1106-97-2220 **Cody L Patterson*** (cpatterson@math.arizona.edu), Department of Mathematics, 617 N Santa Rita Avenue, PO Box 210089, Tucson, AZ 85721. *Can meaning create coherence? The case of a math course for inservice secondary teachers.*

Student success in high school mathematics (and subsequently in college mathematics) depends not only on mastery of mathematical skills and procedures, but also on the ability to deploy these skills strategically and appropriately when one is faced with an unfamiliar problem. In order to use mathematical procedures strategically in novel situations, students must understand what these procedures mean and what they are intended to do. Accordingly, teachers must have a clear understanding of the meanings of mathematical concepts and procedures so that they can convey these meanings to students.

Project ASPIRE has developed an instrument that assesses the meanings with which secondary teachers operate when they teach. Inspired by results from this instrument, we have created a mathematics course for inservice secondary teachers that develops meanings of key mathematical concepts, and then uses these meanings to draw connections among ideas and problems commonly found in the high school curriculum. We will present some sample tasks from this course and discuss the challenges inherent in attempting to build coherence in high school mathematics curriculum and instruction. (Received September 16, 2014)