

Product Name MyMathLab

Course Names Beginning Algebra, Intermediate Algebra

Course Format Hybrid: face-to-face + 1.5 hours in open lab

Key Results Approximately 49 percent of students in a Math Advancement Program using MyMathLab completed both Beginning Algebra and Intermediate Algebra in one semester.

Materials in Use

Elementary and Intermediate Algebra: Concepts and Applications,
Bittinger

Implementation

East Los Angeles College found a strong relationship between the length of time between sequential developmental math courses and success in the course: students who received an A in Elementary Algebra had a 55.6 percent chance of passing Intermediate Algebra if they waited two or more semesters, but their chance of passing the subsequent course increased to 82.8 percent if they took the course the next semester.

Program Design

To alleviate time lapses between courses, the college created the Math Advancement Program (MAP). The MAP condenses two courses into two eight-week sessions. All students take the Elementary Algebra course the first eight weeks, and if they pass, they progress to Intermediate Algebra. No material is omitted in either course, and courses cover the same amount of material in half the time by meeting twice as often. Students who participate in MAP attend a special orientation session at the start of the semester. Classes meet four days a week for 2.5 hours a day. In addition, students are required to spend 1.5 hours on campus every Friday to work on material selected by the instructor or to take exams. This is also when students receive one-on-one help with homework and instructors make sure students are on track.

East Los Angeles College uses MyMathLab for homework and quizzes. Each homework comprises about 25 questions, which sometimes include media assignments. In addition, instructors use the Search/E-mail by Criteria function in the Gradebook to target students who are falling behind.

Assessments

| | |
|------------|----------------------------|
| 45 percent | Paper-and-pencil exams (3) |
| 25 percent | Final exam |
| 10 percent | MyMathLab quizzes |
| 10 percent | MyMathLab homework |
| 10 percent | Extra in-class packages |

Use of MyMathLab contributes 20 percent to each student's final course grade.

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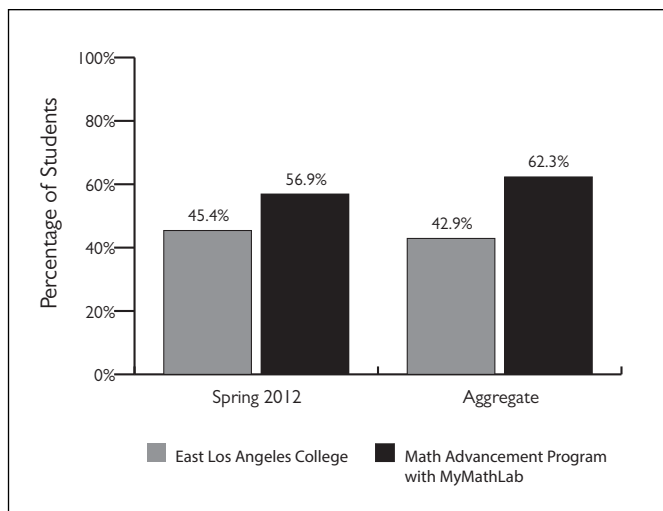


Figure 1. Beginning Algebra Average Success Rates for MAP Students Using MyMathLab and Collegewide, Spring 2012 ($n=1,921$)

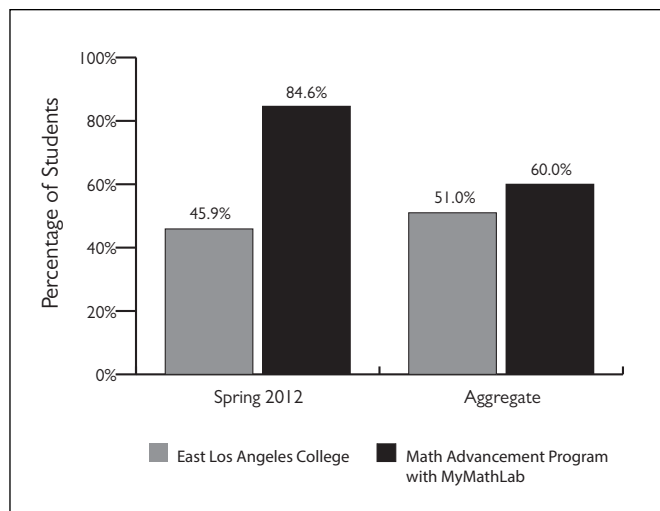


Figure 2. Intermediate Algebra Average Success Rates for MAP Students Using MyMathLab and Collegewide, Spring 2012 ($n=2,181$)

Results and Data

On average, MAP students completed the two-course algebra sequence at a much higher rate than their peers: 48.5 percent of MAP students successfully completed the sequence, compared to the collegewide rate of 28.7 percent for students who took the first course in the fall semester and the second in the winter or spring semester.

Success rates also improved. In aggregate, MAP students were more successful with 62.3 percent of Beginning Algebra students earning an A, B, or C, compared to 42.9 percent collegewide (figure 1). Of the 72 students who enrolled in MAP for Beginning Algebra, 39 progressed to Intermediate Algebra in the same semester and 33 of those students successfully completed it—that's an 84.6 percent success rate for Intermediate Algebra, compared to the collegewide success rate of 45.9 percent (figure 2).

The Student Experience

Underscoring the tremendous success of the school's MAP program is the program's significantly higher percentage of first-time students compared to the traditional courses: 32.9 percent compared to 5.8 percent. In addition, MAP students were generally younger than the general Beginning Algebra population: 57.5 percent were under 20 years of age, compared to 36 percent in the traditional courses.

Because first-time students formed such a large population in the MAP, the school looked at their performance:

- 62.5 percent of first-time students passed the MAP Beginning Algebra, compared to 43.5 percent collegewide.
- 92.3 percent of first-time students passed the MAP Intermediate Algebra, compared to 46.7 percent collegewide.

Conclusion

In addition to continuing its Math Advancement Program, East Los Angeles College has plans to create a comprehensive, data-driven program that leverages the MAP's successes. Plans include replacing Friday tutoring with a one-unit course designed to reinforce and extend skills such as solving word problems and study skills, and determining the student populations best served by the MAP model. Current data indicates that first-time students are a good target population, as they succeeded at the subsequent course at almost twice the rate of their counterparts who did not participate in the MAP.

*Submitted by Rahim Faradineh, Professor
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