

# The Knowledge Loom: An Online Resource for Crafting Professional Development That Works

By Mary Anne Mather

The U.S. Secretary of Education has articulated seven national priorities (<http://www.ed.gov/inits.html>) to ensure high-quality education for all students. And, understanding that student results are greatly influenced by the quality of instruction, one of these priorities states that, “There will be a talented, dedicated, and well-prepared teacher in every classroom.” The statement implies attention to both effective recruitment and pre-service preparation of teachers, and effective ongoing professional development for practitioners—a professional-level lifelong learning mindset.

Professional development is not new thinking, but what has been recognized in recent years is the need for it to be less occasional workshops and conferences, and more ongoing on-the-job dialog, reflection, and needs assessment. In fact, research has shown that effective professional development is ongoing, school-based, and organized around collaborative problem solving (see sidebar: Characteristics for Effective Professional Development). The sad truth, in spite of this recognition, is that many schools have not found the time, the resources, and the will to put this into practice at the level and frequency needed for true effectiveness. As Peter West noted in an Education Week article he wrote in 1996, “The greatest barrier to professional development too often is the classroom wall. Unlike professionals in other fields, teachers' hectic schedules and working conditions seldom allow for thoughtful discussions with their peers in the next room, let alone colleagues within their own states or across the nation.” That fact hasn't changed, but as more schools have gotten wired, the opportunity to adopt a new model for local professional development has emerged. That's where resources like The Knowledge Loom fit in.

## **The Knowledge Loom: Best Practices Online**

The Knowledge Loom (<http://knowledgeloom.org>) is a new, Web-based resource being developed for the U.S. Department of Education by the Northeast and Islands Regional Educational Lab at Brown (LAB). It has two objectives (1) to provide a large searchable collection of existing best practices resources on a variety of topics, and (2) to select topics of particular importance to the Nation's education agenda and present these as spotlight collections with more in-depth content to assist with decision-making and replication. Each spotlight includes a focused list of practices; questions for group discussion; related research findings, policy statements, and supporting resources; and most importantly, examples of the practices in action in real schools and districts. This content, which is provided by partner organizations with an expertise and national presence in the area of study, can form the basis of ongoing local staff development as teams of colleagues work together to evaluate programs for adoption, analyze how to initiate school change, and explore what these practices look like in schools similar to their own.

The metaphor of a knowledge loom was selected specifically to suggest the notion of a work in progress, where users weave selected threads of information together in such a way as to create a fabric that wears well on their own conditions, needs, and visions for excellence in teaching and learning. On The Knowledge Loom, the study team can learn from peers as well as researchers and experts, and in turn, can offer their own insights and knowledge by using some of the interactive tools.

## **Spotlight Collection on Professional Development**

The Knowledge Loom has spotlight collections planned for launch throughout the year on early, adolescent, and adult literacy; promising math programs; and technology integration. Each one promises to offer a rich array of content to support professional development focused around those topics. But the première collection, officially launched in February, is focused on best practices in professional development itself.

In 1998-99, the National Partnership for Excellence and Accountability in Teaching (NPEAT) identified characteristics of effective professional development (see sidebar: Characteristics for Effective Professional Development) from the findings of recent research and from reports of expert opinion. These principles of practice, now presented on The Knowledge Loom, focus attention on professional development strategies for improving students' learning over time and are in line with similar lists produced by well-respected organizations like the National Staff Development Council (NSDC) and the American Federation of Teachers (AFT). But NPEAT was quick to note, "It is one thing to know the principles professional development should embody. It is quite another to know how to implement these principles." To address this concern, each spotlight collection on The Knowledge Loom articulates each best practice in two ways—first as an explanation of its philosophy and research base, and then as a collection of stories about schools and districts who are exemplars of the practice.

Working with NPEAT and the NSDC, the LAB linked winners of the National Awards Program For Model Professional Development (see sidebar: National Awards Program For Model Professional Development) to specific principles of practice listed in the professional development spotlight collection and told their stories of design, success, and replication. Let's look at two of the principles of practice and at how the stories of exemplar schools unfold on The Knowledge Loom.

## **School-based Professional Development**

**THE PRINCIPLE:** *Professional development should be primarily school-based and built into the day-to-day work of teaching.*

Dennis Sparks, Executive Director of the NSDC elaborates, "It's important to remember that training isn't the only or necessarily best form of professional development. While it has its place for certain skills within a mix of learning activities, a more personalized, small group learning process needs to be a regular feature of every teacher's workday. That form of staff development (some call it job-embedded) should have at its core a team of six to eight teachers who meet almost daily for an hour or more to help one another prepare powerful lessons, critique students' work, and solve the many day-to-day problems of teaching. In my view, training or coursework in most circumstances should

comprise no more than 20-30 percent of teachers' learning activities. Other common job-embedded processes include coaching, mentoring, study groups, and action research." Here's what the principle looks like in action at International High School, Long Island, New York.

**THE STORY\*:** International High School (IHS) is an urban alternative high school in Long Island with approximately 450 students in grades 9-12. Educators at IHS at LaGuardia Community College say professional development is "built into everything we do." Interdisciplinary teams provide the learning infrastructure for teachers. Each team consists of teachers who teach the same 75 students. Teachers on the same team observe and coach each other, share best practices, develop, evaluate, and revise curricula, jointly devise interventions for students who need extra support. Three hours of team meeting time are built into each week. Typical meetings might include a discussion about how to help a student with reading problems complete a demanding research project, how to help students frame their own questions to explore in science experiences, how to use grant money to integrate technology into the curriculum, or how to upgrade a literature assignment to meet graduation requirements.

Although the teams are an important foundation, professional development is also integrated into other routines. For example, all faculty are required to present a professional portfolio (every year if untenured) to demonstrate continued growth and improvement. This process provides a valuable forum for sharing best practices. In addition, by serving on graduation portfolio panels at nearby high schools, faculty share curriculum and performance standards.

## **Professional Development Driven by Student Performance**

**THE PRINCIPLE:** *Professional development should be based on analyses of the differences between (a) actual student performance and (b) goals and standards for student learning.*

The Knowledge Loom expands on this thinking, "Professional development that is based on analysis of student learning helps teachers close the gap between actual student performance and goals for student learning. Goals for student learning also provide a basis for defining what teachers need to learn and a yardstick for improving professional development." A number of questions to think about are offered to help study teams discuss this principle in the context of their own organizations:

- How do teachers identify what they need to learn to affect student performance?
- How does this process affect how teachers think about their work?
- What student data do teachers use to refine their instruction over time? And how do they use the data?
- How can the school structure and schedule change to support the data analyses and professional development? Here's what the principle looks like in action at Shallowford Falls Elementary School, Cobb County, Georgia.

**THE STORY\*:** Shallowford Falls is an elementary school in suburban Atlanta, with 650 students in grades K-5. The school has focused on continuous improvement since it opened in 1990. Teachers at Shallowford Falls know intimately their students' areas of strength and weakness in relationship to the district curriculum and the state assessment

standards. The test utilization committee reviews students' performance data annually on several measures including state assessments and other school-based measures. Teachers whose students did not perform as well as they had hoped on state assessments seek ideas and strategies from teachers whose students performed well. From that analysis emerges the school's areas of focus for the next school year.

Individually, teachers analyze their students' performance and establish annual goals related to student achievement based on their analysis. All teachers know how to read and interpret assessment data and use data frequently to make classroom and school-based decisions. At the end of the school year, the principal meets with every teacher to review student progress, progress on the teacher's individual development plan, and explore possible areas of focus for the following year.

By using student data to establish both school goals and individual goals, teachers are more focused on the needs of their individual students, can adjust instruction to meet their needs, and intervene more quickly to prevent students from falling behind. Teachers at Shallowford Falls pride themselves on knowing as much about their students as possible. They seek out and use individual student data to decide how best to help students achieve at standard.

## The Knowledge Loom as a Professional Development Tool

When we think of an online tool for professional development, we often conceive of it as an online course or an asynchronous discussion among geographically distant colleagues. The Knowledge Loom offers a slightly different model—one where teams of educators access online content to drive local decision-making and face-to-face discussions about pedagogy and its manifestations in their own settings. The LAB encourages schools and districts to use The Knowledge Loom collections in an ongoing manner to locate specific information when it's needed and use it to center collegial discussions. Then, as an extension of the onsite learning community you begin to build, use The Knowledge Loom's interactive features to address local needs through a distance information exchange. Each contribution adds new knowledge to the Loom, which can potentially help and inspire others:

--Ask An Expert allows you to search a database of frequently asked questions on each spotlight topic and to pose your unanswered questions to our partner organizations.

--Share Your Story provides a way to contribute your own insights and successes that might help others.

--Send This Story to a Colleague offers a simple way to email a Knowledge Loom story that resonates with you to another who would appreciate it, and in doing so, introduce them to The Knowledge Loom.

--Input Your Ideas asks you to weigh in on a thoughtful question about the topic at hand.

During the month of February, The Knowledge Loom is hosting an asynchronous online panel discussion on the subject of professional development. Panelists are Dennis Sparks from the NSDC and educators from three model professional development award-winning schools. They will talk about results-based professional development and invite you to comment (click ENTER THE DISCUSSION from The Knowledge Loom homepage). Other panel discussions will be scheduled as new spotlights are launched. If

you join The Knowledge Loom by completing a brief free registration process online, you'll be notified periodically of new developments and upcoming events.

In addition to these online outreach efforts, from February through November 2000, the LAB will be conducting seminars and workshops in various locations, modeling how to use The Knowledge Loom for professional development. Jim Woodell, President, School ChangeWorks (<http://www.schoolchange.com>), a Web strategy, design, and production firm that helps create online environments for professional development and change management in K-12 education muses, "The most important thing about effective professional development for educators, I think, is that it should remind us that our learning and growth are as important as that of our students. Effective online professional development, then, should help us connect with the part of us that asks 'I wonder...?' and should try not to just present us with lots of information and ask us to respond to it."

We invite you to visit The Knowledge Loom (<http://knowledgeloom.org>), and hope that it helps you "wonder." And, if it does, please share your thoughts, your expertise, your success stories, your questions, and your suggestions. Use the "Feedback" feature to let us know what other collections are needed, and most importantly, tell us how you have used the resource to best advantage. Your comments, insights, and expressed needs will drive future development of a resource that can help us help each other provide high-quality learning for all students.

\*These summaries represent only a small portion of the information about each school. Longer feature stories and facts about school demographics, background context, program design, results, replication tips, costs, and contact information are also included.

NOTE: An edited version of this article was published in Curriculum Administrator, February 2000, Volume 36, No. 2, pp. 51-58.

.....  
Mary Anne Mather (Mary\_Anne\_Mather@brown.edu) is a Program Planning Specialist and the lead on The Knowledge Loom project at the Northeast and Islands Regional Educational Laboratory at Brown, Providence, RI. To view The Knowledge Loom Concept Paper and education focus group reports visit [http://www.lab.brown.edu/bpo/bpo\\_docs.shtml](http://www.lab.brown.edu/bpo/bpo_docs.shtml).