A Study on the Use of Multiple Forms of Technology in a Business Calculus Course.

This paper is a follow up to a paper presented at last year’s joint national conference. The paper describes how the TI-89 Computer Algebra Systems (CAS), Microsoft Excel, and various Java applets were used in experimental technologically enhanced sections of Business Calculus at a four-year university in the Midwest.

This paper will present three new forms of data that were not presented in last year’s paper. One form of data is quantitative data that was collected on common mid-term exam questions and common final exam questions given to both sections. The researcher will describe which forms of technology appear to be potentially responsible for these differences in student achievement on the common questions. A second form of data will be a qualitative description of how the experimental course attempted to make sure students both sections were able to show the same level of competency on by-hand calculations. The third form of new data presented will be pre-class, post-class questionnaire data collected on the experimental sections. Data will represent how these attitudes and feelings about mathematics, calculus, and the use of technology to learn may or may not have changed over the course of the semester within the technology enhanced classroom. (Received September 24, 2005)