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Erin R. Moss* (erin.moss@millersville.edu), Department of Mathematics, Millersville University, P.O. Box 1002, Millersville, PA 17551-0302. *Transmitting Philosophies of Mathematics Through Pedagogy.*

The majority of Americans believe that mathematics is the domain of an elite few—the ultra-logical and intellectually brilliant – with no room for their own contributions. A significant mechanism by which this negative perception is perpetuated is in the mathematics classroom via pedagogy. Teachers from Kindergarten through the college level most commonly engage in a transmission-based pedagogy, with the instructor positioned as the sole mathematical authority in the classroom. To encourage higher rates of achievement and persistence in the American population and to build a more equitable society, we must believe it possible for all people to take ownership of mathematics and contribute to its development and use. In a classroom setting, this means allowing students to assume mathematical authority by co-creating mathematics with one another and with their teacher. In this talk, I share my experiences teaching mathematics courses for future elementary teachers and the ways that my philosophy of mathematics guides my approach to the course. In particular, I discuss pedagogical strategies I use to achieve my aims of increasing students’ responsibility for creating and communicating mathematics. (Received September 22, 2010)