Teachers’ Collective Construction of a Common Language for Instructional Practices of Responding

Sharon Strickland
Mathematics Department, Texas State University

1:00 pm in Derrick 238
October 10, 2014

Abstract: This talk will describe the journey of a group of secondary math teachers through a yearlong professional development focused on the use of action research to improve instructional practice. In the midst of that year, the teachers struggled to find an analytical tool they could use to analyze one another’s practices of responding to students’ mathematical ideas and questions. We describe how they overcame this problem by reading across the practitioner’s literature and examining their own experiences to ultimately create their own analytic framework. We will also describe how we adapted the framework for use in our own efforts to identify shifts in teachers’ practices during and following the professional development and action research cycles, sharing findings obtained from its use.

Dr. Strickland’s work centers on mathematics teacher education with emphases on epistemology and language in the classroom. Proving is how we know in mathematics—our epistemology—and is strongly influenced by logic and content knowledge, but also includes elements of rhetoric and language. To know something mathematically includes the ability (and responsibility) to share that with a community—with others. This is the work of teaching. To teach is to share knowledge with others and to do it well includes convincing them and to adopt the teachers’ knowledge as their own. This is rhetoric.