

1067-Z1-1955

James R Choike* (choike@math.okstate.edu), Department of Mathematics, Oklahoma State University, Stillwater, OK 74078, and **Cos Fi** and **Vytas Laitusis**. *Formative Assessment: A Key Strategy for Calculus Teaching*. Preliminary report.

This session will describe a strategy for delivering online professional development to AP Calculus teachers, featuring written and video materials. Professional development (PD) is based on supplemental calculus lessons that emphasize a two-part pedagogical guiding principle: (1) "thinking about mathematics in the classroom" is a key to student learning; and (2) "student communication in the classroom" is equally important, since communication not only confirms student thinking, but also provides fertile instructional feedback that informs what students know and how they know it. This session will discuss: (1) the pedagogy of "student thinking" and "student communication of thinking" in the classroom; (2) the instructional design of the PD materials for implementing a "student thinking" pedagogy; (3) the relationship of this featured pedagogy to formative assessment as a strategy for improving student learning; and (4) a framework for implementing formative assessment that connects to developing "pedagogical content knowledge" (PCK) for calculus. (Received September 22, 2010)