

1135-AB-2742 **Uri Treisman*** (uri@austin.utexas.edu). *Experiments in Inclusion: Designing Instruction that Welcomes Students into the Mathematics Community.*

Recent advances in social psychology and behavioral economics suggest new approaches to perennial problems of mathematics instruction. How, for example, can we reliably promote students' productive persistence in the face of mathematical challenges? How can we help students develop committed interest in mathematics from the short-term situational interest that can arise from well-designed instruction? How can we develop students' ability to use the mathematical tools they acquire in well-taught classrooms to create new mathematics, or at least mathematics that is new to them? How can we, in the context of a content-rich curriculum, help students become more strategic and effective learners?

The talk will describe a set of novel instructional protocols for addressing these and related questions and their implementation in a large lecture section of freshman calculus at The University of Texas at Austin. Preliminary results using a novel set of practical measurement tools will be shared. A special focus of the talk will be on the challenges of designing research-based instructional protocols for culturally and economically diverse student populations. (Received September 26, 2017)