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William O. Bond* (bondwil@uab.edu), Dept. of Mathematics - CH452, University of Alabama at Birmingham, Birmingham, AL 35294-1170, and **John C. Mayer** (jcmayer@uab.edu). *Can Inquiry-Based Learning Augment Computer-Assisted Instruction in Developmental Algebra?*

In an experiment being conducted in Fall Semester, 2010, we compare the effect of incorporating inquiry-based learning sessions versus traditional lecture sessions in a developmental algebra course in which the primary pedagogy is computer-assisted instruction. We hypothesize that blending-in inquiry-based learning sessions benefits students in terms of mathematical content knowledge as well as problem-solving ability. We use a quasi-experimental design: all students receive the same computer-assisted instruction component in a once-weekly meeting. At the start of the term, we divided the students in each section randomly into three subsections receiving different treatments for two additional weekly meetings: (1) two lecture meetings, (2) one lecture meeting and one inquiry-based meeting, or (3) two inquiry based meetings. Measures, including pre- and post-tests, with both 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 the same developmental algebra course with two treatments in Fall, 2009. (Received September 21, 2010)