PRESIDENT'S MESSAGE

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TEACHER AND STUDENTS—LEARNERS TOGETHER!

Collecting information about our students' strategies, decision making, and procedural skills as we teach can allow us to make timely instructional decisions to support their learning of mathematics. This year, consider using an evidence-based method to improve what you and your students do together. Examining evidence of their grasp of concepts, fluency in using procedures, and skill in problem solving can be the key to enhancing and modifying the instruction that you offer them. Such an approach can change your expectations as well as your students' by making everyone a learner!

Formative assessment has many variations but just one goal—improving students' understanding and performance. As teachers, the important question to ask ourselves is, "What can we learn from instruction—our own and others'—that might improve our students' learning?" For students, a productive mantra is, "We're in this together." Focused feedback from us, along with encouragement and support from peers, can boost our students' individual efforts.

Consider the possibility of studying students' work collaboratively with your colleagues during the year. When teachers from several classes share students' work in the process of presenting material, they can have an open discussion about the students' strategies, explanations, misconceptions, and procedural missteps. Such a detailed discussion can suggest immediate instructional changes and new tasks with the potential to improve student performance. What you learn can expand your repertoire of meaningful tasks and probing questions to enable you to make better assessments of your students' learning.

Your discussions with your colleagues also can help you target criteria for success and specific tasks to support your students' use of the feedback. This work can help focus your attention—and your students'—on improving learning and not merely on solving problems.

In the classroom, assessment of student performance is essential in guiding our decisions on the effectiveness and pace of instruction. For example, I have become adept at using students' work on white boards for real-time assessment and modification of my instruction. Whether my students are generating equations for word problems, demonstrating procedures for solving equations, or providing alternative mathematical representations, they write their work on white boards, which they display simultaneously. As they engage in discussion of their varying results, I identify and address misconceptions, flawed strategies, and procedural errors. Their work and discussion prompt me to make on-the-spot instructional decisions. A well-planned task allows me to assess their reasoning and adjust my instruction in the midst of the learning experience. Such a task also provides me with immediate evidence about the likelihood of my students' future success with similar tasks.

I frequently use a warm-up task to start a class. This task allows me to gauge what students can do at the start of class—not what they could do yesterday or what they did on last night's homework. I design the task specifically to permit misconceptions to surface and to capture levels of proficiency and reasoning in students' work. I observe all the work on the white boards simultaneously and take note of other evidence of students' thinking as I move around the classroom. The information that I gather quickly in this way at the beginning of a class determines the decisions that I make about adjusting my original instructional plan. This routine is also useful in evaluating my students' preparation for a homework assignment. On the basis of their work, I might be able to avoid sending them home to practice something *wrong*.

In contrast to high-stakes (summative) assessments for NCLB or other external measures that typically do not provide data for months, formative assessments can help us learn from our students and colleagues and improve our instruction today! Ω

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