The Common Core State Standards (CCSS) Initiative (re)defines the types of mathematical knowledge students need to have in K12 education, subsequently changing the expectations for mathematics teachers. Teacher education programs have begun focusing efforts to support teachers in making productive changes to their classrooms that promote student understanding of quantitative reasoning and other standards for mathematical practice given in the CCSS, but little is known about how teachers think about and develop these practices. The authors of this study designed a Model Eliciting Activity (MEA) that was implemented in a master’s course for in-service mathematics teachers. Simultaneously documenting and promoting changes in thinking, the MEA asked teachers to construct and revise a quantitative reasoning task intended for their middle and secondary students. Using a models and modeling perspective, the development of the teachers’ ways of thinking about quantitative reasoning was analyzed as the teachers revised and implemented the task in their classrooms. This presentation highlights the progression of teachers’ thinking about quantitative reasoning as well as the researchers’ perspective on what it means for teachers to reason quantitatively. (Received September 22, 2012)