

Product Used **MyMathLab**

Course Names **Developmental Math Sequence**

Pearl River Community College used MyMathlab in its Developmental Math course redesign as part of the Changing the Equation (CTE) National Center for Academic Transformation/Gates Foundation grant. All CTE participants implemented the Emporium Model at their two-year institutions. [This white paper](#) documents the best practices drawn from these CTE schools.

Course Implementation

In the traditional developmental course sequence at Pearl River Community College (PRCC), less than 50 percent of students earned a C or above. Only 33 percent of the unsuccessful students returned to school the next semester.

Students were required to spend at least two hours per week in the math lab. Students also met one hour per week with the instructor in classrooms equipped with computers. During class, students worked on assignments and met individually with the instructor to assess their progress and formulate a

plan for the coming week. Courses were divided into modules with students expected to complete at least one per week.

The redesign engaged students and made them more responsible for their learning. Immediate feedback and awareness of their progress improved the quality of the course. The modular design required students to attain mastery of each topic before progressing, which enabled students to focus their effort on their weakest topics. In addition, MyMathLab helped the faculty maintain consistency across sections.

Results and Data

Student performance improved significantly in all three developmental courses as measured by comparing mean performance on common final exams (table 1).

In addition, PRCC redesigned its College Algebra course. Student performance on the final examination increased from a mean of 64.4 in the fall 2009 and 2010 traditional format to 73.8 in the fall 2011 redesign.

There are other indications that redesigned students, in the majority of instances, are completing at a higher rate. PRCC analyzed spring 2012 course grades by considering Making Progress (MP) grades. Students receiving an MP grade must have completed at least 50% of modules at 80% mastery. When taking into account the MP grades, completion rates improved in the redesign (table 2).

In the traditional format, developmental math students faced up to three courses before eligibility for a college-level math course. The redesign offered students the opportunity to complete one course and begin another within one semester. The time required to complete the sequence has been tremendously reduced—a great motivating factor for students.

Course	Traditional	Mean	Redesign	Mean
Fundamentals of Mathematics	Fall 2010	45.2	Fall 2011	83.7
Beginning Algebra	Fall 2009–10	50.5	Fall 2011	74.1
Intermediate Algebra	Fall 2009–10	60.2	Fall 2011	72.3

Table 1. Mean Common Final Exam Scores before and after Redesign, (Fall 2009, 2010, and 2011)

Course	Traditional A, B, C	Redesign A, B, C + MP
Fundamentals of Mathematics	58%	73%
Elementary Algebra	38%	63%
Intermediate Algebra	48%	66%

Table 2. Average Course Completion Rates before and after Redesign with MP Grades

Conclusions

The results obtained for College Algebra and Fundamentals of Mathematics show the value of the redesign. The PRCC

team continues to make minor changes to these courses in order to produce better and more consistent results.