Jim Brandt* (brandt@suu.edu), 351 W University Blvd, Cedar City, UT 84720. Using Visual Cues in Teaching Exponent Rules. Preliminary report.

Increasing numbers of college mathematics courses focus on remedial topics and procedural skills. Visual cues provide a tool to assist students in recognizing and applying symbolic rules while offering opportunities to strengthen conceptual understanding. The results of a classroom teaching experiment using visual cues in teaching exponent rules will be discussed. The visual cues were designed to increase computational skill while also drawing connections with other mathematical topics such as sets and areas. Qualitative and quantitative comparisons will be made between a traditional section of intermediate algebra and a section using visual cues. The comparisons will involve student confidence, procedural skill, and conceptual understanding assessed via pretest and posttest surveys. (Received September 18, 2007)