Exploring the Efficacy of the Mathematics Studio Model Professional Development

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Texas State University
1:00 pm in DERR 238
September 29, 2017

Abstract: We report on findings from a 3-year professional development (PD) quasi-experimental efficacy study working with 3rd-5th grades in a mid-sized, urban school district. The PD model, the Studio Model, provides a lesson-study inspired live classroom-based PD. The content of the PD is situated in research on best instructional practices to support student engagement in high level mathematical reasoning. In this talk, we share the PD model and a set of initial results focusing on three strands: (1) case study analysis of teacher buy-in and implementation to practice; (2) analysis of teacher conceptions and noticing of student reasoning forms; and (3) quantitative results establishing impact of the PD on teacher knowledge, practice, and student attainment.

Dr. Kate Melhuish received her Ph. D. from Portland State University and is an Assistant Professor at Texas State University. She did her postdoctal work with Teachers Development Group, a K-12 PD provider. Dr. Melhuish’s work spans K-16 with a focus on the interplay between conceptual understanding and proving activity. Joshua Fagan is a Mathematics Education Ph.D. candidate at Texas State University. His research focuses on measuring proof validation ability at the introduction to proof level. Layla Guyot is a third-year Ph.D. student in Mathematics Education at Texas State University with interests in Statistics Education, in particular how to bridge the gap between statistics taught at school and statistics used in professional settings.

Next Friday Oct 6: Doug Ray, Texas State University, Desmos and GeoGebra in the Classroom