



# colloquium

Supporting quality teachers

## FORMATIVE ASSESSMENT MAY BE KEY TO BEST PRACTICES

By Roxi Rejali

**What makes a good teacher?** How can quality teachers help students improve learning and student outcomes?

These questions have taken on renewed urgency in policy discussions at the federal, state, and local levels. The federal No Child Left Behind Act requires “highly qualified” teachers in public schools, while the stimulus bill passed in February included money for teacher development. Minnesota Gov. Pawlenty has strongly supported Q Comp, which links teacher pay to student achievement and supports job-embedded professional development.



Teacher quality can be hard to pin down. However research by **Misty Sato**, assistant professor of teacher development and science education, may offer some clues. Sato has observed that teachers who appraise their own classroom approach make measurable improvements, such as setting clear learning goals and providing feedback to students—key elements of formative assessment.

In traditional summative assessment, teachers assign grades to student work at the end of a course or project. Formative assessment, by contrast, encourages teachers to continuously gauge learning in their classrooms. Students determine how to revise and improve their work based on feedback from their teacher and peers, alike.

“This is not looking at a student’s work for the purpose of assigning a grade but a process for the teacher to determine what needs to be improved and how to guide students’ next steps by providing specific feedback,” Sato says. “It’s more about tutoring your own practice and supporting student learning.”

The formative assessment process can reveal patterns in students’ understanding of concepts and skills, allowing teachers to adjust and refine their teaching techniques, she explains.

Several studies have concluded that improved formative assessment practices raise overall student achievement, including a well-known article by Paul Black and Dylan Wiliam that surveyed more than 250 research sources on the topic. Sato has researched just what teachers can do to develop such proven formative assessment practices.

During a three-year longitudinal study that she conducted while completing postdoctoral work at Stanford University, Sato examined 16 middle- and high-school math and science teachers in the San Francisco metropolitan area. Researchers compared two groups: those who were engaged in National Board Certification—a nationally recognized professional endorsement for educators—and those who were not. National Board Certification involves sharing teaching ideas and strategies and reviewing videos of classroom practice with other teachers. Through this process, those teachers who were pursuing certification were encouraged to improve their teaching methods as part of a community of professionals.

One teacher in the study reported: “I saw things in [other teachers’] practice that I wanted in my own, and I saw things in my practice that I didn’t want there anymore.”

As part of their research, Sato and her Stanford colleagues, Ruth Chung Wei and Linda Darling-Hammond, reviewed lesson plans, classroom videos, and samples of student work. When the researchers interviewed students from the same San Francisco schools, they reported that those teachers who used formative assessment practices assigned more hands-on activities and group discussions and allowed more time for self-evaluation and reflection.

Sato’s 2008 study concluded that when teachers analyzed their teaching on their own or within peer groups, as guided by the National Board Certification process, their formative assessment practices improved.

Research into the possible impact of formative assessment on teacher quality is valuable, says Mary Cathryn Ricker, president of the St. Paul Federation of Teachers, which is negotiating for additional teacher development time built into the school schedule. “Anytime we reflect on what’s wrong, we tend to find a solution to make it right,” says Ricker, a former middle-school English teacher who is National Board Certified. “As teachers, if we’re reflecting on—‘Why didn’t sixth period go so well yesterday?’—chances are good that it’s going to help sixth period go better today.”

Formative assessment holds great promise as a focus for teacher development, says Jenni Norlin-Weaver (Ed.D. '99), director of teaching and learning at Edina Public Schools. At a time when teachers are routinely bombarded by negative messages, the process empowers them to tailor methods to their classrooms.

“I think it further enhances (teachers’) sense of efficacy—a sense that what you do makes a difference,” adds Norlin-Weaver, who is former president of the Minnesota Staff Development Council.

Sato plans to further explore formative assessment with a follow-up study funded by the Knowles Science Teaching Foundation, in partnership with Twin Cities high-school science teachers. The study will investigate how teachers incorporate formative assessment into their classroom work over two years.