

MathXL for School and MyMathLab

Preparing your students for the challenges ahead

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“We’re using MathXL for School in our Algebra II course and for the first time experienced a 100 percent success rate—every student passed. A behind-the-scenes look at one student who pretested on a topic at 37 percent showed that he scored in the high 80s after spending only six hours in the program.”

—Beth Gaunce
Instructional Supervisor
Kentucky Virtual High School

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MathXL for School and MyMathLab: Preparing Your Students for the Challenges Ahead

By Michelle D. Speckler

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INTRODUCTION

Lack of adequate preparedness for higher education has serious lifelong consequences for both students and their families.

- Students who take remedial courses in college take more time to complete their degrees, thereby increasing their total college costs and decreasing their odds of graduating at all.
- Students who graduate high school unprepared for college are more likely to face unemployment.
- Students who are not college-ready earn less over their lifetime.

Being college ready is about more than just being accepted into college. Rather, *college readiness* refers to how well a student performs in college, specifically, to whether or not a student is capable of initially passing college-level math and English classes and ultimately obtaining a college degree.

Recent college graduation rates indicate that college readiness is one of our nation's most daunting issues: less than a third of all U.S. eighth graders achieve college readiness—a college graduation rate of 29 percent. A third of students who attend two-year colleges graduate within three years; only 56 percent of students who attend four-year institutions graduate within six years.

Competency in college-level mathematics is perhaps the strongest benchmark of college readiness. "Algebra is a

demonstrable gateway to later achievement," wrote the National Mathematics Advisory Panel¹. "Students who complete Algebra II are more than twice as likely to graduate from college compared to students with less mathematical preparation." Similarly, another study² found that high school students who take higher-level math courses are more likely to achieve a higher college GPA, stay in school at the same institution, and complete a bachelor's degree than those who do not.

The benefits of math competency are especially profound for minority students. A U.S. Department of Higher Education study³ estimates that African-American students who complete a curriculum that includes a mathematics course beyond Algebra II can increase their bachelor's degree attainment rate from 45 to 73 percent, and that Hispanic students can improve their attainment rate from 61 to 79 percent.

Fortunately, our nation's overall lack of college readiness is reversible—approaches that properly prepare students for college success are available, are in use, and show significant improvements across a variety of metrics.

Solutions that show the most progress focus on personalization to engage students in active learning and to enhance and inform assessment. These technology-based instructional supplements and courseware, such as Pearson's MathXL for School and MyMathLab, actively engage students in learning, provide immediate feed-

back and tutorial assistance, and have demonstrable and positive effects on student gains.

Self-paced learning programs also benefit teachers. By offering a wide range of automatically graded homework assignments and customizable tutorial and assessment tools, they make it easier for teachers to manage courses and meet the learning needs of multiple levels of learners, as well as monitor progress against standards.

Whether students' aspirations are to pursue professional or career education, the level of their math skills will play a significant role in their level of attainment.

In the following pages we'll show how Pearson's MathXL for School and MyMathLab are appropriately challenging middle grade and high school mathematics students—those who need more help, as well as those seeking to work ahead—and thereby helping to prepare these students for lifelong academic and learning success.

¹ Final Report of the National Mathematics Advisory Panel (U.S. Department of Education, 2008).

² *What We Know about College Success* (ACT, Inc., 2008).

³ Clifford Adelman, "The Toolbox Revisited: Paths to Degree Completion from High School through College" (U.S. Department of Education, 2006).

THE BRIDGE TO COLLEGE READINESS

MathXL for School and MyMathLab are powerful online tutorial, homework, and assessment programs that are accessible anywhere with Web access and adaptable to each student's learning style. Via customizable, time-saving tools, such as personalized homework and automated grading, these programs enable teachers to meet all their students' needs: intervention and remediation for struggling students, extra practice for those on-level, and challenging assignments for advanced students.

MathXL for School is designed to supplement instruction, whereas MyMathLab delivers instruction via eText, multimedia videos, and more. Both products include:

- Immediate feedback and multimedia hints

- Ready-made, customizable, and automatically graded assignments, quizzes, and tests
- Personalized practice and study plans
- Step-by-step, guided instructional videos
- 24/7 support from interactive learning aids

✓ MathXL for School Works Both In and Out of the Classroom

Self-Paced Content Refresher Courses for Teachers

MathXL for School refresher modules help teachers quickly brush up on math skills from arithmetic through precalculus. Certificates of completion are available for continuing ed or professional development credit.

Summer Math Camp Courses

Designed to be completed within six weeks, MathXL for School Summer Math Camp courses help your students quickly get up to speed.

✓ MyMathLab Digital Resources Benefit Both Students and Teachers

eText and Communication Tools

In addition to extensive online tutorials, MyMathLab courses provide multimedia resources accessible via an online eText that is specifically aligned to your textbook, plus the communication tools needed to create a supportive online community, including discussion board and email features.

For all your needs, Pearson has you covered

Grading homework is very time-consuming, and my students have to wait to get their results.

Autograded assignments

I need to keep more data on student results.

Comprehensive gradebook with reporting options

I want to personalize learning for all of my students.

Personalized homework assignments

Personalized study plan

I don't have a print textbook for my math course.

Interactive eText with links to practice exercises, videos, and animations [MyMathLab only]

I need access to PowerPoint slides, answers to exercises, and tips for teaching an online course.

Teacher resources [MyMathLab only]

I need to communicate with my students online, outside of class time.

Course management tools including discussion boards, collaboration tools, email, and more [MyMathLab only]

My school wants better consistency across math classes within a given school year and from year to year.

Copy courses and manage groups

My students need to know, while in the context of learning, if they are answering problems correctly.

Interactive tutorial exercises with immediate feedback

My students benefit from multimedia options when presented with new concepts.

Multimedia learning aids

My students thrive when they can take advantage of personalized learning and assessments.

Study Plan for self-paced learning

WHAT'S YOUR GOAL?

MathXL for School and MyMathLab are flexible and comprehensive enough to supplement a full range of implementation models.

Assignments Aligned to Standards

[Available for select MathXL for School and MyMathLab courses. Ask your rep for details.]

Integrate state standards into the Homework and Test Manager and Gradebook to create and assign homework and assessments directly addressing these standards. Gradebook reporting is available by standards, and data can be exported for administrative purposes.

Challenges for Advanced Learners

MathXL for School and MyMathLab are available for honors and AP-level classes, including AP* Calculus and AP* Statistics.

Course Assessment

Pearson courseware makes assessment easy. Teachers can create and assign their own or select from program-generated assessments. Results are automatically imported into the Gradebook. The Item Analysis feature makes it easy to see what students have learned and makes final reporting a breeze.

Course Management and Assessment for Homeschoolers

Via the Study Plan, homeschoolers can access topics currently covered in their grade level. Teachers and parents can easily create and assign homework and assessments and access the Gradebook to track student performance and adjust lessons as needed.

*AP and Advanced Placement are registered trademarks of the College Entrance Examination Board, which was not involved in the production of, and does not endorse, this report.

Full-Year Instructional Supplement

As a supplement to a traditional class, teachers can assign homework exercises, quizzes, and tests for students to do outside of class or in a school computer lab. Students can get help and immediate feedback on their work; teachers can quickly determine what needs to be covered in class.

Fully Digital Courses [MyMathLab only]

Teachers who teach completely online can enhance their students' learning experience via MyMathLab's interactive eText, which includes videos and animations. Students can access the features 24/7—whenever and wherever they are working—and can email their teacher with questions directly from the program. Student work is autograded and automatically imported into the Gradebook. And classwide announcements can be made via the discussion board or by posting it to the course homepage.

Need for Data

The Coordinator feature enables the creation of a master course to be used throughout a given school/system/district/state. The coordinator of the master course has access to student performance data across all sections of the course and can access student performance data for all desired learning outcomes.

Practice with Instructor Supervision

Students work on the computer during class or after school with a teacher or tutor. Students who need special help get it—while those who can learn more independently can practice with more advanced topics.

Remediation/Mastery Learning/ Self-Paced Model

Content can be delivered in modules whereby students are required to prove mastery of one concept before moving on to the next. Students who lack prerequisite skills can remediate, while those who have mastered the material can proceed at a faster pace.

Response to Intervention—Tiers I, II, and III

Pearson programs and course supplements offer a personalized learning experience for all your student intervention needs. Students can work through assignments at their own pace or with teacher direction. Those who fall behind in benchmark skills can gain remedial support through personalized study plans and assignments until mastery is achieved. Programs may be used in a pull-out model or through a dual-track class model alongside instruction in a mainstream classroom.

Review for High Stakes Testing

Teachers can use the programs' online question banks or create their own exercises appropriate for high-stakes tests, including end-of-course, final, ITBS, ACT, SAT, and graduation exams. Students can practice at home, during lab time, or before or after school.

Tutoring

Tutors can copy and edit assignments for each student, personalize their learning through the Study Plan and homework assignments, and track progress through the Gradebook.

MAKING A POSITIVE DIFFERENCE

“MyMathLab makes all the difference. We finally have a mechanism to deliver college-level content—within a clear and consistent model—at the high school level.”

—Phoebe Rouse
College Readiness Program Director
Louisiana State University

Committed to improving graduation rates in Louisiana, Phoebe Rouse, Louisiana State University (LSU) pre-calculus mathematics and college readiness program director, has spent the past seven years analyzing data—test scores, course grades, and graduation rates—from Louisiana State University. She discovered that **incoming freshman who earn an A, B, or C the first time they take college algebra have a six-year graduation rate of 62 percent. Those who earn a D, F, or withdrawal from the course have a graduation rate of 33 percent**—only one in three graduates. “Increasing student success in college algebra is the linchpin to increasing college graduation rates,” says Rouse. “Years of data unequivocally show that lack of preparedness for this key course causes graduation rates to plummet.”

Her results mirror those reported elsewhere in the nation—according to a 2007 ACT report, of those students graduating from high school having completed a core [college prep] curriculum, only one in four were successful in entry-level college courses—and galvanized her to take action.

LSU College Readiness and Dual Credit Program

Rouse’s efforts at the high school level were directly inspired by her experience overseeing LSU’s college algebra redesign, which began in 2004. “We had three main goals for redesign: 1) increase use of technology,

EOC Score Range	Percent of Students before MyMathLab	Percent of Students after MyMathLab
739–800 Excellent	1.0	7.0
700–738 Good	12.0	25.0
668–699 Fair	32.0	43.0
600–667 Needs Improvement	55.0	25.0

Table 1. Comparison of Average Algebra I EOC Scores from LSU College Readiness Program High Schools (Broadmoor, Northeast, Tara, Woodlawn) before and after Implementation of MyMathLab, 2010–2011

2) reduce costs, and 3) improve student success through active learning, repetition, and immediate feedback,” she says. “Our model alternated students working in class with students working independently, and all work—homework, quizzes, and tests—were completed in MyMathLab. It was a huge success. In addition to achieving our stated goals, we gained consistency and increased quality control—in short, it was a sustainable model. I soon wondered how we could apply the same model to reach students before they ended up in developmental math.”

By 2006, Rouse had developed the LSU College Readiness and Dual Credit Program, a program to bring MyMathLab into regional high schools. A key part of the program is teacher training. **“The teacher is the glue,”** says Rouse. “Each participating teacher learns about proven teaching and learning best practices; and how to leverage MyMathLab’s self-paced learning, interactive resources, and immediate feedback features to encourage increased engagement and improved learning.”

The Workshop

Workshops last eight days, during which time teachers learn to use MyMathLab to redesign course delivery. In

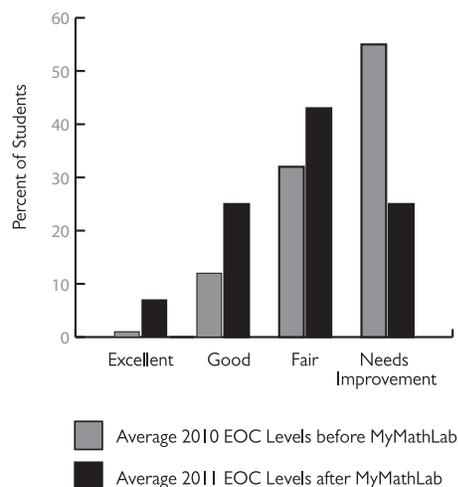


Figure 1. Comparison of Average Algebra I EOC Levels from LSU College Readiness Program High Schools (Broadmoor, Northeast, Tara, Woodlawn) before and after Implementation of MyMathLab, 2010–2011

addition, they’re given access to courses developed by Louisiana teachers containing online learning aids and assessments correlated to the LCC GLEs, and have an opportunity to observe LSU math classes, work with students in the LSU Math Lab, and network with other program-certified teachers from around the area.

Dual Enrollment

Most of the topics in Louisiana’s Advanced Math course are covered in LSU’s College Algebra and Trigonometry courses. Students who meet the Board of Regents Early Start Program requirements may dually enroll in high school Advanced Math and LSU’s College Algebra and Trigonometry courses. Students who earn a course grade of 70 percent or greater earn college credit transferable to any institution that accepts credit from LSU.

Student Gains

On these and the following pages, you’ll find the results reported by four teachers from four different high schools: Broadmoor, Northeast, Tara, and Woodlawn. Each teacher participated in an LSU College Readiness summer workshop and then implemented MyMathLab into her classroom during the 2010/11 school year.

Data reported reflects End-of-Course (EOC) exam results from school year 2009/10 (before MyMathLab was used) and school year 2010/11 (after MyMathLab was implemented). Scores in the Excellent, Good, and Fair ranges indicate a passing grade. From both cumulative (pages 4–5) and individual (pages 6–9) perspectives, the **results indicate extraordinary improvements in learning: an average EOC exam pass rate increase of 29 percentage points.***

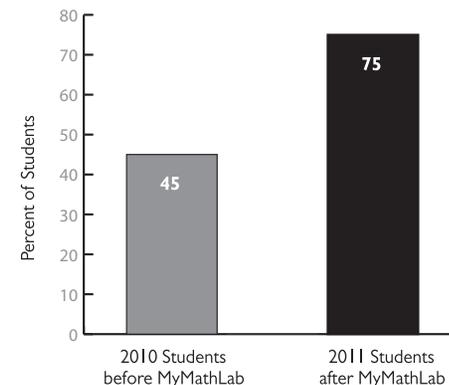


Figure 2. Comparison of Average Algebra I EOC Pass Rates from LSU College Readiness Program High Schools (Broadmoor, Northeast, Tara, Woodlawn) before and after Implementation of MyMathLab, 2010–2011

Pearson’s MyMathLab Makes It Work

“We’ve always had underprepared students,” says Rouse. “But without a mechanism to deliver consistent, quality content to the high schools, there was nothing we could do about it. MyMathLab provides teachers with a clear model to follow, a tool to get their students to practice more, and a way to make a lasting, positive difference in their students’ lives. **Teachers are already asking permission to take the workshop a second time—they’re thrilled about what they learn and the opportunities they can now offer their students. And so are we.**”

* As recognized by Guillermo Ferreyra, Ph.D., chief, STEM (Science, Technology, Engineering and Math) Goal Office of the Louisiana Department of Education.

“It used to be difficult to reach all of my students and offer additional attention to those who were falling behind. With MyMathLab, I can do just that.”

—Michelle Johnson
Math Teacher
Broadmoor High School

“My students liked going to the math lab—they were motivated to work, they asked questions, and some even finished their assignments early!”

—Ruby Hull
Math Teacher
Northeast High School

Broadmoor High School Submitted by Michelle Johnson

Course Structure

Johnson used MyMathLab twice a week during the first semester, slightly more during the second semester. During each semester, she assigned 64 homework assignments and 15 tests/quizzes representing 20 percent of the course grade in the first semester and 45 percent of the course grade in the second semester. Those who don't have computer access at home could use one of three computers in the classroom or work at the library. *(A delay receiving student access codes meant a late start using the program the first semester.)*

Teacher Experience

Even before participating in the LSU College Readiness Program, Johnson believed in MyMathLab. “I'd seen it in action and was very happy to get it,” she says. “After I got over the newness of it, I was able to switch gears in my teaching so that my lessons and my students' work online in the lab supported each other. It works better for me and is a whole lot better for my students.”

Johnson particularly appreciates the program's flexibility, its Gradebook features, and the accountability and problem-solving skills it promotes.

- **Flexibility in use and reporting capabilities.** “I love that I can scale and adjust class assignments per type of student, such as inclusion students,” says Johnson. “Plus, I can pull all sorts of reports—per class, per student, per objective—and easily collect the data to justify funding more of this kind of teaching.”

- **Enables defensible grading.** “Because the program keeps track of everything from number of times logged in and time on task to missed assignments and real-time scores, I can confidently answer parents who want to know what their child is—and isn't—doing,” says Johnson.

Student Experience

MyMathLab helps students feel like they have a teacher with them whenever and wherever they're doing math—in the lab, at the library, or at home. “The program supports my students' learning,” says Johnson. “Because of it, they learn to problem solve, be accountable, and gain confidence and skills that will help them throughout their academic career.”

Johnson's students also appreciate the program's convenience. “They can do their work at home anytime that fits their schedule and with the Help Me Solve This feature, help is always available,” she says.

MyMathLab's immediate feedback offers another plus for Johnson's students. “It makes them happy to receive positive feedback from the program—for many it's the first time they've received a score of 100 percent,” says Johnson. “When they see that they're capable of such a score, it's like they can conquer the world. They gain confidence faster and with more impact, and it gives them the edge to keep going. And for those who want to work ahead, they can.”

Student Gains

Because MyMathLab keeps students interested and engaged, Johnson's class remains on task longer and does more math problems than it would in a traditionally

taught class. “What’s more, because I can offer optional free quizzes, my students have the opportunity to self assess and take responsibility for their learning. They learn exactly what they’ve mastered and what they still need to work on.

And it works—this year, 82 percent of my students passed the EOC exam versus only 46 percent who passed last year.” See table 2.

EOC Score Range	Percent of Students before MyMathLab	Percent of Students after MyMathLab
739–800 Excellent	1.5	6.0
700–738 Good	14.0	31.0
668–699 Fair	30.5	45.0
600–667 Needs Improvement	54.0	18.0

Table 2. Broadmoor High School Algebra I EOC Scores before and after Implementation of MyMathLab, 2010–11

MyMathLab made an even bigger impact on student success with Johnson’s special education students. “They were able to complete additional work in their study skills class,” says Johnson. **“At the end of the semester, more than 55 percent passed the class compared to only 11 percent in 2010.”**

Northeast High School Submitted by Ruby Hull

Course Structure

Ruby Hull, math teacher, used MyMathLab in her Algebra I class to help her students improve their math skills and practice solving problems on the computer. She assigned four homework assignments for each unit, and students attended the math lab on Tuesdays and Thursdays. Work on MyMathLab contributed 10 percent to each student’s overall course grade.

Teacher Experience

MyMathLab streamlined Hull’s time and enabled her to work closely with those students who were having trouble. Meanwhile, those who were more comfortable with their skills and with the computer itself could use Ask the Instructor and the program’s other interactive teaching and learning resources. “Teaching is all about finding creative ways to motivate students to learn. And, although every student is different, they all responded to the program’s immediate feedback and 24/7 support.”

Hull particularly appreciated the way that MyMathLab promoted self-paced, mastery learning. “The program fed my students problems specifically attuned to their individual skill levels,” she says. “It then ensured that they did not move ahead until they were comfortable with the concept at hand.”

Student Experience

Hull believes that using MyMathLab was good for her students. “Everything today—both in the classroom and beyond it—is more computerized,” says Hull. “Students

need to know how to use computers, how to comfortably poke around them and problem solve on their own, and how to learn in this new way. My students got better the more they used MyMathLab.”

Student Gains

For those students who took the time to read the instructions and do the problems, MyMathLab helped them, and they did well. “Some now appreciate computers as a better tool than books,” says Hull. “When they had trouble, the program helped them work through it.”

Hull’s 2010–2011 EOC results indicate that MyMathLab had a positive impact on her students’ learning. **Her students’ EOC exam pass rates improved 7.2 percentage points—from 63.6 percent in 2010 to 70.8 percent in 2011.** See table 3.

EOC Score Range	Percent of Students before MyMathLab	Percent of Students after MyMathLab
739–800 Excellent	1.1	13.8
700–738 Good	12.5	17.0
668–699 Fair	50.0	40.0
600–667 Needs Improvement	36.4	29.2

Table 3. Northeast High School Algebra I EOC Scores before and after Implementation of MyMathLab, 2010–11

Tara High School

Submitted by Lisa Hoppenstedt

Course Structure

Lisa Hoppenstedt, math teacher at Tara High School, used the majority of the homework assignments available in LSU's College Readiness Program Algebra I course and created seven additional end-of-course chapter review assignments. Students attended the computer lab twice a week. By using lab time to focus on homework assignments, Hoppenstedt offered as much exposure to the program as possible to students who did not have Internet access at home.

Work completed in MyMathLab contributed 40 to 50 percent of each student's final course grade.

Teacher Experience

Hoppenstedt discovered several benefits to teaching with MyMathLab.

- **More productive learning environment.** "On the days we spent in the computer lab, students arrived to class eager to work—a big change from lecture days," she says. "There was no playing around. Students were prepared and focused on the task ahead."
- **Time savings.** "I was able to quickly and easily hone student assignments for the whole week," says Hoppenstedt. "The program saved me at least three hours of grading time. Next year I'm moving all my quizzes online, too."
- **Increased communication.** "The program's Gradebook feature enabled me to immediately

see which students needed help without having to wait for them to ask," says Hoppenstedt. "I was able to offer them the valuable one-on-one time they needed before they fell too far behind in skills or in self-confidence."

Student Experience

Hoppenstedt believes that MyMathLab's immediate feedback made a big difference in her students' learning. "They truly enjoyed working on the computer—it's almost like playing," she says. "They received positive feedback in the moment and in the context of learning. It was really nice to look at the program and see how much time the students spent on it. They wouldn't spend that kind of time on a paper worksheet."

Hoppenstedt views MyMathLab as a win-win for all her students. "Students who use the program practice

more," she says. "Some of them actually asked for more problems—some because they were behind, others because they wanted to work ahead. I used to prepare two or three assignments ahead, now I need even more!"

Student Gains

Hoppenstedt's EOC exam results indicate just how much of a tremendous win MyMathLab was for her students. **Student pass rates skyrocketed from 26.4 percent in 2010 to 69.7 percent after program implementation in 2011—an increase of 43.3 percentage points.** See table 4.

Woodlawn High School

Submitted by Stephanie Fike

Course Structure

Fike's goal was to stick as close as possible to the LSU College Readiness Program model, while following the Louisiana Comprehensive Curriculum (LCC) content and calendar. Unit 1 was primarily done on paper, but the rest of the units were completed using MyMathLab.

Fike chose homework assignments from the program that corresponded with the LCC for those units and used the program's lesson resources to both introduce new material and as a warm-up to each class period. Students were required to complete the Whole Class Discussion problems in class and to work the corresponding homework assignments using MyMathLab.

Teacher experience

"Teaching with MyMathLab made teaching fun again," says Fike. "It enabled me to return to the kind of daily, one-on-one interaction with my students that I really

EOC Score Range	Percent of Students before MyMathLab	Percent of Students after MyMathLab
739–800 Excellent	0.0	4.5
700–738 Good	6.9	25.8
668–699 Fair	19.5	39.4
600–667 Needs Improvement	73.6	30.3

Table 4. Tara High School Algebra I EOC Scores before and after Implementation of MyMathLab, 2010–11

enjoy. Most important, I've seen a tremendous improvement in my students."

MyMathLab met the full range of Fike's students' needs. "Students could access the program at home whether they needed remediation or if they simply wanted more practice," she says. "And some did just that. I know they wouldn't have sought more work from a textbook."

Student Experience

MyMathLab facilitates many of today's proven best practices. Via interactive features including immediate feedback, multimedia assessments, and personalized learning, Fike's students gained learning experience that means something both in the classroom and beyond it.

- **Increased time on task.** "Learning math is about repetition," says Fike. "Watching someone work a problem doesn't help. MyMathLab provides students with individually tailored problems to work on their own, which increases their chances of doing them right come test time."
- **Content relevance.** "MyMathLab presents content that reflects the importance of math in their day-to-day lives," says Fike. "It reinforces that learning is beneficial to their futures."
- **Strengthened teacher/student connection.** "My students knew that both the program and I were there for them," says Fike. "They were on board with what we were there to do each class period—no more moans and groans!"
- **Enhanced student self-confidence.** "Students were excited to see that green check mark," says

Fike. "Some previously had so little success that this indication of their ability empowered them.

They developed a more positive attitude about math, gained confidence in themselves, and were less likely to give up."

Student Gains

Fike was concerned about the EOC tests. "I wondered if my students were prepared enough," she says. "But when I saw the results, I was really pleased: **74 percent of them passed on their first try—a huge improvement over last year's pass rate of 45 percent.**" See table 5.

"In addition, the discipline of the students in my MyMathLab class was a lot better than that of my students who didn't use the program," says Fike. "I attribute it to the program's ability to keep students focused!"

EOC Score Range	Percent of Students before MyMathLab	Percent of Students after MyMathLab
739–800 Excellent	0.0	0.0
700–738 Good	18.0	22.5
668–699 Fair	27.0	51.5
600–667 Needs Improvement	55.0	26.0

Table 5. Woodlawn High School Algebra I EOC Scores before and after Implementation of MyMathLab, 2010–11

"I had no idea that I worked so late last night! I didn't even realize the time had passed."

—Student
Tara High School

"MyMathLab's immediate feedback kept my students focused on the task at hand. Textbooks just left them open to distraction."

—Stephanie Fike
Math Teacher
Woodlawn High School

FANS ACROSS THE NATION

Even teachers who don't officially track student data see significant benefits—both in terms of programmatic success and in qualitative student improvement—with MathXL for School and MyMathLab.

“We can't say enough good things about MathXL for School and what it has done for our students.”

—Cheryl Dicken
Math Teacher
Campbellsville High School

Campbellsville High School Campbellsville, Kentucky Submitted by Cheryl Dicken

Courses: All math courses

Product: MathXL for School

Goals: Full-year instructional supplement
Review for high-stakes testing

Product Use

The school's math department uses MathXL for School in every one of its courses, including Algebra I, Algebra II, Geometry, Advanced Topics, College Algebra, and College Trigonometry. MathXL for School is also used for standardized test preparation, including the ACT and state-required tests.

Instructor Experience

Campbellsville teachers enjoy MathXL for School's flexibility and ease of use. By requiring students to use correct mathematical notations and to follow precise directions, the program places the responsibility for learning on the students. In addition, instructors are able to see problem areas for individual students and tailor their classes to support students who are struggling.

MathXL for School also allows for differentiation by using pretest assignments and individualized assignments. By determining what areas students need help with the most, instructors can plan their lessons accordingly.

Student Experience

MathXL for School enables students to ask questions and continue to learn even when teachers and parents are unavailable. “We've seen students who were not very motivated in mathematics stick with an assignment and earn a score of 100 percent,” says Dicken.

Student Gains

Steadily increasing ACT scores since the school implemented MathXL for School attests to the program's efficacy. **In 2009 ACT scores were below the state average, by 2010 scores reached the state average, and so far this year the school has seen a .8 point increase over 2010 scores.**

Standardized state tests also indicate the program works. **In 2009, 25 percent of Campbellsville High School juniors tested at the Proficient and Distinguished level. In 2010, the percentage doubled—50 percent of juniors tested at the Proficient and Distinguished level.**

The Dunham School Baton Rouge, Louisiana Submitted by Beth McInnis

Course: Algebra II

Product: MyMathLab

Goals: Assignments aligned to standards
Course assessment
Full-year instructional supplement

Course Structure

Students at The Dunham School use MyMathLab every day—in the classroom during lab days and at home when completing assignments. “I assign MyMathLab for the majority of homework assignments,” says Beth McInnis, math teacher. “And use a hybrid approach for assessments. Students also complete the program’s spiral review exercises and practice tests prior to assessments; personalized assignments are created based on objectives not yet mastered. I create assignments from the program’s database of exercises, and for presentations, I use the program’s premade PowerPoint slides.”

Work completed in MyMathLab contributes 40 percent of each student’s course grade: homework assignments comprise 15 percent, quizzes represent 15 percent, and tests comprise 10 percent.

Teacher Experience

MyMathLab has transformed the learning environment in McInnis’s classroom. “The program eliminates the need to use class time for homework review,” she says. “I’m able to individualize instruction for my students and

to work one-on-one with those students who need extra help or want to work ahead. The Item Analysis feature enables me to see which concepts students need help on and exactly the amount of time they’re spending on their assignments.”

Student Experience

“Most of my students love the program’s immediate feedback and other support features,” says McInnis.

“Students who previously didn’t do well in math are now motivated to work problems until they earn 100 percent. Many admit that in the past they exerted little effort on homework that was not checked, frequently writing down anything at all simply to complete the assignment and receive credit.”

Today, her students are engaged in learning math, are doing more math, and as a result, are seeing improvements in their grades. “The level of student engagement with the program is astonishing,” she says. “Students collaborate with each other and remain on task. I’ve heard students say, ‘I like doing math,’ and one student told me that she was up until 1 a.m. working ahead.”

Student Gains

Student surveys completed during the first year of MyMathLab implementation indicate that students believe the program helps them to better understand math concepts. **An overall class increase in the number of students earning an A, B, or C and a decrease in those earning a D or F support their claims.** McInnis plans to track student PLAN and ACT scores this year to assess the program’s impact on standardized test scores.

“MyMathLab helps me motivate students, enhance student engagement, and increase the efficiency of my class time. As a result, I’m able to assign activities that require critical thinking and problem solving skills. Before implementing the program, all of my class time was spent reviewing homework.”

—Beth McInnis
Math Teacher
The Dunham School

“MathXL for School helps foster a culture of independent learning and constant improvement—outstanding messages to send to and cultivate in our students.”

—John Palumbi
Math Teacher
Howard High School

Howard High School Ellicott City, Maryland Submitted by John Palumbi

Course: Trigonometry
Product: MathXL for School
Goals: Course assessment
Full-year instructional supplement
Weekly assessment

Course Structure

John Palumbi, math teacher, uses MathXL for School to enhance the full breadth of classroom instruction. He uses it for assigning and tracking pretests and posttests, as well as for in-class assignments, homework, quizzes, and tests. “I also use the program to assess and integrate new students, as a source of additional resources, and for easy tracking and assessment of students on home or hospital leave,” he says.

Students use the program almost daily for homework assignments, and weekly for tests and quizzes. They most frequently use it outside the classroom—either at home or in the media center after school. A full 100 percent of Palumbi’s students’ overall course grade is determined by their work in MathXL for School.

Teacher Experience

Palumbi reports that MathXL for School helps him in two ways. “First, it provides a platform for students to become independent learners in a way that is relevant to them in 2011,” he says. “If students give an incorrect

answer, the program’s immediate feedback enables them to catch the mistake and correct their work in the context of learning. It’s a massive improvement over the traditional classroom in which students must either refer to the back of the book or wait until the next day or later to learn how they are doing.”

MathXL for School provides students who are unsure with a variety of resources at their fingertips, including Help Me Solve This, Show Me an Example, videos, and animations. “This creates independent learners in a way that has not previously been possible,” says Palumbi. “It plays to their strengths as teenagers, which directly motivates and enables their success.”

Palumbi also uses MathXL for School for in-class assessments. **“I can cross reference test questions with homework assignments and provide instructor tips in areas where students are confused or need guidance,”** he says. “When students receive immediate feedback, they often discover that their errors are simple attention-to-detail mistakes more than anything else. What’s more, I let them take assessments as many times as they want—this both builds their confidence and emphasizes a culture of constant improvement.”

Student Experience

Palumbi’s students have a positive attitude about MathXL for School. “They like that I know their progress, that the computer helps them right when they need it, and that they can keep improving despite simple errors,” he says.

Riverside High School Ellwood City, Pennsylvania Submitted by Michael Houston

Course: AP Calculus

Product: MathXL for School

Goals: Extra at-home practice
Full-year instructional supplement

Course Structure

Michael Houston, math teacher at Riverside High School, uses MathXL for School as a learning supplement, for homework, and to create tests. All of the assignments he uses in his course are premade within the MathXL for School program. Work completed using MathXL for School contributes approximately 15 percent to each student's total course grade.

Teacher Experience

MathXL for School saves Houston time. "It enables me to easily provide my students with additional homework problems, as well as quickly create objective-driven tests," he says. **"Another great feature is the ability to create a course shell so next year I don't have to reinvent the wheel."**

The program also helps Houston to be a more-effective teacher. "Now I can post texts online so students have access to them 24/7 and can provide targeted review and remediation."

St. John Vianney High School Kirkwood, Missouri Submitted by Dennis Flaherty

Courses: Algebra II, Trigonometry

Product: MathXL for School

Goals: Course assessment
Full-year instructional supplement

Course Structure

Dennis Flaherty's students use MathXL for School two to three times a week—both in the computer lab and in the classroom—for homework and for test preparation. The program's premade sample assignments help his students prepare for tests and act as a tool for self-paced, interactive remediation.

Flaherty quickly experienced the value of the program and the connection between required use and increased success. **"When I first started using MathXL for School, only 10 percent of the students' grade was determined by their work online," he says. "Today, it is closer to 60 percent."**

Teacher Experience

MathXL for School helps Flaherty encourage students be more self-sufficient. It enables him to provide hands-on help to those students who need help the most, and to point those who simply need a nudge in the right direction to the program's multimedia features, including

Help Me Solve This and View an Example. And because MathXL for School automatically grades homework assignments, Flaherty can assign more of them, increasing his students' time on task and making homework a value add.

Student Gains

Students' test scores have improved since they started using MathXL for School. Flaherty attributes the improvement to his students' engagement in the program and its immediate feedback and remediation features.

SUSTAINED SUCCESS OVER TIME

“MathXL for School does more than just help students practice concepts—it helps them build confidence and critical thinking skills. The program teaches them to pay attention to details and to carefully read the questions in an online setting.”

—Darlene Ford
Math Teacher
Sherwood Middle School

Sherwood Middle School Baton Rouge, Louisiana Submitted by Darlene Ford

Background

Sherwood Middle School is a magnet school. Any student from the parish who has a minimum 2.5 GPA may apply; selections are made by lottery.

Darlene Ford, math teacher, has been using MathXL for School in her Algebra I class since academic year 2008/09. Data collected over the past three years indicates that the student success seen from the onset sustains over time.

Study Implementation

During academic year 2008/09, teacher Ford taught two of her four sections of Algebra I using MathXL for School, and two sections using another online learning program. A total of 81 students participated in a study. Student demographics in both groups were the same, and students were randomly assigned to groups. Class instruction—including group activities, peer-instruction assignments, lecture, and homework review—was identical in both sections. Classes met for 90 minutes every other day, such that during some weeks, students met two days a week, and during other weeks, three days a week. Students worked on in-class computers to begin homework assignments, which enabled them to share strategies and to peer-tutor when necessary.

Students in groups using MathXL for School could complete their homework at school or at home. Those in groups using the other program completed their homework either in class or on a school computer during a free period.

Implementation

MathXL for School was used both in class and outside of class for homework and quizzes. For emphasis on the connection between completing homework assignments and scoring well on tests, the overall course point value for homework was valued at just slightly less than that for tests. Every MathXL for School assignment was followed by a 5- to 10-question quiz. Additional use of the program included optional use of the Study Plan and videos. Students were encouraged to practice math on those days that class did not meet.

Student Gains

Both groups showed significant improvements from pretest scores to posttest scores: from 60.37 percent to 92.62 percent in the group using another learning program, and from 65.54 percent to 94.34 percent in the group using MathXL for School. See figure 1.

The possible gain scores from the pretest to the posttest in each group were calculated to measure the amount of learning improvement throughout the course. In both groups, a significant amount of improvement was found. However, **the increase in learning**

gains exhibited by the group using MathXL for School was larger than the amount of improvement in the other group. For the group using another learning program there was a gain score of 81.22 percent; for the group using MathXL for School there was a gain score of 83 percent.

Parish and Statewide Comparisons

All of Louisiana’s middle school students are required to take a standardized, online mathematics test at the end of the school year. Scores are rated as Excellent, Good,

Fair, and Needs Improvement. **A comparison of 2009/10 Sherwood Middle School results with the results of East Baton Rouge parish and the state shows a significantly higher percent of Sherwood students earning a score of Excellent (59 percent) and Good (38 percent)—and 0 percent of Sherwood students earning Needs Improvement.** See figure 2.

Unexpected Benefits of MathXL for School

“Middle school students are still learning the ropes,”

says Ford. “Not only are they learning their individual course materials, but also they’re getting a foundation of solid study habits: how to be responsible, work independently, effectively manage time, and so on.” Most of the middle school students are not yet equipped to accomplish those tasks without the assistance of tools and procedures.

MathXL for School offers students the structure they need to monitor their learning and develop their sense of responsibility—on their own and in their own time. **“This aspect alone makes MathXL for School superior,” says Ford. “It enables students to work on math homework at the time and in the place that they’re ready to do so. Students learn to be more thorough and more careful and to think critically, thereby preparing them for both online testing and their future academic careers.”**

Conclusion

Sherwood Middle School administration selected MathXL for School for all of its Algebra I students. The administration reported that MathXL for School offered more benefits, including accessibility from home, accessibility by parents, insights into student behavior, and defensible grading.

Ford is confident that MathXL for School is educationally effective. She reports that for the years prior to using the program, student scores on standardized tests were lower, frequently at a basic-learning level. Today, scores by students using MathXL for School regularly indicate learning at mastery and advanced levels.

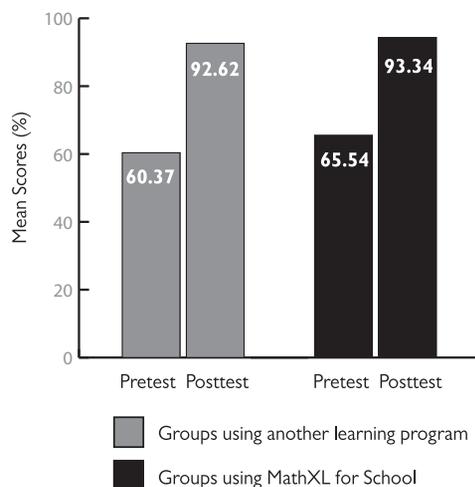


Figure 1. Comparison of Algebra I Pre- and Posttest Scores for Groups Using Another Learning Program and Groups Using MathXL for School

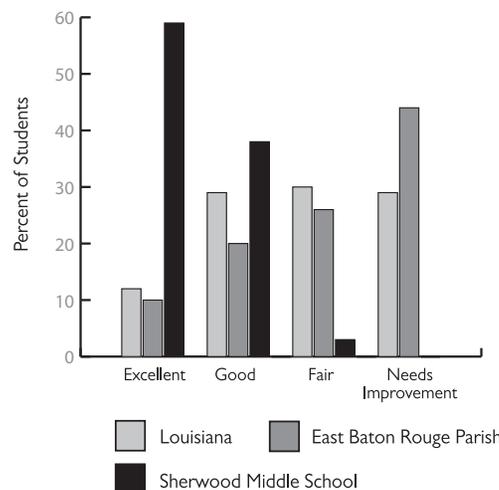


Figure 2. Comparison of Statewide, Parishwide, and Sherwood Middle School End-of-Year Exam Results, 2009/10

CONCLUSION

Both independent reports and those from teachers in the field make it abundantly clear: students who do not successfully pass Algebra I in high school are at increased risk of taking more than six years to graduate college *if they graduate college at all*. Teachers know that reaching these students before it is too late—meaning, in the 8th and 9th grades—is critical.

Pearson's MathXL for School and MyMathLab answer this challenge. MathXL for School offers supplemental course support, including online homework and assessments; MyMathLab offers a fully digital course solution, including eText, multimedia resources for teachers and students, and the homework and assessment power of MathXL for School. As the stories here attest, they both work—and work well. Your Pearson representative can help you choose the one that's right for you.

Research indicates that interactive online solutions combined with proven best practices wield a consistently positive impact on student learning. Pearson products employ industry best practices. By combining these products with proven-in-the-field practices, you'll help your students get the most from their learning experience and prepare for the challenges ahead.

Mastery learning before advancement

Mastery learning ensures that skills are understood and build one upon another, thereby reinforcing previous knowledge and increasing confidence. According to

Ruby Hull at Northeast High School, MyMathLab ensured that her students “didn't move ahead until they were comfortable with the concept at hand.”

Personalized, self-paced learning

According to Hull, MyMathLab fed her students “problems specifically attuned to their individual skill levels.” At Woodlawn High School, the program addressed all of Stephanie Fike's students' needs, “whether they needed remediation or simply wanted more practice.”

Interactivity and immediate feedback

At Howard High School, John Palumbi's students benefited from the multimedia learning aids within MathXL for School. “It plays to their strengths as teenagers, which directly motivates and enables their success,” he says. At Tara High School, Lisa Hoppenstedt's students received positive feedback in the moment and in the context of learning. “It was really nice to see how much time the students spent on [the program],” she says. “They wouldn't spend that kind of time on a paper worksheet.”

Communication between students and faculty

At the Dunham School, Beth McInnis individualized instruction for her students and worked one-on-one with those who needed extra help and those who wanted to work ahead. Hoppenstedt could see which students needed help and was able to offer the one-on-one attention they needed before they fell too far behind.

Contribution toward final course grade

Dennis Flaherty of St. John Vianney High School was convinced early on of the value of MathXL for School and of the connection between required use and increased success. Initially only 10 percent of his students' grades was determined by their work online, but he quickly raised it to nearly 60 percent. A full 100 percent of Palumbi's students' course grade was determined by their work in MathXL for School.

Supervised, hands-on learning

One of the most critical aspects of the LSU College Readiness program is that students spend at least 60 percent of their class time on MyMathLab. “This is the piece that makes all the difference,” says Phoebe Rouse, LSU College Readiness Program director. “Students this age require hands-on experience under the guidance of a teacher:”

“Nothing creates success like success,” says Rouse. “Students who experience success through the use of MathXL for School and MyMathLab are more prepared to be successful the next year, and the next.” Since 2004, the strategies employed by Rouse and those teachers who have completed the LSU College Readiness program have reaped both sustainable success and repeatable results—and they'll work for you, too. Contact your Pearson rep today to start bridging the gap to college for your students.

TOP HONORS FROM INDUSTRY EXPERTS

Established in 1986, the prestigious Software & Information Industry Association (SIIA) CODiE Awards celebrate outstanding achievement across the software, digital information, and education technology industries. The evaluation process includes a rigorous review of nominated products by subject matter experts, analysts, journalists, and others with deep expertise in education technology.



MathXL for School Takes Top Honors in 2010 SIIA CODiE Award for Best Mathematics Instructional Solution

"With technology, learning can be personalized across the K–20 spectrum, taking into account student skills and abilities, learning styles, comprehension and progress, while making accommodations throughout the instructional process for both acceleration and remediation," said Don Kilburn, CEO, Pearson Learning Solutions.

"These CODiE-winning programs are prime examples of how online solutions can help schools ensure that all learners achieve at the highest levels."

—Don Kilburn
Chief Executive Officer
Pearson Learning Solutions

The MathXL for School program is based on the widely adopted MathXL, which is currently helping millions of students at colleges and universities around the country master core math skills. With a proven track record of increasing student success rates at both online and brick-and-mortar schools, MathXL for School features an individualized study plan based on pre- and post-assessments that helps students monitor their own progress, enabling them to see at a glance exactly which topics they need to practice, and linking them directly to tutorial exercises with interactive learning aids.



MyMathLab Algebra I and II Wins 2011 SIIA CODiE Award for Best Mathematics Instructional Solution

"Pearson's MyMathLab has delivered proven results to millions of students around the globe via an online environment that offers a personalized learning experience," said Bill Barke, CEO of Pearson Arts and Sciences. MyMathLab Algebra I and II features e-Courses by award-winning author Elayn Martin-Gay. The groundbreaking online math program provides a wealth of learning tools and resources for students of all levels, including personalized study plans; homework, quizzes and tests with immediate feedback; a fully interactive eText; more than 1,500 videos per course; and a Student Organizer for help with note taking and practice.

"We collaborated with Elayn Martin-Gay to develop MyMathLab Algebra I and II based on our shared belief that every student can succeed in mathematics."

—Greg Tobin
President of Mathematics and Statistics
Pearson Higher Education

MyMathLab is used by more than 3 million students at more than 2,000 schools, colleges, and universities. MyMathLab Algebra I and II is a classroom favorite of high school teachers around the country as they strive to ensure that all students build the foundation in mathematics necessary for success in college and careers.

