Creating positive discussion environments in a mathematics content sequence for elementary education majors using traditional and distance formats.

Preservice mathematics classes for elementary education majors are expected to facilitate development of student understanding of mathematics concepts and processes, and at the same time introduce students to pedagogical issues through best practices. These best practices include effective uses of technology such as calculators, spreadsheets, specialized mathematics software, and web resources. At the same time, instructors are expected to help students think about mathematics learning and instruction with traditional physical manipulatives, and to structure classroom investigations through small group problem solving and whole group discussion. Distance learning environments present both advantages and hurdles for anyone attempting to meet these course expectations, especially when "hybrid" courses are taught. We will discuss a three-semester sequence taught in a traditional classroom environment, real time cable, and DVD/VHS on a one-week delay. Our major focus will be on techniques which help create positive discussion in such diverse environments, including oral presentation, various writing strategies, reflective observations, and chat room discussion. (Received September 22, 2005)