

1023-G1-1450 **Rebecca K. Walker*** (walkerre@gvsu.edu), 903 Pioneer St., Kalamazoo, MI 49008, and
Charlene E. Beckmann. *Constructivist Integrated Mathematics and Methods for Middle Grades Teachers.*

The Teaching Middle School Mathematics course at Grand Valley State University focuses on developing deep content and pedagogical knowledge of middle school mathematics. Preteachers engage in activities appropriate for use with middle school students and then discuss the objectives, the mathematics needed to complete each activity, and how students might engage in the activity. Through this discussion preteachers examine the mathematics inherent in each activity and consider how they might help students make sense of it. Topics from all of the content and process strands are addressed as preteachers also learn about cooperative learning, technology, use of real contexts, physical materials, and other pertinent pedagogical tools.

To make the classroom activity relevant, each preteacher conducts problem solving interviews with middle school students. This allows each of them to experience first hand how middle school students think about a variety of mathematical problems. In class we discuss the preteachers' collective experiences, consider commonalities among the approaches used, and analyze the unique ways students reason about the problems. In this way preteachers learn that students solve non-routine problems in diverse and creative ways. (Received September 26, 2006)