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William O. Bond* (bond@math.uab.edu), Dept. of Mathematics, University of Alabama at Birmingham, Birmingham, AL 35294-1170, and **John C. Mayer.** *Blending Inquiry-Based Class Sessions with Computer-Assisted Instruction.* Preliminary report.

Student success as measured by grades, and greater efficiency in terms of cost effectiveness, have been a driving force in "course reform" over the past 15 years. One prevalent direction of course reform has been the development of sophisticated computer-assisted instruction. This approach has often been applied to large-enrollment developmental courses in mathematics. In an experiment conducted in Fall, 2009, we compare the effect of incorporating inquiry-based group work sessions versus traditional lecture sessions in a Basic Algebra course in which the primary pedagogy is computer-assisted instruction. Our research hypothesis is that inquiry-based group work sessions differentially benefit students in terms of mathematical self-efficacy, content knowledge, problem-solving, and communications. As a secondary effect, we hypothesize that such students will have greater success in subsequent algebra courses. In our experiment, all students receive the same computer-assisted instruction component. Students are randomly assigned to a treatment (group work or lecture). Measures, including pre- and post-tests, are described. Statistically significant differences have previously been observed in a similar study of multiple sections of a Finite Mathematics course in Fall, 2008. (Received September 22, 2009)