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Torrey Kulow* (kulow@pdx.edu), Portland, OR 97201. *Preservice Teachers' Reasoning about Multiplication, Division, and Proportions in terms of Quantities.*

Multiplication, division, ratios, and proportional relationships are critical topics in mathematics, yet research in mathematics education reports that teachers persist in having difficulty understanding and teaching these topics in K-12 education. Scholars in the Mathematics Teacher Education advocate that teacher preparation programs help preservice teachers develop a coherent, solid, and flexible understanding of the mathematics content they teach. This session shares research from a multi-year, NSF-funded project based at the University of Georgia investigating how undergraduate preservice middle grades and secondary teachers develop a coherent, solid, and flexible understanding of multiplicative structures, ratios, and proportional reasoning while enrolled in mathematics content courses. In this session, I will discuss the instructional approach that our project team developed and refined to teach preservice teachers these topics and have participants analyze examples of preservice teachers' work on assignments and assessments given in the mathematics content courses. (Received February 07, 2018)