Mary Beisiegel*, 368 Kidder Hall, Department of Mathematics, Oregon State University, Corvallis, OR 97331. From Telling and Doing to Thinking, Explaining, and Anticipating: Mathematics Graduate Students’ Changing Descriptions of Their Role as Instructors.

The goal of this study was to determine how mathematics graduate teaching assistants’ (MGTAs) perspectives of teaching changed as a result of exposure to professional development (PD) for a course that had new expectations of how they engaged with undergraduate learners. Specifically, MGTAs were paired with instructors for a redesigned College Algebra course, where at least half of classroom time was structured around student engagement in mathematical tasks, rather than on lecture. Expectations for the MGTAs included facilitation student groups’ engagement in mathematical tasks not by lecturing, but instead by question posing and not directly answering students’ questions. PD support was offered for two full days at the beginning of the term and weekly two-hour meetings. During the ten-week term, five MGTAs were interviewed four times and asked questions about their perspectives of quality mathematics teaching and learning, the roles of instructors and students, and what a well taught mathematics lesson looks like. Interviews were analyzed with thematic analysis. Results that will be presented are the MGTAs’ changing descriptions of mathematics teaching, how they describe a well-taught mathematics lesson, and the implications for how they view their own teaching practices. (Received September 16, 2014)