"That shifts my way of seeing things": using video to develop pedagogical reasoning with preservice teachers

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Preparing preservice teachers (PSTs) involves demonstrating and cultivating the interpretive abilities and professional judgment that teaching requires (Sawyer, 2011). These skills, which have been termed "pedagogical reasoning" (Loughran, 2019), are both essential for teaching and challenging for novice teachers to develop (Kavanagh et al, 2020). While video has been widely used to represent teaching for PST learning (e.g. van Es et al, 2017), its potential to prompt, shape, and support pedagogical reasoning is not adequately understood or realized. Consequently, this study considers how videos can act as a resource for PSTs to develop and hone their reasoning.

This study analyzes data from a fellowship in which PSTs watched and discussed videos of classroom observations and teacher interviews. The study uses rhetorical analysis (Feldman & Almquist, 2011) to characterize the reasoning by which participants made sense of these video modules. Findings fall under three categories. First, analysis identified a variety of reasoning

practices that participants employed, ranging from directly comparing surface features to articulating common principles across ostensibly dissimilar cases. Second, PSTs' student teaching experiences influenced their reasoning about videos by providing additional context for interpreting videos and motivating participants to address specific problems of practice. Third, each participant evidenced distinct tendencies in their reasoning, indicating that individual characteristics influence how PSTs engage in and develop pedagogical reasoning.

These findings have significant implications for the design and facilitation of video-based learning in teacher education. The variability in how participants made sense of videos indicates the importance of PSTs articulating their reasoning, and of facilitators attending to diverse forms of reasoning. Shifts in participants' reasoning also indicate both the affordances and constraints of combining student teaching with video activities, highlighting the need for further attention to the complex, variable, and nonlinear interactions between video.