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October 6, 2011

Dear Jeffrey Smith,

   I am pleased to inform you that your paper titled: Screen-Capture Instructional Technology: A Cognitive Tool for Blended Multimedia Learning has been selected as the best research paper for the Association for sTEm Teacher Education research symposium held at the ACTE convention Nov. 17-19 at St. Louis, MO.   Please note that the winner of this award will be required to attend the ACTE conference and present the paper at the eTED research symposium held on Friday, November 18 from 10:45-11:45. If at all possible, we would like you to also attend the Association for sTEm Teacher Education opening session held on Thursday, November 17th from 3:15-4:15, a brief announcement about your award will be made at that session.

    Please plan a 20 minute paper presentation, with 10 minutes for questioning. Digital projectors and microphone are provided but you must bring your own computer. We look forward to meeting you and hearing your presentation. Please confirm that you have received this and plan to attend the symposium.

Sincerely,

Dr. Todd Kelley
Purdue University

SCREEN-CAPTURE INSTRUCTIONAL TECHNOLOGY: A COGNITIVE TOOL FOR DESIGNING A BLENDED MULTIMEDIA CURRICULUM

JEFFREY G. SMITH
RITA L. SMITH
Saint Mary's College of California

ABSTRACT

Online instruction has been demonstrated to increase the academic achievement for post-secondary students; however, little empirical investigation has been conducted on high school students learning from online multimedia instruction in the traditional classroom. This study investigated the knowledge acquisition, transfer, and favorability of secondary students using a teacher's screen-capture instructional technology. A two-group experimental pretest-posttest study was conducted on secondary students enrolled in two computer aided design (CAD) classes. Total scores on the posttests were significantly higher for students in the screen-capture group ($M = 9.71$) than those in the textbook group ($M = 7.83$), $F(1, 48) = 4.79$, $p < .05$, partial $\eta^2 = .09$. Additionally, 88.2% of the students surveyed preferred learning from the multimedia instruction over written text. This study implies that a teacher's screen-capture multimedia instruction can be used toward establishing a blended learning environment.

The climate of educational reform and school accountability places extraordinary demands upon K-12 teachers and administrators to improve student academic achievement. As these academic institutions comply with annual federal and state high-stakes testing mandates, new computer-based instructional technologies are

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