

# EDUCATION WEEK

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## Concern Abounds Over Teachers' Preparedness for Standards

By [Stephen Sawchuk](#)

A quiet, sub-rosa fear is brewing among supporters of the Common Core State Standards Initiative: that the standards will die the slow death of poor implementation in K-12 classrooms.

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"I predict the common-core standards will fail, unless we can do massive professional development for teachers," said Hung-Hsi Wu, a professor emeritus of mathematics at the University of California, Berkeley, who has written extensively about the common-core math standards.

"There's no fast track to this."

It's a Herculean task, given the size of the public school teaching force and the difficulty educators face in creating the sustained, intensive training that research indicates is necessary to change teachers' practices.

**("Professional Development at a Crossroads,"**

November 10, 2010.)

"It is a capacity-building process, without question," said Jim Rollins, the superintendent of the Springdale, Ark., school district. "We're not at square one, but we're not at the end of the path, either. And we don't want to just bring superficial understanding of these standards, but to deepen the understanding, so we have an opportunity to deliver instruction in a way we haven't before."

In Springdale, which is fully implementing the literacy and math standards for grades K-2 this year, kindergartners in the 20,000-student district are studying fairy tales and learning about those stories' countries of origin. Their teachers have scrambled to find nonfiction texts that introduce students to the scientific method. They've discarded some of their old teaching practices, like focusing on the calendar to build initial numeracy skills.

The Durand, Mich., district is another early adopter. Gretchen Highfield, a 3rd grade teacher, has knit together core aspects of the standards—less rote learning, more vocabulary-building—to create an experience that continually builds pupils' knowledge. A story on pigs becomes an opportunity, later in the day, to introduce the vocabulary word "corral," which becomes an opportunity, still later in the day, for students to work on a math problem involving four corrals of five pigs.

"I'm always thinking about how what we talked about in social

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studies can be emphasized in reading," Ms. Highfield said. "And it's like that throughout the week. I'm looking across the board where I can tie in this, and this, and this."

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Such pioneers of the standards can probably be found the country over. But data show that there is still much more work to be done, especially in those districts that have yet to tackle the professional-development challenge. A **nationally representative survey** of school districts issued last fall by the Washington-based Center on Education Policy found that fewer than half of districts had planned professional development aligned to the standards this school year.

### Cognitive Demand

By any accounting, the challenge of getting the nation's 3.2 million K-12 public school teachers ready to teach to the standards is enormous.

With new assessments aligned to the standards rapidly coming online by 2014-15, the implementation timeline is compressed. Teachers are wrestling with an absence of truly aligned curricula and lessons. Added to those factors are concerns that the standards are pitched at a level that may require teachers themselves to function on a higher cognitive plane.

When standards are more challenging for the students, "then you also raise the possibility that the content is more challenging for the teacher," said Daniel T. Willingham, a professor of psychology at the University of Virginia, in Charlottesville. "Of course, it's going to interact with what support teachers receive."

Anecdotal evidence from a **Bill & Melinda Gates Foundation study** suggests that teachers already struggle to help students engage in the higher-order, cognitively demanding tasks emphasized by the standards, such as the ability to synthesize, analyze, and apply information. (The Gates Foundation also provides support for coverage of K-12 business and innovation in *Education Week*.)

As part of the foundation's Measures of Effective Teaching project, trained observers scored lessons taught by some 3,000 teachers against a variety of teaching frameworks. No matter which framework was used, teachers received relatively low scores on their ability to engage students in "analysis and problem-solving," to use "investigation/problem-based approaches," to create "relevance to history, current events," or to foster "student participation in making meaning and reasoning," according to a report from the foundation.

Supporters of the common standards say the standards encourage a focus on only the most important topics at each grade level and subject, thus allowing teachers to build those skills.

"It could make things simpler and allow teachers and schools to focus on teaching fewer, coherent things very well. That's the best hope for teachers to build in-depth content knowledge," said David Coleman, one of the writers of the English/language arts standards and a founder of the New York City-based Student Achievement Partners, a nonprofit working to support implementation of the standards.



Third graders work on consonant blends and digraphs with Ms. Highfield. "I'm always thinking about how what we talked about in social studies can be emphasized in reading," the teacher says.

—Brian Widdis for Education Week

"That said, the standards are necessary but not sufficient for improving professional development," he added.

Each of the two content areas in the standards poses a unique set of challenges for teacher training.

Mr. Wu, the UC-Berkeley professor, contends that current math teachers and curricula focus almost exclusively on procedures and algorithms, an approach he refers to as "textbook mathematics."

But the common core emphasizes understanding of the logical, structural concepts underpinning mathematics—the idea being that understanding how and why algorithms work is as important as crunching numbers.

Many teachers, Mr. Wu contends, will themselves need more mathematics-content preparation. But training focused at least initially on content could be especially difficult for classroom veterans to accept, he concedes.

"After 26 years of doing things only one way, the common core comes along and says, 'Let's try to do a little bit better at this,' " Mr. Wu said. "Well, suppose you've been smoking for that long, and someone says, 'Just stop raising a cigarette to your mouth.' It's difficult—it's 26 years of habit."

Some teacher educators believe that conversation will need to begin at the preservice level, especially for elementary teachers, who tend to enter with a weaker initial grasp of mathematics, said Jonathan N. Thomas, an assistant professor of mathematics education at Northern Kentucky University, in Highland Heights, Ky.

"It's a great opportunity to say, 'Let's just take some time to think about the mathematics and set the teaching strategies aside for a moment,' " Mr. Thomas said. "It's imperative we don't send people out the door with just strategies, tips, and tricks to teach fractions. We have to make sure they understand fractions deeply."

### **Teacher Gaps**

Meanwhile, the English/language arts standards demand a focus on the "close reading" of texts, a literary-analysis skill that has been thus far mainly reserved for college English classes. And they call for expansion of nonfiction materials into even the earliest grades.

"We haven't worked deeply or strategically with informational text, and as the teachers are learning about the standards, they are finding their own instructional gaps there," said Sydnee Dixon, the director of teaching and learning for Utah's state office of education. "That's a huge area for us."

In the Springdale Ark., district, instructional coach Kaci L. Phipps said those changes are also requiring teachers to pay more attention to teaching the varied purposes behind writing—something not as emphasized when most reading materials are fictional and students are asked merely for their responses.

"We keep having to say to these kids, 'Remember, it's not what you think, it's what's in the text,' " she said. "'What is the author doing? What is his or her purpose in writing? How can you support that conclusion with details from the text?' "

### **Pedagogical Shifts**

Pedagogical challenges lurk, too, because teachers need updated skills to teach in ways that

emphasize the standards' focus on problem-solving, according to professional-development scholars.

"Teachers will teach as they were taught, and if they are going to incorporate these ideas in their teaching, they need to experience them as students," said Thomas R. Guskey, a professor of educational psychology at the University of Kentucky's college of education, in Lexington. "The PD will have to model very clearly the kinds of activities we want teachers to carry forward and use in their classrooms."

Moreover, Mr. Guskey warned, many teachers won't be inclined to actually change what they are doing until they become familiar with the assessments aligned to the new standards.

Some districts don't want to wait that long, and have found other ways to help teachers begin working with the practices outlined in the standards. In the 1,700-student Durand district, Superintendent Cindy Weber has used a state-required overhaul of teacher evaluations as a springboard.

The Michigan district's new professional growth and evaluation system, which is being implemented this spring, draws key indicators of teacher practice directly from the common core—in essence closing the often-wide gap between expectations for student and teachers.

Principals observing teachers are trained to look, for example, at whether a teacher "uses multiple sources of information" when teaching new content, and "challenges students to present and defend ideas" in the strand on applying learning.

To gauge changes in student growth across the year, as part of the new evaluation system, the district has settled on growth in academic vocabulary as an indicator. In every grade and content area, teams of teachers have come up with those words and related concepts all students must master by the end of the year.

Ms. Weber's reasoning is that teachers will feel new standards really matter if instructing to them is part of their professional expectations.

"You look back over the course of education, and there are so many things tried, yet somehow many classrooms still look the same across the country," Ms. Weber said. "I felt that with our evaluation process, we needed to look at teacher commitment to this model and type of delivery—or teachers may give us lip service and go back to doing what they've done in the past."

### **State Role**

States, the first stop on the professional-development train, are themselves having to change their delivery systems in preparation for the standards.

"Many states are moving away from the 'train the trainer' model and trying to have more direct communications with teachers, because the message either gets diluted or changed otherwise," said Carrie Heath Phillips, the program director for the Council of Chief State School Officers' common-standards efforts.

Delaware has reached every teacher in the state directly through online lessons that lay out the core shifts in the standards from the state's previous content expectations—a process it tracked through its education data system.

Now, state officials are hard at work building an infrastructure for deeper, more intensive work.

The state has organized two separate "cadres" of specialists, one in reading and one in math, who

are fleshing out the core expectations at each grade level, outlining how each standard is "vertically linked" to what will be taught in the next grade, and crafting model lessons in those subjects. They're also each constructing five professional-development "modules" for high-demand topics, such as text complexity.

"We've had other standards, but different interpretations of what they meant," said Marian Wolak, the director of curriculum, instruction, and professional development for the state. "We want this to be very clear and distinct about how the standard applies at that grade level and what the expectations are for that standard."

Based on the cadres' work, every district will have a clearinghouse of resources for professional development and be able to tap a local specialist for additional training, Ms. Wolak said.

Utah doesn't have the benefits of Delaware's limited geography. Its strategy has been building the capacity of a critical mass of trained educators in each district, and then gradually shifting professional-development responsibilities to the local level.

In summer 2011, the state trained about 120 facilitators—teachers nominated from the field with a track record of high student achievement in their subject—in pedagogical content knowledge and adult-learning theory. Then, those teachers facilitated "academies" in ela and in 6th and 9th grade math for their colleagues, which were given at 14 locations in the state, according to Ms. Dixon, the state's director of teaching and learning.

All teachers attending the sessions come voluntarily and are expected to have read the standards beforehand. Afterwards, "the expectation is that both the facilitators and the attendees are back in their classrooms, using the standards, working with the standards, sharing student work, and studying it in [staff meetings], so their colleagues are getting second-hand experience," Ms. Dixon said.

Additional academies are now being set up; the state estimates about 20 percent of its teachers have attended one so far.

### **District Pioneers**

For districts, the professional-development challenge is in finding the place to begin. Those districts apparently the furthest along in the process are integrating the training with successful efforts already in place.

In Springdale, the district has focused on providing teachers with enough time to sort through the standards and observe some of them in practice. It's given teachers up to four days off to develop units aligned to the common core and encouraged teams to discuss student work samples, or "anchors," to help inform their understanding of



Teela Patterson, a 3rd grader, works on a reading lesson at Robert Kerr Elementary in Durand, Mich. Teachers there have discarded some of their old practices and picked up new ones as they strive to get their students to master the standards.  
—Brian Widdis

expectations aligned to the standards.

This year, the district is working to train teachers in grades 3-8 in math. It has spent five years using a problem-solving approach to mathematics known as Cognitively Guided Instruction that district officials say aligns well with the common standards' math expectations. With a handful of teachers now well-versed in the curriculum, it's creating opportunities for teachers new to the district to observe those "demonstration classrooms" at work.

The Durand district's new teacher-evaluation system has helped to make the common standards real, said Ms. Highfield. And while teachers are understandably a bit nervous about the system, it's also causing them to rethink long-standing practices.

"How do I show [an evaluator] that students are thinking and analyzing without a project or experiment? It's a big challenge, and I think it will take a little time to get there," she said. "Before, with the rote learning, you could create a handout, put it in your file and just use it again next year. You can't do that when you're looking at students to apply these skills."

Nevertheless, Ms. Highfield said, she's starting to see the benefits for her students.

"Durand is a fairly poor district; a lot of students don't have a lot of experiences," she said. "We ask them, 'What do you want to do in your life, with your learning? Can you imagine it? How would you get there?'

"I've seen a change in my students, and I think that is a good thing."

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