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Examining what teachers do when they display their best practice: teaching mathematics for understanding.

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Summary: Despite several decades of research in psychology and mathematics education pointing to the importance of learning mathematics with understanding, other research on teachers' instructional practice in mathematics classrooms has found a remarkably consistent characterization of mathematics teaching in the United States as generally doing little to help students develop a deep understanding of mathematical ideas. Because the practice of teaching mathematics for understanding is so rarely encountered, it has not been extensively studied empirically. This paper summarizes the findings of an analysis of selected mathematical and pedagogical features of the lesson materials found in the portfolio entries submitted by candidates seeking certification by the National Board for Professional Teaching Standards in the area of Early Adolescence/Mathematics. These lessons were selected by teachers and were intended to display "best practice" examples of their teaching mathematics for understanding. Some implications for further research and for teacher education are also discussed.

Classification: C70

Keywords: teaching practice; teaching for understanding; educational research; teaching; USA

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