Abstract: In this talk we will share how our work as researchers in math education and, respectively, special education has led to an ongoing collaboration to support pre-service teachers to facilitate meaningful mathematical conversations and conceptual learning for all students. Anna will describe how she has applied techniques of discourse analysis to document different aspects of students’ talk, including how students negotiate authority and co-construct mathematical ideas. Casey will summarize his research on mathematics interventions for students with mild disabilities, including the use of gestures and visual representations. We will discuss how our research trajectories have led to our collaborative work, as well as the affordances and challenges of bridging different perspectives. Finally, we will share an example from our current research to illustrate how we integrate our analysis discourse and gesturing between students and pre-service teachers.

Anna DeJarnette is an Assistant Professor in the Department of Curriculum and instruction at the University of Cincinnati. Her primary research interests are how students understand and talk about mathematics with one another when they use computer programming environments for doing mathematics. She is also interested in the ways that students position themselves towards one another and how this interpersonal aspect of their work is related to their mathematical reasoning.

Casey Hord is an Associate Professor in the Department of Special Education at the University of Cincinnati. His primary research interest is developing mathematics interventions for students with learning disabilities and students with mild intellectual disability. Other research interests include the role of visual representations and strategic questioning in mathematics teaching, the training of pre-service teachers to teach mathematics to students with mild disabilities, and the potential role of mathematics tutors for students with mild disabilities in urban, suburban, and rural settings.

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