

Meeting: 1000, Albuquerque, New Mexico, SS 16A, Special Session on Mathematics for Secondary Teachers: Curriculum and Assessment

1000-97-183 **Timothy J Middleton*** (aggiemath@aol.com), Bosque School, 4000 Learning Road NW, Albuquerque, NM 87120. *Content Is Important, But ...*

Teacher preparation courses in mathematics have two critical components. First, they must foster strong mathematical content knowledge that is focused on the conceptual development of topics appropriate to high school courses. Second, they must provide authentic, content-specific pedagogical experiences. These include experiences with discovery-based learning, manipulatives, mathematical communication, insightful but not dependent use of graphing technology and computer algebraic systems, alternative assessment, scoring rubrics, and cooperative learning. These two components are inseparable and therefore imply that teacher preparation programs should be anchored in departments of mathematics. Based on his background as an experienced practitioner, graduate student in mathematics, and teacher educator, the presenter discusses some of the elements essential to an effective secondary teacher preparation program in mathematics. (Received August 24, 2004)