Responsive Teaching and Children’s Mathematical Thinking

What characterizes responsive teaching in the domain of rational numbers? Our research team has conceptualized responsive teaching as a type of teaching in which teachers’ instructional decisions about what to pursue and how to pursue it are continually adjusted during instruction in response to children’s content-specific thinking, rather than determined in advance. In this talk, I will highlight both the teaching moves and the decision making involved in responsive teaching when skilled teachers of grades 4–5 engaged with children’s fractional thinking.

Bio: Susan B. Empson is a Professor of STEM Education at The University of Texas at Austin. She is currently PI of a National Science Foundation research grant (co-PI, Vicki Jacobs) to study elementary teachers’ learning and development centered on teaching in ways that are responsive to children’s mathematical thinking in the domain of rational numbers. Her research on children’s thinking about fractions is the topic of her 2011 book, Extending Children’s Mathematics: Fractions and Decimals, and she has published widely in refereed journals, including Cognition and Instruction, Journal for Research in Mathematics Education, Educational Studies in Mathematics, Teaching Children Mathematics, and Journal of Mathematics Teacher Education. She has been a researcher of Cognitively Guided Instruction since 1989 and is a co-author of Children’s Mathematics: Cognitively Guided Instruction (1st and 2nd editions). She earned her PhD in Mathematics Education at the University of Wisconsin-Madison.