we can use immersive interfaces to help us teach teaching. The momentum for this is going to come from an understanding that there's evidence that shows that this can be powerful, that it can complement how we learn in the real world, by giving us virtual analogues of the real world.

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17,000 islands, 1 GOAL

INDONESIA TURNS TO ONLINE RESOURCES TO CREATE

By Mary Burns

Community has taken on a new meaning for several school-based coaches spread across Indonesia. For far too long in developing countries, educators have been forced to rely on one-shot centralized professional development for teachers and those who work with them. A shortage of money, locally trained staff, and access to learning materials has made any kind of ongoing, site-based professional development impossible.

To overcome such professional development constraints in Indonesia, last year Education Development Center (EDC) launched a pilot online coaching course to help Indonesian educators learn to become school-based coaches so they can then provide school-based coaching and follow-up to teachers — both firsts in Indonesia.

Twenty-five participants across six Indonesian provinces were recruited by EDC to serve as school-based coaches. To help them in this endeavor, EDC provided three weeks of face-to-face instruction over the
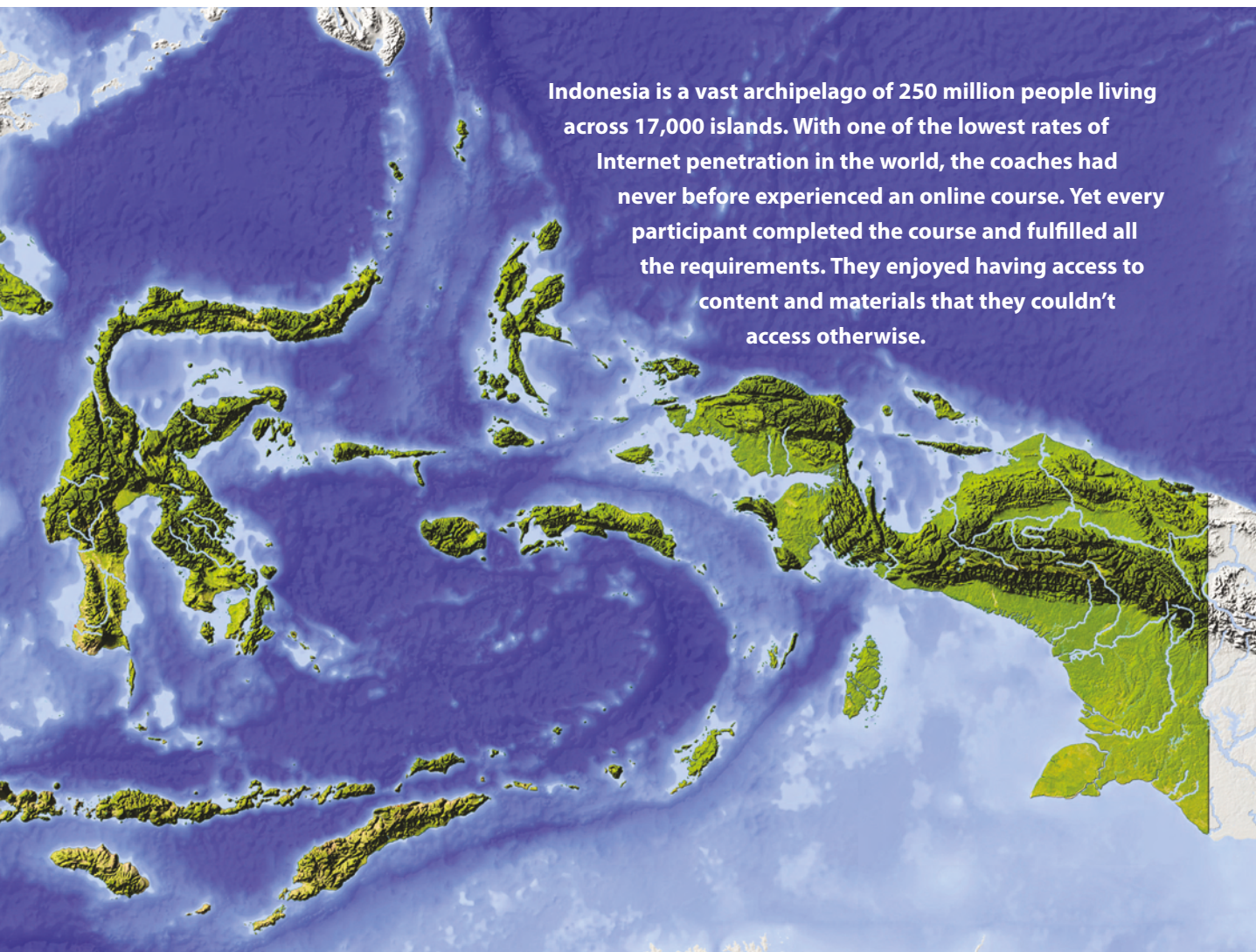
Indonesia is a vast archipelago of 250 million people living across 17,000 islands. With one of the lowest rates of Internet penetration in the world, the coaches had never before experienced an online course. Yet every participant completed the course and fulfilled all the requirements. They enjoyed having access to content and materials that they couldn't access otherwise.

A NETWORK OF SCHOOL-BASED COACHES

course of a year in such areas as using technology to promote learner-centered instruction, facilitation techniques, and school-based classroom observations and feedback. Coaching candidates then continued with their development as coaches in an online course.

The online course used a gradual release coaching approach. Online learners (the coaches) first modeled three one-computer, learner-centered activities for teachers. From there, in several two-week sessions, the course facilitators scaffolded the coaching trajectory — helping coaches work with the teacher to adapt this model lesson to the teacher's classroom, co-teach a lesson with

teachers, and observe and provide feedback to teachers in their solo teaching of this activity. As coaches learned about a particular technique, they then applied this technique with teachers. Coaches accessed all materials, including readings and video examples of coaching techniques online. They also communicated with one another — the whole group, their learning team, which was a cohort of four people, as well as their online facilitator — through the free and open-source e-learning system, Moodle. Since EDC's program developers hoped that this type of school-based professional development and coaching would continue beyond the

Six strategies provide a foundation for online community building no matter the context or whether it is Indonesia or the United States.

life of the online course, designers focused on building an online community of practice.

Indonesia is a vast archipelago of 250 million people living across 17,000 islands. With one of the lowest rates of Internet penetration in the world, the coaches had never before experienced an online course. Yet every participant completed the course and fulfilled all the requirements. They enjoyed having access to content and materials that they couldn't access otherwise. Teachers appreciated their school-based coach, and all implemented their learner-centered, one-computer activities. Most exciting was evaluation evidence that the coaches felt they were part of an online community of practice and attributed their coaching success to their participation in this online community.

Indonesia and the U.S. are very different places, but as we evaluate the online course, we have learned that the following strategies provide a foundation for online community building no matter the country or context.

1. **Know what type of community you want and design for it.**

There are many types of communities. Many online experiences are informal communities of interest that come together around a particular topic and then

Borobudur Temple in Yogyakarta, Java.

dissipate once mastery or boredom sets in. Communities of learning focus more on teacher learning (content, for example) and less on practice, though there may be an assumption that teachers will indeed put into practice what's been learned. In contrast, we wanted a community of practice, where the focus was on shared learning and application of that learning in classrooms. (See box on p. 21 for characteristics of various communities.) Consequently, we designed the course as a four-month experience, long by online learning standards, where all coaches worked together on the same goals and activities. The course was highly structured so that each session focused on a necessary coaching skill, such as building trust with teachers, understanding the change process, or models of co-teaching, and a particular coaching activity, such as individual goal setting with teachers, planning an effective teacher meeting, or co-teaching. Coaches learned a particular technique, implemented that technique with teachers, and shared evidence of their work with their online colleagues and facilitator who in turn provided feedback and guidance. Evidence of their work might include self-assessments of their meeting facilitation skills or notes from post-classroom observation meetings with teachers.

2. **Organize learners into teams.**

Online learning can be a lonely experience. This sense of isolation often leads to high rates of attrition in online courses. To prevent such attrition, we organized coaches into provincial learning teams within which they planned and conducted activities. Such activities might include sharing professional development ideas and reviewing and providing feedback on artifacts of one another's work, such as video episodes of coaches co-teaching. In addition to online teammates, every coach had a face-to-face coaching partner with whom he or she worked on all course requirements and school-

TOOLS WE USED

Moodle http://moodle.org/ Free, open-source course management software.	**Skype** www.skype.com Make voice calls over the Internet.
Diigo www.diigo.com Annotate, store, and share web bookmarks with others.	**Dimdim** www.dimdim.com Web conferencing services.
Flickr www.flickr.com Post, organize, and share photos.	**Ning** www.ning.com Do-it-yourself, interest-based social networks.
Teacher Tube www.teachertube.com Videos of teachers and clips to be used in teaching as well as shared documents, photos, and community forums.	**VoiceThread** www.voicethread.com Collaborative slideshows that incorporate images, video, audio, written word, and other media.

Types of communities and their characteristics (Burns & Dimock, 2007)

Community of interest	Community of learning	Community of practice
• Initial stage of community formation.	• More developed stage of community formation.	• Most developed stage of community formation.
• Learners connect with one another via a shared professional interest.	• Learners come together around a joint enterprise — to learn about a particular concept, skill, or tool.	• Learners come together to implement a particular concept, skill, or tool.
• May not be goal-oriented.	• Goal-oriented.	• Goal-oriented.
• Characterized by communication.	• Characterized by cooperation and collegiality.	• Characterized by ongoing collaboration.
• Focus is on the interest or innovation itself.	• Focus is on teachers' learning.	• Focus is on practice and application of learning.
• Loosely formed; little coherence.	• Well-formed; may meet on regular basis for purposes of mutual learning.	• Highly formed; meets regularly for purposes of collaboration.
• Investigation and exploration of skill, concept, or tool.	• Deeper investigation of skill, concept, or tool with the understood goal of application.	• May involve parallel teaching, co-teaching, or peer observation and feedback.
• May be little or no sharing of resources or experiences.	• Sharing resources, experiences, and individual practice.	• Explicit emphasis on moving learning into practice, on doing, and shared action. Sharing resources, experiences, and shared practice.
• Some degree of mutuality and reciprocity.	• Higher degree of mutuality and reciprocity.	• Highest degree of mutuality and reciprocity.

based coaching activities. Learners always had someone they could turn to.

3. Train facilitators in the medium in which they'll facilitate.

In an online learning environment, the facilitator plays a critical and varied role. He or she is the face of what can be, for novices, a disembodied and potentially disorienting experience. Facilitators must work to establish a welcoming presence, set a tone that encourages reflection and inquiry, broaden and deepen online communication, and encourage those who fall behind. Most critically, to make the online environment feel like a conversation and cultivate a sense of belonging, facilitators must provide verbal immediacy and just-in-time assistance (Rodriguez, Plax, & Kearney, 1996). Because a high-quality facilitator is so critical to success in on-line learning, the course's online instructor prepared for her role as a facilitator by participating in EDC's EdTech Leaders Online (ETLO) program. Through ETLO, the facilitator learned how to navigate Moodle, the course management system, use techniques for online community building, and facilitate meaningful online discussions.

4. Establish frequent opportunities for interaction and collaboration.

Online discussions and shared practice bind a collection of individuals into a collaborative community. Without this interaction and collaboration, learning becomes a solo endeavor.

The course established frequent opportunities for communication and collaboration among coaches. Coaching partners worked together on their weekly

school-based assignments with the same group of teachers. We required that coaches participate in at least two discussions a week. Teams used social bookmarking sites such as Diigo to collect and annotate a common set of coaching resources and constructed an ongoing e-portfolio of their work. This e-portfolio served almost as a coaching handbook, and included, among other requirements, coaches' reflections on particular coaching strategies, video examples of a meeting with teachers

Above, nighttime in the capital city of Jakarta. At right, rice terraces in Bali.

early and later in the coaching process, annotated photos of their work with teachers, and examples of teachers' work and how coaches assisted with this work.

Every other week, the asynchronous online discussion was replaced by a live synchronous discussion via web 2.0 real-time meeting applications. For instance, coaches shared and assessed one another's co-teaching videos via VoiceThread, which facilitates real-time audio or chat discussions around an image or video. With the exception of individual reflections in Moodle's discussion forum, coaches never worked alone.

5. Where possible, build in face-to-face interactions.

Online or web-based professional development is not one model but rather a continuum of practices that vary in the amount of learning that occurs online. As much as possible, this online coaching course integrated opportunities for face-to-face interaction in order to enhance the online community aspect. Face-to-face interaction was place-based. Coaches spent a total of three weeks in face-to-face sessions where together they learned process skills — for example, questioning techniques — and where they got to know one another. Additionally, they participated in a two-day face-to-face orientation for the online course where they learned about Moodle as well as the Web 2.0 tools — Flickr, Ning, Teacher Tube — to be used as part of the online course.

Live, face-to-face interactions also had a virtual component. Coaches used a number of Internet applications — Skype, the free Internet telephony application,

and Dimdim, a free web meeting tool — for ongoing small- and large-group discussions and reflections where they could see one another and talk in real time. Both versions of face-to-face interaction further strengthened community-based aspects of the online learning experience.

6. Focus on written communication.

The real value of online learning comes from sharing ideas and experiences in rich and robust discussions. This sort of communication creates the kinds of connections and interactions that are the cornerstone of an online community. The duality of asynchronous online writing — the fact that it is both a means of introspection and of communication — deepens participants' own reflection of their existing practices while allowing for the exchange of ideas, data, resources, and strategies. But because online communication is still largely text-based, the quality of these exchanges is largely dependent upon strong writing skills.

The importance of writing is often overlooked in online courses. Novice learners may lack familiarity with conventions of online communication. They may not know how to respond to a colleague's posts, especially if they disagree with the content, or how to compose the thoughtful responses that provoke and sustain discussion. They may not have knowledge of netiquette — using appropriate subject lines, addressing the individual or group, or using techniques to extend the online discussion — seemingly minor points that cumulatively can derail online communication and learning. Even experienced online learners may lack the composition and rhetorical skills needed to condense complex thoughts or provocative ideas into coherent and nonpolemical language.

Most of the two-day orientation with coaches focused on honing their online communication skills. Coaches discussed standards for good online writing,

practiced composing different types of online postings, examined rubrics with criteria and techniques for higher-order postings, and developed anchors — models of good discussion posts to which they could refer throughout the semester. And because many adults, like their students, may be poor writers or dislike writing, coaches could also use Moodle's audio tool to record their reflections. This way, poor grammatical or mechanical skills would not serve as a barrier to online communication.

WHY COMMUNITIES THRIVE

The heart of any online community consists of participants who engage with the goals of the course, with meaningful and relevant content, and with one another in the pursuit of professional improvement. Though online community types may vary, all demand a shared system of values, interaction, discussion, reflection, and a focus on practice.

Whether in Indonesia or the U.S., online communities must be carefully and deliberately crafted and cultivated both externally through course design and strong facilitation and internally by community members themselves who value being part of a community, who understand their individual responsibility in helping the community thrive, and who practice shared norms of communication and collaboration.

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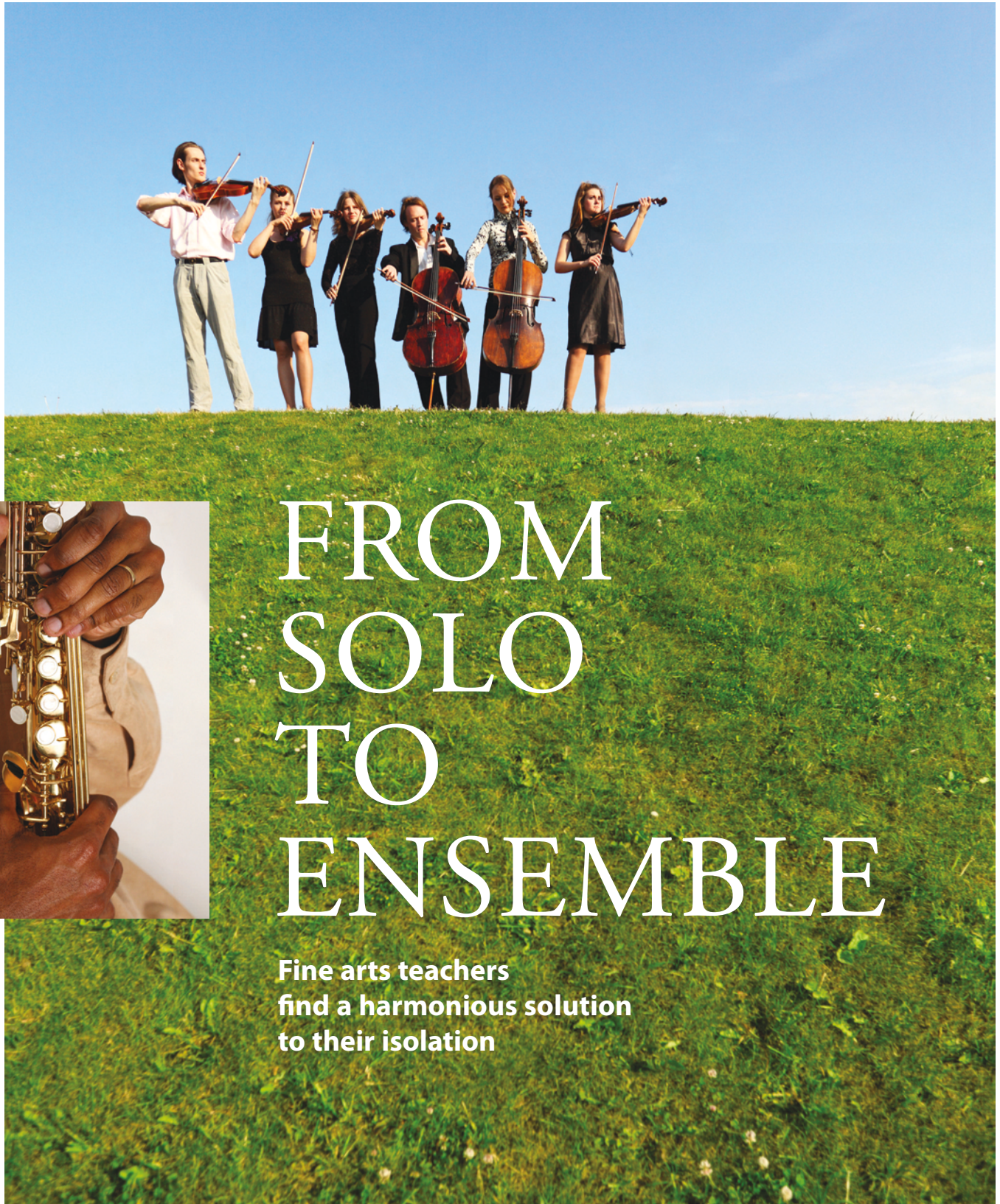
FROM SOLO TO ENSEMBLE

**Fine arts teachers
find a harmonious solution
to their isolation**

Frequency of electronic learning community interactions

Theme	Announcements	Calendar events	Discussion posts	Folders	Files	Links
New teacher program	2	2	420	15	196	0
Fine arts — music	19	353	391	98	494	29
Integrating technology into instruction	7	12	298	3	1	7
Fine arts — art	10	292	266	9	6	6
Fine arts — theater	6	301	145	6	6	0
English PLC	2	28	62	55	296	2
Social studies	1	118	8	110	267	0

**By Jeff Maher,
Christina Burroughs,
Laurel Dietz, and
AnneMarie Karnbach**

A teacher sits alone at her desk, yet she is working collaboratively with a team of two dozen educators in a professional learning community. Teachers who were once isolated by distance and the nature of their jobs are connecting across schools in online professional learning communities. While riding the wave of technology, St. Mary's County Public Schools in Leonardtown, Md., is providing a connection for teachers that extends beyond school walls.

Collaboration is at the core of professional learning in St. Mary's County Public Schools. When we began implementing professional learning communities, we established the expectation that every teacher would collaborate to foster professional learning and improved student learning. This expectation led to the need to find differentiated processes to ensure that every teacher, regardless of position or content area, had the opportunity to engage in high-quality, job-embedded learning. We found we can use electronic tools to achieve our purpose.

Collaborative professional development is focused on clarity of purpose and centered on student learning and results (DuFour, 2004; Hord, 2008). As we looked at models for professional learning, it was clear that collaborative, purposeful, and results-oriented professional development was necessary to ensure high levels of learning for both teachers and students. To get to these higher levels of learning, teachers needed to work together, plan together, and learn together. Expectations for collaborative planning and professional learning communities are even embedded in our teacher evaluation system through a unified effort with the education association.

USING TECHNOLOGY TO SUPPORT COLLABORATION

With the expectation for professional learning communities, the school system began implementing new technologies to advance professional learning. Through a partnership with Johns Hopkins University, St. Mary's County schools implemented the electronic learning community, an online platform to support collaboration, sharing, and just-in-time learning. The electronic learning community had features such as discussion forums and online resource sharing, but it also included opportunities for instant feedback and collaboration. These collaborative tools gave teachers their answer to the time challenge.

While more than 2,800 discussion threads were posted for all groups across the system, nearly one-fourth of all discussion threads were posted by fine arts teachers.

Despite the expectation for collaborative learning, some groups of teachers found it more difficult than others to get together. Fine arts teachers, for example, would meet a few times during the year, but the distance between schools made it difficult for them to support each other on an ongoing basis. AnneMarie Karnbach, one of the fine arts teacher leaders, made the importance of uniting clear: "Because most of the fine arts staff are singletons in their schools, we felt that the idea of improving the lines of communication would be a great place to start. As we started learning about different plans, we decided that expanding our professional learning community through the electronic learning community was the best way to allow us to communicate with each other." This communication led to an extension of the learning community that was created during the "live" sessions.

Using new technologies is not always easy. Before teachers could get to the point of use, we had to design

a differentiated learning plan for the teachers who would be involved. To facilitate collaboration, a group of teacher leaders formed the Fine Arts Support Teachers (FAST) Team. The FAST Team, led by the director of professional development, included former and current members of the superintendent's leadership development academy who launched the effort to further collaboration and communication among fine arts teachers across the system. This team worked together through the leadership academy and the follow-up professional development institute offered by the school system to design ongoing and job-embedded professional development. Together, they customized professional development and gave real-time examples and instruction. These teachers took the lead in supporting others' learning. In the professional development sessions, teachers were able to log into their electronic learning communities together, learn to post to discussion boards, and participate and run chat sessions. Initial workshops were designed for fine arts teachers in the summer professional development days before the school year started. Beyond the initial technical training, follow-up sessions involved more specific questioning and demonstration lessons, as well as real-time assistance for those who needed additional help. With the encouragement and support of the fine arts supervisor, the team successfully moved the program forward.

NSDC's definition of professional learning (2008) emphasizes the need to find time for job-embedded professional learning. We have learned that high-quality professional development needs to be relevant and meaningful, but also just-in-time. The school system built four additional early dismissal days to provide time for collaborative planning into the school calendar. These days, coupled with the online electronic learning community, provided a blended model for follow-up.

SUPPORTING ISOLATED TEACHERS

For fine arts teachers and other special areas teachers, collaborative online learning offers opportunities to connect and learn from one another outside school walls. "One setback to the work of the fine arts professional learning community is the fact that we are all located at many different buildings throughout the system. Meeting weekly, or even monthly, is almost impossible," said Laurel Dietz, a fine arts teacher leader. "The electronic learning community was crucial to keeping our work focused. The use of the electronic learning community allowed assessment teams to talk on a daily basis without having to be in the same place."

Teacher teams across the district met monthly to work collaboratively designing common formative as-
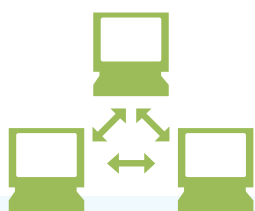
SAMPLE DISCUSSION THREAD

**3rd-grade indicator 4.1.a –
Question 7
Laurel Dietz
03/15/2009 9:52 a.m.**
You are composing music for the car chase scene of a movie. Your music would most likely have a tempo of _____.
a. high
b. low
c. adagio (slow)
d. allegro (fast)

**Re: 3rd-grade indicator 4.1.a –
Question 7
Christina Burroughs
03/17/2009 4:07 p.m.**
I really like question 7. ... Giving the kids a scenario seems like a great way to assess their understanding of these indicators.

**Re: 3rd-grade indicator 4.1.a –
Question 7
Sara Zylak
03/18/2009 2:06 p.m.**
I think all the questions so far are fine. However, I am slightly

concerned about 7. ... Are we being too easy by putting the definitions of musical terms they should know in parenthesis?

**Re: 3rd-grade indicator 4.1.a –
Question 7
Laurel Dietz
03/18/2009 2:12 p.m.**
Christina and I thought of that, too. The question is not testing their understanding of the terms, but rather whether or not they know the appropriate use of each term. I feel if the definitions weren't there, we wouldn't know why a student missed the answer. Was it because they don't know the appropriate use of the term or because they don't know the definition of the term? When students are going to be asked to recall the definition while testing indicator 1.0, they will not be given the English translation. Good point, though! Thanks for taking the time to give such excellent feedback!

sessments. The electronic learning community provided an avenue for the teams to share ideas and continue the collaboration between those monthly meetings. Leaders from the FAST Team served as facilitators who set team goals and action items for the team's collaborative work.

The online collaboration in developing common formative assessments was a success. Teachers uploaded questions devised by members of the professional learning community for all members to view at their convenience. These discussions have allowed teachers to use their collective knowledge of the learner and their learning to revise and create effective questions that will accurately assess students' content knowledge. Because community members can view items in the discussion threads at their leisure, they are not bound by the limits of our buildings.

As a teacher leader observed, "Without the electronic learning community, we would have had to work in a much less convenient and inefficient way to complete our goal of a common assessment. In this time of

> **"We have learned that there must be protocols for these chats, involving staying strictly on topic and not getting carried away with the amusing smile icons."**
>
> — Christina Burroughs, FAST Team leader

developing a culture of staff collaboration and professional development, it has been wonderful to be given such an effective tool with which to work to make a collaborative culture happen."

While the electronic learning community was used across the system for several learning communities, the model worked especially well for fine arts teachers. For example, while more than 2,800 discussion threads were posted for all groups across the system, nearly one-fourth of all discussion threads were posted by fine arts teachers. As one participant reflected, "Our discussion boards were used for connecting and relating to our professional learning communities and assessments, but this

area also includes items needed by teachers (such as instruments, rare supplies, music, etc.), recycling materials (teacher's manuals, books, music), and general questions (solo & ensemble, assessment festival, all-county ensembles). One of the best attributes to this area is that all fine arts staff can see it! There is no need to answer the same question multiple times. It is posted for all to see and learn from."

The online collaboration included more than just static postings. Since teachers in special areas are spread so far apart across schools, one of the areas used frequently is synchronous chats. These are real-time and allow questions to be addressed immediately. Many of our fine arts learning communities have scheduled chats where all members log in at a specific time. Teachers were given support in implementing a professional learning community. This included guidance in establishing goals for meeting, methods for creating common formative assessments, and asking the right questions (Reason & Reason, 2007) to stay focused on student learning targets. This background in effective learning communities was especially useful as the electronic communities matured. The more focused, the more relevant, and the more student-centered the work became, the more critical it was to stay focused. As Christina Burroughs, a FAST Team leader, put it: "We have learned that there must be protocols for these chats, involving staying strictly on topic and not getting carried away with the amusing smile icons."

BUILDING ON VALUABLE LESSONS

The lessons from this experience are shaping the future of collaborative learning teams in St. Mary's County. These lessons include:

1. **Believe in everyone's success.** Every teacher approaches learning from a different perspective and a different set of experiences. When this experience is valued, and learning is differentiated, the results are powerful.
   • For example, we expected an elementary general music teacher with more than 30 years of experience to have a tough time with this collaboration. To our surprise, she has made numerous and frequent contributions to the learning community. She has also come to outwardly celebrate her own successes with the new technology.

St. Mary's County Public Schools
Leonardtown, Md.

Number of schools: **27** (**17** elementary, **4** middle, **3** high, **2** centers)
Enrollment: **17,217**
Staff: **2,407** (**1,449** professional staff, **761** classified, **197** temporary)
Racial/ethnic mix:

White:	**70.47%**
Black:	**21.83%**
Hispanic:	**4.08%**
Asian/Pacific Islander:	**2.94%**
Native American:	**0.69%**
Other:	**0%**

Limited English proficient: **0.73%**
Languages spoken: **22**, including English, Spanish, Russian, and Tagalog.
Free/reduced lunch: **28.88%**
Special education: **11.11%**
Contact: **Jeff Maher**, director of professional and organizational development
E-mail: **jamaher@smcps.org**

> Be sure not to leave anyone hanging and waiting for your reply. When someone knows others are listening and interacting, they are more likely to share.

2. **Take time to prepare and support everyone.** Some teachers need a more individualized approach and one-on-one coaching.
   • We saw a good example of this with a self-proclaimed "computer illiterate" teacher, who really struggled with getting the concepts of the electronic learning community. Knowing that the FAST Team would take the time to answer her questions, she is now a fully contributing member of the electronic learning community.

3. **Make it personal.** Help people connect to their role, their position, and their content area.
   • When planning, we broke down our presentation by content area and grade level. This kept participants in a small and familiar setting and allowed them to brainstorm collectively their intended use of the electronic learning community. Participants were willing to take risks because they knew they were among colleagues.

4. **Set expectations.** Make sure everyone knows what should result from his or her participation. Model this expectation by consistently following through.
   • In our first year of implementation, the FAST Team and supervisors provided the intended goal for our elementary general music group. As a team, we guided our learning community in developing common assessment questions. During our meetings and planning sessions, we asked members to use specific features of the electronic learning community to develop questions. During one session and between meetings, we used the discussion thread feature to help members conceptualize the organization of our assessment. Later, we asked members to use the chat room to develop assessment questions. Finally, the team encouraged teachers to share resources throughout the development of our assessment questions.

5. **Stay involved.** Be sure not to leave anyone hanging and waiting for your reply. When someone knows others are listening and interacting, they are more likely to share.
   • When a specific question about an upcoming community performance was posted to the electronic learn-

ing community, FAST Team facilitators contacted those teachers involved with the performance and requested their response so all could benefit. Once those involved responded, others were compelled to respond as well, ultimately contributing to a high attendance rate at the community performance.

6. **Celebrate successes.** Take time to reflect on what the group created, shared, and used.
• For the first year of implementation, facilitators sent e-mails noting specific topics of interest that had been posted to the electronic learning community. This kept everyone updated and highlighted user contributions.

7. **Take the next step.** When common assessments are developed, share the results. Refine your work, and make plans for furthering your work together.
• Now that common assessment questions are posted on the electronic learning community, participants are discussing revisions to the questions. Members of the learning communities are taking their learning, and their students' learning, to the next level. The fine arts department is looking at ways to streamline the organization of our curriculum using the assessment questions to help create unit and lesson plans.

Collaborative teams are continuing in St. Mary's County, and the electronic learning community is growing. The perception of professional development has changed. Teachers are coming to sessions with a renewed sense of purpose, knowing that work is meaningful and applicable. Each teacher knows that the common assessments, the instructional units, and the shared resources are all going directly into their classrooms. The students benefit directly from this work. The teachers are accountable to each other and own the process.

The electronic learning community has become a beacon of collective learning for teachers, guiding collaboration and extending learning beyond the traditional setting for professional development.

The success of the fine arts learning community is a microcosm of the system's efforts to integrate professional learning communities, and it is having a profound effect on teacher learning and student learning. In the past five years, as teachers have worked more collaboratively in differentiated learning communities, student learning is at the center, and achievement has increased. The fine arts program has joined other content areas in implementing formative assessments that are part of the system's online data warehouse allowing for collective analysis of student progress. St. Mary's County Public Schools has moved from being ranked below state aver-

> "One setback to the work of the fine arts PLC is the fact that we are all located at many different buildings throughout the system. Meeting weekly, or even monthly, is almost impossible."
>
> — Laurel Dietz

ages to as high as No. 1 on state assessments, and is in the top 10 in every measure (among 24 school districts). All elementary schools made Adequate Yearly Progress, and 100% of students at five schools reached proficient levels on at least one measure. The achievement gap continues to close. Since 2005, the gap in achievement between black and white students has closed by nearly 10 percentage points in reading and math, while achievement for all students continues to rise.

To keep up the momentum, we are tapping into the next layer of leadership. This process was started by a small group of teacher leaders. However, we know that to institutionalize and sustain the efforts, others must be brought in as teacher leaders. The FAST Team continues the work by bringing in teachers to lead and support the effort. This process of building learning communities has been successful because of the involvement of teacher leaders. For its success to continue, it must involve everyone.

Fine arts teachers, for example, would meet a few times during the year, but the distance between schools made it difficult to support each other on an ongoing basis.

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TEACHERS
CLICK

WITH SHARED CONTENT AND ANYTIME ACCESS

By Lissa Pijanowski

Web 2.0 is a widely used term to describe web-based tools that rely on user input and collaboration. So what would professional learning 2.0 look like? When educators are asked to do more with less and still reach ever-rising benchmarks for student achievement, leaders must begin to think differently about how we support classroom teachers. Now is the time for professional learning driven by the use of new tools and engaging structures that provide real-time, meaningful collaboration opportunities.

Reflect on the professional learning within your school or district. Is the learning relevant to teachers? Do your teachers develop tools and resources for classroom use? Is there ongoing discussion and collaboration beyond structured

meetings or workshops? Are there opportunities for 24/7 access to content and sharing? If the answer to any of these questions was no, then make professional learning 2.0 a priority by creating a second generation of teacher development and lesson design that facilitates content sharing, K-12 networking, teacher-centered design, and 24/7 access within a school or district.

Forsyth County Schools in Georgia is emerging as a professional learning 2.0 innovator. The district of 34,000 students and more than 2,500 teachers began the 2008-09 school year with a vision for leveraging the intellectual capital of the district's educators while providing teachers opportunities to collaborate and create. The vision for this new structure for learning started with a learning management system that was in place for delivering courses and content to students. District leaders quickly identified the untapped potential this tool could have for professional learning. Angel Learning, the learning management system used in Forsyth County Schools (www.angellearning.com), provides an interface and components that leaders were able to customize to meet district needs. The chart at right represents the district's professional learning 2.0 strategy and shows how technology is being used to transform educator learning.

CONTENT SHARING

The district began by designing a structure for content sharing. District staff created repositories where teachers could access high-quality content developed by teachers and aligned to standards. For example, the high school repository is organized by content area, then by course, and within each course folder teachers have access to what we call learning objects. Learning objects are documents, graphics, simulations, video, sound, and other media tools (flip charts and PowerPoint presentations) that go beyond the static textbook to engage stu-

dents in real-world content. Learning objects also include pedagogical documents — for example, curriculum maps, pacing guides, unit frameworks, and assessments. To ensure that learning objects in the repositories are high-quality, the district tapped teacher leaders to review and approve items. Participants conduct this process online through the learning management system using drop boxes and e-mail communication. Teachers use a standard protocol (SREB, 2005) to evaluate each item and give teachers feedback on their submissions (see box on p. 32). Once approved, teachers are then published and receive recognition for contributions to the learning community.

The repositories are also avenues for disseminating key learning objects for teacher professional development. Included are recorded webinars, podcasts, and informational presentations. The vision for content sharing includes the use of wikis for real-time collaboration, which accomplishes two goals. Teachers become more comfortable with the new tools through practice, and the opportunity to experience the technology in meaningful and authentic ways encourages use with students (Soloman & Schrum, 2007).

K-12 NETWORKING

Once the technical tools were in place, the district used professional learning days to introduce content sharing and engage teachers in collaboration and K-12 networking in person. With 30 schools, time to col-
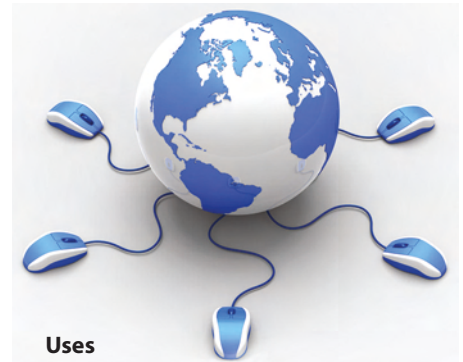
Uses of technology for professional learning in Forsyth County Schools

Content sharing
- Repository of content
- Protocols for quality assurance

K-12 networking
- Time to collaborate
- Professional networking

Teacher-centered design
- Blended learning model
- Relevant product focus

24/7 access
- Community groups
- Online courses / webinars

laborate with other teachers across the district was difficult to orchestrate. Most learning was taking place within each building, and teachers were not learning from other district schools that have innovative ideas and strategies. With more than 2,500 teachers, the district created content groups and used school sites to host focused learning. For instance, there were groups at each elementary grade level that were also divided into content areas. A 3rd-grade team from one school would have representation in the reading, math, science, social studies, and writing groups and would attend sessions with other 3rd-grade teachers from across the district. This would enable a team to return to school with new knowledge and content to share, maximizing learning for all. Middle and high school teachers were members of groups based on the content area and level they teach and also networked with teachers across all schools. These two days were called district collaboration days; teacher leaders facilitated the learning, and all content was made available through the learning management system. As teachers networked, the district introduced the learning management system as a vehicle for content sharing and learning. Teacher leaders modeled the processes while emphasizing the relevant product focus. For teachers, time to collaborate is worthwhile if there is a resulting product. Teachers understood the impact of content sharing immediately. By the end of the first district collaboration day, there were more than 1,400 learning objects posted for teachers to use in their classrooms, available to use the next day if teachers chose to. Additionally, 86% of teachers stated they wanted district collaboration days to continue and 96% of participants would maintain contact with the teachers within their network through the learning management system or e-mail.

To maximize online collaboration, the district's vision for professional learning 2.0 includes establishing a social network within the district to develop teacher profiles and expand K-12 networking. Tools such as these will help the district foster connections among staff when face-to-face opportunities dwindle during strained economic times. Teachers already find great satisfaction using social networking tools for personal use. Why not broaden this positive experience to their professional world as well?

TEACHER-CENTERED DESIGN

Teacher-centered design is a critical component of professional learning 2.0. Teachers must be valued as

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LEARNING OBJECTS

Documents, **graphics,** simulations, **video,** sound, **flip charts,** PowerPoint presentations, **curriculum maps,** pacing guides, **unit frameworks,** assessments, **webinars,** podcasts, **presentations.**

PROTOCOL FOR EVALUATING LEARNING OBJECTS (SREB, 2005)

Organization of knowledge. The content of the object is accurate, grammatically correct, and organized in a way that is most likely to authentically engage large numbers of learners.

Standards alignment. The object can be aligned with specific learning standards relevant to the course/subject area and promotes a clear, consistent, and shared understanding of what learners are expected to know and to be able to do.

Clear and compelling design. The production quality of the object is aesthetically pleasing and the interface and navigation are predictable and user-friendly.

Student engagement. The object can provide opportunities for engaging, interactive, and relevant instruction for learners within the learning environment.

Affirmation of performance. The object can provide opportunities for learners to receive constructive, relevant, and frequent feedback based on their activities with the object.

Novelty, variety, and reusability. The object can be used in variety of learning contexts with learners from diverse backgrounds with different interests and learning styles.

Universal accessibility. The object's design can provide opportunities to accommodate learners with sensory and/or motor disabilities.

Technical specifications. The object is free of technical errors and is compatible with the current version of the software and hardware supported by Forsyth County Schools Technology Services Department.

Intellectual property and copyright. The object addresses the rights of the copyright owner and the conditions for use.

professionals and have learning opportunities that challenge their thinking while filling their tool box. The barrier to implementing professional learning 2.0 was that teachers had to learn how to use the tools before they could use them for learning. Not all teachers walked into the district collaboration days knowing how to use drop boxes, discussion boards, and repositories. Much of the content, as well as the context for learning, was new and somewhat daunting at first glance. However, leaders designed a blended learning model that incorporated teacher leaders modeling the processes and use of the tools. The fact that it all happened in context of product-based learning was key.

Before they gathered, teachers were registered in an online community group within Angel for their grade level and/or content group. Teachers brought lessons, activities, and student work to share. After they discussed and shared their resources face-to-face, they began to post them in the learning management system. The number of learning objects posted in one day astounded leaders in the district. Because teachers knew they were going to walk away with immediate access to great content, they were sold on the new system. The collaboration was relevant and meaningful. Teachers were taking pictures of student work and sending text messages and e-mails to colleagues. The excitement was contagious, and the learning experience encouraged teachers to use Angel with students in their own teaching and learning.

24/7 ACCESS

District leaders found that 24/7 access was an additional benefit to using the learning management system as the vehicle for professional learning 2.0. This strategy answered a key district-level question: How can we provide access to quality content and professional learning so that teachers can learn when they are ready and in their own time? In addition to community networking and content repositories, the learning management system offers online courses teachers can take for credit. The vision for expanding online course offerings includes creating courses that customize learning based on participants' skills and abilities — for example, an induction course that offers varied content depending on years of experience and professional background. Courses that teacher leaders have designed and delivered successfully in a face-to-face model can now be transformed for a blended or completely virtual delivery. Additionally, recorded webinars are available that archive learning as well as informational sessions, and the district plans to develop podcasts and videoconferences. District leaders and teachers continue to investigate the modalities that work best to expand access using available tools.

A CULTURE TRANSFORMED

This Georgia district has transformed from an old-school culture of "make-and-take" to offer teachers online "design-and-share" opportunities that emphasize meeting customized needs in a convenient environment. The norms of the Net Generation (Tapscott, 2009) call

Forsyth County Schools
Cumming, GA

Number of schools: **35** (**19** elementary, **9** middle, **5** high schools, **1** nontraditional charter school, **1** alternative school
Enrollment: **34,000**
Staff: **3,500**
Racial/ethnic mix:

White:	**83%**
Black:	**2%**
Hispanic:	**9%**
Asian/Pacific Islander:	**4%**
Native American:	**0%**
Other:	**2%**

Limited English proficient: **5%**
Languages spoken: **29**
Free/reduced lunch: **16.5%**
Special education: **16%**
Contact: **Lissa Pijanowski** associate superintendent of academics and accountability
E-mail: **lpijanowski@forsyth.k12.ga.us**

Classroom voice

"As Georgia began implementing new integrated math standards at the secondary level, collaboration among teachers across our district was critical.

Angel, our learning management system, fostered a learning community among math teachers and allowed us to share lessons, assessments, and ideas for instruction as they were being designed. Content sharing was key to developing our curriculum and allowed us to focus more on student learning rather than the content.

After two years of implementation, we have created almost a daily lesson plan that is shared with all teachers. Additionally, we have developed an online math support class for students struggling with the new standards. This is an additional resource for teachers to use with students and guides students through a mastery-based learning environment that is used in a blended learning model.

Our learning management system gives us immediate feedback and data analysis on student performance that then drives our instructional planning. We are able to stop teaching to the group and start teaching to the learner. Without these tools, I am not sure that we would have made as much progress with the implementation of these new state standards.

If we were working as individual teachers, we would still be struggling. As a team of educators across the district, our professional learning has enabled us to be successful and, in turn, we have better served our students."

— *Derrick Hershey, North Forsyth High School math teacher*

for 24/7 access. Norms for this generation include the freedom to work when and where you want and the ability to customize work and learning environment. Collaboration among colleagues is key to getting things done, resources and tools must be available and fast, and innovation is about finding new ways to accomplish work. These norms, typified in Forsyth's professional learning 2.0 strategy, translate into a learning community that meets educator needs today.

This professional learning strategy will not work without a strong partnership and shared vision between a district's curriculum/professional learning office and technology services (see box at right.)

Maximizing technology for professional learning is not about using a stand-alone technology-based tool or resource. It is about engaging teachers in real-time, product-based learning focused on providing meaningful collaboration.

"By mobilizing the collective knowledge, capability, and resources embodied within broad networks of participants, smart firms (or school districts) can accomplish great things" (Tapscott, 2009). This strategy is a vision for transforming adult learning so they are better prepared with high-quality digital content and tools to connect with students.

Clayton Christensen (2008) provides further support for professional learning 2.0 by emphasizing that the "impact that structure has on innovation lies at the root of many public schools' innovative disabilities." If leaders believe that professional learning impacts student achievement, then why don't we begin with innovating learning structures on behalf of teachers? The possibilities are endless.

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Collaboration for success

Crafting a professional learning 2.0 strategy requires collaboration and commitment among district support staff — professionals in curriculum, professional learning, and technology. We found success with these elements:

1. **District staff became** knowledgeable about the tools and how to leverage them in a new way to provide professional learning opportunities.

2. **Teacher leaders engaged** in designing the blended courses and content to share across the district.

3. **The district team crafted** a realistic rollout plan that took into consideration engaging all teachers across the district, communicating progress on an ongoing basis, and determining benchmarks for content/course development.

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ZEROING IN ON DATA

Customized analysis pinpoints evidence of student impact

By Andrew Szczepaniak

In the predawn hours, Tami Chowdhury taps on her keyboard, pausing to sip her coffee, and thinks about whether the previous day's learning strategies helped her junior high students achieve identified behavioral goals. Chowdhury is taking part in the "Mind in the Making" course, provided jointly by the Gilbert Public School District (near Phoenix, Ariz.) and Rio Salado College. Whether it's early in the morning, after the kids are in bed, or somewhere in between, over

several months, Chowdhury and her peers find time to collaboratively reflect on what they are learning in the course, share how they are applying new knowledge in practice, and look for evidence of student impact. With the right technology, learners have found that ongoing application of knowledge along with reflection and generation around practice are easily facilitated. Application-related discussions can occur at any time, and over extended periods of time, as educators work like researchers to put theory into practice and test their hypotheses.

Administrators like me can move beyond assump-

a variety of courses aligned to our district goals. More recently, we have been thinking deeply about NSDC's purpose and are committed to connecting high-quality professional learning to improved student learning. We had an idea but no hard evidence to know if our district's professional learning impacted our students in a meaningful way. We wanted to start with small, concrete steps.

GETTING STARTED:
CREATING FORMS

I contacted Robin Ocheltree, the instructor of the "Mind in the Making" brain-based research course offered through our electronic catalog. Ocheltree had expressed openness about being involved in a new process, and, like me, she was eager to see more tangibly and specifically how the learning that she would facilitate would make its way into participants' classrooms. First, we talked through the data-gathering process, then we developed a form that would enable teachers to document their application intentions and note the indicators of changes in practice and impact on student outcomes that they would use. We also created an online log form for participants to use to regularly journal about what they were applying as well as the expected and achieved outcomes. It was important to link the log form to what we call our TeamRoom to create a hub for sustained collegial conversation through threaded discussions and file sharing, based on course content. Participants were able to collaborate and discuss their findings and submit log forms from one simple interface. Finally, we set up a reflection form to provide a structured method for educators to record what they applied and the effects on their students using previously entered indicators and baseline data. (See excerpts of forms from Gilbert's system on p. 38.)

tions, guesswork, and hope to gather, organize, and analyze outcome data in ways that are now possible using a finely tuned professional development management and evaluation system. We are just starting out, but the early results are exciting: Chowdhury and the other participants in the application project observed positive changes in student engagement and behavior since they began applying new learning about brain research.

How do you gather data to demonstrate impact? With the help of the team at My Learning Plan Inc., our professional development management and evaluation system (see box on p. 39), we sought to learn how technology could assist us. At Gilbert, our mission is "Helping to move your professional practice forward," and we have been working to uphold that by offering

Useful guiding questions

- Are educators constructing new content and operational knowledge from professional learning?
  How do you know?

- Do they apply new learning in classroom practice?
  How can you support transfer?

- Are changes in teaching impacting student learning?
  How can that be demonstrated?

- Is increased student learning translating into improved performance?

- Do your assessments reflect the student learning and achievement results you're seeking?

EXCERPTS FROM DOCUMENTATION FORMS

Application request form AN EXCERPT

Expected student outcomes
Indicate what you expect your students will be able to know or do as a result of your change in practice.

Select desired student outcomes
[--- Click to select --- ▼]

Change in educator practice
As a result of your new knowledge, describe below which practice you will incorporate in your classroom to effect your desired student outcomes.

Type of change
[--- Click to select --- ▼]

If other, describe change
[▼]

Describe how this change will impact expected student outcomes.
[ ]

Reflective practice log form AN EXCERPT

Submit this form once each week to reflect on your classroom application of new ideas.

Focus questions

What did you apply from the course in your practice this week?
[▲▼]

What did you anticipate would happen as a result, in terms of student performance?
[▲▼]

What actually happened?
[▲▼]

What you will do differently?
[▲▼]

What do you still need to understand more deeply?
[▲▼]

Application reflection form AN EXCERPT

Did your new knowledge lead to the desired changes in your practice?
[--- Click to select --- ▼]

If yes, what evidence do you have that demonstrates that change?
[▲▼]

If no, describe why and what changes you will make now.
[▲▼]

Describe the qualitative and/or quantitative data that you gathered about student performance.
[▲▼]

What can you infer about how your teaching impacted student outcomes?
[▲▼]

Were your expected student outcomes achieved?
[▲▼]

Have you shared the results of this project?
[▲▼]

If yes, describe the feedback that you received and your next steps.
[▲▼]

If no, describe your plans and time frame for sharing the results.
[▲▼]

Data gathering model

The model that Gilbert adapted was developed by My Learning Plan Inc. and is based on concepts from *Evaluating Professional Development* (Guskey, 2000) and *Assessing Impact* (Killion, 2008).

None of this could be done without careful planning and development of a support process that would enable all to maximize the online learning environment. I strategically select and plan with each instructor for the courses involved in the application projects. I meet with each instructor individually while the courses are being developed before we enter information in our online system. During this meeting, I provide detailed rationale about assessing impact, and I describe how our district is looking for changes in educator practice and evidence of impact on student achievement.

Once the instructor has a deep understanding of the process, we customize and review the forms together. Then I develop a self-guided tour of the process for the participants and present the new opportunities around assessing impact with each cohort of learners. We demonstrate the entire approach step-by-step to show participants how easy it is and to highlight why and how professional learning is becoming a change agent for our district. I also make sure that I am available at any time for questions in order to demonstrate a cycle of continual support.

In addition, I have embedded this process into the courses that I teach. To build leadership capacity, instructors will begin to introduce the process on their own.

FACILITATING LEARNING:
MONITORING APPLICATION

With the infrastructure in place, participating teachers met with Ocheltree weekly over a four-month period and collaborated online to engage in sustained learning, supporting the notion that "in reality, staff development is ongoing learning" (Killion, 2008, p. 25). An overall educator goal was to apply brain research to create a safe, orderly, and supportive learning environment. Chowdhury's personal goal, as stated on her application form, was to see improved student self-regulation. She planned to achieve this goal by mod-

About My Learning Plan Inc.

MyLearningPlan® is a web-based system used by educational organizations to plan, manage, and evaluate their professional development programs. Based in Great River, N.Y., the company has customers throughout the U.S., Canada, the Caribbean, and the Middle East.

For more information, please visit www.mylearningplan.com.

ifying her practice to improve her reactions to certain student behaviors. Throughout the course, Chowdhury and her partners used the online TeamRoom to discuss what they were learning and applying in their classrooms. They shared examples of practice and student performance in relation to their new strategies. Chowdhury discussed her experience with one particular target student, including a description of his baseline behavior and how it changed over time. The technology also empowered team members to process their experiences in online log forms, noting what they applied, the anticipated results, and real outcomes.

While the group learned, applied, and looked for evidence of student improvements, Ocheltree and I used MyLearningPlan to organize and track the records of application successes and challenges that were unfolding. We had set up multiple measures to draw from, yet the electronic report-writer enabled us to amass all of the data in a single, simple interface for efficient analysis. On an ongoing basis, we scanned compilations of the TeamRoom discussions and reviewed the logs to note evidence of knowledge application, and we were also able to make midcourse adjustments based on timely information.

Laying the foundation for this course and future courses was critical for a successful implementation, and an important goal for our department. I needed to begin building a transparent structure that would indicate to instructors and participants that, by being involved in this kind of project, they would not only shape their own practice, but also inform what we offer and how we structure professional learning in the district down the road. My underlying focus was on how to scale the process to include application and impact elements in more courses over time, and to go deeper by adding meaningful layers to the process.

One of these additional components is classroom walk-throughs to identify and document the evidence in action.

Chowdhury reflected on the process: "The TeamRoom and application project helped me narrow down the most important theories and provided me the tools to apply these theories directly in my classroom. From the 'Mind in the Making' course, I learned that bonding with students is very important to keep them engaged and interested in our teaching and in their own learning."

Gilbert Public School District
Gilbert, Ariz.

Grades: **K-12**
Schools: **40**
Enrollment: **39,495**
Staff: **5,100**
Racial/ethnic mix:

White:	**72%**
Black:	**5%**
Hispanic:	**17%**
Asian/Pacific Islander:	**5%**
Native American:	**1%**
Other:	**0%**

Limited English proficient: **4%**
Languages spoken: **English, Spanish, Vietnamese, Chinese, Urdu, Farsi,** and others
Free/reduced lunch: **22%**
Special education: **13%**
Contact: **Andrew Szczepaniak**, director, professional development
E-mail: **Andrew_Szczepaniak@gilbert. k12.az.us**

My underlying focus was on how to scale the process to include application and impact elements in more courses over time, and to go deeper by adding meaningful layers to the process.

GATHERING DATA:
ANALYZING RESULTS

At the end of the year, participating educators used our online system to contemplate and document what transpired. Via online reflection forms, all respondents indicated that they changed their practice in at least one way and that they noted one or more positive changes in student behavior. Sources of evidence included log

> Without technology, we would never be able to assemble, sort, organize, and report essential information within a useful time frame.

entries about student performance and summaries of student interviews. In addition, teachers examined attendance records, grades on classroom assessments, and student work to look for substantiated improvements in appropriate student engagement. Based on one measure, 50% of respondents stated that grades had improved and that students had enhanced their problem-solving skills. Ocheltree and I used the system to collect data and share it among the group, using customized reports to create summaries of both the expressed expectations and tangible results.

Ocheltree said, "With this data, I have been able to adjust my face-to-face teaching, as I was able to read what the teachers posted as well as the concerns they were having with the course materials. Even though they are teachers, they process the information much like their own students. After they leave each class, they have many unanswered questions, which they discussed in the TeamRoom, and that helped them bring their learning alive in their classrooms. The application project has been really beneficial, allowing teachers to share ideas with each other and continue to learn from each other."

MOVING FORWARD:
REFINING AND SCALING

When we first began thinking about linking professional development to teacher practice and student learning, it seemed like a big leap. With the help of our professional development management and evaluation system, we are taking initial steps to gauge the effectiveness of professional learning based on student indicators, rather than only teacher perceptions of satisfaction with professional learning activities.

We're laying out tremendous expenditures of time

Based on one measure, 50% of respondents stated that grades had improved and that students had enhanced their problem-solving skills.

and finances, and now we are compiling data to help us determine if the efforts are reaching our students. Without technology, we would never be able to assemble, sort, organize, and report essential information within a useful time frame.

While Chowdhury and her team were intrigued with their initial outcomes, they agree that there is more to learn and do to realize greater long-term student effects, and we realize that understanding how to proficiently gather and interpret evaluation data is as much an evolving process as learning itself.

Looking ahead, we are using our preliminary findings to inform our district's adult learning priorities and to enhance our professional learning designs. We believe strongly in learning from our experience to drive continuous improvement, consistent with Stigler & Hiebert (1999), who note that we must "build systems with memory." We have streamlined our forms, and we are expanding our use of these tools to larger groups of teachers and to a handful of additional courses this year to continue to monitor progress and gather information.

We are also working with other facilitators to articulate anticipated teacher and student outcomes in more specific and measurable terms.

My biggest learning was the value of starting small. We began by systematically assessing knowledge-level learning, then we gradually moved to looking at application and impact data.

The technology allowed us to not only effectively manage all of the in-district and out-of-district professional learning, but also to begin to learn about where and how we should focus our limited resources. Across the board, from budgeting to identifying meaningful learning opportunities to scheduling, our decision making is becoming more well-informed, and we are confident that the technology will only continue to support and enhance these efforts.

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ONLINE
COMMUNITY
BECOMES A PATHWAY
TO TEACHER LEADERSHIP

By Cindy Gutierrez and Chris Bryan

"I see myself more in a leadership role after this experience than before. Previously, I thought a leader was the one who always speaks up at staff meetings, but now I believe it's the person who is willing to share and guide … listen, and expand for themselves, the students, other educators, or future educators that are within their reach."

— *Kate, online community participant*

Kate's perspective on teacher leadership before engaging in this online community is not that unusual. As a 5th-grade teacher, she's focused on trying to do what is best for her students. However, she often sees her influence ending inside her classroom as she grapples daily with the intense complexity of teaching and the need to respond to external pressures from district, state, and national mandates.

What may be unique about Kate is that she is teaching inside an urban Professional Development School, where she also takes on the role of clinical teacher, mentoring teacher candidates from the University of Colorado Denver's teacher preparation program. A Professional Development School (PDS) is an in-depth school-university partnership designed to bring about the simultaneous renewal of schools and teacher education programs as an educational reform approach to increasing teacher quality (Goodlad, 1994; Holmes Group, 1986).

Carrying the PDS approach into the 21st century, Kate and other clinical teachers formed an innovative online community intended to not only increase clinical teachers' mentoring skills, but to also provide them with a pathway to seeing themselves as teacher leaders.
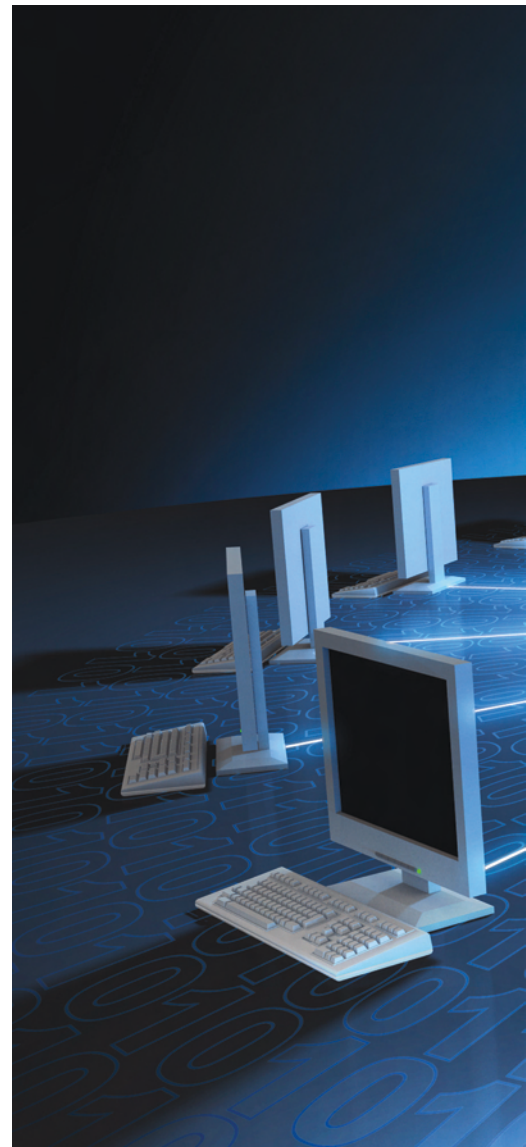
We were challenged to develop innovative ways that online learning communities could foster collaboration, support, and learning, especially for novice teachers, in order to break the isolationist nature of the profession.

CHALLENGES AND OPPORTUNITIES

Often, teacher leadership is a natural outgrowth of PDSs as new roles and opportunities for collaboration emerge for educators at all levels. Our university has been engaged in PDS work for more than15 years, and in many of our sites, we have witnessed phenomenal teacher leadership development, with teacher candidates being hired in the school after completion of their year-long internship program, later becoming clinical teachers mentoring the next generation of teacher candidates in the building, and then moving on to even more formal roles of leadership such as instructional coaches, principals, and district-level positions. We have wondered why this seems to happen for some educators involved in these schools and not for others. We are not just interested in the progression of individuals into formal roles of teacher leadership but also in the potential for continuous renewal when educators come to believe in themselves as teacher leaders. Research indicates that one of the clearest effects of teacher leadership is growth and learning among teacher leaders themselves (Barth, 2001; Darling-Hammond, 1988; Ovando, 1996).

A few years ago, we began to consider how to foster more intentional teacher leadership development among all clinical teachers who mentor teacher candidates in our Professional Development Schools. For years, we have faced challenges of time, money, capacity, and contractual issues in providing high-quality systemic professional learning for clinical teachers. Growth is our latest challenge as we have increased the size of

our network to 30 schools across six urban districts in a large metropolitan region, working with more than 350 clinical teachers every year. These are certainly parallel challenges to what districts face when they are thinking about large-scale professional development.

An opportunity came about when we were selected by the National Commission on Teaching and America's Future to become a model project site for their Teachers Learning in Networked Communities initiative. We were challenged to develop innovative ways that online learning communities could foster collaboration, support, and learning, especially for novice teachers, in order to break the isolationist nature of the profession.

York-Barr & Duke (2004) assert that the emergence of teacher leadership is best fostered in the context of a learning community. Thus, we saw the initiative as a way to develop an online learning community for our clinical teachers in a way that could help us transcend our past challenges of providing professional development. Clinical teachers would not need to leave their classrooms to drive an hour across the city; money was not an issue because we could use a free open-source web-based platform; and the online approach would allow clinical teachers to collaborate across time and distance in meaningful ways, while providing convenience and flexibility.
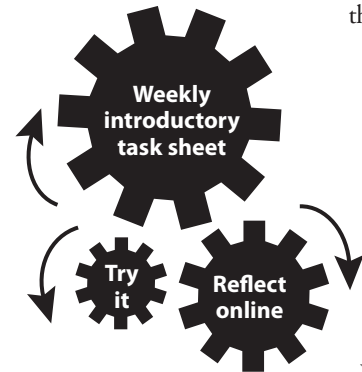
3-step weekly learning cycle of the online learning project

DEVELOPING THE ONLINE CLINICAL TEACHER COMMUNITY

Content

Unlike what we experience with popular social networking sites such as Facebook or MySpace, online communities for teachers must have a clear purpose and link directly to the work they are already doing in order for teachers to see them as useful (Fulton, 2007). We knew we had to develop content that was closely related to not only their immediate needs to become better mentors and coaches for their teacher candidates, but also help them begin to consider their role as teacher leaders as it related to their daily practice. Killion & Harrison's (2006) role-based framework for teacher leadership was a natural fit and provided a clear frame to apply the roles to the work of clinical teachers and guide the development of the content for the online clinical teacher community (see table on p. 45).

Process

We began by bringing clinical teachers together face-to-face for the first meeting. This not only enabled us to help clinical teachers understand the teacher leader-

ship framework we were using, but also gave us time to introduce them to the online platform. We used Tapped In (www.tappedin.org), an online community for educators worldwide. We were able to establish our own group room where we could organize and share documents and web links, as well as engage in threaded discussions.

After the first face-to-face meeting, clinical teachers engaged in the 15-week community completely online as they explored a particular role of the framework on a weekly basis while they were mentoring their teacher candidate throughout the semester. The structure for engaging in learning about a role each week was a three-step process (see diagram at left). Early in the week, clinical teachers engaged in learning about a particular role through a weekly introductory task sheet that provided initial background and context regarding the role being explored. Typically, clinical teachers also engaged in reading an accompanying journal article or viewing a professional teaching video clip they could access through a web link. Then the clinical teacher applied this newly emerging knowledge with his or her teacher candidate throughout the week by engaging in conversation and trying strategies with the teacher candidate. For example, during the week clinical teachers were exploring the role of classroom supporter, the task sheet provided background knowledge and context on approaches to co-teaching. The clinical teacher and teacher candidate then watched a 25-minute video clip together, followed by brainstorming possible ways they were going to co-teach in the coming weeks. The final step in the weekly learning cycle was for clinical teachers to reflect and share new understandings, ongoing experiences with teacher candidates, and connections of their role to broader aspects of teacher leadership through the online discussion board. This weekly rhythm provided a predictable learning cycle and essential conditions to support engagement and interaction of all clinical teachers week after week in an online environment.

CATALYST FOR CHANGE PROJECT

The culminating learning experience for clinical teachers was to develop a Catalyst for Change Project, identifying and carrying out some type of change that they had been wanting to make that would ultimately impact student learning in their classroom or school. This job-embedded opportunity gave clinical teachers time to engage in implementing change they had identified for themselves.

A clinical teacher at the elementary level descibes one change project. "I am part of a group of teachers in my district called Global Learners. Our charge is to bring

A FRAMEWORK FOR CLINICAL TEACHERS AS TEACHER LEADERS

Roles of teacher leadership (Killion & Harrison, 2006)	Essential questions for engaging in this role as a clinical teacher
MENTOR	How do clinical teachers build an effective professional working relationship with a teacher candidate?
RESOURCE PROVIDER	How do clinical teachers collaborate with others to recommend and share resources reflective of research and best practice with a teacher candidate?
LEARNING FACILITATOR	How do clinical teachers facilitate the development of a teacher candidate through effective modeling and coaching?
CLASSROOM SUPPORTER	How do clinical teachers use co-teaching strategies to not only help teacher candidates take on gradual responsibility for teaching, but also strategically impact student learning?
CURRICULUM SPECIALIST	How do clinical teachers help teacher candidates understand and analyze district curriculum in order to effectively organize instruction?
INSTRUCTIONAL SPECIALIST	How do clinical teachers model quality instructional practices to help teacher candidates understand how and why clinical teachers select and implement the practices they do? How do clinical teachers learn from the new practices they see teacher candidates implementing based on what is learned at the university?
DATA COACH	How do clinical teachers help teacher candidates collect, understand, and analyze data about students in order to inform instructional decision making?
LEARNER	How do clinical teachers engage in and model reflective practice as well as open themselves up to learning from their experiences with their teacher candidate?
SCHOOL LEADER AND CATALYST FOR CHANGE	How do clinical teachers carry out their commitment to continual improvement in order to keep trying to hone and craft their practice and act with the intention of making a positive difference towards the vision of their school?

Source: *Taking the Lead: New Roles for Teachers and School-Based Coaches*, by Joellen Killion and Cindy Harrison. Oxford, OH: NSDC, 2006.

more technology into the classroom, help our students be 21st-century learners, and share what we are learning with our colleagues. My plan is that I will add a significant technology piece to this unit and share it with my colleagues. This is part of a continual effort for me to integrate technology in a meaningful way into my day-to-day teaching. This project impacts student achievement because it helps students to begin to look outside the classroom for answers to their questions."

A second example shared by a clinical teacher at the high school level demonstrates this teacher's desire to impact the learning of students beyond her individual classroom. "The change that I am working on is tran-sitioning from being a classroom English teacher to being an instructional coach for our building. We have not had a coach at our school before, so this will be a big change not only for me, but for our community at large. I agreed to take this position because I believe that I can help improve the instruction of students. Participating in this community has increased my sense that there are many teachers out there who want to try new things, experiment with what might work better, but need the support."

LESSONS LEARNED
Linda Darling-Hammond and colleagues' (2009)

recent study about the status of professional development supports what we learned about effective professional learning, only in this case, designed and carried out in an online environment. By the end of the project, clinical teachers' conversations across the discussion boards revealed that they were blending their own critical examination of teaching and learning, supported by new concepts gleaned from articles and other content and implementing new ideas into their own practice, both in the context of their own classroom and the broader work of the school as well as in their role as clinical teachers. From the report and through listening to teachers, we learned that:

1. Sustained and intensive professional development for teachers is related to student achievement gains. In the online learning community, teachers engaged in ongoing professional development for 15 weeks. They were able to apply their learning in an authentic way in their own classrooms.

A teacher's view: "It is great to use your teacher candidate as the practical application. You got to take everything that you read and learned about early in the week and then got to go talk about it with your teacher candidate. [These] conversations were meaningful for both of us and broadened both of our understandings."

2. Collaborative approaches to professional learning can promote school change that extends beyond individual classrooms. We found that teachers who had not previously identified themselves as teacher leaders shifted their thinking. Throughout the online experience, their confidence in their ability as instructional leaders increased.

A teacher's view: "The role of the clinical teacher can be a part of what it takes to be a teacher leader. A leader implies a larger commitment to the school operation outside of one's own classroom. A clinical teacher, because of the reflective nature of this position, can expand that classroom view outward to the working of the school. Completing this community has helped me see that I can have an impact on the developing programs in the school and I enjoy sharing my concepts with others."

3. Effective professional development is intensive, **ongoing and connected to practice, focused on teaching and learning of specific academic content, connected to other school initiatives, and built on strong working relationships among teachers.** Through focused, weekly online professional learning, rich discussions, and support and feedback from one another in the online learning community, teachers' real-time needs as clinical teachers were met. Their efficacy as mentors for their teacher candidates increased, as did their belief in themselves as teacher leaders. Professional development is not just one more thing in this school; it becomes part of the overall culture and a strategic resource to improve teacher quality.

A teacher's view: "I keep on looking at my data from my 1st graders' reading scores, and I am just not getting the results that I was hoping for. I have been thinking aloud to my teacher candidate about this and how I can modify instruction to fill in the gaps and give my kids what they need. I showed her my data and how I was coming to the conclusions that I shared with her. Afterward I met with my literacy coach, and later my vice principal (my literacy coach from previous years) and had a coaching conversation with them both. Later in the day, I shared what we talked about with my teacher candidate, and what I decided to do to address the problem, based on the questions and insights that my vice principal provided. She now gets to help me implement new instructional practices, and she had the experience of seeing me reflect, then act."

THE LEARNING CONTINUES

Our commitment to the Professional Development School model continues to spawn new questions we want to explore related to the development of teacher leadership in PDSs (see questions at left). However, we know that a clinical teacher's role can be one of tremendous potential for personal and professional learning and growth, an opportunity to take steps into a new world of teacher leadership. Inevitably, the teacher's own quality of teaching can be enhanced if the right learning opportunities exist to support his or her development as part of today's school reform efforts that require "immensely skillful teaching — and schools that are organized to support teachers' continuous learning" (Darling-Hammond, 1998, p. 7).

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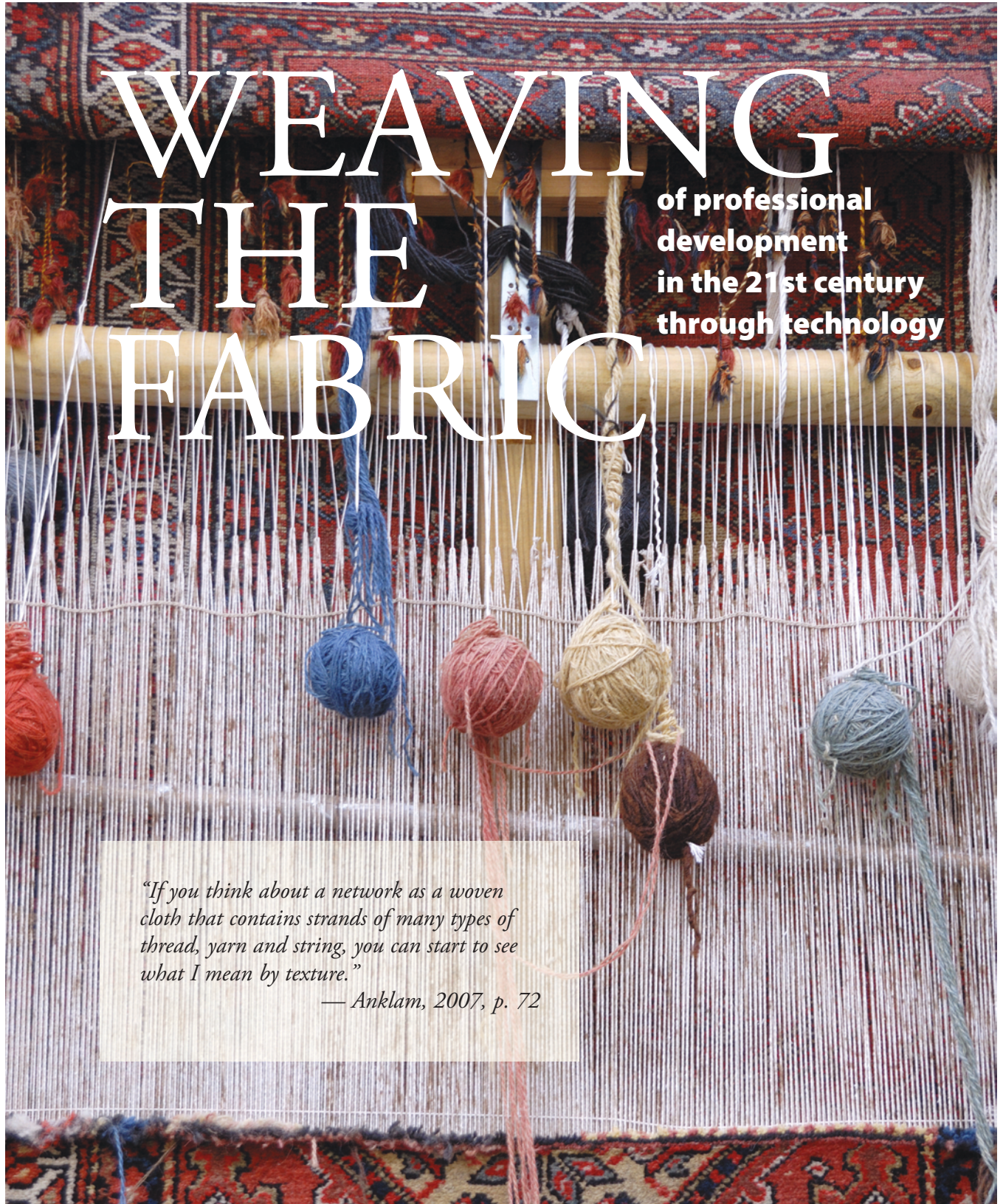
WEAVING THE FABRIC

of professional development in the 21st century through technology

"If you think about a network as a woven cloth that contains strands of many types of thread, yarn and string, you can start to see what I mean by texture."

— Anklam, 2007, p. 72

By Patricia Chesbro and Nancy Boxler

Networked learning supported by 21-century technology is reweaving the fabric of how educators acquire and create new knowledge. At the Alaska Educational Innovations Network (AEIN), we believe this has the potential to change how a profession looks at professional development. No longer will exchange of ideas be limited by time, distance, and local community. We have learned that using technology to support networks around a shared purpose enhances professional development and provides fertile ground for professional learning communities. Carefully selected technological tools, in conjunction with skilled human facilitation, allow for diverse voices to emerge in a climate of trust and respect. Educators have access to the expertise that lies within a larger group. More importantly, the group's combined wisdom creates new knowledge that both strengthens the individual and enriches the learning community. Networks allow complex, diverse, and effective systems of professional learning to emerge.

The goal of our U.S. Department of Education Teacher Quality Enhancement Partnership grant was to create a network of professional development and distributed leadership with educators across the geographically dispersed distances of Alaska, many not reachable by road. As Alaska makes up almost 20% of the total landmass of the United States, we knew that it would be necessary to connect people through technology. However, we did not know the advantages that technology would offer to ongoing, job-embedded, rich professional learning. Our contexts have forced us to look differently at networked learning and our charge to promote the ongoing conversation, reflection, and inquiry that lead to examination and change of practice.
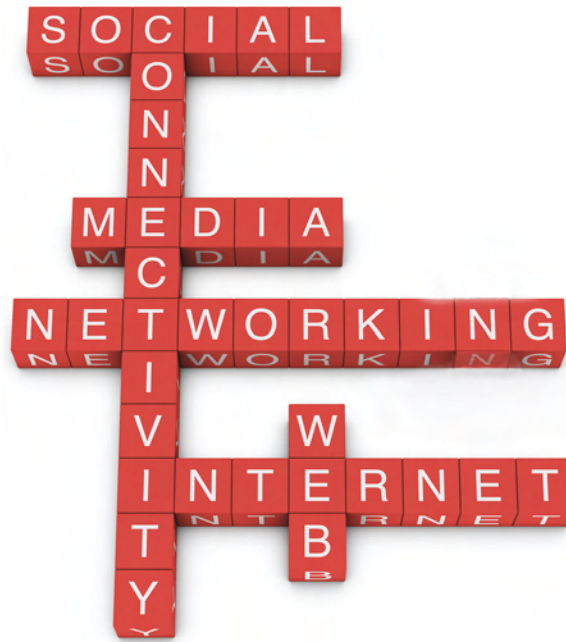
A COMBINATION OF TOOLS

Where exactly does technology fit? Throughout the partnership, we have used many technology tools. We send newsletters and updates electronically and post them on the AEIN web site (www.uaa.alaska.edu/aein/). School improvement plans, grounded in logic models, are housed on Google sites, a strategy that allows for internal sharing and revision at schools and provides external support from invited critical friends. The University of Alaska Anchorage Colleges of Education and of Arts and Sciences now offer quality coursework by distance, a shift supported through AEIN. Technology has definitely helped to span the great distances between partners.

However, one of our most productive uses of technology is to form, support, and sustain communities of practice (Wenger, 2006), otherwise known as mininetworks. These informal, participant-guided groups are organized around themes such as leadership or content such as science literacy and language acquisition. All educators in our nine-district service area are welcome to

engage. Participation is voluntary, ebbing and flowing with network members' schedules. Generally, interest and attendance build over time.

For example, the language acquisition mininetwork sprang from the relationship between two schools with Alaska Native language immersion programs. Last year, the group grew to 10 educators from six schools, including a kindergarten teacher who believes he teaches

A mininetwork has interactions that can look like this.

	Acquisition network As you consider our shared experiences this year, what has interrupted your thinking? What triggered a change in your thinking? What is a … Started by Nancy Boxler	1	May 21 Reply by Debra Ashler
	Book chapter I wanted to let you know that we have preliminary approval to do a chapter for a book on language issues. I have attached the proposal we … Started by Jim Powell	6	May 11 Reply by Georgianna Starr
	Examining our practice together Please respond to the following after reading the foreword of Ethnographic Eyes. The author talks about the importance of the lens we se … Started by Nancy Boxler	7	Apr 20 Reply by Flora Avuluis
	Cross-cultural observations Hi! As we continue to delve into our inquiry around place-based education and how it relates to language acquisition, I would like to pro … Started by Nancy Boxler	4	Apr 8 Reply by Jamie Stacks
	Show and tell Hi, folks! I hope you are all having a great Friday. At our last forum, Chuck Zimmer shared a project with a blog he is doing with his kin … Started by Nancy Boxler	1	Feb 18 Reply by Charles Zimmer
	Bilingual Multi-Cultural Education/ Equity Conference — January 28-30 Are you interested in joining our mininetwork at the BMEEC Conference January 28-30? This event is an approved AEIN mininetwork activit … Started by Nancy Boxler	10	Jan 28 Reply by Nancy Boxler

Re-created from a screen capture provided by the authors.

language to all students and a middle school Spanish teacher who was looking for a community. This year, more than 20 educators attend. Participants include pre-K-12 teachers, teacher candidates, university faculty from the Colleges of Education and Arts and Sciences, and even an Alaska Native filmmaker who has been documenting language preservation. Interest is often generated by excitement of members who invite others to attend.

Occasionally, groups meet in person. More often, groups meet virtually every two to three weeks through

a conferencing program called Elluminate Live! Between synchronous sessions, members use a social networking site called Ning.com to share their thoughts and reflections and keep the learning going. All three modes have value for weaving the network.

Technology tools provide an effective environment for ongoing, job-embedded professional learning. Educators do not have to carve out significant amounts of time to stay connected with and energized by collegial conversations. Further, we have learned that technology can be a great equalizer. First impressions emerge from the voices and thoughtful comments of participants rather than visual clues. Youthful educators can engage with classroom veterans as peers, for example.

We have learned it takes two people to effectively facilitate each Elluminate session. One facilitator takes care of the inevitable logistical challenges encountered with variable technological access issues in Alaska and accommodates the orientation needs of new members. While one facilitator is engaged with supporting technological issues, the other facilitator is encouraging input from all those who logged on. Participants can offer comments by audio and through text messaging boxes. Conversations often begin with facilitators encouraging educators to tell their stories or highlight something that works. An advantage of Elluminate is that only one person can speak at a time, providing ample opportunity for speakers to complete their thoughts without interruption.

The text box provides another avenue for input. The skilled facilitator threads these perspectives into the dialogue. Text boxes also provide a format for taking notes during the session. In addition, sessions can be recorded so that those who could not attend can keep up with the conversations from their offices or homes at more convenient times. The recordings and saved text messages also provide a way for facilitators and project evaluators to analyze the session's effectiveness, plan for improvements in follow-up sessions, and identify emerging themes.

We have also learned that periodic in-person meetings enhance the quality of our dialogue. In Alaska, however, those opportunities are limited by distance and cost.

We piggyback on scheduled events such as state conferences as opportunities to get mininetworks together to share a meal, consider next steps, and get to know each other. One mininetwork member noted that she feels energized by the in-person meetings.

There are certainly specific uses for connecting in person. For example, some individuals have been motivated to visit each other's classrooms or schools as learn-

ers and critical friends as well as collaborate on projects spanning multiple districts.

Ning.com, a free, easy-to-use web service, provides space for further reflection for each mininetwork as well as a forum for other interested participants to join. The graphic on p. 50 illustrates an example of the interactions of one mininetwork. This asynchronous tool is especially helpful for deepening the dialogue or extending the learning. The synchronous meetings are limited by time, but the Ning offers ongoing access. Those who are reluctant to speak at the virtual meetings can add their comments without the pressure of spontaneity. Further, because of the extended time for thought, educators can consider how the learning applies to their contexts and relay these thoughts back to the group. Often the questions raised at the virtual meetings are explored in the Ning. For example, the leadership mininetwork uploaded school improvement plans and logic models on the Ning and posed questions for colleagues.

Lively discussions followed on both the Ning and the next Elluminate session. Through this strategy, learning becomes more transparent. Unlike synchronous meetings that are closed by the boundaries of time and space, the social network is open and inviting to all.

We have learned that the three modes of communication work together to help educators create networks of professional support. Together, they provide a space for thoughtful, nonthreatening examination of practice. There is a sense of trust and a realization that educators have shared goals and shared challenges. The networked learning environment provides space to seek answers to our inquiries.

DEVELOPING FACILITATORS

Initially, all mininetwork facilitators came from the College of Education. Three of us worked full time with the grant, others instructed teacher candidates. We formed our own community of practice to think together about the knowledge, skills, and dispositions we needed to create the conditions for successful mininetworks. We read a book together and considered how it fit our work. We discussed our successes and challenges, sometimes offering examples of strategies that had or had not worked. We discussed ways to evaluate the effectiveness of these mininetworks.

However, this year, former participants from the mininetworks from outside the college have taken leadership roles. We still meet for support, yet facilitation is emerging from our pre-K-12 colleagues. Many are determined that these communities will endure beyond grant funding. Three facilitators no longer work at
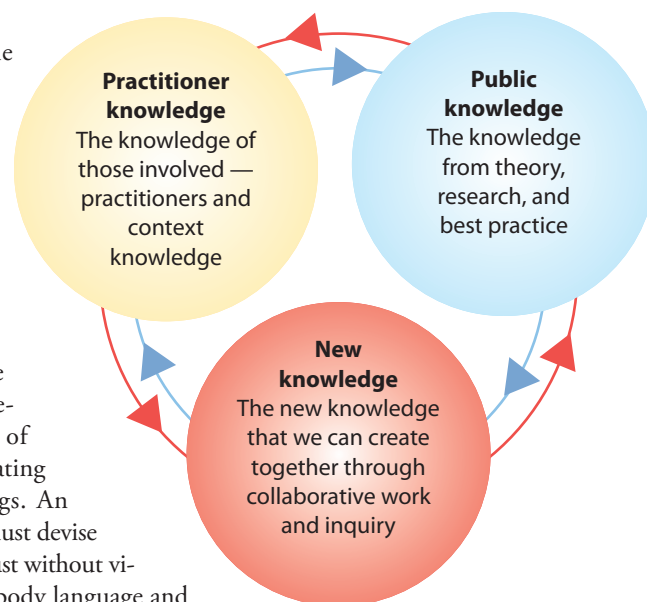
schools within the network, but feel strongly that communities of practice provide space for powerful professional learning.

We have learned that facilitation of online communities requires expansion of the skills of facilitating in-person meetings. An online facilitator must devise ways to develop trust without visual clues such as body language and eye contact. Where a smile or nod might be encouragement in an in-person meeting, online facilitators must use structures that create a positive environment and speak in ways that encourage engagement. Calling for input from individuals and soliciting specific comments is necessary.

However, balance is essential. Each facilitator must take care to not talk too much. Adequate wait time is more difficult to gauge in virtual environments, especially those that include culturally diverse participants, and specific strategies are necessary to promote a collective dialogue. People will not sign on or engage in virtual meetings if there is nothing in it for them or if they do not feel they belong. It is a facilitator's responsibility to create the conditions for the learning environment in which people believe that their voices are heard and their wisdom valued.

Part of a facilitator's role is to guide the group into finding its purpose. The mininetworks did not truly prosper until participants took control of the agenda and negotiated priority topics across the membership. In the leadership mininetwork, participants decided they wanted to learn how to construct effective surveys to gather information for their projects. The math mininetworkers attempted an action research project around teaching fractions. The language acquisition network is grappling with deepening its practice in place-based education.

These themes emerged after several meetings. Facilitators are charged with being patient and listening carefully as themes emerge. This means facilitators must give up control and trust the process as purpose is refined collectively. Throughout, the questions change and new knowledge emerges. This becomes a challeng-

Practitioner knowledge
The knowledge of those involved — practitioners and context knowledge

Public knowledge
The knowledge from theory, research, and best practice

New knowledge
The new knowledge that we can create together through collaborative work and inquiry

Each facilitator must weave a coherent whole across three fields of knowledge — practitioner, public, and new knowledge.

Jackson & Temperley, 2007, p. 48.

ing yet powerful role, as facilitators must remain learners and colleagues and guard against seeing themselves as teachers or experts.

TAP THE GROUP'S WISDOM

"If you were to examine a fabric, you might notice how tight or loose the weave is, or how fragile. How many types of thread are used? How thick are they?" (Anklam, 2007, p. 72).Our mininetworks are ultimately focused on tapping the warp and woof of wisdom from within the group, connecting learning to research and theory, and learning on behalf of one another. An exciting byproduct is creating a collective space to challenge our thinking and examine our professional practice. We find the work of Jackson and Temperley (2007) as illustrated in the graphic on p. 51 helpful in conceptualizing how each facilitator must weave a coherent whole across three fields of knowledge – practitioner, public, and new knowledge.

This interdependency is the key to developing collegial support. Often, educators' natural tendency is to give advice or fix problems for others. Our mininetworks are made up of educators from both university and school settings. Rather than getting captured in a silo mentality, the network format and structure honors all knowledge. The university professor certainly holds some key knowledge, but so do practitioners. Colleagues support each other's learning to complement their own.

Key to this knowledge-sharing is using probing questions. Rather than critiquing, we are learning to help colleagues discern their own questions and honor their own wisdom. We have adopted a strategy that encourages us to ask open questions to assist in this process. Questions are not framed as advice or suggestions, they do not overidentify with the questioner's perspective, and they do not pass the buck to someone else to solve. The pace

Participants in the school leaders' forum reflect on their use of probing questions.

Show   All

adkins_elizabeth: I feel that I worry too much about what the person will take personally.

Clare Robyt Tuluksak: Having others ask questions helps clarify our own thinking. But T.A. and I found it difficult to come up with good questions.

Moderator (Pat Chesbro AEIN): Nancy, I'm giving this back to you. Will you do the ending/logic model moment stuff?

Talia Akiachak: I find myself second-guessing my questions quite often — especially after this! But I put myself in Howard's shoes and I would want to hear what others have to say, so I ask them anyway.

rick rolhman: I really like the idea of developing a nonthreatening questioning style. Even though most do not question with malice, it seems much more efficient to elicit answers and not prompt defenses.

Mikolas SITKA: I posted my comments to Howard's Logic Model, but now I see that they were not necessarily of "probing thinking" type.

Moderator (Nancy Boxler): I have to hold myself back from offering suggestions too soon before I know the whole story.

adkins_elizabeth: I felt like I had to force a question which makes it less authentic.

Joe - Batchley _ Sitka: I don't think we have to know all the details to offer good probing questions.

Re-created from a screen capture provided by the authors.

is respectful, honest, and culturally responsive (Palmer, 1998). One member noticed that this practice also reflects a way of communicating wisdom in her Cup'ik culture. This protocol creates conditions in which judgments are suspended. However, suspending judgment is difficult and requires the collegial group's support. The ongoing nature of our synchronous and asynchronous technology-enhanced formats allows us to practice our probing skills as we examine our assumptions and alter our practice. Participants of the school leaders' forum reflect on their use of probing questions in the graphic at left.

"Weavers also often act as the pulse takers in networks during their growth, but must cede this role to a member when the network is on its own" (Anklam, 2007, p. 72). Facilitators mine the group to find the expertise needed to pursue the themes. Members end up playing myriad roles as all learn together. Facilitators must resist the temptation to become the teacher and remain a learner in the most humble and equitable sense. Through this practice, new co-facilitators emerge and the network becomes sustainable, no longer relying on one person to lead.
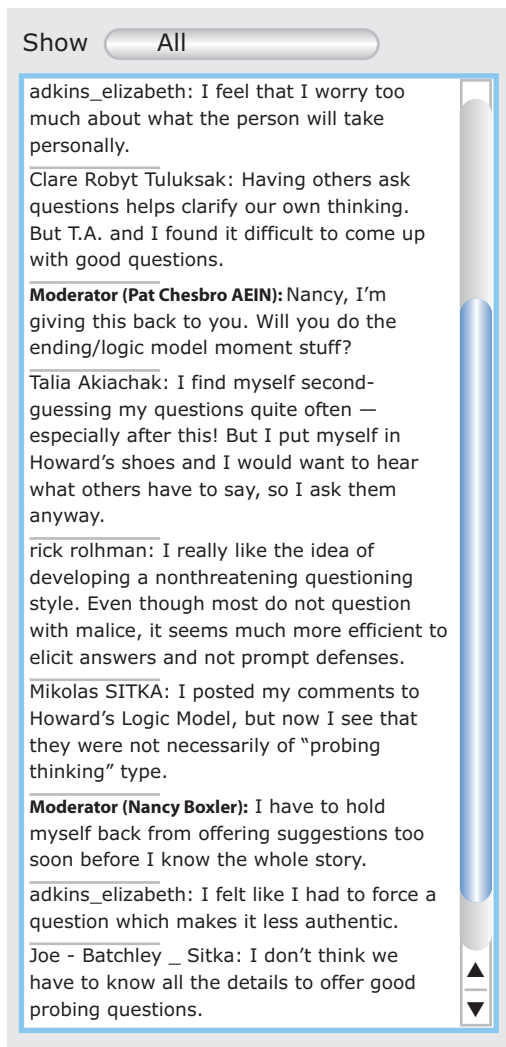
BEYOND BOUNDARIES AND ROLES

The knowledge from these networked communities touch many, including grant faculty. We at the university learned that assuming the role of teacher, trainer, or presenter did not facilitate development of an egalitarian network. We changed our practice, flattened the tacit hierarchy of expertise between university and school, and worked to develop collegial leadership. We moved from directors to directed, from facilitators to learners, from participants to evaluators. More importantly, school leaders emerged.

Many teachers explained that this was the first time they had thought of themselves as leaders. One participant noted, "Because I am not normally one to take center stage at a staff meeting, the idea of conducting teacher inservice days … was enough for me to want to quit. But, because I truly believe in our logic model, I didn't." Leadership perspectives changed. Another participant said, "In the course of the year, I came to see myself more as a teacher leader. … I no longer see a teacher leader as a 'boss' with the plan and answers … but as an encouraging, inquisitive, team member who wants to work with others to make the school the best place for people to learn and grow."

Participants gained new perspectives on data. "Our staff learned to develop fluid and ongoing measurements to assess our progress and provide direction for future investigation and development. The … experience has

helped us to learn how to work as a … professional learning community," said one participant. Other skills developed as well. "The process of probing questions guided me to be more evaluative, less judgmental, and work as a team … to create open, honest dialogue about what goes on in our school," noted a learner.

Our technology-enhanced formats are inexpensive and allow for spontaneous interaction as well as extended communication. Yet the formats are of limited valued without the ongoing support of skilled facilitators. We are creating a "fabric that is built to last, can withstand losses, and adjusts its governing mechanisms to maintain equilibrium among the sum of its ties" (Anklam, 2007, p. 72).

Alaska is blessed with great diversity among educators. Some are native to Alaska and others come from all corners of the lower 48. We practice in cities, towns, and villages from the Pribilof Islands to Anchorage. We teach in small K-12 schools, urban middle schools, and university campuses.

However, we have become convinced that the goal of ongoing, job-embedded professional learning among educators in any context requires similar formats, structures, and strategies. Creating the conditions for meaningful interaction requires flexibility and intentional facilitation.

The three modes of interaction we use in our network allow for personal connection as well as deep professional conversations with colleagues around Alaska.

These tools expand the reach of our voices beyond that capacity of more traditional modes of professional learning. Technology not only brings the Alaska Educational Innovations Network together, it levels the traditional hierarchy and is key to building our learning communities, sharing wisdom, and nourishing learning.

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Instructor Elizabeth van Es, second from left, helps Tracy Lundblad analyze student learning during a class at the University of California, Irvine.

VIEWER DISCUSSION IS ADVISED

Video clubs focus teacher discussion on student learning

By Elizabeth A. van Es

It's Wednesday afternoon, and a group of 4th- and 5th-grade teachers gather after school. They seat themselves around a TV monitor and discuss their day. As they get settled, a facilitator sets up the VCR and hands out transcripts for the video the group will view. The facilitator begins by saying, "Are we ready to start? Today we'll watch a clip from Drew's class. Students were adding and subtracting decimals and then writing numbers in decimal form. We'll watch a few segments with different students solving problems and then talk about what they understand. OK?"

The first segment, about five minutes long, shows two students using different strategies to add and subtract decimals. One student, Keara, comes to the board to explain how she added 3.9 plus 8.5, and another student, David, shares his strategy for solving 9.4 minus 9.25.

After viewing the segment, the facilitator asks, "What do you notice?"

One teacher responds, "I don't think they understand the difference between whole numbers and decimals. When Keara was doing addition, she wasn't sure if it was supposed to be 1.24 or 12.4. But if you asked her if eight plus four is closer to 12 or one, I think she'd understand."

Another teacher explains, "Yeah, because when she wrote the 12, she didn't keep everything lined up. That's where she had the problem." Later she adds, "But then, she ended up putting it in the right place, so that means she had an idea of what she was doing."

The teachers continue discussing the clip in this fashion, analyzing what the students said and did to get insight into their understanding.

Each month, these seven teachers get together and watch video clips from their classrooms on computer monitors or television screens. They are members of a video club (Sherin, 2000). A video club is a group of teachers who meet on a regular basis to view and dis-

cuss video segments from their classrooms. In a video club, the group establishes the goals, then tapes and selects the video segments for viewing. Ensuring productive learning experiences for teachers requires careful design and facilitation.

SETTING UP A VIDEO CLUB

Here, I'll describe a video club I facilitated and use that example to highlight considerations for setting up a video club.

The goal of the club that I designed and facilitated was to help teachers learn to attend to and reason about student thinking — what I refer to as *noticing*. A key component of expertise in teaching, regardless of the content area, is being able to listen carefully to students and observe closely what they say and do, using these observations to make teaching decisions. Several reform movements advocate that teachers adopt a student-centered approach to instruction, one that is responsive to student ideas (American Association for the Advancement of Science, 1993: National Council of Teachers of Mathematics, 2000). Thus, *noticing student thinking* is a worthwhile skill for teachers to develop.

Rachel Phelps and Jason Neves study a video of a math lesson for young students.

Over the months that we met to view and discuss video from their classrooms, the teachers changed in several ways (van Es & Sherin, 2008; Sherin & van Es, 2009).

1. First, they paid close attention to student thinking as they viewed the video segments together. Initially, they talked about the overall feeling of the classroom and student behavior in the clips. Over time, they analyzed specific student ideas.

2. We also found that the teachers changed their interactions with students in the classroom (van Es &

Sherin, in press). They made student thinking more visible throughout the lesson, inquired into student work and ideas, and probed students to explain their thinking in more detail. They took time to slow down their teaching and engage in conversations with students, and they created classroom environments where students probed each other's thinking.

3. Finally, they believed that participating in the video club made a difference for their teaching. As one teacher noted, "The video club made me rethink teaching. Part of it is just having dialogue with professionals about learning ... [and] really talking about kids' thinking."

These results were encouraging. They show that analyzing video can be useful for teachers.

BENEFITS FOR SCHOOLS

So how can other schools benefit from video clubs?

Starting a video club requires three considerations: establishing the group and defining the goals, videotaping and selecting clips, and facilitating the meetings (see box below).

ESTABLISHING THE GROUP AND DEFINING GOALS

Who will be involved matters for the focus of the group's activities, just as the purpose influences who will participate. In the video club I facilitated, a district-level curriculum coordinator partnered with a university research group of which I was a part, and together we identified the focus of helping teachers learn to notice student mathematical thinking.

This became the group's goal for two reasons. First, research highlights that teachers who attend to student ideas learn about their students and about teaching, resulting in cycles of teacher and student learning (Borko, Jacobs, Eiteljorg, & Pittman, 2008). Second, the school was in its third year of using a reform-based curriculum, and the administrator thought that it would be

useful for the teachers to view each other teaching lessons from the curriculum and to examine the nature of student learning that resulted. We were building on the concept that teacher development needs to be based in teachers' daily practice and that teachers should examine the relationship between teaching, student learning, and content (see Cohen, Raudenbush, & Ball, 2003).

In the video club we facilitated, we found that focusing on student thinking was particularly powerful for the video club group, as they learned to listen carefully to student ideas and use those ideas to inform their teaching. But looking at student thinking was not a natural focus for teachers. As facilitators, we needed to model looking at student thinking. We found that student errors, solution strategies, student-initiated questions and comments, and correct answers and explanations provided access to student thinking that enabled the group to examine what students did and did not understand (see box on p. 57).

Simply showing clips that highlighted student thinking was not sufficient. Rather, we prompted teachers to examine student thinking in detail by asking them to look at and discuss what we observed students do and heard them say in the clips.

For example, we pointed out interesting ideas that were illustrated in the clip: "But I'm confused about Thomas's drawing. If he was trying to figure out a quarter of 60, why did he find a quarter of 100? How did that help him?"

We also asked them to infer what the student work and thinking revealed about their understanding: "So, if we had to guess, do these students understand part to whole?"

Additionally, when the discussions moved away from the video clips, we redirected the group to consider what we observed: "Can I just bring us back to the video?" or "Well, let's look at the video and see what the students did."

These kinds of prompts, coupled with videos that revealed interesting student thinking, helped the group learn to look for similar revealing moments in their teaching.

Consider the following example from another segment from Derrell's class. He begins by dictating decimal values and students write them in decimal form. At one point, Derrell states the numeral "five-hundred-three-thousandths." The students write their answers on individual slate boards and show them to Derrell. Derrell invites a student, Erica, to share how she would write five-hundred-three-thousandths. He writes on the board the digits, 503, and Erica tells him to place the decimal between the five and the zero. Derrell states

Considerations for establishing a video club

Establishing the group and defining the goals	· Who will participate? · What will the group's goals be?
Videotaping and selecting clips	· Who will videotape in the classrooms? · Who will select and prepare clips for the group to view?
Facilitating the meetings	· Who will facilitate the meetings? · How will the facilitator maintain a clear focus for the group?

that it would be read as "five and three-hundredths." Erica then tells him to move the decimal point in front of the five. After this exchange, another student, Tyler, asks, "How can it be a hundred, on the right side of the decimal? You said a hundred, not a hundredth. How can it be a whole number? How can you say it as a whole number if it's on the right side of the decimal?"

In the video club meeting, the group tried to figure out Tyler's question. One teacher thinks Tyler wonders if all of the values on the right side of the decimal should end in a "-th." Another teacher thinks that Tyler thought Derrell said "five-hundred and three-thousandths" so he wants to write it as five hundred in whole number form and three-thousandths in decimal form. One of the facilitators wonders if he was confused by the number of places: How can there be only three places if they are talking about thousandths, since there are four digits for the thousands place in whole numbers? Finally, another facilitator suggests that Tyler may be wondering why the five is not in the second place, since that is the place for hundredths. This segment highlighted a student error and a student-initiated question and allowed the group to see that there may be multiple ways to interpret a student question or statement. They also saw that student questions or statements should not be dismissed and are worthy of discussion.

VIDEOTAPING AND SELECTING CLIPS

What is videotaped and what is selected to share in the meetings need to align with the group's goals. For our video club, we captured images of student thinking as they occurred in the classroom. We videotaped students in conversation and zoomed in on a pair or group of students as they worked through a lesson. We also focused on whole-class discussions, particularly students explaining their work displayed on the board. As we videotaped, we looked for instances when student thinking was visible, either through talk or through the work they displayed. More access to student work and talk allowed greater opportunities for teachers to analyze thinking. Also, we found that clips in which their thinking was not readily obvious also enabled meaningful discussions.

If it was unclear or not easy to figure out what students said or did, the group worked harder to try to determine what the students might be thinking and understanding (Sherin, Linsenmeier, & van Es, 2009). But simply having clips that have interesting ideas is not enough.

FACILITATING THE MEETING

One of the challenges of teachers sharing video from

Analyzing student thinking in video

Student conceptions	Ideas students have about a concept at the start and throughout a lesson as discussed in class.
Errors	Mistakes students make (e.g. solving problems, interpreting literary works, conducting labs) and why they make such mistakes.
Student strategies	Different approaches students use to complete a task (e.g. solve math problems or construct a historical argument).
Student-initiated questions and comments	Different questions and comments that students raise throughout a lesson.
Correct answers and explanations	Students' explanations for arriving at correct answers, solutions, and understandings.

their teaching is that they will often celebrate each other's teaching and not critically analyze what occurred (Ball, 1994). A facilitator is essential to keep the group focused on this goal. Our video club was facilitated by a research team as part of the university-school partnership that had experience analyzing video. School leaders, instructional coaches, and group members can facilitate video clubs as well.

First, the group creates a calendar for sharing video. Then the teacher being taped identifies a lesson in which students will share their work and communicate their thinking. It is important that someone other than the teacher handles the camera during the lesson and captures as much student talk and work as possible. After videotaping, the facilitator and teacher review the tape and identify segments of student thinking for the meeting. As they identify segments to watch, the facilitator makes note of interesting issues to highlight in the meeting if the teachers do not raise them on their own.

During the meeting, the teacher and facilitator provide background about the lesson to set up the clip. After watching the segment, the facilitator opens the discussion and asks teachers to share what they found noteworthy. The facilitator chooses which ideas will help the group examine student thinking and focuses the discussion on these issues. If teachers do not raise interesting ideas from the clip, the facilitator asks questions to focus the discussion, such as, "Did you see the counting strategy James used?" or "What was Samantha's idea about natural selection?" While discussing particular

events related to student thinking, the facilitator probes the teachers to use evidence from the clips to develop their analyses. This process of opening, focusing, and probing honors teacher input and ensures that the group remains focused on its goal of learning to analyze student thinking.

IMPACT OF VIDEO ANALYSIS ON TEACHERS' PRACTICE

In our study, we observed that all of the teachers developed in important ways. They learned to make student thinking visible in their teaching. That is, they publicly recognized unsolicited student ideas and invited students to ask a question or raise their ideas to contribute to the lesson. For instance, they noticed when a student raised a hand and wanted to comment: "Oh, Martin has an idea," or they invited students to ask questions: "Who wants to ask Maria a question?"

Teachers provided extended opportunities for student thinking by prompting students to take time to work through their ideas: "Let's give some people time to think" or "I don't know. I want you to try to figure it out."

Furthermore, they elicited multiple methods or solutions for the group to analyze and discuss. Rather than accept only one explanation or solution, the teachers invited several students to share their ideas, which enabled students to make mathematical connections. We also observed that the teachers probed students to explain their thinking and then probed their explanations.

Timothy Huynh studies student learning during his class for those seeking secondary mathematics teacher certification.

Finally, we observed the teachers learning while teaching. In particular, when students shared a strategy with which the teachers were less familiar or when they did not articulate their thinking clearly, the teachers made statements such as, "Wait a second, I don't understand. Can you tell me again what you did?" or "Let me think about that for a second."

These teaching moves were similar to those we used to analyze the video segments in the video club meetings. We looked for instances of visible student thinking, we probed the specifics and tried to understand their thinking, and we indicated when we needed to learn more in order to interpret their ideas.

A video club is a fairly simple way to use technology for teacher learning. Video captures classroom interactions that teachers may not have noticed when they were teaching and allows them to revisit noteworthy events that they were unable to examine initially. Furthermore, video clubs allow teachers time and space to share with their colleagues what they do in their classrooms and use their teaching as the focus of their professional development. While I use examples from elementary mathematics, teachers across content areas can benefit from viewing video from their classrooms. Noticing student thinking is a critical skill for all teachers. Video clubs are one way that teachers can learn to hone these skills while also developing strategies for inquiring into student thinking as they teach.

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TEAM SPIRIT

Teachers work together to establish and achieve key goals

By Vivian Troen and Katherine C. Boles

Common experience, along with a vast collection of research, demonstrates that schools can expect a range of benefits to accrue when teachers work together. Teacher teaming can reduce teacher isolation, increase collegiality, facilitate the sharing of resources and ideas, and capitalize on teachers' individual and shared strengths. And most recently, teacher teaming has been "discovered" as an avenue toward teacher learning and enhanced professional development that can lead to gains in student achievement.

We've been working in and studying teacher teams for more than two decades, and our current work focuses specifically on analyzing the elements of effective teacher teams. So far, we have found very few teams that can truly be called effective in every sense. The reasons for this are many and vary from school to school. Too often, however, teams are created by a school leader putting groups of teachers together, generally by grade level or subject matter, and saying, "OK, you guys are a team, now collaborate."

Unfortunately, collaboration is not synonymous with effective teaming, and most teams lack the tools and resources needed to make them successful. Our research has uncovered the most common pitfalls to team success.

COMMON TEAMING PITFALLS

- Teachers are given common planning time for team meetings but lack the facilitation skills necessary to use the time effectively.
- Teachers and principals believe that experience equals expertise; teams frequently lack internal expertise and are reluctant to look outside the team for help.
- Teachers are reluctant to exert leadership or assume leadership roles.
- Teachers choose to team around issues that are peripheral rather than central to their daily teaching.
- Good working relationships are seen as the key to team success; the content of teaching and learning has less emphasis.
- The team has no clear purpose or goals; team members may speak of issues such as increased collegiality or mutual support, but rarely engage in instructional talk that would significantly change teaching and learning.
- Putting necessary structures in place is undervalued.
- Most teachers have no vision of what constitutes effective teaming, and they have few models to learn from.

Team tuneup worksheet. See NSDC tool on p. 63.

CONDITIONS OF EFFECTIVE TEACHER TEAMS

Our experience has shown that teaching teams rarely reach their potential because they lack effective team attributes. Anyone who wants to upgrade the performance of teaching teams needs not only

to understand these factors but also how to implement strategies necessary to ensure team success.

We've developed a framework, below, for evaluating the effectiveness of teams, and we look at each team we investigate using five criteria, or conditions. Within each condition are several levels of development that determine where a team's overall effectiveness lies along a broad spectrum.

A TEAMING SUCCESS STORY

We do not consider ourselves ivory-tower academicians far removed from the real life of schools and classrooms. We have each spent more than 20 years as public school teachers and fully understand the problems of transforming theoretical models into everyday practice that yields realistic results. Recently, using the framework we developed, we worked with teams in one K-8 school in a large urban school system to improve student learning.

We will call this school Elmhurst Elementary. Its principal had read a description of what we had been calling our Millennium Team teaching model (Troen & Boles, 2003) and found funds to implement our model in her school for the 2007-08 school year. Her goal was to make this a multiyear initiative to transform the school.

THE MILLENNIUM TEAMS

Understanding the pitfalls to teaming, we developed a series of workshops and study groups for Elmhurst Millennium Team teachers. These were designed to guide teachers in developing and reflecting on their practice as members of a team responsible for improving student learn-ing, enhancing inclusion strategies, initiating new teachers into the profession, and/or developing a peer coaching relationship.

Agreeing that teacher learning cannot take place in 30-minute blocks, the principal arranged the master schedule to give each team an 80-minute block once a week for meeting time. A priority was to teach the teachers how to use that block of time during the school year as an opportunity to build curricular and instructional skills. We introduced the teachers to the importance of focused instructional talk as opposed to endless discussions about operations. Teams practiced using tools for co-planning, co-teaching, and observing and documenting practice in order to promote a culture of shared inquiry and collaboration.

As a result of these encounters, the

CONDITIONS OF EFFECTIVE TEACHER TEAMS

Improved teaching and learning

Task focus	Leadership	Establishing structures and processes	Collaborative climate	Personal accountability
• Is the team's task well-defined and articulated? • Does it focus on improving student learning?	• Does the team encourage leadership by all its members? • Is leadership distributed so that it is available in one way or another, and at one time or another, to all teachers? • Are all teachers empowered to take risks? • Is individual teacher instructional expertise valued and used by team members?	• Does the team determine ways to work together to achieve agreed-upon goals? • Does the team distribute resources effectively to accomplish its goals? • If needed, does the team know how to access and enlist outside expertise?	• Does the team promote a working environment that generates trust, communication, and synergy?	• Is there an expectation of performance improvement for both the team and the individual?

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teachers assumed responsibility for setting their own Millennium Team goals and identifying the outcomes they hoped to achieve collectively. They defined four team goals:

1. Define and explore what constitutes instructional talk.
2. Connect team conversations to classroom planning and practice.
3. Provide opportunities to improve practice in concrete forms (e.g. using assessment data, working collaboratively on lesson plans, looking at student work, and conducting classroom observations) with room for each person's reactions, interpretations, conjectures, and analysis.
4. Develop and enact practices that ensure individual and mutual accountability within the team.

We established a structure so that teachers regularly met in ongoing study groups to raise questions, solve problems, examine student work, co-plan units, develop their teaching practices, and refine the Millennium Team model. Participants collaborated with us in the ongoing development of study group agendas and monthly "team tune-ups," based on their evolving work.

At the team tune-ups, we gave each team member a copy of the meeting transcripts and asked them to find evidence of team talk around the four Millennium Team goals. Over the school year, teams formed definitions and judgments about attaining these goals and identified next steps. Team members agreed to hold each other accountable for attaining their team goals and developed benchmarks to evaluate progress in achieving them.

AN ASSESSMENT OF TEAM PROGRESS

A typical problem with teacher communities where team meetings are supposed to address instructional issues is that the teachers end up having discussions that merely make them feel better. Like people everywhere, teachers like to talk to each other about their jobs. But in the end, there are few tangible outcomes that demonstrate teacher or student improve-

ment. The Millennium Team challenge was to assess whether the process on which everyone had worked so hard was meeting the goals we had set for ourselves.

At the end of the 2007-08 academic year, we collected data to assess the effect of the new team structure on Elmhurst's teacher teams. We collected data for this assessment from several sources: student work and test scores, honor roll and uniform compliance data, discipline behavior records, curriculum maps, lesson plans, meeting minutes and transcripts, and interviews with the principal and teachers. We identified four major ways in which change had occurred in the teams.

1. Defining and exploring what constitutes instructional talk

Teachers had committed to improving their own conversations about curriculum and instruction in order to improve their students' learning. To prevent the common team pitfall of discussions being consumed by logistics, we had introduced a protocol that helped teams analyze a team transcript and pinpoint different kinds of instructional talk. (See p. 63.) Reading transcripts of previous team meetings allowed teachers to analyze what they had actually discussed. As they gained skill in observing their own process, teachers were ably equipped to streamline meetings to address specific learning goals.

When asked to assess the team's instructional talk at a team tune-up, one teacher commented, "To be truthful, last year team meetings were nearly all logistics. … We never set an agenda item around the improvement of teaching and learning. Now 15% is used for logistics and 85% is used to address topics on developing better strategies for teaching to improve student outcomes."

An examination of instructional talk and the activities occurring in teacher teams provided powerful insights to developing teacher learning and ultimately student learning.

2. Connecting team conversations to classroom planning and practice

Elmhurst Elementary put a high priority on inclusionary practices and reducing the achievement gap for special education students. For many years, middle school teachers had graded and accommodated special needs students in an individual manner. Early in the year, the issue became a focus of a day-long workshop, where teachers hammered out consistent policies. They made a coordinated effort to ensure that lessons and exams were not "watered down" for special needs students.

Two initiatives proved to affect teacher practice and student achievement. First was the creation of a coherent grading policy by content area. Second, building on the expertise of colleagues and the team's special ed teachers, each teacher's repertoire was expanded to include the best inclusive practices of the team (e.g. "lesson launches" incorporating differentiated instruction, cross-content sharing of identified gaps, accommodating assignments and exams for special education students in a consistent and sensitive way).

> "Now 15% is used for logistics and 85% is used to address topics on developing better strategies for teaching to improve student outcomes."
>
> *— Teacher assessing the team*

The change was dramatic. On accommodated-in-class assessments, the majority of special ed students showed an improvement of at least 10 percentage points, and 70% received a grade of C or better.

Figures for homework assignment completion and quality showed that special education students, with few exceptions, were completing required assignments, and regular education students were doing so with increased frequency. No failures were noted for the homework portion of students' grades, whereas in previous years, the failure rate in the homework category had been as high as 50%.

According to one 6th-grade teacher, "We are no longer spending time addressing whether or not we need to accommo-

date lessons. We now are entering into the discussion of how to best accommodate lessons and when modification is necessary."

The middle school math teachers, concerned with students' inability to write about their mathematical thinking, met in content-specific teams. A math teacher commented, "Reflection pieces in mathematics experienced major gains in quality and length. Students have benefited from the specific procedures we've developed. Now students respond to reflection questions in a way that is consistent throughout the middle grades."

3. **Providing opportunities to improve practice in concrete forms**

Teachers on the 6th-grade team voiced concern that class beginnings were not as efficient as they might be. One teacher videotaped the first 10 minutes of a number of his classes and chose one clip to analyze with the team. After commenting on this video, other teachers examined their own 10-minute openings. Teachers decided to create a consistent protocol for the first 10 minutes of class, addressing the conundrum of effective class beginnings and looking for time to complete lessons. Their collaborative solution ultimately saved an average of seven minutes per class for many team members, but more important was a significant improvement in class behavior. Discipline issues were minimized during the entire class period as a result of consistent and predictable expectations and routines established at the beginning of the class period.

4. **Developing and enacting practices that ensure individual and mutual accountability**

The kindergarten team, made up of teachers with very different teaching styles and beliefs about teaching, decided to address reading instruction as a team. One of the teachers, a part-time literacy coach, reviewed the many facets of Readers and Writers Workshop instruction in team meetings, and then taught the team how to analyze text to decide which teaching points were appropriate for their students. Subsequently, the team held conversations about student work produced as a result of this new learning. When, in a team meeting, it became clear that one of the teachers had not followed the agreed-upon plan of action, the team put pressure on that teacher to follow the pedagogy in pursuit of increased student learning.

According to teacher reports, consistent practices developed by the 7th/8th-grade team were instrumental in doubling the number of students on the honor roll over four terms.

Improvements in discipline showed up in surprising ways. The dress code at Elmhurst Elementary, in place for three years, called for all students to wear khaki slacks or skirts and a blue shirt. Compliance had never been 100%, but during the 2007-08 academic year, compliance rose steadily from 27% to 71%. Teachers attributed the increase in compliance to students understanding a consistent set of expectations, rewards, and consequences implemented by all staff.

One teacher commented, "These improvements were possible because of the consistent implementation of incentives and the changes made to instruction as a result of teaming. Furthermore, the children were aware of the ways in which their teachers were working together and the efforts made by the entire team."

PRACTICES TRANSFORMED

At year's end, teachers assessed their own and their team's progress and arrived at goals to work on the following year. Teachers identified the coordination of leadership responsibilities as an issue and targeted team planning in subgroups as a goal, with more content-specific professional development as part of the mix. They put creation of a regular schedule of peer/group observations on their "want list" and recognized they needed better communications between classroom and special education teachers. All team members agreed to work on developing and refining leadership skills.

Most important to us were the positive signs that a Millennium Team model had the potential to provide tangible improvements in teaching practice and student achievement by transforming teacher talk and teaching practice.

On a final note: The well-worn phrase "Change is a process, not an event" proved to

> It all takes time, energy, and a willingness to stick with the process.

be more than just a cliché in the case of Elmhurst Elementary. The year's trajectory was not entirely smooth, and there were ups and downs. There were periods of hope and growth coupled with periods of conflict and dissatisfaction. Euphoria sometimes followed disappointment. Yet one very important lesson learned is that no matter how skilled the participants in school change, a lot of patience is required. It all takes time, energy, and a willingness to stick with the process. The benefits that teachers realized through their own experiences bore this out.

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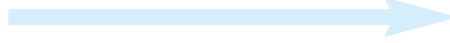
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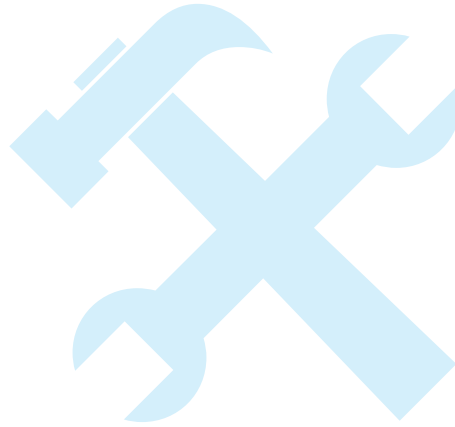
Examining team transcripts

Purpose	Use this worksheet to examine documentation of team meetings in light of goals the team has established.
Materials	Copies of team transcripts, yellow and pink highlighters, pencils.
Time	45-60 minutes.

DIRECTIONS

1	• On the copies of the transcripts, draw a line between the major portions of the meeting (whenever the group turned its attention to a new subject). • On the right for each section, record the core content being discussed (e.g. announcements, math assessment, reading lesson, writing strategy).
2	• Use a yellow highlighter to highlight questions that were raised during the meeting. • Use a pink highlighter to note when concerns were raised. • To the right of the text, use a pencil to draw an arrow to the text where the question or concern was answered (if there was a response). • What do you notice about the kinds of questions that people asked? • Did the group tend to pick up and respond to questions or bypass questions? Any thoughts about why? • How did people tend to respond to questions and concerns (e.g. provide strategies, direct to resources, put on next agenda, empathetic response, etc.)?

3	• Overall, what kinds of talk do you notice in this meeting? • Here are some possibilities in the blue box at right. • Put a check mark next to those you find in evidence. • What other types of talk can be added to the list?

Clarifying comments and questions ☐

Coordinating work across classes ☐

Directions (this is how you do something) ☐

Announcements/updates ☐

Planning/organizing ☐

Directive (you need to do this) ☐

Making connections ☐

Providing background/history ☐

Explaining/providing rationale ☐

Sharing ☐

Generating ideas, alternatives ☐

Observational comments ☐

Humorous comments/jokes ☐

Other:

4	• When and how are students being discussed (i.e. generic references — ELLs, special education students; specific references — individual students; positive or negative references)? • What came before and caused teachers to introduce students into the conversation?

5	• When are documents, resources, or other artifacts being distributed? • Are they actually being discussed by the group, just referenced, or just distributed? • How are they being used? Are they advancing the group discussion and learning during the team meeting?
6	• Who is leading the conversation? • Circle the name of the person leading/facilitating the conversation. • Circle the names of others as/if this role shifts during the meeting.
7	• Who is talking, and who is not? • What do you notice about taking turns and the length of people's contributions?
8	• Is there evidence in the transcript of a facilitator, a timekeeper, a note-taker, or a norms process observer? • Do they appear to influence the team's work in any way?

Source: Adapted with permission from Boles, K., Henry, S., & Troen, V. (2007). *Examining team transcripts. The transformative power of teacher teams.* Unpublished manuscript.

The right conversation strategy can extinguish anger and strengthen parent-teacher relationships

I've asked several education colleagues in my Fierce Conversations work to share strategies and experiences as we work together to build the most productive collaborative learning environments. Jamie Sussel Turner, an elementary principal for 12 years, now mentors principals and leads Fierce Conversations workshops. No doubt many of you can relate to Turner's experience.

By Jamie Sussel Turner

I gasped as I read the angry parent e-mail that had been sent to the teacher and copied to me, her principal. I imagined the sinking feeling the teacher would have when she began to read what can best be described as a rant. Knowing how difficult this was for the teacher, I felt protective of her emotional

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In each issue of *JSD*, Susan Scott (susan@fierceinc.com) explores aspects of communication that encourage meaningful collaboration. Scott, author of *Fierce Conversations: Achieving Success At Work & In Life, One Conversation at a Time* (Penguin, 2002) and *Fierce Leadership: A Bold Alternative to the Worst "Best" Practices of Business Today* (Broadway Business, 2009), leads Fierce Inc. (www.fierceinc.com), which helps companies around the world transform the conversations that are central to their success. Fierce in the Schools carries this work into schools and higher education.

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state. I was also wary about getting myself in the middle of this parent-teacher conflict.

Mrs. Smith's two-page e-mail raged about how the teacher was overreacting to her 2nd-grade son's classroom behavior. Overly dramatic phrases were sprinkled throughout, such as "This has made me question once and for all the efficacy of your methods" and "I await enlightenment." This was one angry mother and one parent-teacher relationship that was in deep trouble — and it was only January.

As a principal, I often struggled with similar situations. I would encourage an upset parent to talk directly to the teacher, not yet realizing how I might be able to help by getting more involved. I often wondered what tools I could use to help parents, teachers, colleagues, and even students resolve tough issues. Now I wondered how I could help this mother and teacher return to their initial optimism from the start of the school year.

From my work with Fierce Conversations, I knew the tool that I needed for situations like this one — a strategy called Mineral Rights. A Mineral Rights conversation helps others interrogate re-

ality by mining for greater clarity, improved understanding, and impetus for change.

Fortified with an approach for the conversation, I invited Mrs. Smith to school, after first checking with the teacher to make sure that she was comfortable with my involvement in this way. Without hesitation, she welcomed anything that would help her avoid being the recipient of any more of Mrs. Smith's anger.

Later that morning, Mrs. Smith was perched on the edge of an office chair as I asked, "So, what is going on with Mack and his teacher?" What followed can best be described as venting. She reiterated much of

Jamie Sussel Turner

what she said in the e-mail — details that accused the teacher of picking on her son, singling him out, and punishing him for something she didn't think he did. She added, "I just can't tolerate her handling of Mack's minor behaviors, and it is interfering with his learning," she said. "Mack is being singled out and punished for harmless and normal childhood stuff."

"How long has this been going on?" I asked.

"Well, the year was off to a great start. Mack's teacher and I promised to communicate regularly. But lately I'm hearing about Mack's behavior from

everyone but her," Mrs. Smith said.

After hearing more of the details, I asked how this was impacting her and Mack. There was silence as I waited patiently. She said, "It's very frustrating to have him pegged constantly for minor things." I dug deeper by asking, "What else?" Mrs. Smith continued, "Mack is being labeled as a problem student, and since I'm not hearing about it, I'm completely powerless to help him do better."

I asked her to imagine how the rest of the school year might go if nothing changed. "I'll keep feeling angry about how Mack's teacher picks on him," she replied with a tone of exasperation.

"What else?" I asked.

"Mack will continue to be singled out and punished," she added.

I gently guided the conversation by asking what she might have done to contribute to this situation, and Mrs. Smith said, "It's difficult to admit this, but I guess I've dropped the ball these past few months. When I didn't hear from Mack's teacher, I figured no news was good news."

I asked her to imagine the kind of relationship she wanted to have with Mack's teacher. While still concerned with the issues in her e-mail, a noticeable shift occurred as Mrs. Smith realized she mostly wanted to rebuild positive communication with the teacher. She admitted, "I know Mack isn't an angel. He can be a real handful at home, too. I truly

> What initially appears to be the problem isn't typically what lies lurking at the bottom of the well.

want to work with his teacher to help him behave better in school."

Later that afternoon, Mrs. Smith and Mack's teacher had a calm and productive conversation. The next day, I received another e-mail from Mrs. Smith, this one more pleasing to read: "Thanks so much for being my filter. Mack's teacher and I are going to continue a dialogue much like we had tried to set up in September, and will meet face-to-face again if necessary. I'm trying to give her some insight into Mack's actions so that she can be relieved of some of the frustration. No doubt this is a work in progress for both of us."

This is a work in progress for me, too! I have found that using Mineral Rights as a questioning technique can help parents, teachers, colleagues, and students gain clarity about a troubling issue. With practice, I have become better able to help others dig deeply and hoist the true issue out of the well.

I've also come to see how powerful a principal's participation can be. I was able to help Mrs. Smith gain clarity about the issue so that she could recognize that the handling of her son's behavior, which she was so consumed with at the start, was not really the issue — re-establishing proactive communication with the teacher was. This insight allowed her to let go of her initial anger so that she could have a positive and relationship-enhancing conversation with her son's teacher. In the end, she was no longer feeling powerless, but was a partner with the teacher in helping her son to be his best.

By using this probing conversation strategy, I have learned that what initially appears to be the problem isn't typically what lies lurking at the bottom of the well. Drilling deeply helps to unearth the essential issue and resolve conflict while also strengthening relationships. ■

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7 questions that get results

Bravo! The magic that can occur during a Mineral Rights conversation comes from asking seven questions and drawing someone out along the way: Say more. What else? What else? Strict rule: No advice! Questions only. The solution emerges within the answers. Here are the questions:

1. What is the most important thing we should be talking about today?

2. How long has this been going on?

3. What results is this producing? Who is this impacting? When you consider these results, what do you feel?

4. If nothing changes, what is likely to occur? When you imagine that possible scenario, what do you feel?

5. What has been your contribution to this problem?

6. What would be your ideal outcome? If you succeed in this, what difference will that make?

7. What is the next most powerful step you can take? When will you take it? When can I follow up with you?

Asking about emotions is essential, as emotions create impetus for action. When people stay in their heads, it's doubtful anything will change. You've probably noticed people who tell the same sad story over and over, ignoring advice about how to improve things, eventually boring everyone around them.

A Mineral Rights conversation creates an internal bonfire, a call to action. Have it with yourself, a friend, a family member, a colleague, or an angry parent. If you'd like, let me know how it goes at **susan@fierceinc.com.**

— Susan Scott

Nelson

Guerra

Empowered parents partner with schools to meet student needs

Decades of research suggest the home-school connection is a key factor in student success. When talking about these relationships, educators often speak in general terms as if there is only one kind of home-school connection and as if it looks the same for everyone.

We have developed a schema for thinking about three of the most common types of home-school connections — involvement, engagement, and empowerment — and how these connections may vary depending on the backgrounds of students and families.

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In each issue of *JSD*, Sarah W. Nelson and Patricia L. Guerra write about the importance of and strategies for developing cultural awareness in teachers and schools. Nelson (swnelson@ txstate.edu) is an assistant professor in the Department of Education and Community Leadership and associate director of the International Center for Educational Leadership and Social Change at Texas State University-San Marcos, and co-founder of Transforming Schools for a Multicultural Society (TRANSFORMS). Guerra (pg16@ txstate.edu) is an assistant professor in the Department of Education and Community Leadership at Texas State University-San Marcos and co-founder of Transforming Schools for a Multicultural Society (TRANSFORMS).
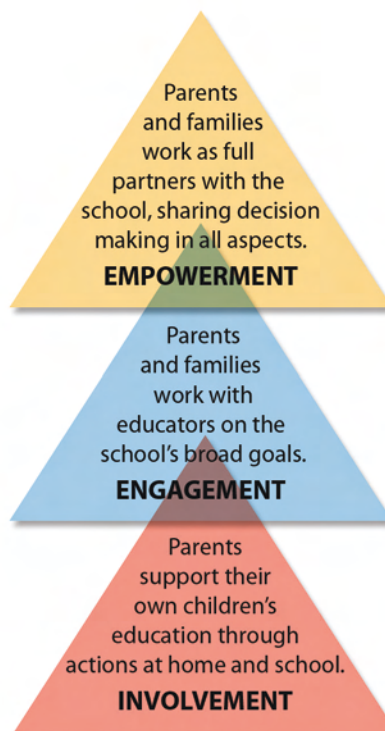Columns are available at www.nsdc.org.

In the previous two columns, we wrote about parent involvement and parent engagement. Here, we discuss parent empowerment.

With parent involvement and parent engagement, parents are in the position of responding to the school's needs. Parent empowerment is distinct in that it requires a different kind of relationship between home and school. With empowerment, parents and families are not responding to needs identified by the school. Rather, parents and families work as full partners with the school to create a school that is responsive to the assets and needs of students and families in the community.

Parent empowerment requires a dramatic shift in the way schools and families work together. Traditionally, schools, and in particular, school leaders, have controlled the home-school relationship. Schools set expectations for parent participation and establish limits on parent interaction with the schools. Schools create meeting agendas and determine what issues are appropriate for parent input. Schools also control the budget and the other resources required to make change. Schools even control, or at least strongly influence, which parents are selected for participation on site-based decision-making councils, PTA offices, and other governance groups.

Because schools hold most of the power, parents often have little voice in the relationship and can feel devalued or manipulated by the school. This is espe-

A range of home-school connections

Parents and families work as full partners with the school, sharing decision making in all aspects.
EMPOWERMENT

Parents and families work with educators on the school's broad goals.
ENGAGEMENT

Parents support their own children's education through actions at home and school.
INVOLVEMENT

cially true for culturally, linguistically, and economically diverse families who have historically been marginalized in the educational system. To create authentic relationships, schools must share power with parents and families. Sharing power means making school practices transparent, providing parents with key information, and allowing parents unfettered access to the school.

However, letting go of the tight control schools hold in the home-school re-

lationship takes courage. There is fear that, without clear boundaries and limits, parents will have unreasonable expectations and make demands the school cannot meet. While it's true that allowing parents full access means parents will likely question the way things have been done and may ask the school to make changes, we have found that empowered parents are actually highly supportive of schools. They understand that teaching and learning are complex and require hard work. Because empowered parents see themselves as an integral part of the school, they are willing to work alongside educators to improve educational experiences for all students.

MOVING TOWARD EMPOWERMENT

Parent empowerment can be developed in a variety of ways. In some schools, there is a parent council made up of representatives selected by parents in the community. In other schools,

The time spent on relationships is critical. Without it, empowerment will not occur.

there are no designated parent representatives. Rather, all events and meetings are open to all parents. Whatever the configuration, the key is that parents, not school officials, determine the group's makeup. The parent group and the school are interdependent. This means the group does not need the official sanction of school officials to do its work.

At the same time, it is not a rogue group operating at cross-purposes with the school. It is a group of parents who are knowledgeable about the school and are organized in such a way that they can both support the school and challenge the school to better serve the children and youth in the community.

Creating such a group takes concerted effort. There must be a person dedicated solely to this task because it is complex. In order to empower parents,

much of the work that has been done previously around parent involvement must be undone. Some parents have come to understand that schools only want a certain kind of input and involvement, and schools do not provide parents with the information or resources they need to fully participate in the life of the school.

Convincing parents that the school is sincere in its desire to develop a new kind of partnership requires that schools build collaborative and trusting relationships with parents. The time spent on relationships is critical. Without it, empowerment will not occur. However, the process for creating such relationships goes against the action-oriented nature of schools. Building trusting relationships with parents, particularly parents who have historically not been included, means sitting among parents without an agenda for as long as it takes for parents to believe that the school truly wants to know them and work with them. It means providing parents with the information they ask for, even if that information is something the school would rather parents did not know. It means providing space for parents to do their work so they feel as if they are part of the school rather than intruders.

Getting to the point where parents believe the school is committed to parent empowerment typically takes months, if not years. Schools want results quickly, so efforts to develop authentic collaborations with parents are often abandoned before they have an opportunity to succeed. This only serves to reinforce the perspective that schools do not value all parents.

When schools succeed at parent empowerment, it is because they make a commitment and stick to it, even when it gets hard. They identify a person to work on parent empowerment, and they

do not ask that person to do other work. They make resources and information available to parents without requiring a complicated request for information process. They include parents in all aspects of decision making, even areas that have traditionally been the exclusive purview of schools. They respond to parent input, and they value the assets parents bring. In short, they make parents an integral part of the school.

When schools share power with parents and families, authentic, mutually beneficial relationships result. Suspicion, anger, and distrust fade and are replaced by caring, trusting, and supportive relationships. Working closely with parents, educators get to know them and realize that all parents value and want to be involved in their children's education. At the same time, parents learn educators have their children's best interests in mind but work under challenging conditions.

Understanding each other's circumstances, parents and educators realize that by working together, they can better meet the needs of students and families in the community as well as those of educators.

Sharing these vulnerabilities is scary at first, but over time ultimately results in understanding, empathy, and trust between parents and educators and a sense of shared responsibility for students and for each other. When a concern or need arises, parents and educators know they can count on each other to address the issue at hand without blame or judgment.

Valued for their knowledge, skills, and resources, parents truly feel like an equal partner, and this acceptance in turns sparks additional interest and involvement.

Receiving assistance and a vote of confidence from parents, teachers feel supported and in turn welcome more involvement and collaboration. The ultimate outcome is better schools. ■

abstracts

theme TECHNOLOGY

Learning, no matter where you are:
QUESTION & ANSWER WITH CHRIS DEDE.
By Tracy Crow

Online learning offers exciting options for professional development, with new tools that help adults build community and learn at their pace. As with all instructional methods, however, the learning styles and needs of participants are a critical element in determining how to best shape learning experiences.

17,000 islands, one goal:
INDONESIA TURNS TO ONLINE RESOURCES TO CREATE A NETWORK OF SCHOOL-BASED COACHES.
By Mary Burns

A pilot project brought two firsts to educators in Indonesia: the opportunity to learn how to fulfill new roles as coaches and an online professional learning environment. Through a combination of face-to-face meetings and an online course, coaches honed their craft to best support the teachers they serve.

From solo to ensemble:
FINE ARTS TEACHERS FIND A HARMONIOUS SOLUTION TO THEIR ISOLATION.
By Jeff Maher, Christina Burroughs, Laurel Dietz, and AnneMarie Karnbach

Educators in St. Mary's County (Md.) Public Schools formed professional learning communities to foster teacher growth for the sake of students. Technology became an integral tool in this collaboration, particularly for those teachers who tend to have fewer colleagues in their buildings.

Teachers click with shared content and anytime access.
By Lissa Pijanowski

Thousands of teachers in Forsyth County (Ga.) Schools now have a technology infrastructure to support their learning. By starting with content sharing, the district introduced the system so teachers recognized instant benefits for classroom instruction. As teachers collaborated around content, they strengthened their professional networks.

Zeroing in on data:
CUSTOMIZED ANALYSIS PINPOINTS EVIDENCE OF STUDENT IMPACT.
By Andrew Szczepaniak

A professional development management and evaluation system helps educators in the Gilbert (Ariz.) Public School System plan and organize adult learning, and more importantly, analyze data linked to student outcomes. Learners use the system to track their own goals, collaborate with others, and reflect on progress.

Online community becomes a pathway to teacher leadership.
By Cindy Gutierrez and Chris Bryan

Teachers who participate in the Professional Development School (PDS) partnership often progress into teacher leadership roles, but not always. When university faculty members had the opportunity to develop an online community of such teachers, they investigated how to intentionally foster teacher leadership using web-based tools.

Weaving the fabric of professional development in the 21st century using technology.
By Patricia Chesbro and Nancy Boxler

Through a grant from the U.S. Department of Education, educators in Alaska created a network to reach geographically isolated teachers. At the same time, they learned about the importance of skillful online facilitation and the advantages that technology tools could offer for professional learning.

Viewer discussion is advised:
VIDEO CLUBS FOCUS TEACHER DISCUSSION ON STUDENT LEARNING.
By Elizabeth A. van Es

Videotaped lessons offer teachers a method for entering each other's classrooms. Facilitated discussions of lessons provide opportunities for examining specific student challenges. An experienced facilitator offers three key elements to running a successful video club.

feature

Team spirit:
TEACHERS WORK TOGETHER TO ESTABLISH
AND ACHIEVE KEY GOALS.
By Vivian Troen and Katherine C. Boles

While teacher teaming has shown remarkable benefits for schools, many teams aren't working to their full potential. The authors outline common pitfalls of teacher teams and describe conditions that support effective teams, based on their work with schools using a specific teaming model as part of school transformation efforts.

call for articles

Theme: Content-specific professional development
Manuscript deadline: April 15, 2010
Issue: December 2010

Theme: Working with external partners
Manuscript deadline: June 15, 2010
Issue: February 2011

Please send manuscripts and questions to Rebecca Bender (**rebecca.bender@nsdc.org**).
Notes to assist authors in preparing a manuscript are at
www.nsdc.org/news/jsd/guidelines.cfm.
Themes for additional upcoming issues are available at
www.nsdc.org/news/jsd/themes.cfm.

coming up
in April 2010: **Leadership**

columns

Collaborative culture:
THE RIGHT CONVERSATION STRATEGY
CAN EXTINGUISH ANGER AND STRENGTHEN
PARENT-TEACHER RELATIONSHIPS.
By Susan Scott and Jamie Sussel Turner

A principal uses a specific probing strategy to negotiate a difficult discussion with a parent, with positive results for their ongoing relationship.

Cultural proficiency:
EMPOWERED PARENTS PARTNER WITH SCHOOLS
TO MEET STUDENT NEEDS.
By Sarah W. Nelson and Patricia L. Guerra

Parent empowerment puts families in a full partnership role, allowing them to shape schools that respond to the needs of the community.

From the director:
NO EXCUSES! TECHNOLOGY OFFERS MORE
OPTIONS TO EXPAND ACCESS AND INNOVATION
By Stephanie Hirsh

Technology-supported professional learning helps educators overcome challenges related to resources, follow-up support, and documenting impact.

Frederick Brown becomes director of strategy and development

To bolster its capacity for leadership in transforming schools, school leadership, and accelerating systems change, NSDC hired Frederick Brown, former senior program officer at The Wallace Foundation, to become its new director of strategy and development.

Bringing a rich background in school leadership and education policy, Brown will assume responsibility for strategic planning and initiatives, school leader programming, new fund and partner development, as well as direct services to NSDC clients and members at the system levels.

At The Wallace Foundation, Brown guided the work of several major grantees, including the Southern Regional Education Board, the Institute for Learning at the University of Pittsburgh, and the states of Ohio, Iowa, Wisconsin, Oregon, Kansas, and New Jersey.

"Frederick's vast experience and deep commitment to improving education will add tremendous value to NSDC. I look forward to the many ways he will advance NSDC's efforts to improve professional learning and student achievement," said Stephanie Hirsh, NSDC's executive director. "Frederick has previous experience with NSDC initiatives that will also serve him well in his new position. He is a graduate of Academy XIV, served as a coach for NSDC's Philadelphia Academy, and is a former member of the NSDC conference planning committee."

Prior to joining The Wallace Foundation, Brown was director of the Leadership Academy and Urban Network for Chicago (LAUNCH), an organization whose mission is to identify, train, and support principals for Chicago Public Schools. In 2005, LAUNCH was highlighted by the U.S. Department of Education as an Innovative Pathway to the Principalship.

Brown's expertise is grounded in real-world experience. He has been an elementary school teacher and principal as well as a middle school assistant principal. He also served as a founding member of the Mathematics and Equity Teams for Ohio's Project Discovery, a statewide initiative to improve mathematics and science instruction.

Over the past 10 years, Brown has been a leader in designing and facilitating cutting-edge learning experiences for school and district administrators on topics such as cultural competence, leadership, and professional learning communities.
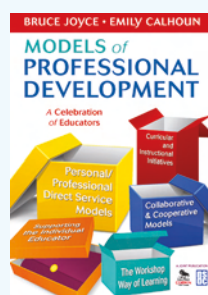
"I look forward to working with NSDC and doing what I can to enhance the already vast and critical programs it brings to the field," Brown said.

Brown holds a B.A. in elementary and secondary mathematics from the University of Toledo and a Master of Education in educational administration from Bowling Green State University. He is currently pursuing a Ph.D. in learning science from Northwestern University.

> **"Professional development is the best and most effective way to spread good ideas and practice for the benefit of all education professionals and ultimately the students they serve."**
>
> — *Frederick Brown*

Frederick Brown

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book club

MODELS OF PROFESSIONAL DEVELOPMENT:
A celebration of educators

Learning models are in focus in the next NSDC Book Club selection for members with this option. Written by Bruce Joyce and Emily Calhoun, this comprehensive resource identifies five major contemporary professional development models. With an emphasis on the connection between professional learning and student outcomes, this volume provides an in-depth analysis of each approach.

Through a partnership with Corwin Press, NSDC members can add the Book Club to their membership at any time and receive four books a year for $49.

To receive this book, add the NSDC Book Club to your membership before March 15. It will be mailed in May. For more information about this or any membership package, call NSDC at 800-727-7288 or e-mail NSDCoffice@nsdc.org.

NSDC's strategy for narrowing the achievement gap focuses on equity and excellence for all students

on board
INGRID CARNEY

In looking ahead to the crucial work that I will be a part of during my tenure as NSDC president, I want to remind everyone of our purpose: Every educator engages in effective professional learning every day so every student achieves.

In alignment with this commitment, NSDC has developed a strategic plan with five strategic priorities (see **www.nsdc.org/standfor/strategy.cfm**). In this issue of *JSD*, I'd like to address one of those priorities: Narrowing the achievement gap.

In a March 2009 speech, President Obama said, "Let there be no doubt: The future belongs to the nation that best educates its citizens. … And yet, despite resources that are unmatched anywhere in the world, we have let our grades slip, our schools crumble, our teacher quality fall short, and other nations outpace us. … And year after year, a stubborn gap persists between how well white students are doing compared to their African American and Latino classmates. The relative decline of American education is untenable for our economy, it's unsustainable for our democracy, it's unacceptable for our children — and we can't afford to let it continue."

Education is the civil rights issue of our time. So let's talk about the achieve-

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Ingrid Carney is president of the National Staff Development Council.

ment gap. Many of our school districts have established as their goal that "children will graduate ready for college, work, or a career." That is not happening for large numbers of our children.

According to Secretary of Education Arne Duncan, the dividing line in our country today is less around race and class, and more around educational opportunity (2009). In many cases, the achievement gap is highly correlated to an opportunity gap. Opportunity is denied when the quality of your education is determined by your ZIP code. When your name is Jamal or Jose or Precious or Maria and you live in an underserved and sometimes dangerous community with high concentrations of poverty, it is more likely that many of your teachers are inexperienced and underqualified for the subjects they teach. When you are a student and too many of your teachers are inexperienced and underqualified, there is a gap in your opportunity to learn. Secretary Duncan says that if we can close the opportunity gap, we could eliminate the achievement gap.

NSDC's strategy for narrowing the achievement gap is to launch a national movement to enlist schools, particularly those serving low-performing students, to embrace the NSDC purpose, because when adults learn, students learn.

To date, we have:
- Launched the Learning School Alliance, with 46 schools participating, including 24 elementary, 13 middle, and 9 high schools;
- Increased the percentage of Academy members who come from high-poverty districts;
- Continued to work closely with the Big 35 school districts where we know these conditions are more likely to exist; and
- Through the work of the Impacting the Future Now Foundation, provided scholarships to educators whose districts might not otherwise afford to send them to NSDC's Annual Conference.

To narrow the achievement gap, NSDC will continue to focus its efforts on excellence and equity for all students by advocating, providing, and supporting professional learning for every educator, every day. What will you do?

REFERENCES
Duncan, A. (2009, April 24). *Speech for the University of Northern Iowa,* Cedar Rapids, Iowa.

Obama, B. (2009, March 9). *Speech for the Hispanic Chamber of Commerce,* Washington, DC. ■

IN RECOGNITION OF THEIR SUPPORT

NSDC expresses great appreciation to the sponsors of the 41st Annual Conference in St. Louis in December 2009.

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NSDC CALENDAR

April 1
Deadline for submitting nominations for 2010 NSDC Awards.
www.nsdc.org/ getinvolved/awards.cfm

April 30
Deadline for early registration for NSDC's 2010 Summer Conference in Seattle, Wash.
www.nsdc.org/ opportunities/ summerconference.cfm

May 1
New NSDC catalog mails to members. Save money in this year's budget to make purchases!
www.nsdcstore.org

July 18-21
NSDC's 2010 Summer Conference, Seattle, Wash.

July
Registration opens for NSDC's 42nd Annual Conference in Atlanta, Ga.

Dec. 4-8
NSDC's 42nd Annual Conference, Atlanta, Ga.

nsdc.org

LEARN FROM WEDNESDAY WEBINARS

www.nsdc.org/elearning/webinars/

NSDC is presenting Wednesday Webinars from February through June — hour-long programs focusing on professional learning topics and NSDC member services.

Join professional learning leaders for webinars on:

- Assessing professional development needs,
- Designs for professional learning,
- Designing professional development workshops,
- Engaging adult learners, and more.

NSDC staff members will also guide attendees through topics such as delivering great conference sessions, the online conference registration process, and exploring NSDC's web site.

Wednesday Webinars are hosted in the NSDC Learning Exchange, the online learning platform that features live meetings as well as discussion forums, a resource library, live chats, and more. Following each live webinar, attendees can continue their learning experience by engaging facilitators in follow-up discussions in our forum.

Webinar attendees receive permanent access to the Learning Exchange public forums, where they can engage in conversations about professional learning topics and issues, network with like-minded professionals, and access valuable NSDC resources as a member of the Learning Exchange.

Carol François will present:
- 1 p.m. April 14, NSDC learning opportunities
- 1 p.m. June 9, conference attendee preparation.
Both are free.

Several webinars will be offered at no charge, while others cost $69. NSDC members receive a discount, as do those who register for more than one paid webinar at a time. The full schedule is online.

LOOK DEEPER WITH A VIDEO

www.nsdc.org/standfor/definition.cfm

Explore video clips that bring NSDC's definition to life at the elementary, middle, and high school levels, and also see NSDC's leaders explain what NSDC's definition of professional development means for schools and districts. Thanks to the School Improvement Network for their support of this project.

CHECK OUT JOELLEN KILLION'S POSTING

www.nsdc.org/learningblog/

Joellen Killion writes about professional learning for 21st-century skills. From her posting:

The buzz about 21st-century learning skills for teachers and students is gaining momentum, with good reason. Yet parallel with the call for increasing 21st-century skills are questions about professional learning for implementing these skills in classrooms.

Joellen Killion

- **What kind** of professional learning will teachers need to become 21st-century educators?
- **How will we** equip teachers to use and teach 21st-century learning skills?
- **How must** professional learning change to meet the demand for 21st-century learning skills?

Other recent blog posts cover:
- *Professional learning's respect problem and*
- *The importance of spreading good news about professional development.*

No excuses! Technology offers more options to expand access and innovation

Recent advances in technology offer us an exciting opportunity to re-examine our approaches to professional learning. The growing availability of technology allows us to think about how we can increase overall effectiveness and efficiency even as we expand access and innovation. We might consider where to use technology to save resources, but more importantly achieve goals we once considered unattainable. During the process, we can clarify when to use face-to-face and online learning settings. I believe this process can lead to a more powerful strategy for promoting professional learning that improves staff and student performance.

Technology advances give us new responses to excuses for poor decisions and implementation.

Excuse: We don't have the staff to provide follow-up support for training.

Response: Use technology tools to provide follow-up support, including webinars to review key content introduced in face-to-face learning sessions, facilitated online dialogues for sharing concerns and getting help during implementation, and one-on-one coaching sessions via the Internet or phone.

Excuse: We continue the workshop approach to professional development because we do not have the resources to

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Stephanie Hirsh (stephanie.hirsh @nsdc.org) is executive director of the National Staff Development Council.

implement a more effective and comprehensive approach.

Response: Invest in a professional development audit (conducted by either internal or external staff) to identify activities that would be streamlined by using technology. For example, new technological applications are available to store and track staff development plans and offerings; critical learning sessions can be captured and replayed for staff members who are unavailable during initial offerings; time and money are saved when networking across long distances is facilitated online.

Excuse: Documenting the impact of our professional development efforts is too complicated.

Response: We can expect to see support and resources for professional learning decline further if we fail to document a return on investment. We must collect evidence on professional learning results, and we must examine it for its implications. New technologies can help us accomplish this. Staff can record school improvement and professional development plans online with a theory of change clearly specified. They can easily organize and collect data to document professional learning results. Such data may include the outcomes for learning sessions and how participants

show knowledge and skill. Technology is the optimal tool to capture lesson plans, peer reviews, and actual classroom teaching videos to demonstrate implementation. Finally, classroom assessment results, benchmark exams, end-of-year course tests, and teacher reflections can also be used as evidence.

I admit that when technology first became a significant factor in education, I wasn't much of a fan. Like other changes we are asked to make, my reaction was textbook. If you were charting my experience, you would find each stage of change as outlined in the Concerns-Based Adoption Model.

As I reflect, I am surprised by how long it took me to get to the more advanced stages in my technology journey. It may take some time for you to invest in the changes I have described, and I am hopeful that you have colleagues who will assist you.

Advances in technology invite us to consider our next steps. With each new tool, we will need to be thoughtful about how we best achieve the outcomes we seek and better address the needs of those we serve. Every time we take this step, I am confident we will improve our support and accelerate our pace toward our goals. ■