

## Success Story



**“In this study, I’ve shown that you can get great results with class notes, video lectures, and Quantum’s adaptive learning and assessment software – without expensive textbooks and homework systems.”**

**CAL POLY**  
SAN LUIS OBISPO

### Cal Poly

California Polytechnic State University  
San Luis Obispo, CA 93407  
Type: Public, 4-year  
Enrollment: 18,700 students



### Instructor

**Erik Slayter**  
Accounting Instructor  
Cal Poly State University

### Challenge

Having required traditional textbooks and online homework systems for years, Professor Slayter believed that the conventional teaching model of: attend lecture, read the textbook, and practice homework was a one-directional process from instructor to student that did not provide a personal learning experience based on the individual needs of each student. Most students were not reading the textbook and those that did were overwhelmed with all the information presented and the inability of the textbook to define basic financial accounting concepts in simple terms that beginning-level students could understand. Professor Slayter began exploring emerging educational technologies to see if there was a less-expensive, more-effective way to engage his class.

### Solution

Professor Slayter conducted a study comparing test scores from prior semesters where a traditional textbook and homework system was used (96 students) with scores from a “flipped class” (95 students). In the flipped class, students viewed short video lectures and created a “mini-textbook” by taking structured notes. Additionally, students had “hands on” targeted homework practice using Quantum’s intelligent adaptive learning and assessment software which provides step-by-step feedback on student work much like sitting down with the instructor one-on-one for help. Professor Slayter used Quantum’s real-time assessment reports to measure student mastery and pinpoint conceptual errors for remediation to help students individually in class.

### Results

- The expense of the textbook and homework system was cut by 70% with Quantum.
- The number of A’s in the Flipped Class Group increased 25%.
- Average exam test scores were statistically the same for the Textbook Group (73%) and the Flipped Class Group (73.4%) so eliminating the textbook did not reduce overall performance.
- 91% of students in the Flipped Class Group achieved “High Mastery” for the assigned topics.
- Quantum was rated as a “very helpful” resource by students.
- Students were required to demonstrate personal responsibility which increased self-motivation.
- Instructor prep time averaged three hours per chapter for initial set-up, substantially reducing prep and lecture time for future courses.