Reading Area Community College — Reading, PA

Product Used	MyMathLab
Course Name	Mathematics Review
Credit Hours	Zero

KEY TAKE-AWAY

By wrapping underprepared math students in support and encouraging them to be accountable for their learning, RACC helps students quickly and successfully catch up with their peers—and stay in school.

Textbook in Use

Prealgebra and Introductory Algebra, 3e, Elayn Martin-Gay

Course Implementation

Course Design

Mathematics Review is an optional, self-paced, online program designed to prepare students for Prealgebra. Reading Area Community College (RACC) offers the program at no charge as part of its commitment to respond to the needs of its students and the community.

Students remain in Mathematics Review until they self-select to take the MyMathLab final and move to Prealgebra. Students are encouraged to complete all course assignments and assessments. Proctors screen those wishing to take the final by advising those whose preparation is not complete or of a high enough quality to be successful that more practice would be of benefit. Students obtain extra help by e-mailing the facilitator or visiting the math lab.

Assessments

20 Homework assignments

19 Quizzes

4 Practice tests

1 Final exam

Students who score 70 percent or more on their final exam may move into Prealgebra.

Use of MyMathLab

One-hundred percent of the program content is presented in MyMathLab. Homework sections cover one topic at a time and each is followed by a short quiz. Practice tests cover groups of topics and contain more problems than the quizzes. A password-protected, final exam becomes available to students once they have completed the second to the last learning module. To ensure test security, final exams are taken in an on-campus math computer lab.

Question pooling enables retakes of quizzes, practice tests, and the final exam without repetition of questions.

Instructors use MyMathLab's Gradebook feature to manage large numbers of students—to keep track of who is being active, find out who is taking the final exam, and see who would benefit from email intervention.

Results and Data

Prior to redesign with MyMathLab, of those students who passed Mathematics Review, 31 percent failed the subsequent course, Prealgebra. The 69 percent who did pass Prealgebra earned an average grade of 2.3 out of 4.0. The first year with the new format showed significant improvement: of the students who passed the Mathematics Review final and enrolled in Prealgebra, 94 percent passed the course with an average grade of 3.26.

Follow-up through spring 2011 shows both impressive and sustainable progress. Since summer 2009, 95 percent of those students who took the Mathematics Review final passed it with an average score of 84.1. Of those students who passed, 83 percent enrolled in the subsequent course, Prealgebra with a passing rate of 81 percent on the first attempt, 85 percent by the second attempt. See Table 1.

TWO YEAR • FEWER THAN 10,000 STUDENTS

	Took Final	Percent Passed Final	Average Passing Score	Percent Enrolled in Prealgebra	Percent Passed Prealgebra with A, B, or C 1st Attempt	Percent Passed Prealgebra with A, B, or C 1st Attempt
Summer 2009	21	100	86.1	100	86	91
Fall 2009	46	91	86.1	79	91	97
Spring 2010	26	92	84.8	71	82	82
Summer 2010	19	95	83.4	94	82	88
Fall 2010	36	92	83.3	97	72	78
Spring 2011	41	100	81.8	71	72	72
Total	**189**	**95**	**84.1**	**83**	**81**	**85**

Table 1. Comparison of Success Rates for MyMathLab-Enabled Mathematics Review and Its Subsequent Course, Prealgebra, Summer 2009–Spring 2011 (n=189)

The Student Experience

Students who are actively engaged in self-paced, online learning develop a sense of accountability for their learning. Supported by the tools in MyMathLab, they quickly and easily discover what they need help with and what they already know. "RACC has open enrollment, which means we see a wide range of abilities and life circumstances," says Barbara Stoner, cocoordinator of developmental math. "MyMathLab helps the entire continuum of students appropriately scale their goals and sets them up for success."

Students confirm the positive impact of MyMathLab.

- "The [MyMathLab] online course was very helpful. It taught me all the things I had forgotten from high school 10 years ago. I'm now in Prealgebra and earning an A. I don't think it would have been possible without the Mathematics Review program. I definitely recommend it to all students!"
- "Don't change a thing. This [MyMathLab] program prepared me on things I forgot from high school."
- "Math was my toughest subject throughout middle and high school. MyMathLab definitely helped prepare me for [Prealgebra]—it refreshed my memory of things that I had forgotten, and it taught me a lot of new things. I've learned so much from MyMathLab, I plan to continue using it. It works for me!"

In addition to Mathematics Review, Reading Area Community College uses MyMathLab for all of its developmental math classes. Students appreciate the possibility of completing multiple courses in one semester. Those who are unsuccessful on their first attempt carry over their grades from semester to semester. "The result is more and more students successfully mastering mathematics material on either their first or second attempts," says Stoner.

Conclusions

By wrapping Mathematics Review students in support—including MyMathLab's Ask My Instructor feature, the math tutoring lab, and instructor office hours—RACC sends its students a powerful message: *you are not alone*. Initial results comparing Mathematics Review before and after redesign with MyMathLab indicate that it works: students are succeeding in ways they never did before and in classes beyond the redesigned review program.

Stoner points to a clear connection between skill mastery and use of MyMathLab. "Students who fail the Mathematics Review final exam haven't completed all of the recommended MyMathLab program modules," she says. "When they complete the modules and try again, they pass the exam."

Stoner plans to continue using MyMathLab in the Mathematics Review format. She is exploring the possibility of creating an additional mirror course using MyMathTest.

Submitted by Barbara Stoner, Cocoordinator of Developmental Math
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