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Transitions in prospective mathematics teacher noticing.

Lo, Jane-Jane (ed.) et al., Research trends in mathematics teacher education. Selected papers based on the presentations at the 34th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, PME-NA, Kalamazoo, MI, USA, November 1–4, 2012. Cham: Springer (ISBN 978-3-319-02561-2/hbk; 978-3-319-02562-9/ebook). Research in Mathematics Education, 239-259 (2014).

Summary: Teacher noticing is key to student-centered instruction, but it cannot be assumed that teachers automatically know how to notice productively. This study engaged prospective mathematics teachers in targeted activities during a school-based early field experience for the purpose of helping them learn to notice mathematically important moments during a lesson. These activities included research-like analysis of unedited classroom video and group discussions of their analysis supported by a teacher educator. The data revealed several transitions in the participants' noticing, including becoming more focused on individual students and on how teacher-student interactions affect learning, and being better able to describe the details of the mathematics of an instance. They also became less prone to make claims about groups of students, less focused on teacher explanations, and more attentive to issues directly related to student understanding. These shifts are discussed, along with initial conjectures about what facilitated them and directions for future research.

Classification: C79 C39 D39

Keywords: preservice teachers; video analysis; teacher noticing; field experience

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