

Meeting: 1003, Atlanta, Georgia, MAA CP G1, MAA Session on Drawing on Our Students' Thinking to Improve the Mathematical Education of Teachers, I

1003-G1-1206 **Jean M McGivney-Burelle*** (jean.mcgivney-burelle@millersville.edu), Mathematics Department, Millersville University, Millersville, PA 17551-0302. *Moving Theory into Practice: Using Research in Mathematics Education to Teach Mathematics Courses for Prospective Teachers.*

At Millersville University, students majoring in elementary education are required to take two mathematics courses designed specifically for prospective teachers. As a mathematics educator working in the mathematics department, I look forward to teaching these courses and helping prospective teachers develop a profound understanding of the fundamental mathematics they will someday teach. While there is a standard required mathematics text for the course I draw heavily upon research in mathematics education (e.g. articles from JRME, JMTE, RCME) and documents (i.e., MET, PMET, NCTM Standards, etc.) to shape the content and pedagogy of these courses. In particular, using current research on prospective teachers' understanding of fundamental mathematics, I try to design lessons, activities, and assignments that will support students in developing mathematical understandings that have breadth, depth and thoroughness so they can see, represent, and communicate connections among mathematical concepts and procedures (Ma, 1999). In this presentation, I will provide a brief overview of some of the research and recommendations from national mathematics organizations that inform my teaching of these courses and give practical examples of how I translate this research into teaching practice. (Received October 04, 2004)