

**Project Title:** Acquire and Self-regulate Knowledge in Multimedia Environment (ASKME)

**Investigator:** Beth Bos

**Department:** Curriculum and Instruction

**Project Summary:** It is difficult to examine the effectiveness of technology-based courses (TBC) without understanding the design and application in classrooms. There is evidence of disconnects among the theory for designing, the theory used to apply TBCs in classrooms, and the theory used to research and evaluate TBCs (Hickey, 1997). Comments provided by administrators, teachers and students lead researchers to determine whether or not the original TBC course goals have been attained. We looked at examples of theoretical disconnects found in other technology-based research (Alevan et al., 2003; Hickey & McCaslin, 2001). Then, we describe the course design of the mathematics TBC used in this study, the reasons the principal and the teachers believe the software will benefit their mathematics students, and the perceptions of mathematics students regarding the effectiveness of the technology in their classroom. In conclusion, we found how this preliminary qualitative data can shape our future research questions.

**Publications:**

Offer, J. and Bos, B. The design and application of technology-based courses in the mathematics classroom. *Computers & Education*.

**Presentations:**

Bos, B. and Offer, J. (2009, January). A Technology-based mathematics course at its affect on motivation and critical thinking in a hybrid on-line environment. Presentation at 7th Annual Hawaii International Conference on Education, Honolulu, HI.

Offer, J. and Bos, B. (2008, July). Technology-based curriculum with real world application. Presentation at Conference for the Advancement of Mathematics Teaching, Dallas, TX.

**Student Number:** 187