Do Prospective Elementary Teachers (in the United States) Notice Cultural Aspects of Mathematics in a Teaching Scenario?

Dr. Eva Thanheiser
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Abstract: Effective teachers must simultaneously attend to many facets of the classroom, including the mathematics topic to be learned, the way students think about that topic, and the cultural contexts in which the topic may be situated. In this study, we focus on that to which prospective teachers attend in a teaching scenario involving a culturally-based nonstandard algorithm. In this scenario, a teacher dismisses a multi-digit subtraction algorithm because it is different from the standard algorithm. We surveyed 23 prospective elementary teachers, and using open coding we found that while most of the prospective teachers disagreed with the teacher’s dismissal of the algorithm, their disagreement focused on mathematical or student thinking arguments, but not on culturally based arguments. We discuss the implications of these findings.

Eva Thanheiser is an Associate Professor of Mathematics Education at Portland State University. Her research interests include prospective teachers' conceptions of number, the development of those conceptions, motivation to learn, and equity and access in the mathematics classroom. Eva is also currently a board member of AMTE (Association of Mathematics Teacher Educators), on the steering committee of PME-NA (Psychology of Mathematics Education - North America), and serves on the board of MTE (Mathematics Teacher Educator).

Next Friday, November 10: Graduate Open House & Math Symposium

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