

**PRESERVICE TEACHERS' PERCEPTIONS OF  
PLAN-DO-REVIEW: A THINKING ROUTINE**

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**ABSTRACT.** Mathematics education currently is undergoing massive reform designed to make mathematics accessible to all students, conceptual in addition to procedural, and constructive rather than behavioral. Implementation of these reforms will require teachers and preservice teachers to experience mathematics in ways that are not necessarily familiar to them and to conceptualize teaching mathematics in ways that may seem foreign to them. It is up to teacher educators, then, to develop courses to facilitate preservice teachers' deep understandings of math content and pedagogy, prior beliefs and experiences about mathematics, and reflection in all stages of teaching. In addition, teacher educators must help preservice teachers develop the thinking dispositions that will help them continue to use and create these understandings long after their methods courses are completed. This qualitative study examines Plan-Do-Review, a routine developed by the High/Scope Educational Research Foundation, as a tool assisting elementary preservice teachers to gain thinking dispositions including abilities, sensitivities, and inclinations. Five preservice teachers who participated in a math methods course at a large Midwestern University that utilized Plan-Do-Review were the subjects of the study. The findings support the notion

that Plan-Do-Review is indeed a thinking routine that may help elementary preservice teachers gain thinking dispositions in the areas of content, pedagogy, and relationships with children.