

What Do We See? Real Time Assessment of
Middle and Secondary Mathematics Teachers'
Pedagogical Content Knowledge and Sociomathematical Norms¹
Preliminary Report

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Abstract. The article reviews efforts to develop an observation protocol to assess the pedagogical content knowledge (PCK) and sociomathematical norms (SMN) that middle and high school teachers may develop over time as part of their participation in a master's program for secondary mathematics teachers. We observed each of 16 teachers in real time using the instrument, before involvement in the project and again after one year. Aspects of the protocol measure four critical components of PCK including curricular content, discourse, anticipatory, and implementation knowledge as well as some sociomathematical classroom norms. We present preliminary quantitative and qualitative analysis of the observations and discuss various challenges faced in the instrument development and its relation to similar protocols used by others previously.

Key Words: Pedagogical content knowledge, sociomathematical norms, inter-rater reliability, teaching moves

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