

Product Used **MyMathLab**

Course Names **Prealgebra, Beginning, Introductory, Intermediate Algebra**

Credit Hours **Three**



Brookhaven College

DALLAS COUNTY COMMUNITY COLLEGE DISTRICT

KEY TAKE-AWAY

By upgrading its use of MyMathLab homework from optional to required, adding MyMathLab quizzes, and implementing common exams, Brookhaven College significantly increased its Intermediate Algebra pass rates and decreased its DFW rates.

Textbook in Use

Beginning and Intermediate Algebra, 4e, Margaret L. Lial, John Hornsby, Terry McGinnis

Results and Data

Course Design

Prior to spring 2010, MyMathLab was offered only as an optional homework supplement and for no credit. After a successful pilot in fall 2009, more-comprehensive use of MyMathLab was incorporated into all developmental math courses (except Basic Math) and its use is now required for both homework and quizzes. In addition, Coordinator Courses are created and each instructor is given a member course that includes homework assignments, quizzes, unit/test reviews, and a review of the final exam. Course assignments are standardized throughout the department to promote content alignment, minimize course drift, and facilitate relevant data comparisons and analyses.

the computers on campus. Students have one attempt and may not use any of the program's learning aids.

60 percent

Tests

Proctored, instructor created, pencil and paper

20 percent

Departmental final exam

Proctored, pencil and paper

Tutors are available in the school's math lab to help students complete MyMathLab homework assignments.

Use of MyMathLab

Students use MyMathLab to complete homework assignments, unit/test reviews, and quizzes. They use the eText and may use all available learning aids during completion of homework assignments.

Instructors pull most homework questions from the program's bank of problems and are encouraged to use the item analysis feature to create problems that can be used for in-class reviews or warm-up exercises. The coordinator course is employed throughout the department.

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

Assessments

10 percent MyMathLab homework
Completed at home or using any of the computers on campus. Soft deadlines are set, and students are encouraged to use the learning aids to complete homework assignments the class period following lecture. Assignments remain open until the corresponding test deadline.

10 percent MyMathLab quizzes
Completed at home or by using any of

Results and Data

In a comparison of spring 2009 and spring 2010 student success rates, Sharon Jackson, professor, found that Intermediate Algebra courses that required use of MyMathLab in the new format experienced both significantly increased success rates and decreased drop/fail/withdrawal (DFW) rates.

Further, an examination of all of the developmental math courses using MyMathLab showed a strong correlation between successful completion of MyMathLab homework and a final course grade of A, B, or C.

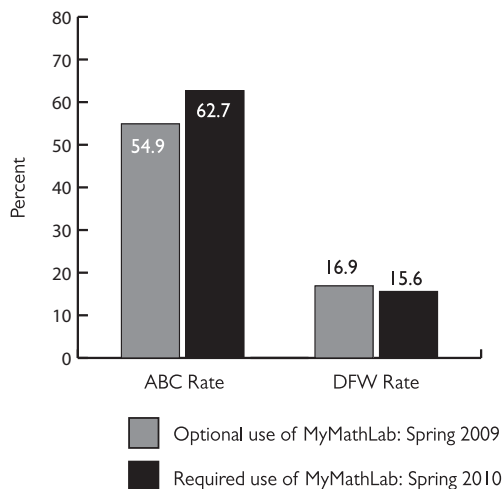


Figure 1. Comparison of Intermediate Algebra ABC and DFW Rates before and after Required Use of MyMathLab, Spring 2009 and Spring 2010 ($n=1,147$)

Figure 1 shows that intermediate algebra courses, which required use of MyMathLab, had a combined average ABC

Prealgebra	Introductory Algebra	Beginning Algebra	Intermediate Algebra
86.1%	81.1%	81.7%	88.9%

Table 1. Success Rates by Course of Developmental Math Students, who Earned at least 70 Percent on MyMathLab Homework

rate 14.2 percent higher than those courses that did not require use of MyMathLab. Similarly, intermediate algebra courses, which required use of MyMathLab showed a decrease of 7.7 percent in the combined average DFW.

Table 1 indicates that for Prealgebra, Introductory Algebra, Beginning Algebra, and Intermediate Algebra there is a positive correlation between earning a homework score of at least 70 percent and completing the course with a final grade of A, B, or C. Conversely, instructors report that students who have trouble completing homework and other assignments generally didn't complete the course successfully.

The Student Experience

Via the requirement that students complete homework by using MyMathLab, their time on task is increased, their understanding of the material is greater, and their accountability for their own learning is more apparent. One indication of this is how students ask questions. Jackson reports that instead of saying, "I don't understand how to do it," students now ask specific step-by-step questions.

An end-of-semester student survey overwhelmingly reinforced that the positive changes instructors observed were also recognized by their students.

- 78 percent agreed or strongly agreed that MyMathLab helped them understand the subject matter better.
- 75 percent agreed or strongly agreed that MyMathLab helped them prepare for tests.

- 82 percent agreed or strongly agreed that the resources available in MyMathLab encouraged them to stay in the course.

Students said the following.

- "I returned to school 32 years after receiving a bachelor's degree. MyMathLab was enormously helpful. When I had difficulties grasping a concept, I worked homework questions using the Help Me Solve This feature until I got it. It was essential to my successful completion of this course."
- "MyMathLab is an excellent program. It provided all the resources I needed to succeed."
- "MyMathLab has been so helpful: it encouraged me, and I've seen improvement as a result. I have no doubt it will help me on my final score."

Conclusions

Data indicates unequivocally that requiring MyMathLab for homework and quizzes significantly improves student success rates and decreases DFW rates. Students spend more time in hands-on practice and as a result, gain the confidence to persist in class and achieve higher scores. And because the courses are now standardized throughout the department,

results can be compared and analyzed, and any necessary adjustments quickly and easily implemented.

*Submitted by Sharon Jackson, Professor
Brookhaven College*