Nicholas H Wasserman*, 525 W 120th St, Box 210-M, New York, NY 10027. Pedagogical Mathematical Practices as a way to Develop Pedagogy from Mathematics Coursework.

One of the challenges of mathematics courses in relation to developing pre- or in-service teachers' mathematical knowledge for teaching (MKT) is balancing pedagogical aims with mathematical ones. The primary aim of mathematics coursework is mathematics; but the development of MKT necessitates some degree of conversing about pedagogy. Wasserman et al. (2017; 2019) developed a novel instructional model to design materials for a real analysis course, and have previously discussed how the classroom teaching situations in these modules supported the mathematical aims of a real analysis course. In this talk, I discuss further the nature and development of the pedagogical aims - characterized as Pedagogical Mathematical Practices (PMPs). In a manner akin to Shulman's (1986) notion of pedagogical content knowledge (PCK) as the intersection of domains of knowledge, PMPs would be the intersection of domains of practice. They describe where mathematical practice meaningfully intersects with mathematics teaching practice; they allow for conversing about pedagogy in ways that also are mathematical. I share examples of these PMPs, their use within module materials, and results from a study following secondary teachers into their classrooms to explore the impact on classroom teaching practice. (Received August 18, 2020)