

Department of Mathematics and Statistics Colloquium

An Investigation of PreK8 Preservice Teachers' Construction of Fraction Schemes and Operations

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Abstract: Supporting students to build robust fraction schemes and operations is an enduring challenge in mathematics education. Recent research has explored a developmental trajectory of fraction schemes and operations constructed by upper-elementary and middle school students in an effort to support student learning. The research presented in this talk summarizes a multi-year study that broadened the existing research by investigating PreK8 preservice teachers construction of fraction schemes and operations. This study specifically explores data from PreK8 preservice teachers regarding two higher-level schemes (Reversible Partitive Fraction Scheme and Iterative Fraction Scheme) and one advanced way of operating (Three Level Units Coordination). Results focus on 13 special cases that disagreed with current conceptions of the developmental trajectory. Implications for teaching and further research will be discussed.

Monday, April 4 at 3:45 in Roop 103
refreshments at 3:30