

**COMPUTER-AIDED COLLEGE ALGEBRA:  
A RESEARCH STUDY CONDUCTED AT OKLAHOMA STATE  
UNIVERSITY**

Douglas B. Aichele  
Department of Mathematics, 401 MSCS  
aichele@math.okstate.edu

Cynthia Francisco  
Department of Mathematics, 401 MSCS  
cynthia@math.okstate.edu

Juliana Utley  
School of Teaching & Curriculum Leadership, 233 WH  
juliana.utley@okstate.edu

Benjamin Wescoatt  
Department of Mathematics, 401 MSCS  
wescoatt@math.okstate.edu

**Overview**

Computer-aided College Algebra: A Research Study Conducted at Oklahoma State University was presented in four-parts. We discussed in depth the motivation for the redesign of OSU College Algebra and the resulting delivery model being implemented, the research design and methodology employed, and the analysis of data.

**Part I - Motivation for Redesign and Description of Delivery Model**

We discussed several of the motivating factors (e.g., student success rate, drop out rate, variability among sections, and delivery cost) for redesigning the traditional lecture-based College Algebra course. Additionally, we provided a description of our model, which included both face-to-face components (focus groups and tutoring lab) and computer components (e.g., [View an Example](#)) via MyMathLab.

**Part II - Research Design and Methodology**

We 1) discussed the research questions framing our study, 2) shared the research methodology used to investigate these research questions including our instruments, and 3) introduced our findings.

**Part III - Analysis and Discussion of Data on the Best Way to Learn and Beneficial Resources**

We discussed student data pertaining to the statement "The Best Way to Learn College Algebra" and student characterizations of the "Least and Most Beneficial Components" in our redesigned delivery model.

#### **Part IV - Question and Answer Forum**

In this informal session, we discussed 1) factors affecting implementation of our redesigned delivery model, 2) the status of our implementation, and 3) areas in need of further study. Participants were encouraged to share their computer-aided models or delivery models that are being considered at their institutions.

**NOTE. You may request a copy of the PowerPoint slides of the paper presented in these four sessions by writing to one any one of the authors at the e-mail addresses listed above.**