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**John C Mayer\*** (jcmayer@uab.edu), Department of Mathematics - CH 452, University of Alabama at Birmingham, Birmingham, AL 35294-1170, and **William O. Bond** (bondwil@uab.edu). *Blending Inquiry-Based Learning and Computer-Assisted Instruction in Algebra.*

In an experiment conducted in Fall Semester, 2010, we compare the effect of incorporating inquiry-based learning 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 learning sessions differentially benefit students in terms of mathematical content knowledge, problem-solving, and communications. In our experimental design, all students receive the same computer-assisted instruction component in a once-weekly meeting. For the two additional weekly class meetings, we divided the students randomly into three treatments: (1) two lecture meetings weekly, (2) one lecture meeting and one inquiry-based meeting weekly, or (3) two inquiry based meetings weekly. Measures, including pre- and post-tests, with an objective and rubric-scored parts, are described. Statistically significant differences between treatments have previously been observed in a similar study of multiple sections of a Finite Mathematics course in Fall, 2008, and a study of Basic Algebra with two treatments in Fall, 2009. (Received September 20, 2010)