



MyLab & Mastering

Business and IT

MyAccountingLab • MyBCommLab • MyBizLab
MyEconLab • MyFinanceLab • MyITLab • MyOMLab

Efficacy Report • 2015

Business and IT: Efficacy Report 2015

Edited by Michelle D. Speckler

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www.pearsonmylabandmastering.com

Welcome Letter

At Pearson, we define efficacy as a measurable impact on improving someone's life through learning. We are embarking on a global education initiative and dedicating ourselves to the pursuit of efficacy and improved learner outcomes.

On the following pages you'll find exemplar, data-driven case studies from two- and four-year institutions, as well as a list of proven MyLab best practices and tips for getting started with your own implementation.

Looking for more case studies? Visit Pearson's Results Library, an online repository of more than 600 data-driven case studies quantifying the positive impact of MyLab & Mastering programs on learning outcomes, retention, and subsequent success. This comprehensive database is cross-referenced by institution type, course format, state/province, and more; and it's easy to access at www.pearsonmylabandmastering.com/results.

We extend our deepest gratitude to each contributing instructor. Every case study was submitted voluntarily and without compensation. Each instructor submitted his or her study and remained available for follow-up interviews. Their efforts are invaluable.

We invite you to contact us with any questions about this report, as well as to share your ideas, your best practices, or your results in our next edition. Pearson is happy to provide both consultation and data collection tools to help you measure the impact of a MyLab & Mastering product in your course.

We look forward to hearing from you.

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Solutions-Based Table of Contents

Although each institution, course, and classroom is unique, all instructors in higher education face a wide range of common teaching and learning challenges. To facilitate quick and easy identification of the MyLab case studies that address your challenges, we've categorized them here by common goal.

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Pearson Standards for Efficacy Research

At Pearson, we believe that learning is a life-changing opportunity and that education should have a measurable, proven impact on learners' lives. It's what Pearson's efficacy program and tools are all about. Pearson is putting the pursuit of efficacy and learning outcomes at the center of its global education strategy, and you can read more at efficacy.pearson.com. When we publish our annual report in 2018, we will, in a rigorous and externally audited way, report on the progress we've made in improving learner outcomes.

Why Pearson Is Interested in Efficacy Studies

Learner outcomes have always been important to Pearson—our fundamental purpose is to help people make progress in their lives through learning. We already have many examples of products that can demonstrate their impact on learners, but going forward our aim is to ensure that every action, every decision, every process, and every investment we make will be driven by a clear sense and understanding of how it will make a measurable impact on learning outcomes.

It is becoming increasingly possible to determine what works and what doesn't in education, just as it is in healthcare. Growing research and evidence, advancements in technology, and our enhanced ability to harness the power of data offer a huge opportunity to drive improvements in learning. Pearson, as the world's largest learning company, has both the potential—and the responsibility—to pursue and lead that conversation. And toward that goal, we actively seek out educators who wish to explore educational research questions and investigate the efficacy of our digital solutions and services.

Pearson's Efficacy Research Team

Our global efficacy team is headed by Sir Michael Barber, a leading authority on education systems and reform. The North American Efficacy & Quality team consists of more than 30 professionals dedicated to helping educators deliver desired learner outcomes.

We provide practical advice about tracking and analyzing student data as part of the implementation of a Pearson digital solution. Experts in psychometrics, educational statistics, and journal publications are available to support instructors who want to (1) conduct efficacy studies, (2) provide our editorial

staff with detailed reports on the quality of our online content, and (3) advise our software engineers of new methodologies for collecting and processing student-learning data within our digital solutions.

How Pearson and Instructors Work Together

Every research project is unique. The process takes time—generally a semester or longer. Instructors interested in conducting studies should expect an interactive and rewarding partnership.

How Pearson Can Help Instructors Get Started

Pearson can provide templates, guidelines, questionnaires, checklists, and samples on course redesign, efficacy studies, data collection, and more. *To maintain objectivity, Pearson does not offer compensation for participation in efficacy studies.*

Research Standards

Pearson adheres to Software & Information Industry Association guidelines for evaluation of educational technology products. The key guidelines are:

- Ask the right question
- Support the implementation of the product or service
- Plan a study of sufficient size and duration to demonstrate an effect
- Plan for plausible causal claims
- Avoid (the appearance of) conflicts of interest
- Provide a comprehensive and detailed research report
- Make the research findings widely available
- Accurately translate research for customers

Contact candace.cooney@pearson.com for more information.

MyAccountingLab

School Name Cape Fear Community College, Wilmington, NC
Course Name Principles of Financial Accounting
Course Format Lecture

Key Results Data show a positive and linear correlation of MyAccountingLab homework assignments to average exam grades, where $r = .924$. Students earned both higher average exam grades and higher final course grades when they completed all MyAccountingLab assignments.

Submitted by
Jackie Casey, Instructor

Course materials
Accounting, Horngren, Harrison, and Oliver

About the Course

Cape Fear Community College is an open door, multicampus, two-year college. As the sixth-largest community college in the state, it serves more than 27,000 students a year. The four-credit Principles of Financial Accounting course is required of all business, computer information technology, and medical office administration majors pursuing two-year college degrees at the school. It is also taken by students planning to transfer into four-year business programs. The course covers business decision-making and accounting information systems, with an emphasis on the analyzation and interpretation of financial information. Upon completion, students can prepare financial statements and understand the role of financial information in decision making.

Challenges and Goals

Instructor Jackie Casey joined Cape Fear Community College in 2007, where MyAccountingLab was already in use. Knowing that students are more willing to work online than to do pencil-and-paper homework, Casey welcomed the technology that could both support students and help them do more-challenging problems. In addition, a colleague who was using MyMathLab told Casey about the benefits of its learning aids, and Casey became eager to bring the same success to her accounting course.

Implementation

Generally, classes meet twice a week and cover one chapter every two weeks. The first two classes of each two-week period are lectures, the third is spent reviewing concepts and problems, and the fourth is the chapter exam.

For each chapter, Casey creates a MyAccountingLab homework assignment that is available immediately after the first lecture. Homework is available for one week, and students are permitted an unlimited number of attempts to complete it; it is closed prior to the review class. Missed assignments are graded as zero, and the lowest homework grade is dropped.

To promote content mastery, Casey rewards students for completing online homework. "Homework is weighted 25 percent versus a lesser amount to reinforce the tremendous value of using MyAccountingLab," she says. And her students agree. They appreciate that online homework provides formats and templates to follow when preparing journals, ledgers, and financial statements, which in turn helps them understand more.

Exams are pencil-and-paper format and taken in class. They cover approximately one chapter each, and the lowest exam grade is dropped. The cumulative, final exam is also given in class.

Assessments

60 percent	Exams (seven)
25 percent	MyAccountingLab homework
15 percent	Final exam

Results and Data

Data indicate that the correlation between MyAccountingLab homework and exam scores is strong, positive, and linear: students who earn higher MyAccountingLab homework scores also earn higher exam scores (figure 1). This is confirmed by the correlation value of $r = .93$, which is significant at $p < .0001$ and which indicates that MyAccountingLab homework scores are significant predictors of MyAccountingLab exam scores.

In addition, students were placed into two groups: those who completed all MyAccountingLab homework assignments and those who skipped one or more. A review of completion data shows a positive relationship between completion of all assignments and higher average exam scores:

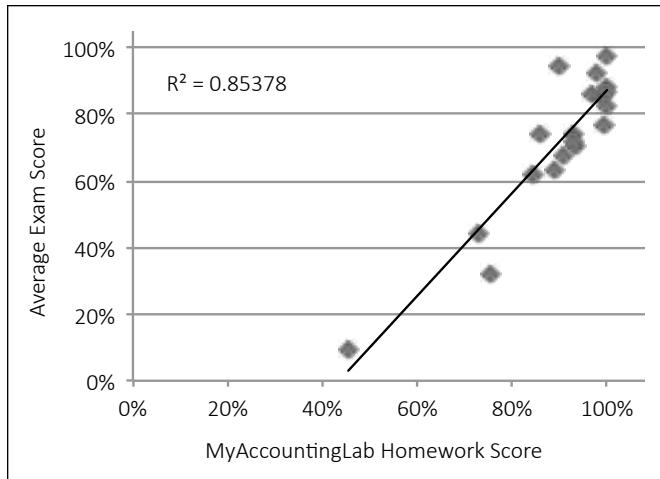


Figure 1. Correlation of MyAccountingLab Homework Scores and Average Exam Scores, Spring 2014 ($n = 19$)

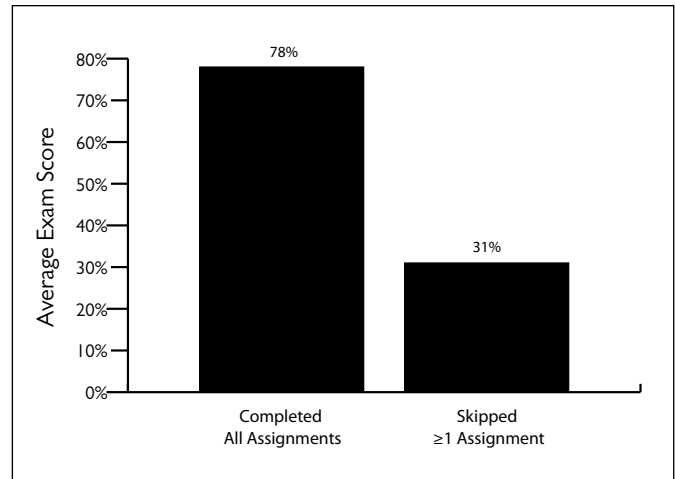


Figure 2. Relationship between Average Exam Scores and MyAccountingLab Homework Completion, Spring 2014 ($n = 19$)

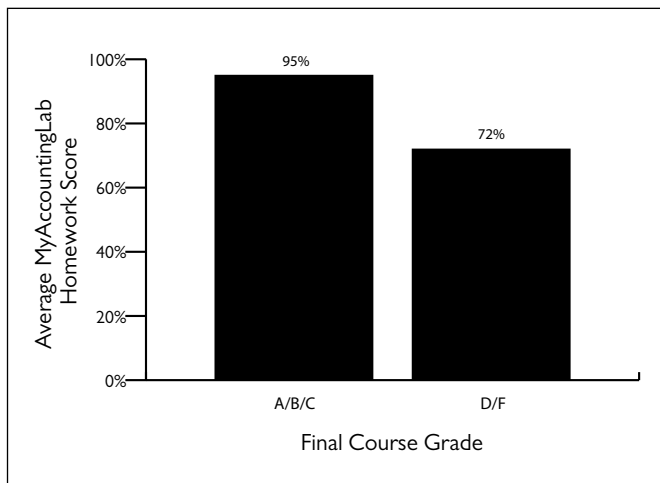


Figure 3. Relationship between Average MyAccountingLab Homework Scores and Final Course Grades, Spring 2014 ($n = 19$)

- Students who completed all homework assignments earned higher average exam scores than students who skipped at least one assignment (figure 2).
- The average overall course grade of students who completed all homework assignments was 84 percent—26 percentage points higher than that of students who skipped at least one assignment.

The relationship between MyAccountingLab homework scores and final course grades is further established by analysis of the final grade distribution and MyAccountingLab homework scores (figure 3):

- Students who earned a final course grade of A, B, or C scored an average of 95 percent on their MyAccountingLab homework.
- Students who earned a final course grade of D or F scored an average of 72 percent on their MyAccountingLab homework.

The Student Experience

MyAccountingLab is the only product Casey has used that shows students *how* to work a problem. “Students enjoy using MyAccountingLab,” says Casey. “They continue to work until they understand what they’re doing and get it right.”

The program holds students accountable for their learning, which encourages them to spend more time on task and which results in better understanding of course material. According to Casey, her students are more motivated to complete online homework than pencil-and-paper homework. Because students have access to learning aids during problem solving, they remain engaged, and more learning ensues.

Conclusion

“I’ve used all the other systems, and MyAccountingLab is the best,” says Casey. MyAccountingLab saves her approximately five hours per week because she no longer has to grade homework, but the value of MyAccountingLab goes beyond that. For example, MyAccountingLab’s Ask the Instructor feature enables students to submit a screenshot of the specific problem they’re working on. This enables Casey to see exactly where they are having difficulty so she can quickly and effectively assist them.

MyAccountingLab

School Name Middle Georgia State College, Cochran, GA
Course Names Principles of Accounting I and II
Course Format Lecture

Key Results After implementation of MyAccountingLab, average exam grades increased from 71 to 85 percent. In addition, the percentage of students who earned an A in the course increased from 14 to 50 percent.

Submitted by
Troy V. Sullivan, EdD, Professor

Course materials
Financial and Managerial Accounting, Horngren, Harrison, and Oliver

About the Course

Middle Georgia State College is a four-year college serving 7,000 to 10,000 students across five campuses in both rural and urban middle and central Georgia. It is poised to earn classification as a university and to offer master's-level programs. Principles of Accounting, a two-course series required of business administration majors, enrolls approximately 350 students a year and offers both accounting and nonaccounting majors a basic understanding of financial and managerial accounting concepts. Students are introduced to the kind of financial and nonfinancial information used by internal and external decision makers in merchandising, manufacturing, and service organizations, with a focus on the application of concepts to decision making.

Challenges and Goals

Prof. Troy Sullivan began using MyAccountingLab in fall 2011 as a way to integrate computer-based learning aids into his course. He sought a program that would enable students to work at their own pace, plus provide assistance while students worked on problems.

Implementation

All course assignments and assessments are delivered via MyAccountingLab. Homework assignments typically include 12–14 problems or short-answer exercises. Although they do not have due dates and remain open for review all semester, assignments must be completed by the end of the exam period. To enable as much practice as possible, students have access

to all learning aids during homework and are allowed unlimited attempts to complete it.

Students are offered an optional calendar that outlines how to best manage their time. The suggested weekly schedule is as follows:

- Read, then reread, the chapter in the textbook.
- Review the Chapter Summary problem.
- Complete MyAccountingLab homework.
- If desired, use the optional Study Plan.

Each MyAccountingLab exam covers approximately two chapters and includes short-answer, problem-solving, and discussion-based questions. To accommodate the range of student schedules, Sullivan keeps exams open for two days but requires that they be completed in a single, 150-minute session. Once exams are opened, they must be completed.

Assessments

500 points MyAccountingLab exams (five)
100 points MyAccountingLab homework

Results and Data

Data indicate that after implementation of MyAccountingLab in spring 2014, average exam scores increased significantly: from 71 percent to 85 percent (figure 1).

Final course grades also saw significant improvement after implementation of MyAccountingLab:

- The percentage of students who earned an A increased from an average of 10.5 percent to 50 percent (figure 2).
- The average success rate (A/B/C) increased from 59 percent to 97 percent.
- The percentage of students who earned a D or F decreased from an average of 12 percent to 1.5 percent.

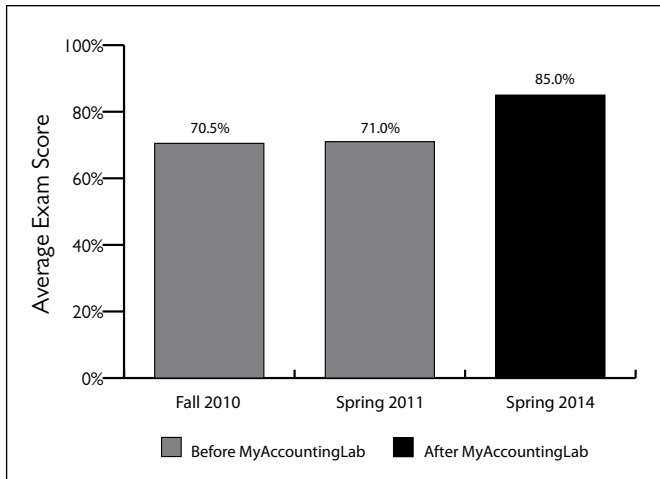


Figure 1. Average Exam Scores before (Fall 2010, $n = 18$; Spring 2011, $n = 27$) and after (Spring 2014, $n = 60$) Implementation of MyAccountingLab

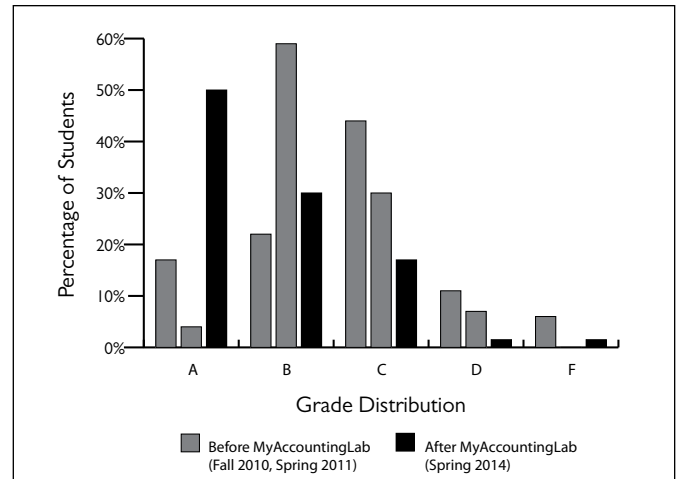


Figure 2. Grade Distribution before (Fall 2010, $n = 18$; Spring 2011, $n = 27$) and after (Spring 2014, $n = 60$) Implementation of MyAccountingLab

Data also indicate a relationship between MyAccountingLab homework scores and both exam scores and course grades:

- Students who earned an average of A on their exams scored an average of 94 percent on their MyAccountingLab homework.
- Students who earned an A in the course scored an average of 96 percent on their MyAccountingLab Homework.

The Student Experience

MyAccountingLab provides students with a variety of benefits, including immediate automatic feedback and learning aids like the Help Me Solve This button. Results from a spring 2014 student survey indicate that Sullivan's students appreciate the program and recognize the support it offers them.

87% Strongly agree or agree that use of MyAccountingLab positively impacted their exam scores.

73% Strongly agree or agree that their understanding of course material increased as a result of using MyAccountingLab.

When asked what they liked best about MyAccountingLab, students replied with the following comments:

- "It provided test practice and reinforced what I learned."
- "It was very easy to use. I liked that doing homework many times—it helped me understand it better."
- "The Help Me Solve This button! It helped me step-by-step solve homework problems."

- "I can replay the instructor videos to reinforce what I read in the book and self-check examples."
- "Homework assignments helped me grasp the concepts more easily. When I didn't understand something, it showed me how to come to the right answer."

Conclusion

According to Sullivan, MyAccountingLab has both "transformed how students work homework problems and revolutionized the way accounting is taught." By using MyAccountingLab for exams, Sullivan gains five additional lecture days, which enables him to cover more material in lecture and devote more time to working through challenging topics and problems. Students now come to class better prepared to discuss homework assignments, thereby making better use of class time. In addition, using MyAccountingLab for exams means students can test in a comfortable environment with less stress. And MyAccountingLab's gradebook enables Sullivan to see what each student is doing over the course of the semester, which helps him identify at-risk students. Finally, by scrambling questions and enabling him to create enforceable time limits, MyAccountingLab helps Sullivan ensure the rigor of his on-line courses, when he used to have concerns about academic dishonesty. The results of these and other MyAccountingLab benefits are the higher exam scores and higher course grades that students are now earning.

MyAccountingLab

School Name [Spokane Community College, Spokane, WA](#)

Course Name [Principles of Accounting I, II](#)

Course Formats [Lecture and online](#)

Key Results MyAccountingLab offers students the support they need to master course concepts. After the implementation of MyAccountingLab, the average percentage of students who earned a final course grade of A increased 12 percentage points: from 17 to 29 percent.

Submitted by

Jeffrey Waybright, Instructor

Course materials

Financial Accounting, Waybright and Kemp

About the Course

Spokane Community College serves about 12,000 students throughout eastern Washington State—from the Canadian border to the Oregon border. Principles of Accounting I, II offers an overview of the accounting theories and practices of current accounting information systems; the course is taught in small sections of approximately 30 students each.

Challenges and Goals

Instructor Jeffrey Waybright sought a way to keep his students accountable for their homework progress; too many were falling behind because they were not staying on track. He chose MyAccountingLab because its homework offers both increased practice and on-the-spot assistance via worked-out examples and hints in the moment that students are struggling.

Implementation

Waybright implemented required use of MyAccountingLab in 2007. Today the courseware is used for all assessments except the written assignments, and all tasks have scheduled deadlines.

Students are assigned a chapter to read in the textbook; they then must review the DemoDocs for that chapter in order to progress to Homework I. Although students do not earn points

for the DemoDocs, they are encouraged to view the videos before attempting their homework assignments.

Two types of homework are assigned for each chapter:

- Homework I is a low-stakes assignment designed to offer students an opportunity to practice concepts by working algorithmically generated problems an unlimited number of times.
- Homework II is a high-stakes assignment with fewer problems (five), which students may work only once.

Students who earn at least 80 percent on Homework I gain extra credit: an additional five percent added to their quiz grade for that chapter. Quizzes are given at the end of each chapter and are available to students once they have completed Homework II. Waybright encourages use of the Study Plan by using its questions to create the quizzes.

Students must score at least 70 percent on the final exam to earn a final course grade of C (2.0) or better regardless of the total percentage earned in the rest of the course.

Assessments

25 percent	MyAccountingLab chapter quizzes
22 percent	MyAccountingLab final exam
20 percent	MyAccountingLab Homework II
18 percent	MyAccountingLab midterm exam
8 percent	Written assignments
7 percent	MyAccountingLab Homework I

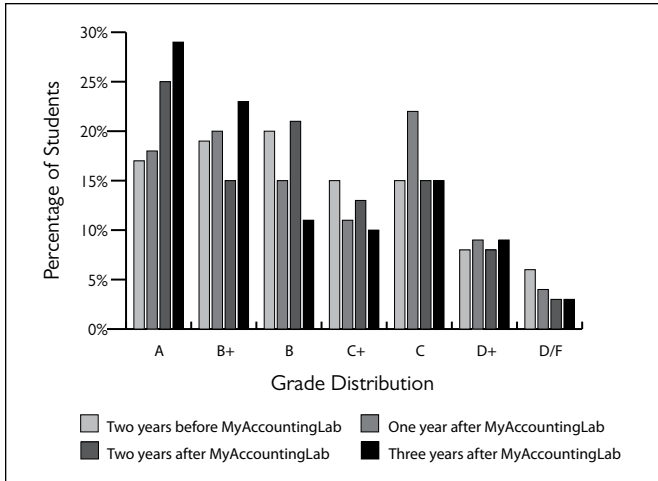


Figure 1. Final Course Grade Distribution before and after Implementation of MyAccountingLab, 2005–2010

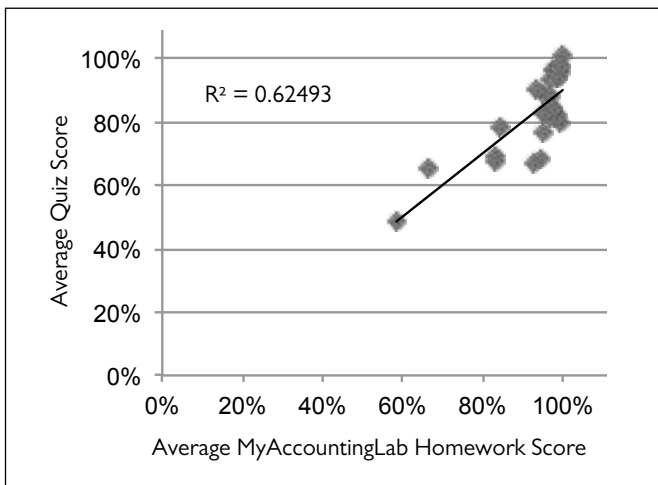


Figure 3. Correlation between Average MyAccountingLab Homework Scores and Average MyAccountingLab Quiz Scores, Lecture Section, Fall 2013 ($n = 28$)

Results and Data

A review of final course grades before and after implementation of MyAccountingLab (2005–2010) showed that after implementation, the percentage of As steadily increased by 12 percentage points—from 17 percent to 29 percent. Similarly, the percentage of D/Fs declined (figure 1).

In addition, data from the fall 2013 online section reveal a positive correlation between average MyAccountingLab homework scores and exam grades (the average of midterm and final exams) (figure 2). Data from the fall 2013 lecture section reveal a positive correlation between average MyAccountingLab homework and quiz scores (figure 3).

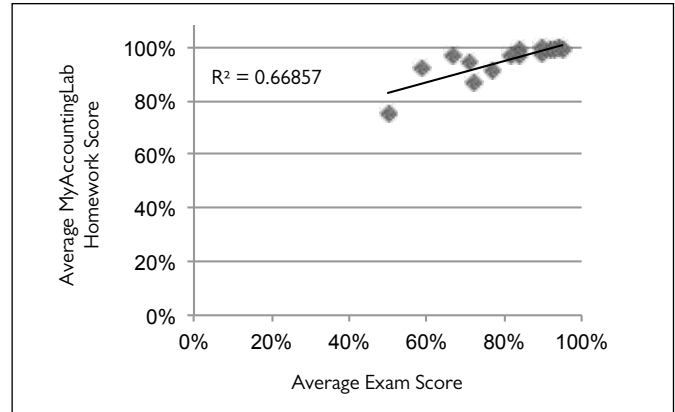


Figure 2. Correlation between Average MyAccountingLab Homework Scores and Average MyAccountingLab Exam (Midterm and Final) Grades, Online Section, Fall 2013 ($n = 28$)

The Student Experience

Students appreciate the ability to rework problems and receive immediate feedback, thereby enabling them to master concepts before moving ahead. They find the Help Me Solve This feature especially helpful, as it provides needed assistance when instructors are not present.

In end-of-semester evaluations, many students reported that MyAccountingLab was “the best part” of the course. In a separate survey, students reported that MyAccountingLab had a positive impact on their understanding of the material and their exam grades:

- 100%** Strongly agreed or agreed with the statement: My understanding of the course material increased as a result of using MyAccountingLab.
- 82%** Strongly agreed or agreed with the statement: Use of MyAccountingLab positively impacted my exam scores.

Conclusion

By implementing MyAccountingLab homework, Waybright increased the average quiz and overall exam scores in both the lecture and online sections of his course. In turn, his students’ final course grades improved.

Waybright also reports benefits beyond outcomes, including the standardization of assessments across all sections, which is both more equitable for students and easier for new adjuncts to use. In addition, the automatically graded problems save instructors time. Waybright can now spend class time more productively, giving more time to the most-important and most-often-misunderstood concepts.

MyBCommLab with Writing Space

School Name **Bowling Green State University, Bowling Green, OH**
Course Name **Business Communication**
Course Format **Flipped classroom**

Key Results Students who achieved higher scores on MyBCommLab homework assignments also earned higher final course grades. In addition, Writing Space’s automatic grading saved the instructor time and provided students with consistent, objective evaluations of their written work.

Submitted by
Ruth White, Instructor

Course materials
Business Communication, Shwom and Snyder

About the Course

Bowling Green State University is located in northwest Ohio and serves approximately 20,000 students a year. Business Communication, offered by the school’s College of Business Administration, is a three-credit course taken by nearly 350 students a semester, primarily business and sports management majors. Students learn to communicate effectively through written documents—such as reports and memos—and oral presentations for small groups and individuals.

Challenges and Goals

Instructor Ruth White decided to redesign her course in a flipped-classroom model whereby students read, do activities, and take quizzes on basic course content *before* coming to class, and class time is spent on realistic applications and group activities. White had used Pearson’s MyMarketingLab in a previous course and was eager to bring similar tools and content assets to her Business Communication course. She also sought a way to make grading less subjective and less time-consuming. Writing Space, a feature included in MyBCommLab, offered a solution based on its objective and unbiased automatic essay grading: students receive fair grades and specific, immediate feedback on their writing.

Implementation

More than two-thirds of the assessment points for this course (67 percent: 926 out of 1,376 total) come from MyBCommLab assignments: homework that includes chapter Pre- and Post-Tests, timed Chapter Objective–based exams, and Writing Space assignments. Prior to attending class, students read the

assigned chapter, complete a Pre-Test to identify topics they may not completely understand, remediate on those topics by using the textbook and MyBCommLab study aids, and then take a Post-Test. The class meets either twice a week (Tuesday and Thursday) or three times a week (Monday, Wednesday, and Friday). The first session is spent reviewing content: students arrive prepared with specific questions, and White adapts her lectures to expand on areas of interest and topics that the Post-Tests indicate are problem areas. The second and/or third session is devoted to lively discussions and real-life applications, including breakout sessions, group work, and oral presentations.

The Writing Space assignments are vital components for success in this course: they form the students’ bridge between concept mastery and critical thinking. Writing Space enables students to craft well-reasoned and logical documents informed by concepts they have learned from the text and the in-class activities. Writing Space includes customized rubrics that objectively and consistently grade essays and generate immediate, personalized feedback to help students focus their thoughts and sharpen their writing.

Assessments

446 Points	MyBCommLab chapter Pre- and Post-Tests
300 Points	MyBCommLab Writing Space assignments (three)
180 Points	MyBCommLab chapter exams (12)
135 Points	Attendance and participation
100 Points	Final business strategy memo report
65 Points	Oral presentation
50 Points	Movie assignments
50 Points	Résumé project
50 Points	Business strategy memo report

Total: 1,376 points

The Writing Space assignments are vital components for success in this course: they form the students' bridge between concept mastery and critical thinking.

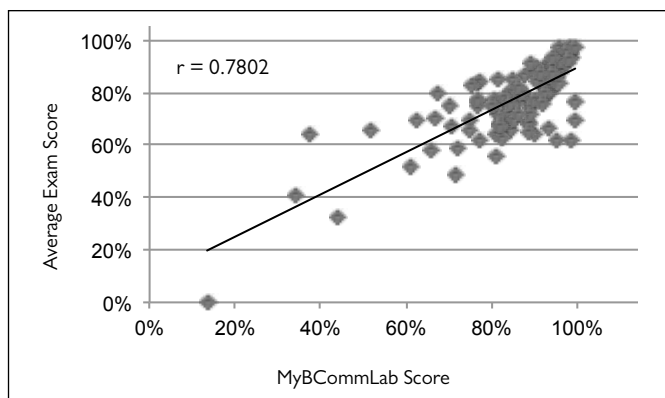


Figure 1. Correlation of Average Exam Score and MyBCommLab Grades, Fall 2013 (n = 116)

Final Course Grade	Average MyBCommLab Homework Score
A	96%
B	88%
C	78%
D	57%
F	28%

Figure 2. Comparison of Final Course Grades and MyBCommLab Homework Scores, Fall 2013 (n = 116)

Results and Data

Data indicate a strong, positive correlation between MyBCommLab Pre- and Post-Test scores and chapter exam scores, where $r = .7802$ (figure 1). The pattern of required Pre-Test/remediation/Post-Test appears to effectively prepare students for their exams.

A comparison of final course grades and average MyBCommLab homework scores shows that students who earned higher MyBCommLab homework scores achieved higher final course grades (figure 2).

The Student Experience

Students say they believe the Pre-Test/Post-Test sequence helps prepare them for both exams and the first weekly class meetings. Because they have put effort into MyBCommLab materials before coming to class, they arrive ready to ask targeted questions about challenging topics and to participate fully in group work and application activities. Although initially apprehensive about having their written assignments graded digitally, students quickly realized that Writing Space grades are accurate for both format and content.

Conclusion

Now that students are doing so much preparatory work in MyBCommLab before class, White can adapt her teaching to focus on topics of particular importance and explore students' questions about concepts they don't fully understand. She also has the time to research new and more interesting activities that offer her students opportunities to apply on their own time what they learn. Further, MyBCommLab's Writing Space feature enables White to require more writing in her course, thereby helping students improve their critical-thinking skills without having to feel worried about subjective or inconsistent grading.

As a result of her students' increased success after completion of MyBCommLab assignments, White planned to delve even more deeply into the program in fall 2014. Her plans included decreasing lecture time to have more time for small-group work, creative activities, and oral presentations. Finally, White anticipates that MyBCommLab's forthcoming Knewton adaptive-learning feature will provide students with even more focused and personalized instruction, freeing her to meet more often with students and coordinate their group work outside class.

MyBizLab

School Name Napa Valley College, Napa, CA

Course Name Introduction to Business

Course Format Flipped classroom

Key Results After implementing MyBizLab in a flipped-classroom environment, students completed more homework assignments and were better prepared for class. Data indicates a positive correlation between completion of MyBizLab homework and both final exam and final course grades.

Submitted by

Julie Hall, PhD, Professor and Business Administration Program Coordinator

Course materials

Better Business, Solomon, Poatsy, and Martin

About the Course

Napa Valley College is a two-year public college in the Napa Valley region of California. The college serves approximately 7,000 students per semester, many of whom are part-time and working toward associate degrees. Introduction to Business is an overview of contemporary American business, including private enterprise, entrepreneurship, management, marketing, finance, securities, business law, and information systems. It is a three-credit course designed for business and accounting majors, as well as office administration students.

Challenges and Goals

Prof. Julie Hall successfully used Pearson MyLabs to teach her Excel and Introduction to Marketing courses. In fall 2013, she chose MyBizLab for her Introduction to Business course with the anticipation of repeating that success. She used a flipped-classroom model to further enable student preparation for group work and other classroom activities that reinforce course concepts.

Implementation

Required MyBizLab homework assignments are due before the beginning of each class meeting. Late homework is accepted—with a penalty—for three days after the due date, after which it is no longer accepted. “Students are held accountable for their preparatory work,” says Hall, “so they are better prepared for in-class activities.”

Students are assigned chapters to read in the textbook or the MyBizLab eText. They then view the Interactive Lectures for the chapters and take 10-question Knowledge Check quizzes to confirm their understanding of key ideas. Use of MyBizPlan Study Plans and Flashcards helps them prepare for classroom discussions, quizzes, and exams. Finally, they view the video for each chapter and answer approximately five Video Quiz questions at the end of it.

All course activities are designed to encourage students to spend a significant amount of time in MyBizLab—thereby helping them understand the more difficult and important course content.

Assessments

30 percent	Final exam
30 percent	Midterm exam
20 percent	MyBizLab homework
15 percent	Business plan project/presentation
5 percent	Class participation

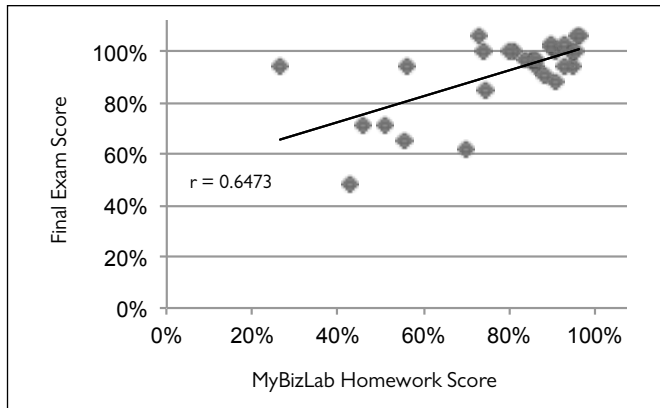


Figure 1. Correlation between Average MyBizLab Homework Scores and Final Exam Scores, Fall 2013 ($n = 36$)

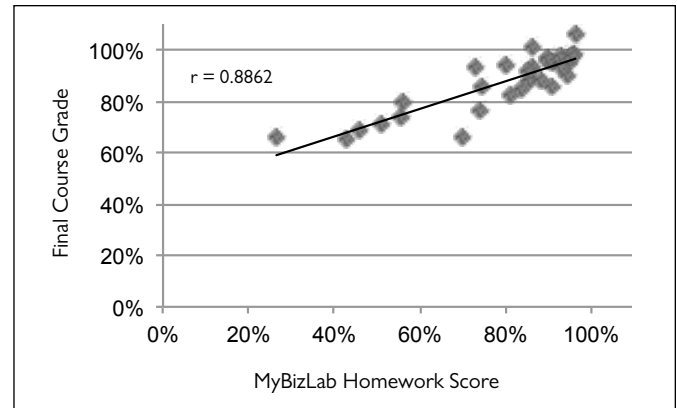


Figure 2. Correlation between Average MyBizLab Homework Scores and Final Course Grades, Fall 2013 ($n = 36$)

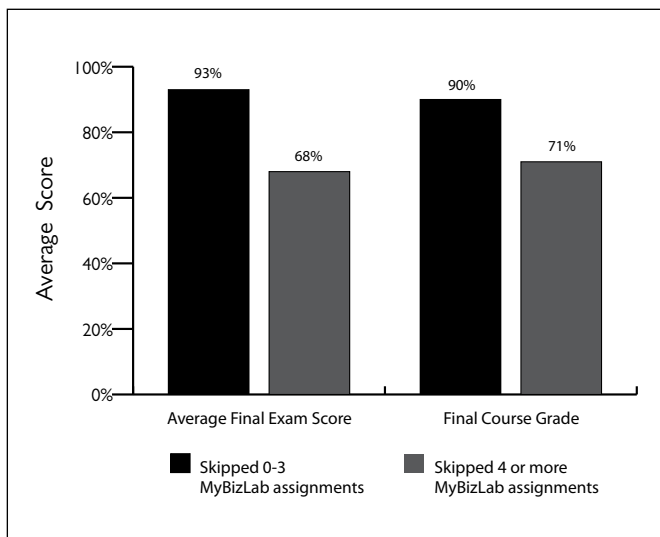


Figure 3. Comparison of Number of Skipped MyBizLab Assignments to Average Final Exam Scores and Final Course Grades, Fall 2013 ($n = 36$)

Results and Data

A review of student performance indicates a positive correlation between MyBizLab homework scores and both final exam scores and final course grades (figures 1 and 2). “Students are applying what they learn in MyBizLab to succeed on the final exam and the course as a whole,” says Hall.

Similarly, data indicate that students who completed most or all of their MyBizLab assignments both scored higher on their final exams and earned higher final course grades than students who skipped four or more MyBizLab assignments (figure 3).

The Student Experience

End-of-semester survey results suggest that students value MyBizLab and see it as a key component in their success in the course.

- 68%** Strongly agree or agree that their understanding of course material increased due to their use of MyBizLab.
- 68%** Strongly agree or agree that their use of MyBizLab positively impacted their exam scores.

Conclusion

Since implementation of MyBizLab in a flipped-lecture format, Hall’s students come to class prepared to participate and apply the concepts they’ve independently worked on in homework assignments. Further, students report they enjoy the flipped format with MyBizLab and say they believe they are learning more because of it. And they’re right: data indicates that students who complete most or all of their MyBizLab assignments score better on their final exams and achieve higher final course grades.

For fall 2014, Hall looks forward to proposed changes to the MyBizLab platform that will facilitate assignment modifications and additions, as well as more-interesting ways to analyze—and improve—student success.

MyEconLab

School Name [Campbell University Lundy-Fetterman School of Business, Buies Creek, NC](#)

Course Names [Principles of Macroeconomics, Intermediate Macroeconomics, International Trade](#)

Course Format [Lecture](#)

- ▶ **Key Results** Across three levels of economics course offerings, there is a positive and linear correlation between results from required MyEconLab Study Plans with adaptive learning (powered by the Knewton adaptive-learning platform) and MyEconLab quiz scores.

Submitted by

Shahriar Mostashari, Professor

Course materials

Economics, Hubbard and O'Brien; *Macroeconomics: Policy and Practice*, Mishkin; *International Economics*, Krugman and Obstfeld

About the Course

Campbell University is a Level VI, five-campus Baptist university enrolling approximately 6,000 students, including 4,000 students on its main campus. Within their business school accredited by the Accreditation Council for Business Schools & Programs, the following three courses use MyEconLab:

- Principles of Macroeconomics, taken by all business majors, is a study of the national economy with an emphasis on institutions, economic fluctuations and growth, and the role of government.
- Intermediate Macroeconomics, required of economics majors/minors and an upper-level elective for business majors, is the study of national income analysis and the role of monetary and fiscal policy.
- International Trade, required of international business majors and economics minors and an upper-level elective for business majors, is the study of international trade.

Challenges and Goals

Prof. Shahriar Mostashari began using MyEconLab in 2007. He sought a way to improve assessment scores and increase student exposure to online-learning and self-assessment technology. He updates his courses as new features of MyEconLab are developed.

In spring 2014, Mostashari began requiring the Study Plan with Knewton adaptive learning engaged. Based on students' MyEconLab homework results, the Knewton engine determines where students need remediation and recommends next steps.

Implementation

Students are required to complete the MyEconLab's Tours & Trainings modules prior to attempting graded assignments. They are then expected to read the assigned chapter in the textbook and complete the following in MyEconLab:

1. Five bimonthly Study Plan assignments worth 20 points each. Mastery is set at 80 percent for homework, quizzes, and study plans.
2. Five bimonthly homework sets worth 20 points each (no time limit).
3. Five bimonthly quizzes worth 20 points each (no time limit and may be attempted twice).
4. Assignments are posted Monday at 8 a.m. and remain posted until the third Friday at 8 p.m., at which time feedback becomes available. Late submissions receive a zero.

There are two midterm exams, each after four weeks of class. The in-class final exam is comprehensive, nationally normed, and standardized.

Assessments

Principles of Macroeconomics, Intermediate Macroeconomics

40 percent	Midterm exams (two)
30 percent	Final exam
10 percent	MyEconLab homework (five)
10 percent	MyEconLab Study Plans (five)
10 percent	MyEconLab quizzes (five)

International Trade

30 percent	Midterms exams (two)
30 percent	Final exam
10 percent	MyEconLab homework (five)
10 percent	MyEconLab Study Plans (five)
10 percent	MyEconLab quizzes (five)
10 percent	Group research project and presentation

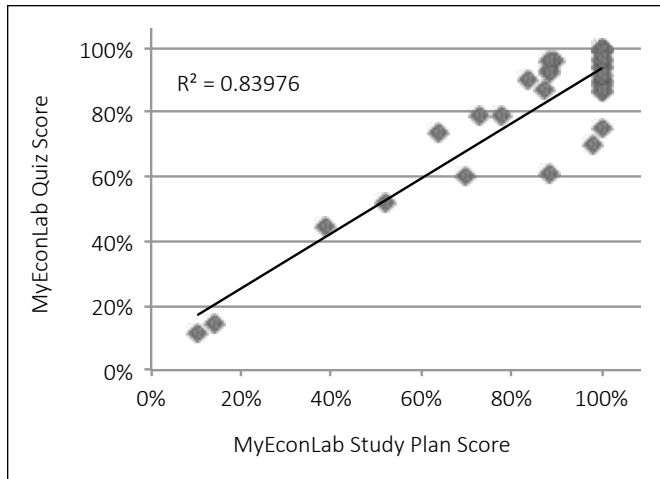


Figure 1. Correlation of MyEconLab Quiz Scores and MyEconLab Study Plan Scores, Principles of Macroeconomics, Spring 2014 ($n = 31$)

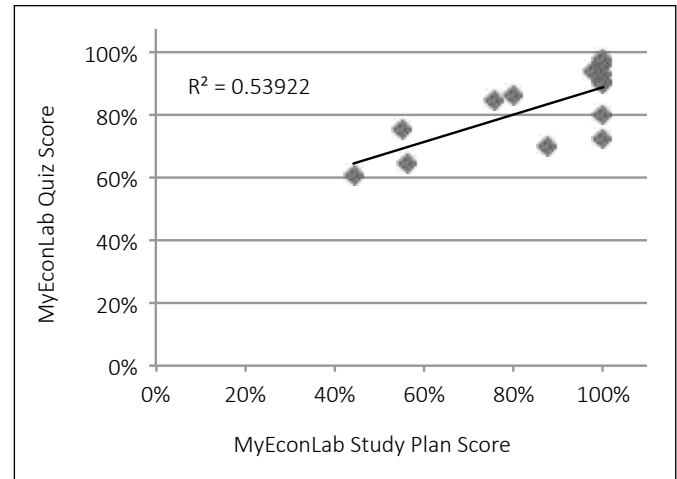


Figure 2. Correlation of MyEconLab Quiz Scores and MyEconLab Study Plan Scores, Intermediate Macroeconomics, Spring 2014 ($n = 14$)

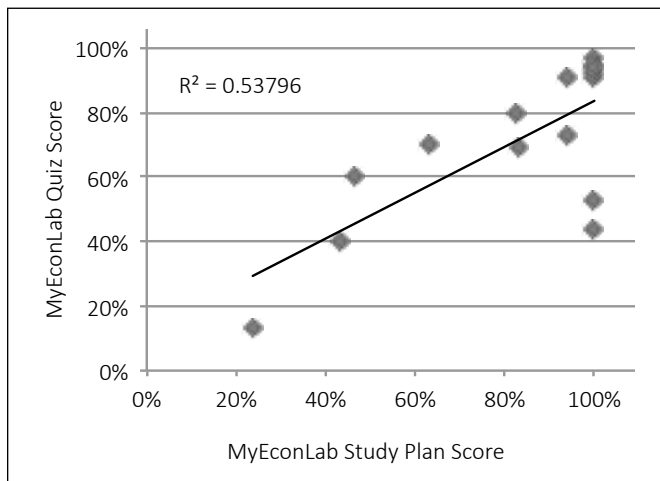


Figure 3. Correlation of MyEconLab Quiz Scores and MyEconLab Study Plan Scores, International Trade, Spring 2014 ($n = 15$)

Results and Data

Data indicate that the correlation between MyEconLab Study Plan and quiz scores in Principles of Macroeconomics is positive and linear: students who earn higher scores on MyEconLab Study Plan assignments also earn higher quiz scores (figure 1). It is confirmed by the correlation value, $r = .92$, which is significant at $p < .0001$ and which indicates that MyEconLab Study Plan scores are significant predictors for MyEconLab quiz scores. This analysis holds true for Intermediate Macroeconomics (figure 2) and International Trade (figure 3) as well.

There is also a significant correlation of MyEconLab homework to quiz scores for each course: the specific Knewton recommendations help students pinpoint weaknesses and focus on these areas for quiz and exam preparation.

The Student Experience

MyEconLab enables students to practice solving problems until they master the material. As a result, students are better prepared for exams, and their anxiety around test taking is reduced. In addition, Mostashari reports that his students appreciate MyEconLab's real-time feedback and how both the temporary access at the beginning of the semester and the eText options accommodate financial challenges.

Conclusion

In addition to student success, Mostashari finds an added benefit with MyEconLab: more-frequent assessments via MyEconLab enable him to monitor student performance and identify students in need of individual attention or tutoring support. He also uses the gradebook to identify concepts deemed difficult by a majority of students, and he can cover those topics in greater depth during lecture. Because students are now more prepared and better informed, they ask more-specific questions that lead to increased comprehension.

MyEconLab

School Name [Georgia Regents University, Augusta, GA](#)

Course Names [Microeconomics, Macroeconomics](#)

Course Formats [Lecture, online](#)

Key Results Data indicates a statistically significant correlation between MyEconLab homework scores and quiz/exam scores. In addition, students who earn higher scores in MyEconLab's Study Plan perform better on assessments and earn higher final course grades.

Submitted by
Buffie Schmidt, Lecturer

Course materials
Foundations of Economics, Bade and Parkin

About the Course

Georgia Regents University is one of four comprehensive research institutions in the state of Georgia and serves approximately 10,000 students. Macroeconomics and Microeconomics are offered through the university's Hull College of Business for three credits each. Combined, the two courses explain the various economic problems a society faces and how a mixed economy solves those problems while focusing on individual economic units: consumers, companies, and industry.

Challenges and Goals

In 2008, Lecturer Buffie Schmidt started teaching these courses to approximately 250 students each semester. While looking for a software program that would give her online students a forum to experience community and classroom discussions, she found MyEconLab. The program's interactive and immediate feedback solved the challenges she faced in her online courses, and it was also beneficial for her face-to-face classes.

Implementation

Schmidt adopted MyEconLab in 2008 as she redesigned both her lecture and online courses. She has used MyEconLab every semester since, making additional adjustments to both courses as she learns to manage the course to its fullest potential.

In her lecture sections, Schmidt assigns MyEconLab homework for each chapter. Students are limited to three attempts on each assignment so as to dissuade students from guessing in place of studying. The assignments are due the morning of the class

meeting. The curriculum also includes presentations and a professional debate in order to engage students in real-life applications of economics and help prepare them for their careers.

In her online course, students are allowed unlimited attempts on MyEconLab homework, a reflection of Schmidt's view of homework as a primary teaching tool. Schmidt allows two attempts at each MyEconLab quiz and offers step-by-step guides to studying to help students improve their grades on their second attempts (the recorded grade is the average of the two attempts). Students are allowed one attempt on MyEconLab exams, and they are required to use Pearson's adaptive Study Plan for at least 10 hours during the semester.

Because MyEconLab automatically grades the assignments, Schmidt can assign more problems and more-complex problems than ever before. The additional work enables students to practice the concepts more fully.

Assessments

Lecture

45 percent	Exams (three)
25 percent	In-class debate
20 percent	MyEconLab homework
10 percent	Graph presentation

Online

20 percent	MyEconLab homework
20 percent	MyEconLab quizzes
20 percent	MyEconLab Discussion Board participation
15 percent	MyEconLab exams (three)
15 percent	MyEconLab final exam
10 percent	MyEconLab Study Plan

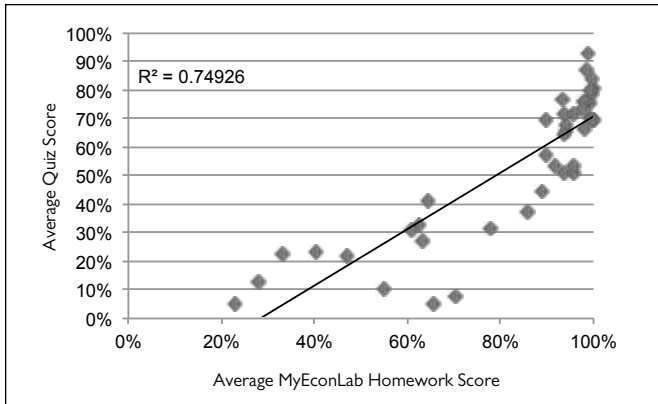


Figure 1. Correlation between Average MyEconLab Homework Scores and Average MyEconLab Quiz Scores, Macroeconomics, Spring 2013 ($n = 46$)

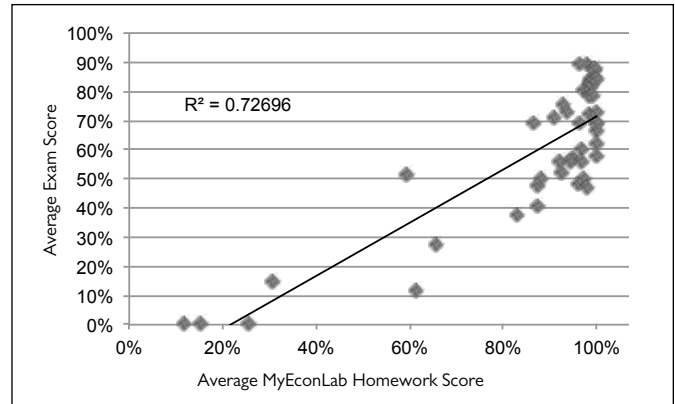


Figure 2. Correlation between Average MyEconLab Homework Scores and Average MyEconLab Exam Scores, Microeconomics, Spring 2013 ($n = 41$)

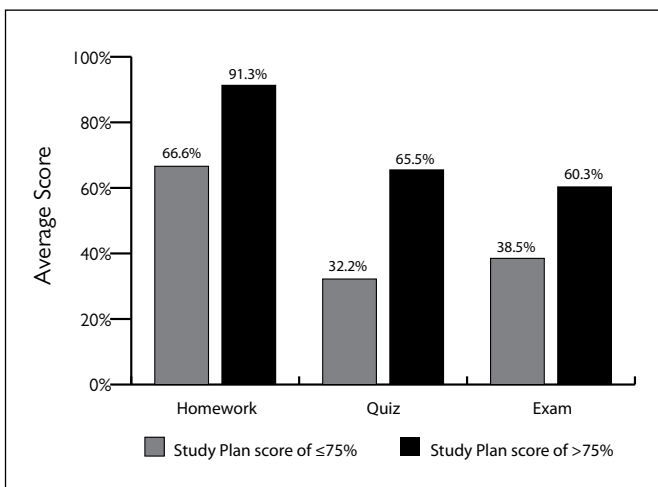


Figure 3. Average Homework, Quiz, and Exam Scores by Study Plan Score of Greater Than or Less Than or Equal to 75 Percent, Microeconomics, Spring 2013 ($n = 41$)

Results and Data

The data presented is based on the online sections, but the results were similar for both teaching formats (online and lecture) and for both courses, Microeconomics and Macroeconomics. The correlations showed that students' MyEconLab homework scores are significant indicators of their scores on quizzes and exams (figures 1 and 2). A strong positive correlation was also identified between MyEconLab quiz scores and exam scores ($r^2 = .7119$). All metrics were overwhelmingly positive, indicating a strong relationship between students' success with MyEconLab and their assessments and overall course grades.

Schmidt also looked at Study Plan usage. She discovered that students who scored at least 75 percent on their Study Plans scored significantly higher on all graded assessments than did

students who scored less than 75 percent (figure 3). Students with higher Study Plan scores also received higher final course grades than those who scored less than 75 percent.

The Student Experience

Students appreciate MyEconLab's hints and the immediate access to its helpful resources. The ability to receive help outside office hours is especially helpful for Schmidt's online students, who frequently have less flexible schedules; but it's also a benefit for students overall, who gain from assistance at the moment that they are struggling. When students receive a MyEconLab hint about why their answer is wrong, they can immediately process it, thereby enhancing knowledge integration. Students particularly like MyEconLab's Ask My Instructor button, which enables Schmidt to assist students online and stay connected to them throughout the learning process. Finally, students report that they appreciate being able to see their grades right away.

Conclusion

By redesigning her courses with MyEconLab, Schmidt addressed both the community and discussion needs of online students. A second, major benefit of the redesign is the increased amount of problem solving her students do that leads to higher assessment scores. Thanks to MyEconLab's automated grading, students are immediately aware of their mistakes and can remediate them via hints and solving strategies. Because she saves time not grading homework, Schmidt communicates more with students and develops ways to encourage deeper student engagement.

Future plans include changing both the Discussion Board and Study Plan participation values to 15 percent each. The Study Plan is a strong indicator of performance, and at 10 percent many students overlook it until the end of the course.

MyEconLab

School Name [Marshall University, Huntington, WV](#)
Course Name [Principles of Microeconomics](#)
Course Format [Lecture](#)

Key Results Required MyEconLab homework assignments plus optional Study Plan problems provide students with hands-on practice for mastering the course material. Data indicates a positive correlation between MyEconLab homework scores and both exam scores and final course grades.

Submitted by

Robin McCutcheon, Assistant Professor

Course materials

Microeconomics, Hubbard and O'Brien

About the Course

Marshall University is a public university serving approximately 13,000 students from four campuses. The three-credit Principles of Microeconomics course is taken primarily by business majors and covers basic economic analysis, analytical and critical thinking, and problem-solving techniques related to supply/demand, opportunity cost, and price/wage determination.

Challenges and Goals

Like many universities, Marshall is being challenged to do more with less because state and local support is shrinking and the university must find creative ways to leverage its budget. To that end, Assistant Prof. Robin McCutcheon sought to increase the number of students per section in her Principles of Economics course but not overwhelm herself with grading tasks. She explored MyEconLab as a way to support her lecture-format classes and became convinced to implement the program for its capacity to ensure consistency across sections, its automatic grading feature, and its immediate feedback feature.

Implementation

MyEconLab is a required component of the course and serves as the course portal for all homework assignments and exams. Each week, McCutcheon assigns up to two chapters from the text and a 30-problem MyEconLab homework assignment. Because each course concept builds upon the previous one, homework assignments may include material from previous chapters. Students are allowed unlimited attempts to complete homework assignments, which are due by Friday at 5 p.m. in order to receive full credit. Late homework assignments may be submitted through the final day of the semester, with a 20 percent penalty.

McCutcheon offers extra credit for completing MyEconLab Study Plans. She designed a Study Plan to cover each of the nine core chapters covered in the course. Study Plans contain 40 problems each and are open until the last day of the semester.

Both the midterm exams and the final exam are cumulative; each covers four or five chapters. Students are allowed unlimited attempts to complete exams within a three-hour period, and the highest score is recorded. Exams are opened at midnight on Sundays and are due Fridays at 5 p.m. To prevent cheating, pooling is used for delivering multiple versions of the exams. After each assessment, McCutcheon uses the gradebook to identify common misconceptions and adjust lectures accordingly. Lecture time is spent applying the concepts learned to the students' lives, when applicable.

Assessments

40 percent	MyEconLab homework (10)
30 percent	MyEconLab midterm exams (three)
30 percent	MyEconLab final exam

Results and Data

Data indicate a positive, significant correlation between (1) average MyEconLab homework scores and both average exam scores (figure 1) and (2) final course grades (figure 2). Figure 3 shows the average exam grade distribution per average MyEconLab homework score. All three figures show that MyEconLab homework scores are early indicators of both student success and the need for early intervention.

- Students earning an A or a B on the midterm exam averaged 98 percent on MyEconLab homework assignments.

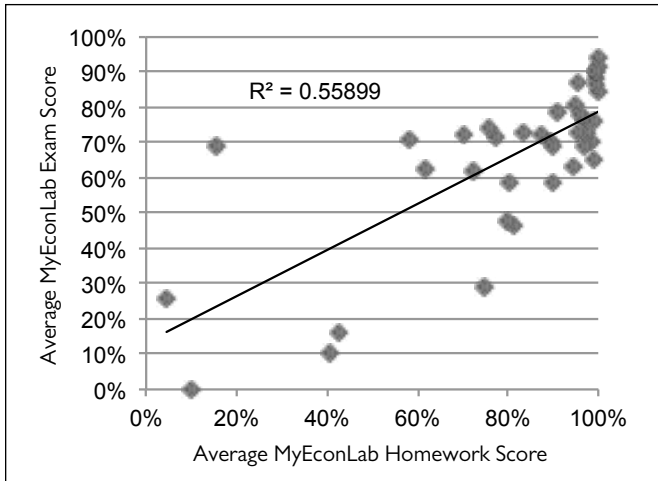


Figure 1. Correlation between Average MyEconLab Exam Scores and Average MyEconLab Homework Scores, Fall 2013 ($n = 39$)

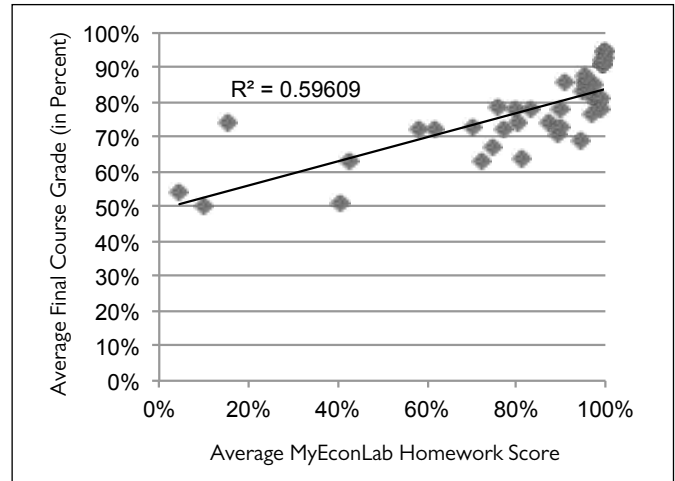


Figure 2. Correlation between Average Final Course Grades and Average MyEconLab Homework Scores, Fall 2013 ($n = 39$)

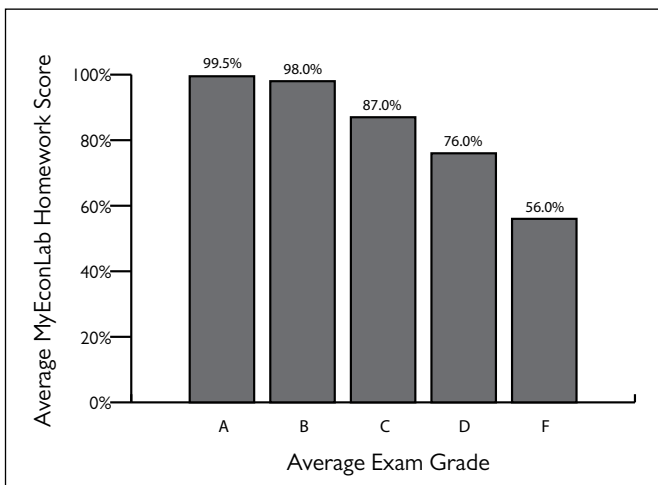


Figure 3. Comparison of Average MyEconLab Homework Grades and Average Exam Grades, Fall 2013 ($n = 39$)

- Students earning a D or an F on midterm exams averaged 65 percent on MyEconLab homework assignments.
- Students earning an A or a B for the course averaged 97 percent on MyEconLab homework assignments.
- Students earning a D or an F for the course averaged 53 percent on MyEconLab homework assignments.

The Student Experience

Results from a fall 2013 survey indicate that students value MyEconLab and believe it positively impacts their performance.

- 91%** Strongly agree or agree that their understanding of the course material increased as a result of using MyEconLab.

91% Strongly agree or agree that use of MyEconLab positively impacted their exam scores.

Student comments on the fall 2013 survey include the following:

- “[MyEconLab] kept me on task as to due dates.”
- “The feedback after each question helped me understand *why* the correct answer was correct.”
- “I enjoyed practicing at my own pace, the multimedia features, and the material relative to current events.”
- “I liked that if I got a problem wrong, [MyEconLab] gave hints to point me in the right direction.”
- “The questions allowed for many tries, and the examples and help were useful.”

Conclusion

McCutcheon cites step-by-step problem solving, immediate feedback, and automatic grading among MyEconLab’s most powerful and valuable features. Because repeated practice is the key to course success, she assigns more than 30 required MyEconLab problems per week, plus an additional 40 optional ones. Student outcomes indicate that such heavy emphasis on problem solving works—students who complete these MyEconLab assignments earn higher exam scores and experience greater overall course success.

The automatic-grading feature saves McCutcheon a tremendous amount of time. “I now have more time to develop lessons that apply economics to real life,” she says. “It makes my lectures more relevant to students, and that makes lectures more fun.”

MyEconLab

School Name [Monroe County Community College, Monroe, MI](#)
Course Name [Principles of Macroeconomics](#)
Course Format [Lecture and online](#)

Key Results In lecture and online sections, data show a significant correlation between MyEconLab homework and both quizzes and exams. In addition, students who complete all homework assignments earn higher average quiz, exam, and final course grades.

Submitted by
Wendy Wysocki, Instructor

Course materials
Macroeconomics, Principles, Applications and Tools, O'Sullivan, Sheffrin, and Perez

About the Course

Monroe County Community College is a two-year college serving approximately 4,000 students across two campuses. The school offers a general education program for students seeking either transfer to a four-year university or a career in vocational education. The Principles of Macroeconomics course is a requirement for business management majors and is also taken by students who need economics credits. Students learn about basic economic concepts and institutions, the nature of economic activity, and the functions of economic systems; they also examine markets and prices, unemployment, inflation, the role of money, and the interdependency of global economies.

Challenges and Goals

Repetition via problem solving is a key to success in economics courses. Seeking a way to offer unlimited access to practice, Instructor Wendy Wysocki implemented MyEconLab in 2007.

Implementation

Both lecture and online sections follow the same suggested format: read the textbook chapter, complete the MyEconLab homework assignment, and then take the MyEconLab quiz prior to exam day. Homework assignments and quizzes are graded as one unit, in sections corresponding to the chapters (usually four) each exam covers. Students are allowed unlimited attempts and access to all learning aids on homework assignments; they are allowed two attempts for each quiz. Homework and quizzes are due the night before each exam. Use of the Study Plan is encouraged but is optional and not tracked.

Students in lecture sessions take five pencil-and-paper exams. They also complete a portfolio project and current-events assignments. Online students take the same exams taken by in-class students, but proctored in a testing center. The exams are available for one week. In addition, students are required to read discussion board posts and provide thoughtful responses.

Assessments

Lecture

60 percent Tests (five)
15 percent Commanding Heights portfolio
10 percent MyEconLab quizzes
10 percent MyEconLab homework
5 percent Current events

Online

60 percent Tests (five)
15 percent Commanding Heights portfolio
10 percent MyEconLab quizzes
10 percent MyEconLab homework
5 percent Discussion board posts

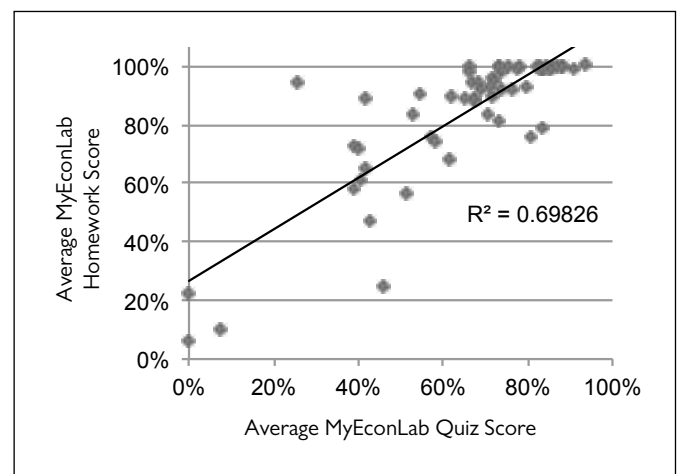


Figure 1. Correlation between MyEconLab Homework Scores and MyEconLab Quiz Scores, Lecture Format, Winter 2014 ($n = 60$)

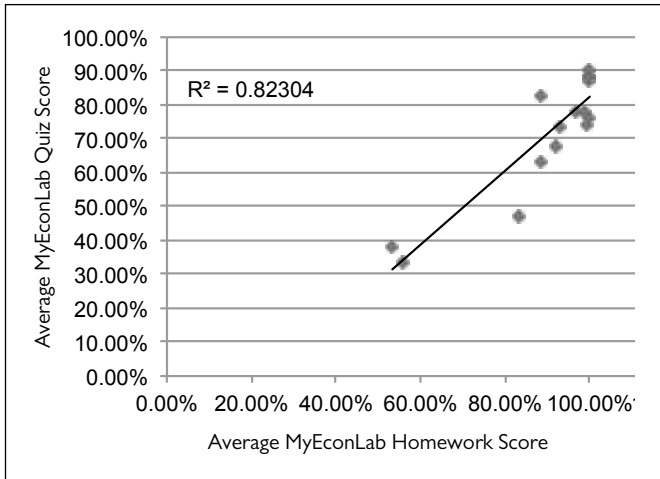


Figure 2. Correlation between Average MyEconLab Homework Scores and MyEconLab Quiz Scores, Online Format, Winter 2014 (n = 16)

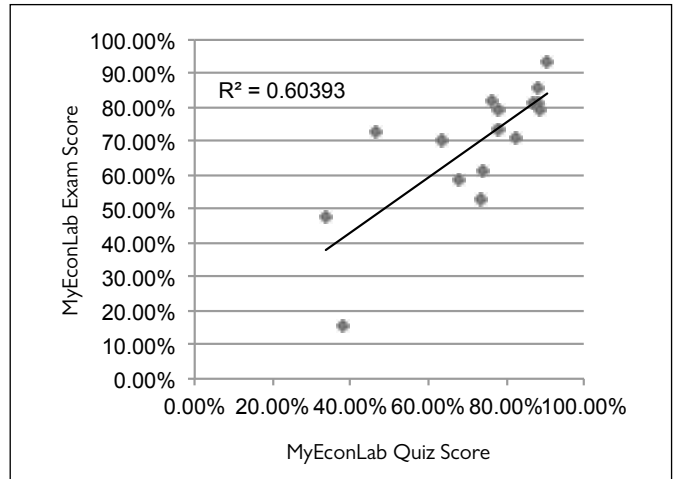


Figure 3. Correlation between MyEconLab Exam Scores and MyEconLab Quiz Scores, Online Format, Winter 2014 (n = 16)

Results and Data

Data indicate that in both the lecture and online sections there is a strong correlation between MyEconLab homework scores and MyEconLab quiz scores (figures 1 and 2). Data also indicates that in online sections there is a significant correlation between MyEconLab quiz and exam scores (figure 3).

In addition, MyEconLab homework completion rates were analyzed to determine the impact of completion on overall course performance. Results show that a significantly higher percentage of students who attempted all homework assignments earned an A, B or C compared with students who skipped at least one assignment (figure 4).

- 100 percent of students who earned an A and 94 percent of students who earned a B completed all assignments.
- 100 percent of students who received an F skipped at least one assignment.

A similar analysis of average quiz and exam scores of the students who either completed all assignments or skipped at least one assignment showed that quiz and exam averages were substantially higher—58 percent and 18 percent higher, respectively—for students who completed all assignments.

The Student Experience

Wysocki’s students have been vocal in their support for MyEconLab. Comments include the following:

- “[MyEconLab’s] study tools are amazing.”
- “To help future students be successful in this class, I’d suggest they do everything MyEconLab has to offer.”

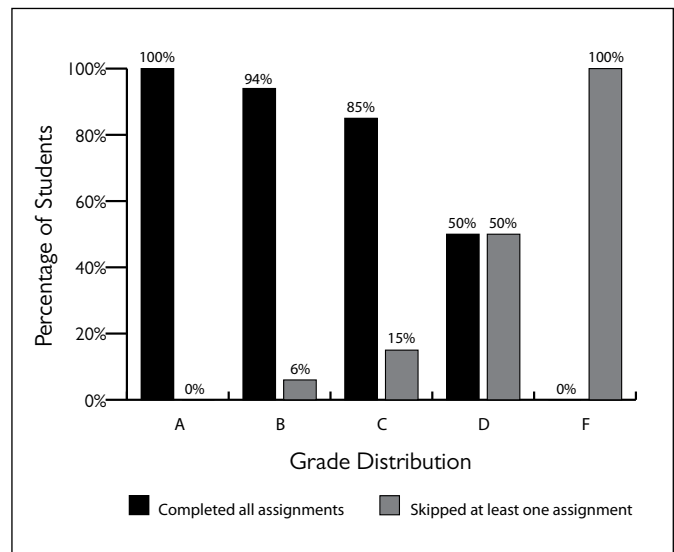


Figure 4. Relationship between Final Course Grades and MyEconLab Homework Completion, Winter 2014 (completed all assignments, n = 60; skipped at least one assignment, n = 14)

Conclusion

Wysocki reports greater student engagement since implementing MyEconLab. She strongly recommends requiring MyEconLab homework for a grade, as she found early on that students will opt out of doing assignments if there is no credit attached. The program proved it is a valuable learning tool that can be pointed to as a catalyst for improved overall student success.

Future plans include using the MyEconLab Experiments as real-life applications during class lectures and incorporating the Real Time Data Analysis exercises.

MyEconLab

School Name Northern Virginia Community College—Loudoun Campus, Sterling, VA
Course Name Principles of Macroeconomics
Course Format Lecture

Key Results As students gain mastery of the material through multiple attempts at assigned and required MyEconLab homework, average quiz, test, and final course grades increased significantly as compared with the grades of students who attempted their assignment only once.

Submitted by

Edward Creppy, PhD, Associate Professor

Course materials

Foundations of Macroeconomics, Bade and Parkin

About the Course

Northern Virginia Community College, which serves more than 75,000 students, is the largest educational institution in Virginia and the second-largest community college in the United States. Principles of Macroeconomics is offered primarily to business majors but may be offered as an elective to select nonbusiness students. The course covers a body of economic knowledge designed to help students understand the operations of the US economy and the current economic issues and problems that affect people's day-to-day lives.

Challenges and Goals

With the goal of increasing student mastery of course content and thereby increasing the course pass rate, Associate Prof. Edward Creppy sought an online component to introduce course material to students *before* lecture. "I wanted students to be able to practice and perfect their understanding of the material on their own time," says Creppy, "so I could spend class time interacting with the students and focusing on the material's real-life applications."

Implementation

Most of the course assessments are delivered via MyEconLab. Creppy creates a homework assignment for each chapter and encourages students to work the problems while referencing their textbooks. To further enhance the skill-building potential of MyEconLab homework, he offers students up to four attempts on each assignment.

Each MyEconLab quiz is timed and covers three chapters. Creppy allows multiple attempts on the quizzes to offer students additional opportunities to learn the material before the midterm and final exams. He also gives in-class pop quizzes as needed to reinforce the importance of attending lecture and participating in class.

For both homework and quiz scores, all attempts are averaged for a final grade. The midterm and final exams are both comprehensive and timed.

Assessments

31.2 percent	MyEconLab homework
20.0 percent	MyEconLab quizzes
16.7 percent	MyEconLab final exam
13.4 percent	In-class quizzes
13.4 percent	MyEconLab midterm exam
5.3 percent	Attendance

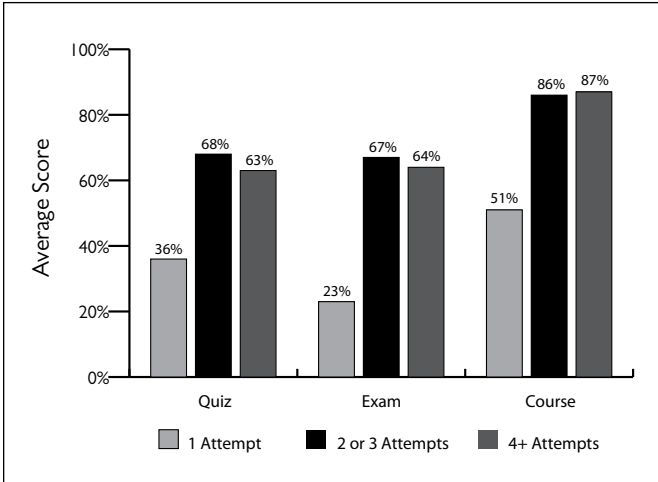


Figure 1. Average Quiz, Exam, and Course Grades by Number of MyEconLab Homework Attempts, Spring 2013 (n = 82)

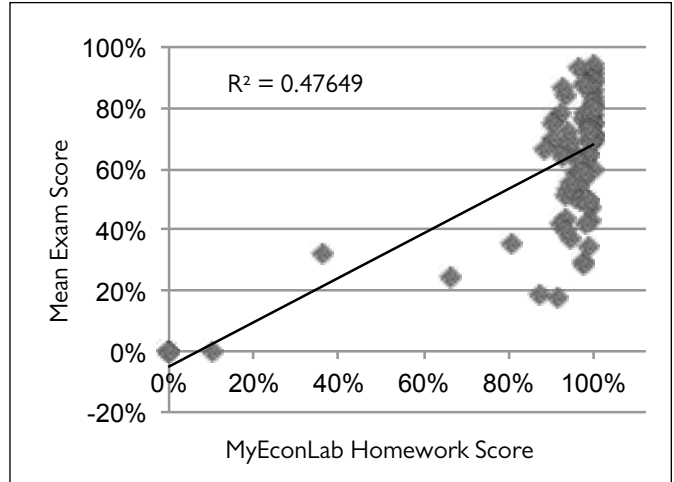


Figure 2. Correlation between MyEconLab Homework Scores and Mean Exam Scores, Spring 2013 (n = 82)

Results and Data

By cross-referencing average quiz, exam, and final course grades with the average number of attempts on homework assessments, Creppy concluded that students who reworked incorrect homework problems gained greater mastery of the course material. Specifically, he found that students who attempted problems two or three times saw significant increases across all assessment scores (figure 1).

In addition, Creppy observed a positive correlation between average MyEconLab homework scores and mean exam scores (figure 2). “I believe that required homework plus the ability to repeat homework problems as desired helps students prepare for their midterm and final exams,” he says.

The Student Experience

End-of-semester student survey results indicate that the majority of Creppy’s students view MyEconLab as an invaluable contributor to their success in the course.

- 85%** Strongly agree or agree with the statement: Use of MyEconLab positively impacted my exam scores.
- 84%** Strongly agree or agree with the statement: My understanding of the course material increased as a result of using MyEconLab.
- 81%** Strongly agree or agree with the statement: I would recommend MyEconLab in courses for which it is available.

Conclusion

Students who are allowed to rework required MyEconLab homework assignments are more likely to continue learning, reinforce correct concepts, master the content, achieve higher scores on assessments, and do better in the course. Beyond outcomes, administering assessments via MyEconLab saves valuable class time that can be spent answering questions, working problems, reviewing concepts, and working one-on-one with students unable to take advantage of office hours due to work or home schedules.

MyEconLab

School Name [Purdue University, West Lafayette, IN](#)
Course Name [Microeconomics](#)
Course Format [Lecture](#)

Key Results Students who complete all or most of the MyEconLab homework assignments earn average exam scores and overall final course grades 10 to 15 percent higher than do students who skip MyEconLab homework assignments.

Submitted by
Kelly Blanchard, PhD, Lecturer

Course materials
[Microeconomics](#), Parkin

About the Course

Purdue University is the flagship university of the six-campus Purdue University system, one of the largest university systems in the United States. The three-credit Microeconomics course covers microeconomic theory and its applications in everyday life and is required of management and engineering majors. Students learn how consumers and producers interact to determine prices and output and how to evaluate the efficiency of markets amid potential government regulation.

Challenges and Goals

Lecturer Kelly Blanchard sought a way to manage homework for 1,400 students a semester—creating paper-and-pencil homework assignments that would be meaningful in terms of answer accuracy and timely grading but the workload would have been impossible. Forgoing homework was not an option: students must practice economics in order to understand and apply the concepts. Blanchard sought an online program that would promote student learning *and* handle grading. She chose MyEconLab for its combination of online learning aids and grading support.

Implementation

For each chapter, Blanchard creates a 15-question MyEconLab homework assignment. The assignment is opened after each week's lectures and is generally due the following Monday night; students are allowed unlimited attempts, and all learning aids are turned on to encourage additional problem solving. Missed homework assignments cannot be made up, but the two lowest homework scores are dropped.

Students are strongly encouraged to use the Study Plan and practice exams, although both are optional and do not contribute to course grades. For students who express a need for more problem solving, however, the Study Plan may be assigned. Two midterm exams and a comprehensive final exam are administered in class.

Assessments	
53.3 percent	Midterm exams (two)
33.3 percent	Final exam
13.3 percent	MyEconLab homework

Results and Data

Students were placed into three groups based on MyEconLab homework completion:

- Those who skipped up to one assignment
- Those who skipped two to four assignments
- Those who skipped five or more assignments

Completion rates were analyzed to determine the impact on exam and course performance; homework scores were not evaluated—only whether an assignment was skipped (earned a score of zero) or completed (points were earned). Results of the analysis include the following:

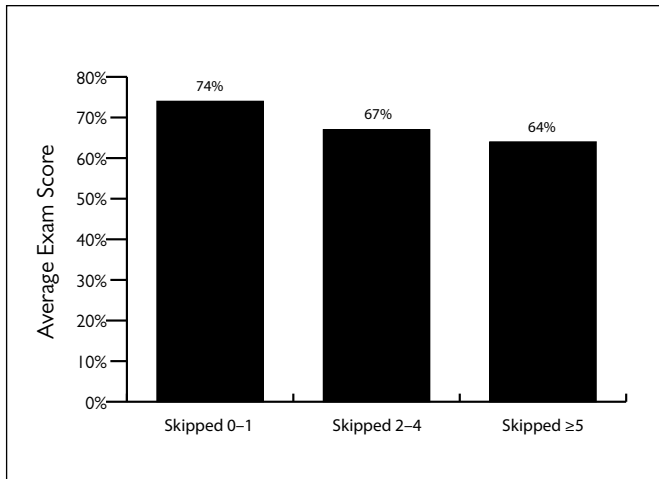


Figure 1. Relationship between Average Exam Scores and MyEconLab Homework Completion, Spring 2014 ($n = 1,239$)

- Seventy-four percent of students skipped up to one assignment.
- Five percent of students skipped five or more assignments.
- Of the 26 percent of students who skipped two or more assignments, the average number of assignments skipped was three.

Analysis of the data indicates that students who skipped up to one MyEconLab homework assignment earned an average exam grade of 74 percent—10 percent higher than the average exam grade earned by students who skipped two or more assignments (figure 1). Students who skipped up to one assignment earned an average course grade of 81 percent—15 percent higher than the average course grade earned by students who skipped two or more assignments (figure 2).

The Student Experience

Blanchard's students appear to perform better on tests after they have practiced on MyEconLab. "Most of my students report that although concepts seem simple in lecture, it is harder to connect the dots when working a problem on their own," she says. MyEconLab homework offers students the practice and resources they need to improve exam performance. They specifically appreciate the Ask My Instructor feature, which gives Blanchard a link to the problem a student is struggling with and shows her the student's efforts to date.

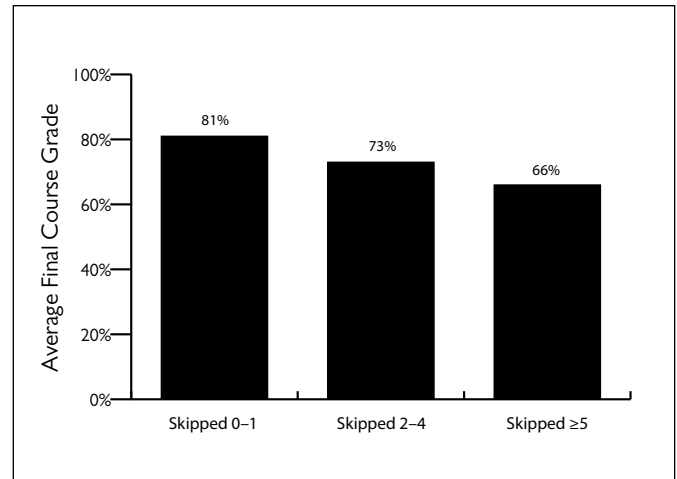


Figure 2. Relationship between Average Final Course Grades and MyEconLab Homework Completion, Spring 2014 ($n = 1,239$)

Conclusion

Data indicate a strong relationship between completion of MyEconLab homework assignments and both average exam scores and final course grades: students who complete most of their assignments (skip one or fewer assignments) earn higher average exam and final course grades than do students who skip two or more assignments.

For Blanchard, the automatic-grading feature is key to accessing the advantages of using MyEconLab. "With MyEconLab, I can grade the homework of 1,400 students with ease. I couldn't assign homework without it," she says. In addition, Blanchard uses the Item Analysis in MyEconLab's gradebook to identify students' most common errors. Armed with this information, she is able to tailor her lectures by increasing her coverage of problem topics and concepts.

Overall, both Blanchard and her students appreciate MyEconLab as a way to improve understanding of the material and prepare for exams.

MyEconLab

School Name University of Hawaii at Manoa, Honolulu, HI
Course Name Principles of Microeconomics
Course Format Lecture

Key Results Students who worked additional practice problems in MyEconLab earned higher homework, quiz, and exam scores than did students who attempted only required problems.

Submitted by

Jackie Lindo, PhD, Lecturer

Course materials

Economics Today, Miller

About the Course

The University of Hawaii system has 10 campuses and serves more than 55,000 students; Manoa is the oldest and largest campus, with approximately 19,000 students. Principles of Microeconomics is required by several majors, including business, engineering, and some of the social sciences.

This introductory economics course examines the mechanisms by which the market allocates scarce resources. Students learn to apply various economic models to analyze markets, evaluate public policy, and examine other, related phenomena. The course focuses on individual household and company behavior, as well as their collective market interactions.

Challenges and Goals

Lecturer Jackie Lindo sought a way to (1) keep large sections of 125–175 students each on track and (2) evaluate and grade homework without the additional time necessitated by hand grading. Although the course has teaching assistants (TAs), she sought the consistency of online grading and the automated assessment of student progression.

Implementation

Students attend two 50-minute lectures each week, plus a discussion section led by a TA. Discussion sections may include group work assignments, student-led presentations, oral Q&A, games, practice exercises, extensions of lectures, or lecture reviews. The sections are opportunities for students to actively absorb course material, engage with peers, and receive individualized attention.

Each week, students complete required MyEconLab homework assignments. Assignments are arranged by chapter and are available immediately after the lecture in which that chapter is covered. Students have one week to submit their assignments, which are due by 8 a.m. on the date due. Lindo also offers her students optional, no-credit MyEconLab practice assignments for each chapter.

“The goals of our course design,” says Lindo, “are to ensure access to instructional staff, to give personalized assistance, and offer a small-group environment that enhances the learning process.”

Assessments

30 percent	Final exam
20 percent	Midterm exam 1
20 percent	Midterm exam 2
10 percent	MyEconLab homework
10 percent	Unannounced quizzes
10 percent	Discussion participation

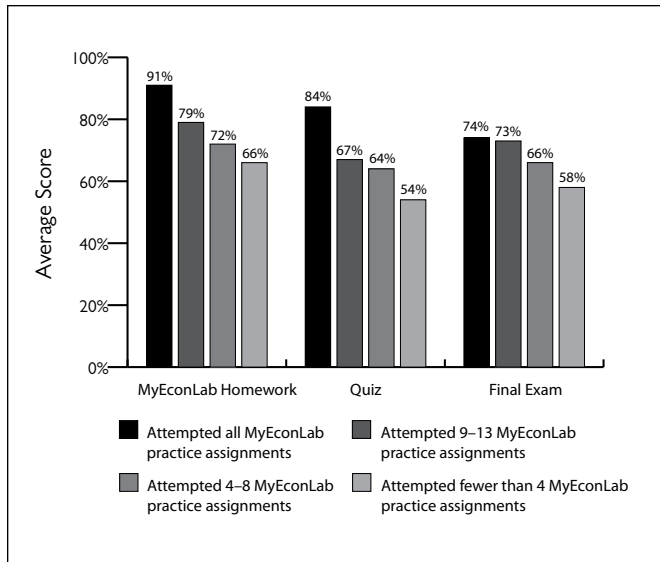


Figure 1. Average MyEconLab Homework, Quiz, and Final Exam Scores by Number of MyEconLab Practice Assignments Attempted, Spring 2013 (n = 115)

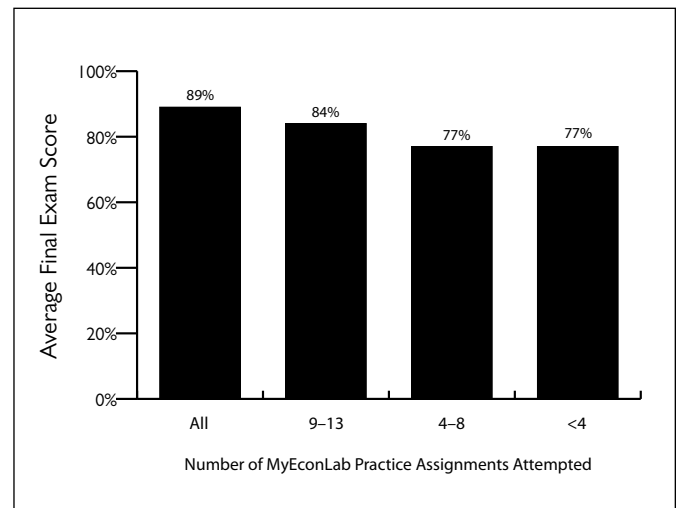


Figure 2. Average Final Exam Scores by Number of MyEconLab Practice Assignments Attempted, Fall 2013 (n = 129)

Results and Data

After a review of their use of the optional practice assignments in both spring 2013 and fall 2013, students were categorized into four groups based on how many of the 14 practice assignments they attempted: all, 9–13, 4–8, and fewer than 4. Results were then cross-referenced with the average of their MyEconLab homework, quiz, and final exam scores.

Figure 1 shows that students who attempted all of the optional practice assignments scored consistently better on their assessments than did those students who did not attempt all of the optional assignments. In fact, the grade distribution shows a distinctly higher score as more practice assignments were worked.

The data were replicated in fall 2013 with a focus on only the final exam—and all analyses held true (figure 2). The increase in final exam scores was significant as students attempted more practice assignments.

The Student Experience

Lindo reports that using MyEconLab helped keep students on pace throughout the course and promoted greater student accountability. Most important, students indicated that they liked having the homework and additional practice problems to keep on task.

In addition, because MyEconLab enabled students to practice problem solving until they mastered the material, students were more prepared for the types of assessments they saw on quizzes and exams.

In an end-of-semester survey, students strongly agreed or agreed with the following statements:

- 84%** My understanding of the course material increased as a result of using MyEconLab.
- 84%** I would recommend MyEconLab in courses for which it is available.
- 72%** Use of MyEconLab positively impacted my exam scores.

Conclusion

The additional practice in MyEconLab enabled students to master the material more completely, as indicated by their assessment scores and overall course grades. Students who attempted more of the additional practice homework problems per assignment performed better on all course assessments. Similarly, students who did not attempt the extra assignments performed more poorly. As a result, students who attempted more of the additional practice problems also achieved higher grades for the course.

MyFinanceLab

School Name Raritan Valley Community College, Branchburg, NJ

Course Name Principles of Finance

Course Format Online

Key Results

Data show a significant correlation between MyFinanceLab homework scores and quiz scores, exam scores, and course grades. Plus, students who skip fewer than two Study Plan assignments earn exam scores an average of 70 percent higher than those of students who skip more than two assignments.

Submitted by

W. Michael Fagan, Associate Professor

Course materials

Foundations of Finance, Keown, Martin, Petty, and Scott

About the Course

Raritan Valley Community College is a public two-year college serving approximately 8,000 students a year in central and northern New Jersey. The three-credit Principles of Finance course is taken by business majors, primarily those studying accounting and finance. The course introduces the fundamentals of finance, and students gain a sound understanding of the role of financial management in contemporary business, with an emphasis on financial tools and analytical techniques.

Challenges and Goals

In fall 2009, Associate Prof. Mike Fagan sought to enhance his Principles of Finance course. Hand grading assignments was too time-consuming, which made it impossible to share truly meaningful feedback. Encouraged by the results he had gained with MyMathLab in his Business Mathematics course, Fagan chose to implement MyFinanceLab for homework and quizzing.

Implementation

Fagan employs a detailed syllabus that outlines expectations on Day One, and he administers a syllabus quiz during the first week to confirm that students understand those expectations. Students cover one chapter a week in the text and follow a set schedule to complete weekly MyFinanceLab assignments:

- Read the assigned textbook chapter.
- Review the supplementary materials posted by Fagan in the Learning Management System's session for that chapter. Materials include an explanation of the content

with an emphasis on challenging topics. Most sessions include additional video materials.

- Post thoughts/questions to the chapter Session Forum Discussion Board. Posts are due one day prior to MyFinanceLab homework assignments.
- Complete untimed, MyFinanceLab homework assignments and Study Plans within one week. Students are allowed unlimited attempts, and all program help aids are turned on. Students must score at least 70 percent to proceed to the MyFinanceLab quiz.
- Complete MyFinanceLab quizzes. Students may use their books and notes during quizzes but are allowed only one attempt. Quizzes are timed (45–90 minutes) and must be submitted by the end of the week.

The lowest homework score and quiz grade are dropped when calculating a student's MyFinanceLab score.

MyFinanceLab Study Plans are optional. Fagan explains their availability in a Tour of MyFinanceLab screencast, which he creates and shares with students on the first day of class.

MyFinanceLab midterm and final exams are also open book/open notes and timed. Students are allowed one attempt, and the exam must be submitted within the open exam period.

Assessments

30 percent	MyFinanceLab midterm exams (two)
20 percent	MyFinanceLab final exam
20 percent	MyFinanceLab quizzes
15 percent	MyFinanceLab homework
15 percent	Discussion Board

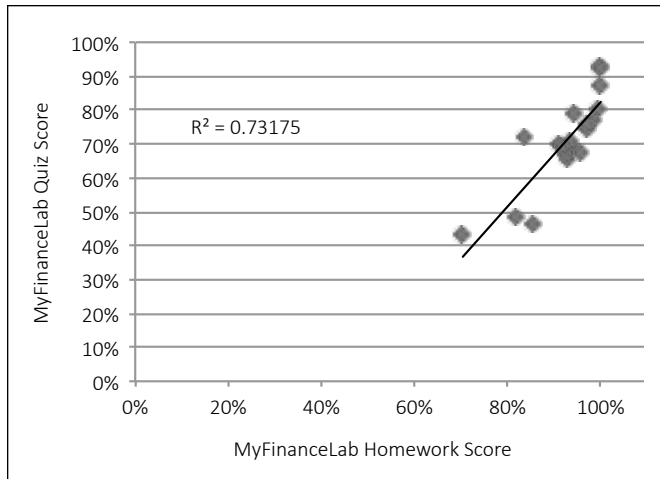


Figure 1. Correlation between MyFinanceLab Quiz Scores and MyFinanceLab Homework Scores, Spring 2014 ($n = 19$)

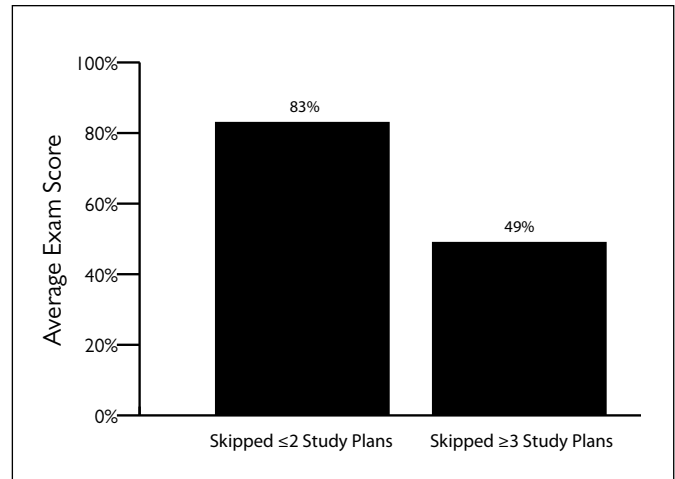


Figure 2. Average Exam Scores by Study Plan Completion, Spring 2014 ($n = 19$)

Results and Data

Data indicate a significant correlation between MyFinanceLab homework and quiz scores (figure 1), quiz and exam scores ($R^2 = .62$), and homework and exam scores ($R^2 = .51$). Individually and specifically combined, these correlations solidly support the relationship between successful MyFinanceLab homework completion and quiz, exam, and overall course achievement.

Further, a review of Study Plan activity shows a strong correlation between Study Plan completion and exam scores, and quiz scores, and overall course grades:

- Students who completed all or most of the Study Plans earned an average exam score of 83 percent—70 percent higher than the average exam score of students who skipped more than two Study Plans (figure 2).
- Students who completed all or most of the Study Plans earned an average quiz score of 82 percent—30 percent higher than the average quiz score of those of students who skipped more than two Study Plans.
- Students who completed all or most of the Study Plans earned an average course grade of 88 percent—38 percent higher than the average course grade of students who skipped more than two Study Plans (figure 3).

The Student Experience

Students can see the entire course laid out in MyFinanceLab the first day they log in, which provides them with an immediate understanding of the course and the assignments they will be experiencing during the semester.

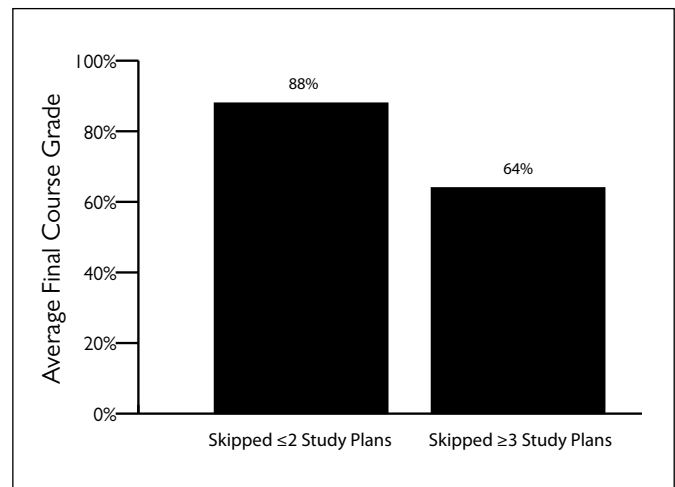


Figure 3. Average Final Course Grades (in Percent) by Study Plan Completion, Spring 2014 ($n = 19$)

Students also appreciate the program's instant feedback. This kind of real-time guidance when they need it most is particularly helpful to online students, who often do homework and study during nontraditional hours.

Conclusion

MyFinanceLab keeps Fagan's online students engaged, encourages accountability for their own learning, and promotes mastery of course content. Data show a clear connection between successful use of MyFinanceLab homework and improved quiz scores, exam scores, and overall course grades. In addition, students who complete all or most of their Study Plans earn higher exam and final course grades.

MyFinanceLab

School Name University of Southern Mississippi, Hattiesburg, MS

Course Name Principles of Finance

Course Format Lecture

Key Results After adding quiz and exam deadlines, the percentage of students earning an A or B in the course increased from 19 to 47 percent. Also, students who used MyFinanceLab and then took the ETS Major Field Test scored higher in the Finance area than both previous students and the national average.

Submitted by

Steven Stelk, Assistant Professor

Course materials

Fundamentals of Corporate Finance, Berk, DeMarzo, and Harford

About the Course

The University of Southern Mississippi serves approximately 17,000 students across two campuses. Principles of Finance is taken by business majors as well as some sports management majors and covers the principles of financial analysis, including how to read financial statements, understanding the time value of money, and the application of those concepts to stocks and bonds. Students who successfully complete the course can apply these skills to investment and capital-budgeting problems.

Challenges and Goals

Assistant Prof. Steven Stelk wanted to provide a consistent experience for the approximately 250 students per semester taught by multiple instructors. In summer 2012, he implemented MyFinanceLab for its consistent course delivery, automated grading, and ability to offer remediation.

Implementation

When MyFinanceLab was first implemented, course grades were determined by exam scores, and MyFinanceLab homework contributed only 10 percent. Homework and exams had no due dates, and although they could retake exams, most students waited until the last minute to apply themselves. Poor exam scores and low course grades illustrated students' lack of discipline and their disconnect from course content.

In fall 2013, Stelk added weekly quizzes and assigned due dates for the first attempt on each quiz and exam. The first of two weekly, face-to-face lectures is now spent on instruction; the second is spent working problems suggested by students. This

enables students both to ask for help on difficult MyFinanceLab problems and to invite valuable peer-to-peer input.

MyFinanceLab homework is due at the end of the semester. To promote mastery of course content, students are allowed an unlimited number of attempts to reach a score of 100. Because quiz and exam questions are based on homework assignments, students are motivated to keep pace with homework assignments. Chapter quizzes are not proctored, have a 50-minute time limit, and may be attempted as many times as a student wishes after the initial quiz is submitted. Exams are proctored, have assigned due dates, and may also be attempted an unlimited number of times after the original due date. For both quizzes and exams, the overall score is the average of all attempts.

On the first day of class, Stelk provides students with Survival Guide—an orientation document that answers common questions about MyFinanceLab, its assessments, and how to use it for the overall course success.

Assessments

75 percent MyFinanceLab exams (three)
15 percent MyFinanceLab quizzes (12)
10 percent MyFinanceLab homework

Results and Data

Data indicate a significant correlation between MyFinanceLab homework scores and quiz scores ($R^2 = 0.82804$) (figure 1) and a strong correlation between average quiz and exam scores ($R^2 = 0.71713$). Both correlations illustrate that increased student achievement on MyFinanceLab assessments leads to greater course success.

- Students who earned an A or B in the course earned an average score of 97 percent on MyFinanceLab homework.
- Students who earned a D or F in the course earned an average score of 54 percent on MyFinanceLab homework.

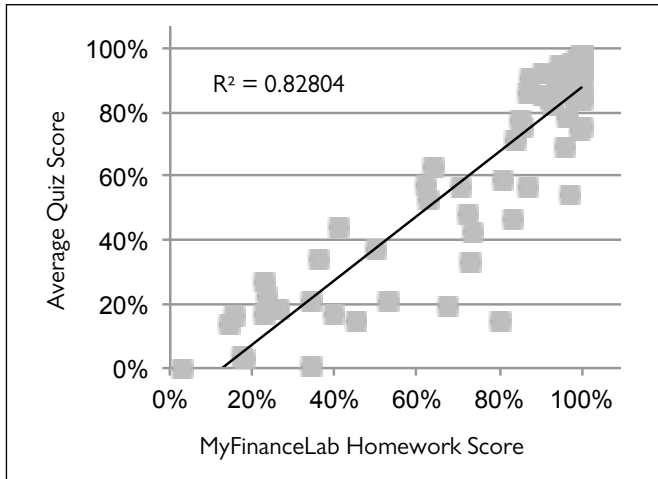


Figure 1. Correlation between Average Quiz Scores and MyFinanceLab Homework Scores, Fall 2013 ($n = 78$)

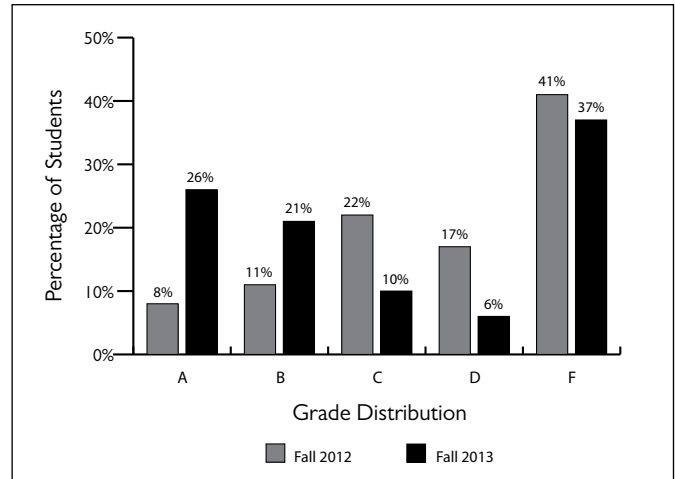


Figure 2. Grade Distribution, Fall 2012 ($n = 71$) and Fall 2013 ($n = 78$)

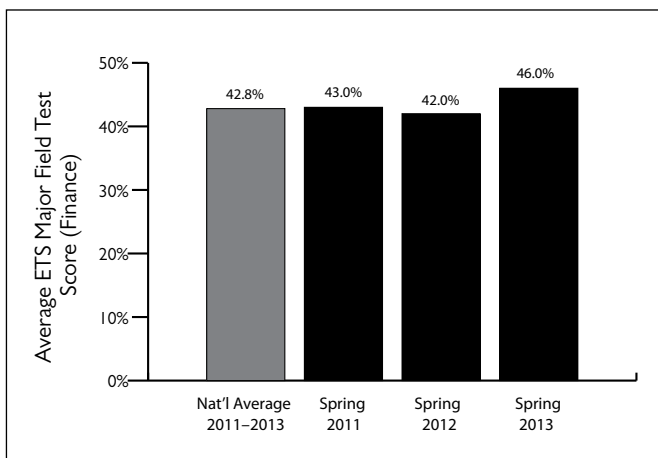


Figure 3. National Average and University of Southern Mississippi Scores on ETS Major Field Test, Finance Area, Spring 2011–Spring 2013

A comparison of final course grades from fall 2012 (when MyFinanceLab was used without due dates) to fall 2013 (when quizzes and exams had deadlines) shows an increase in students earning As and Bs—from 19 to 47 percent (figure 2).

- The average exam score increased nine percentage points from fall 2012 to fall 2013.
- The average final course grade increased 13 percentage points from fall 2012 to fall 2013.

All majors graduating from the school's College of Business are required to take the ETS Major Field Test, of which Finance is a category. Because the addition of required MyFinanceLab assignments plus due dates, student performance on the Finance portion of the test has both shown improvement over the previous two years and outpaced the national average (figure

4). Stelk is encouraged by these results, which indicate that students retain more from an introduction to finance that includes incorporation of MyFinanceLab.

The Student Experience

Results from a fall 2013 survey indicate that students believe that MyFinanceLab positively impacts their performance:

- 100%** Strongly agree or agree that their understanding of the course material increased as a result of using MyFinanceLab.
- 100%** Strongly agree or agree that the use of MyFinanceLab positively impacted their exam scores.

When asked what they liked best about MyFinanceLab, students' replies included:

- "I could keep choosing the Similar Problem feature until I understood the material."
- "The help available for the questions I didn't understand and the availability of practice tests."
- "MyFinanceLab showed me step by step how to do problems."

Conclusion

Establishing MyFinanceLab assessment deadlines was key to improving student success in this course. When due dates were required and weekly quizzes added to the schedule, students were able to manage their time and successfully complete weekly homework assignments. "That's when the magic happened," says Stelk. "As students became more prepared, their grades increased significantly."

MyITLab

School Name [Carroll Community College, Westminster, MD](#)
Course Name [Introduction to Computer Information Systems](#)
Course Format [Lecture](#)

Key Results Adding Pre-Tests and Trainings to the implementation resulted in an increase in mean overall application scores. Students who took advantage of unlimited attempts at Trainings to score at least 90 percent achieved greater Pre-Test-to-Post-Test gains than students who did not.

Submitted by

Margo Chaney, Program Coordinator

Course materials

Skills for Success, Townsend; *Tech in Action*, Evans

About the Course

Carroll Community College is an open-admissions community college offering baccalaureate preparation, career, and workforce and business development programs. Introduction to Computer Information Systems, taken by most students, provides hands-on application experience via individual and team-based projects. Upon successful completion of the course, students can demonstrate the value and usefulness of digital literacy in a technological society and workforce.

Challenges and Goals

Program Coordinator Margo Chaney was unsatisfied with the school's previous online training and assessment courseware and replaced it with MyITLab in fall 2009. She cites several benefits, including a simulated environment that mirrors the text; the program's self-paced nature; and adaptive-learning features.

Implementation

MyITLab is a required component of the course and is used for both concept and application work. Chaney's initial implementation included only the MyITLab Training assignments and Post-Tests. In spring 2011, she added MyITLab Pre-Tests as required homework. Today, her course setup is as follows:

Concepts

MyITLab homework Labs (HelpDesks/Sound Bytes) are assigned to support concepts from the textbook. In-class reading quizzes help students stay on track and self-assess their understanding of chapter content and lab concepts. In-class exams measure mastery of the textbook concepts.

Microsoft Office applications

To evaluate current skill levels, students complete in-class MyITLab Pre-Tests for Windows, Word, and PowerPoint. From that, MyITLab creates a personalized Training focused on only those skills that need remediation. Trainings and Labs assist students in learning the skills they'll need to complete Grader Projects and Post-Tests. Those students who earn at least 90 percent on the Pre-Tests may skip the Trainings or proceed with the Trainings to earn a higher grade. For the Excel and Access applications, students complete Pre-Tests and Trainings as homework before the first day the application is covered; there is no option to test out.

Students complete Microsoft Office application Labs (three per application) after they complete the Trainings; instruction is provided in class. Labs, designed to help students learn and practice skills, are uploaded to and graded in MyITLab. Students may submit them an unlimited number of times in order to earn a score of at least 80 percent and gain five points. In addition, students complete projects for each application and take Microsoft Concept quizzes to assess their understanding of the concepts associated with each application.

The comprehensive final exam covers Windows 7, Internet, Word, Excel, Access, and PowerPoint and consists of an integrated project based on the skills learned throughout the semester.

Assessments

30.0 percent	Quizzes, Labs, Tech in Action
20.5 percent	MyITLab Pre-Tests, Trainings, and Post-Tests
17.5 percent	Final exam
17.0 percent	MyITLab integrated Grader Projects
6.0 percent	MyITLab Grader Projects
5.0 percent	Concept quizzes
4.0 percent	Participation, service learning activity

Automatic tracking within the Grader projects has resulted in a decrease in integrity violations. Students know that if they submit another student's work, instructors will know.

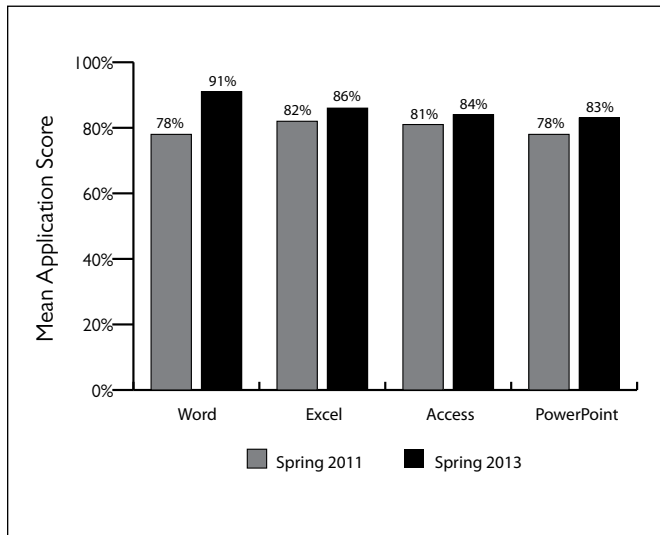


Figure 1. Mean Microsoft Office Application Scores, Spring 2011 ($n = 31$) and Spring 2013 ($n = 41$)

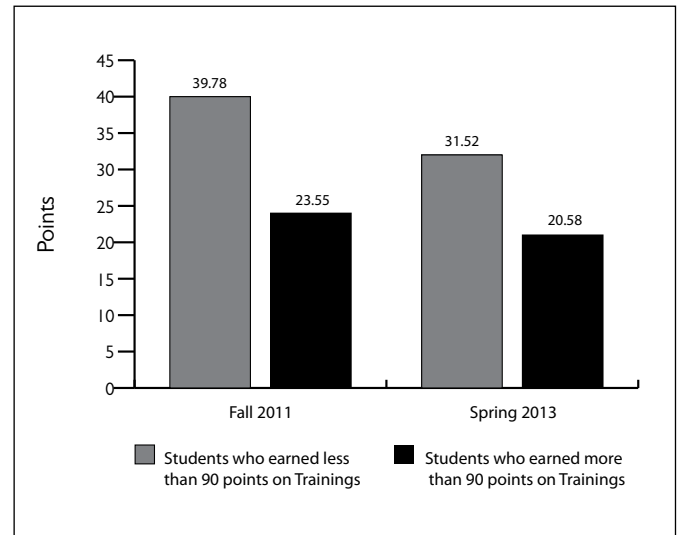


Figure 2. Average Increase in Word Application Pre-Test-to-Post-Test Scores by Students Earning Less Than and More Than 90 Points on Trainings, Fall 2011 ($n = 32$) and Spring 2013 ($n = 41$)

Results and Data

Chaney sought data-supported evidence of MyITLab's general efficacy, as well as the impact of its pretest assignments and resulting personalized Trainings. To that end, she conducted an analysis of mean application scores from spring 2011 through 2013. Data indicated overall score improvement after completion of MyITLab Pre-Tests and personalized Trainings (figure 1).

In addition, analysis of Pre-Test-to-Post-Test scores for all applications indicated that students who resubmit Trainings until they earn at least 90 points achieve significantly higher Post-Test scores than students who do not resubmit Trainings (and earn less than 90 points). Figure 2 shows the data for Microsoft Word Pre-Test and Post-Test scores.

The Student Experience

Chaney's students benefit from the student-centered Trainings in MyITLab: the immediate, personalized feedback answers their questions in the moment that they are struggling, and the program's self-paced format enables students to complete their work on their own schedule.

Conclusion

MyITLab's outcome-based Trainings, with their learning aids, including Practice [hints] and Watch [multimedia demonstrations] features, help Chaney's students achieve higher mean application scores. And the adaptive feedback from Pre-Tests creates Trainings that help them remediate specific areas of weakness.

In addition, automatic tracking within the Grader projects has resulted in a decrease in integrity violations. Students know that if they submit another student's work, instructors will know.

Last, Chaney reports that MyITLab helps her be a better instructor. The gradebook enables her to quickly and easily review Trainings scores so as to identify those concepts causing students trouble and then adjust lectures accordingly. And because MyITLab automatically grades assignments, Chaney can assign more homework than when it was hand graded. As a result, students have more opportunities to learn and are better prepared for assessments.

MyITLab

School Name [Delgado Community College, New Orleans, LA](#)
Course Name [Business Computer Applications](#)
Course Formats [Lecture and online](#)

Key Results MyITLab's real-world simulations enabled students to practice more frequently. As a result, more students successfully completed the course, and the number of students achieving a course grade of A or B increased by 18 percentage points.

Submitted by
Bob Warren, Instructor

Course materials
Exploring Microsoft Office 2013, Davidson, Grauer, Mulbery, and Poatsy

About the Course

Delgado Community College, with campuses throughout the New Orleans metropolitan area, serves approximately 19,000 students each semester and is one of the largest community colleges in Louisiana. Business Computer Applications is taken primarily by business majors; students learn how to use spreadsheet and database applications to make data-driven decisions.

Challenges and Goals

Because computer skills are best learned via hands-on training, Instructor Bob Warren sought online courseware that would enable students to practice and train using real-world simulations. MyITLab provides that training; in addition, it enables them to practice their skills more—both in class and on their own time.

Implementation

Warren implemented MyITLab in fall 2011. “Thanks to MyITLab’s free, 14-day trial option,” says Warren, “students have no excuse for not immediately registering it and doing the initial training exercises.”

Students are assigned MyITLab Training Simulations for homework (approximately two per chapter) and are allowed three attempts at each. Lectures are conducted in a lab setting and comprise (1) a review of topics the majority of students have found challenging and (2) work on Grader Projects, which are completed in the lab and on which students are allowed three attempts. Lab time is also when students may ask for help on specific homework problems.

In addition, Warren uses the MyITLab calendar to capture details about each assignment, including its content, deadline, and value.

Assessments

60 percent	MyITLab homework
10 percent	MyITLab midterm
30 percent	MyITLab final exam

[After implementation of MyITLab], the percentage of students earning a final course grade of A doubled.

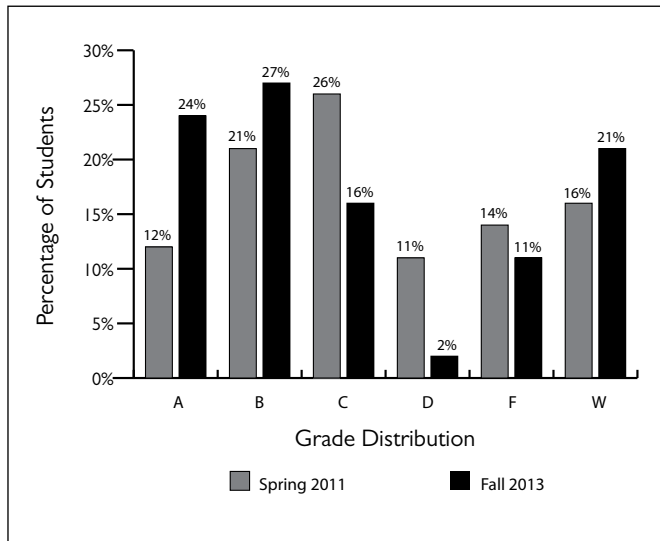


Figure 1. Average Final Course Grades (Lecture and Online Sections) before and after Implementation of MyITLab, Spring 2011 ($n = 72$) and Fall 2013 ($n = 96$)

Results and Data

A comparison of final course grades before and after MyITLab implementation indicates that final course grades in both lecture and online sections dramatically improved (figure 1):

- The percentage of students earning an A doubled—from 12 percent to 24 percent.
- The percentage of students earning an As or B increased by 18 percentage points—from 33 percent to 51 percent.
- The percentage of students earning a C, D, or F decreased by 22 percentage points—from 51 percent to 29 percent.

The Student Experience

Warren reports that his students are thriving with MyITLab. End-of-semester student survey results indicate that his students agree:

- 75%** Strongly agreed or agreed that their understanding of the course material increased due to the use of MyITLab.
- 69%** Strongly agreed or agreed that the use of MyITLab positively impacted their exam scores.

According to Warren, students find the practice option invaluable. It both shows step-by-step solutions when they are struggling and encourages them to figure out more on their own. Student feedback includes, “MyITLab is easy-to-use” and “MyITLab acts as an organizational tool for managing assignments, due dates, and course work in general.”

Conclusion

Warren is convinced he does a better job teaching his course with MyITLab. “I’m able to assign students more time on the keyboard, which is critical to their success in the course,” he says. Before implementation of MyITLab, students completed fewer exercises and did all hands-on exercises in class. Today, they also work with the material outside class, thereby gaining more practice. As a result, passing, success, and retention rates have improved.

For spring 2014, Warren planned to move to Office 2013, anticipating that his students would get on task more quickly and that he’d have fewer withdrawals and an increase in retention.

MyITLab

School Name [Elon University, Elon, NC](#)
Course Name [Advanced Applications of Excel for Business](#)
Course Format [Lecture](#)

Key Results Use of MyITLab led to sustainable mastery of course content. Data show a significant correlation between MyITLab homework scores and average exam scores, plus a 100 percent pass rate for students taking the MOS Certification Exam for Excel 2010.

Submitted by
Maureen Allen, Instructor

Course materials
Exploring Microsoft Office Excel 2010, Comprehensive, Grauer, Mulbery, and Poatsy

About the Course

Elon University is a private university serving more than 6,000 students from 47 states and 49 countries. Advanced Applications of Excel for Business is taken mainly by business students seeking to further their Microsoft Excel knowledge for use in finance and statistics courses. The course exposes students to the advanced capabilities of Excel, including statistical analysis, financial analysis and modeling, macros, charts, and graphs.

Challenges and Goals

Instructor Maureen Allen was first exposed to MyITLab at another school. After witnessing the value of providing students with hands-on practice with live software, she implemented the program into her courses at Elon. An added benefit is that Elon's professors no longer manually grade assignments and exams: because MyITLab allows for more options in the completion of application steps, grading is more consistent and there are fewer student disagreements about grades.

Implementation

MyITLab is a required part of the course. Before the first day of class, Allen loads all assignments and assessment due dates into the MyITLab calendar, and because students can work ahead if necessary, no late work is accepted.

Classroom lectures directly correspond to MyITLab Skill-Based Trainings. Students download the files and work on them while Allen lectures. Allen strongly encourages students to complete Trainings before lectures, because those who do have demonstrated greater understanding of the lectures. Students may review Trainings on their own time for more study after lecture.

MyITLab Training Simulations, Grader Projects, and quizzes are assigned as homework. Students are allowed two attempts on each homework assignment, and the average of both attempts is recorded as the assignment grade. If both attempts are completed before lecture, the better of the two grades rather than the average is recorded. Grader Projects are also used as weekly exams.

Within each chapter, assignments and assessments follow a set pattern of practice/remediation/assessment:

- Skill-Based Training I
- Skill-Based Training II
- Skill-Based Exams
- End-of-chapter Quiz
- Grader Project Homework I
- Grader Project Homework II
- Grader Project Assessment I
- Grader Project Assessment II

Allen assigns projects apart from MyITLab on such topics as expenses, purchase orders, and revenue so students have an opportunity to apply what they've learned in MyITLab to a real-world setting.

Assessments

20 percent	MyITLab Skill-Based Exams
15 percent	MyITLab Skill-Based Trainings
15 percent	MyITLab Grader Project homework
15 percent	MyITLab Grader Project assessment
15 percent	Projects apart from MyITLab
10 percent	MyITLab end-of-chapter quizzes
10 percent	MyITLab final exam

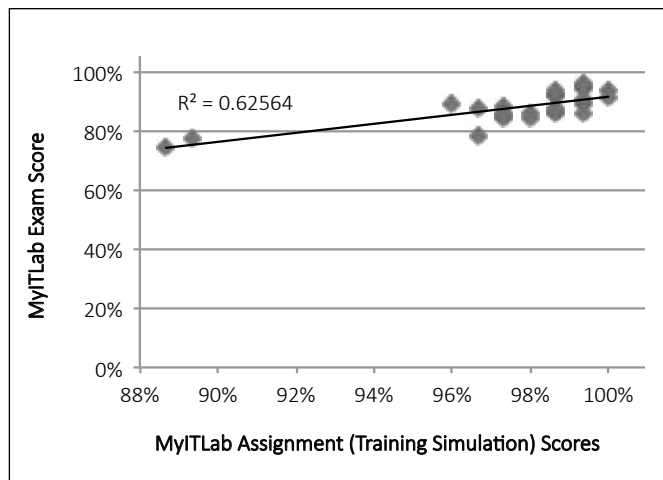


Figure 1. Correlation between Average MyITLab Training Simulation Scores and MyITLab Exam Scores, Winter 2013 ($n = 25$)

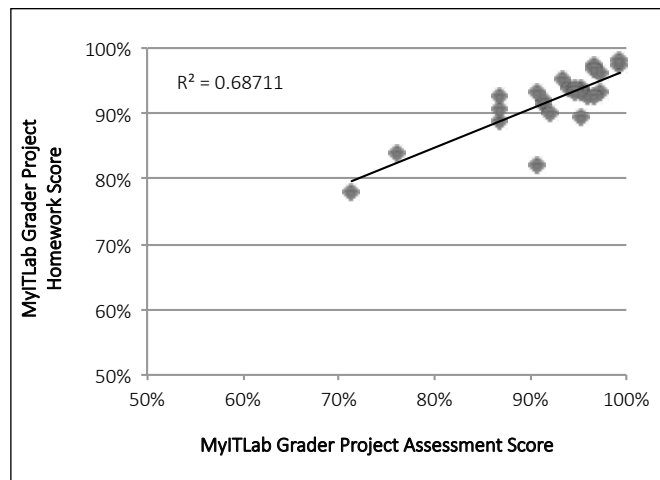


Figure 2. Correlation between Average MyITLab Grader Project Homework Scores and Average MyITLab Grader Project Assessment Scores, Winter 2013 ($n = 25$)

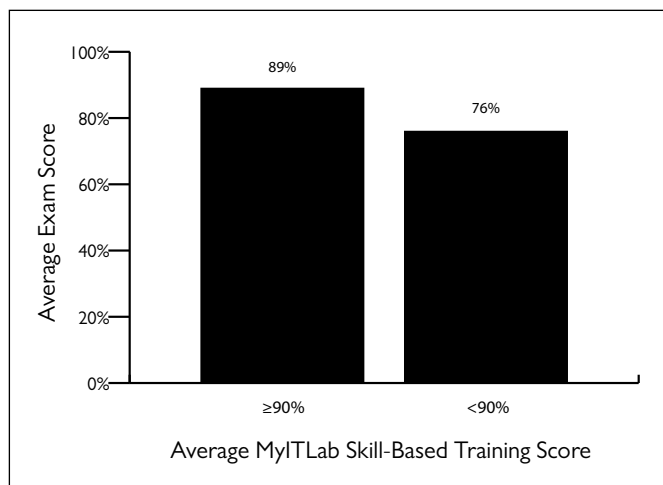


Figure 3. Comparison of Average Exam Scores for Students Earning Greater Than or Equal to 90% and Less Than 90% on MyITLab Skill-Based Trainings, Winter 2013 ($n = 25$)

Results and Data

To measure the impact of MyITLab on student learning, the correlation between assignments and assessment activities in MyITLab was assessed. The results show a positive correlation between average MyITLab Training grades to exam scores, which is compelling as these exams immediately follow completion of Training Simulations (figure 1). Data also show a significant, positive correlation between MyITLab Grader Project homework scores and Grader Project assessment scores (figure 2).

Additional positive correlations (not depicted) provide further confirmation of the relationship between success in MyITLab assignments and follow-up assessments:

- MyITLab Skill-Based Trainings and MyITLab quizzes
- MyITLab Skill-Based exams and MyITLab final exams

Data show that students who earned ≥ 90 percent on Trainings earned average exam scores of 89 percent; students who earned < 90 percent on Trainings scored an average of 76 percent on exams (figure 3).

In addition, Allen has a 100 percent passing rate for students who took the MOS Excel exam after successfully completing this course and reviewing the practice exams (fall 2013–spring 2014, $n = 12$).

The Student Experience

Students appreciate the variety of learning aids and resources that MyITLab offers, including its training videos and presentations that particularly help students who are inexperienced with Excel's more advanced features. Grader Projects help students assess their understanding of course concepts in real-world case studies, and the program's immediate feedback enables students to identify weaknesses and successfully remediate.

Conclusion

Use of MyITLab has resulted in positive, measurable changes in Allen's course: in addition to increased student comprehension of course content and a best-ever pass rate on the MOS Excel exam, Allen has more time to target her lectures and spend time one-on-one with students who need it.

MyITLab

School Name Jefferson Community and Technical College, Louisville, KY

Course Name Introduction to Computers

Course Format Online

Key Results Data indicate a positive, significant correlation between MyITLab homework scores and overall final course grades, whereby students achieving As and Bs in the course earned significantly higher MyITLab scores than students earning Cs, Ds, and Fs.

Submitted by

Cliff Niemeier, Professor

Course materials

GO! With Microsoft Office 2013, Gaskin, Geoghan, Graviett, Marks, and Martin; *Tech in Action*, Evans and Martin

About the Course

Jefferson Community and Technical College is the largest of 16 colleges forming the Kentucky Community and Technical College System. Although Introduction to Computers is a requirement for information technology majors, it is open to all students. The course introduces students to the computer and the use of technology in today's global business environment. Students learn about computer hardware and software, file management, the Internet, email, the Web, and computer ethics.

Challenges and Goals

Prof. Cliff Niemeier was teaching the Introduction to Computers course at two colleges, using different course materials at each. He sought to consolidate his efforts and teaching methodologies and in 2012, implemented MyITLab at Jefferson.

Implementation

All course work is completed in MyITLab. Students are required to take a concepts quiz for every *Tech in Action* chapter, as well as the application-based assignments in *GO!*

Although no due dates are assigned, students are offered the following schedule to help them stay on track:

1. Read the concepts chapter in *Tech in Action* and take the corresponding MyITLab quiz. These concept-based quizzes ensure that students understand the reading material. Quizzes are multiple-choice, and students are allowed one attempt at each question.
2. Read the applications chapter in *GO!* while simultaneously following the step-by-step Training Simulation. Simulations are designed to help students prepare for first, the live Grader Project and then the Skill-Based Test. Students receive start files to begin the Grader Project. At this point, they take the Skill-Based Test, on which they are allowed two attempts overall; students are allowed up to four attempts on individual questions before their answers are marked incorrect.

There are no midterms or final exams.

Niemeier monitors the instructor gradebook on a weekly basis in order to track whether students are keeping pace with assignments and making progress in the course.

Assessments

53.0 percent *Tech in Action* concept quizzes

23.5 percent MyITLab Skill-Based Tests

23.5 percent MyITLab Grader Projects

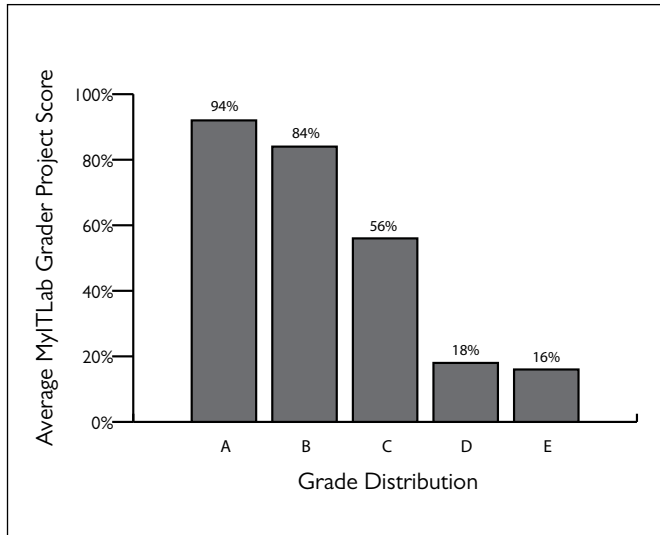


Figure 1. Comparison of MyITLab Grader Project Scores and Final Course Grades, Fall 2013 ($n = 35$)

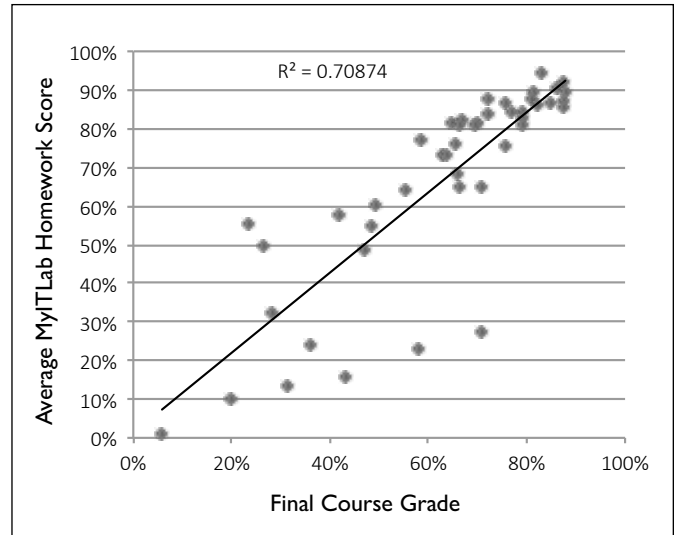


Figure 2. Correlation between MyITLab Homework Scores and Final Course Grades, Fall 2013 ($n = 35$)

Results and Data

A comparison of MyITLab homework scores and final course grades indicates that MyITLab homework scores are strong predictors of a student's final course grade (figure 1). Further analysis shows that 86 percent of students earning an A or B in the course scored at least 75 percent on their MyITLab homework.

There is also a significant positive correlation between student MyITLab Grader Project scores and final course grades (figure 2).

The Student Experience

According to fall 2013 student survey results, students recognize the value that MyITLab provides.

- 87%** Strongly agree or agree that their understanding of course material increased as a result of using MyITLab.
- 63%** Strongly agree or agree that the use of MyITLab positively impacted their exam scores.

Student comments on the fall 2013 survey include the following:

- “Any information needed for the course is available at the click of a mouse. All material was covered 100 percent.”
- “Overall, the system is easy to use and very helpful.”
- “I like the modules used for each section of the Microsoft Office programs. They walked me step by step through each project.”

Conclusion

Both faculty and administration at Jefferson Community and Technical College are pleased with the results of the school's MyITLab implementation. Thanks to support from the program's learning aids and other tools, students can see in the moment where they are making mistakes and how to correct them. The significant percentage of students earning an A or B in the class who are also scoring more than a 75 percent on MyITLab homework indicates a clear relationship between MyITLab success and overall course success.

Although Niemeier has been using MyITLab in all of his sections—both hybrid and online—since 2012, not all instructors were as confident. Thanks in part to the learning gains experienced in Niemeier's classes and his tracking of the data to prove it, starting in fall 2014 MyITLab will be used departmentwide by all instructors.

MyITLab

School Name Missouri State University, Springfield, MO
Course Name Computers for Learning
Course Format Hybrid

Key Results Students who complete all or most of their MyITLab assignments earn higher average exam scores and higher final course grades than students who skip five or more assignments during the semester.

Submitted by
Sue McCrory, Coordinator

Course materials
eText: *Exploring Microsoft Office 2013*, Grauer, Hogan, Krebs, Mulbery, Poatsy, and Rutledge; *Visualizing Technology*, Geoghan

About the Course

Missouri State University, the state's second-largest university, is an urban public university with an official enrollment of nearly 22,000 students. Computers for Learning is a General Education course that was required of all students, but became optional beginning fall 2014. The course covers fundamental computer concepts, including word processing, spreadsheets, presentation applications, and the responsible use of information and technology.

Challenges and Goals

Coordinator Sue McCrory and her colleagues have been using MyITLab since its inception in 2007; previously, they used Train & Assess IT, but segued into MyITLab because of the program's practice-without-penalty nature. The simulation environment in MyITLab allowed students repetitive practice with corrective action that better moved them toward success.

Implementation

Students complete the majority of their course work online and meet once a week for lecture. Because this is a skills-based course, the majority of lecture time is spent reviewing homework topics that caused the most confusion. To promote hands-on, demonstrable understanding of course content, students follow a structured learning path using MyITLab:

- eText: Read the appropriate chapter.
- MyITLab quiz: Complete the MyITLab end-of-chapter concept quiz for *Visualizing Technology*.

- MyITLab Skill-Based Training Simulation (two)
- MyITLab Grader Project (two)
- Unit exams: Exams are given every four weeks and cover concepts and applications; the final exam is comprehensive.

To encourage practice, McCrory allows students to complete Training Simulations and Grader Projects as many times as they wish, and all learning aids are turned on for all assignments. Because she knows that homework is where the most practice takes place, she also weights homework more heavily than exams. Deadlines are set and MyITLab assignments are due the day of the unit exam. The Study Plan is not required, but students use it for exam review and may earn extra credit by taking the Pre- and Post-Tests (2.5 points each).

As an incentive to complete all MyITLab assignments before the final exam, students who have earned at least 90 percent in the course may opt out of taking the final exam, in which case their unit exam scores are averaged and then designated as their final grades.

Assessments

34 percent	MyITLab Grader Projects (eight)
17 percent	In-class assignments
10 percent	MyITLab quizzes (eight)
10 percent	MyITLab exams (two)
9 percent	MyITLab final exam
7 percent	Group project
6 percent	MyITLab Skill-Based Trainings (eight)
4 percent	Homework (not in MyITLab)
3 percent	Other MyITLab assignments

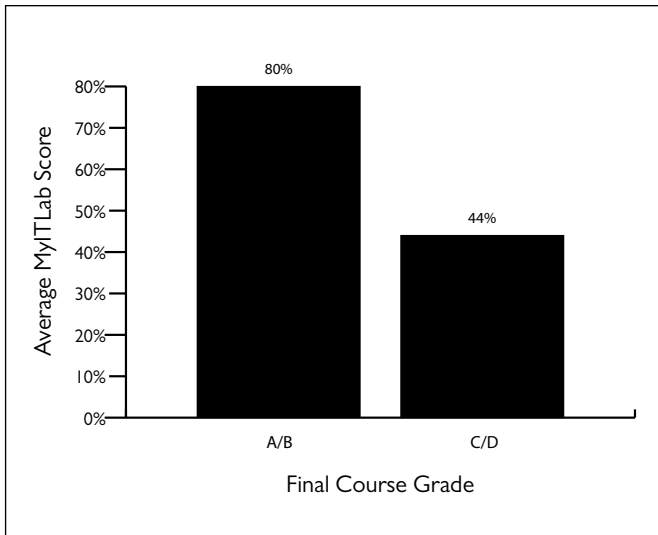


Figure 1. Relationship between Final Course Grades and Average MyITLab Scores, Spring 2014 ($n = 26$)

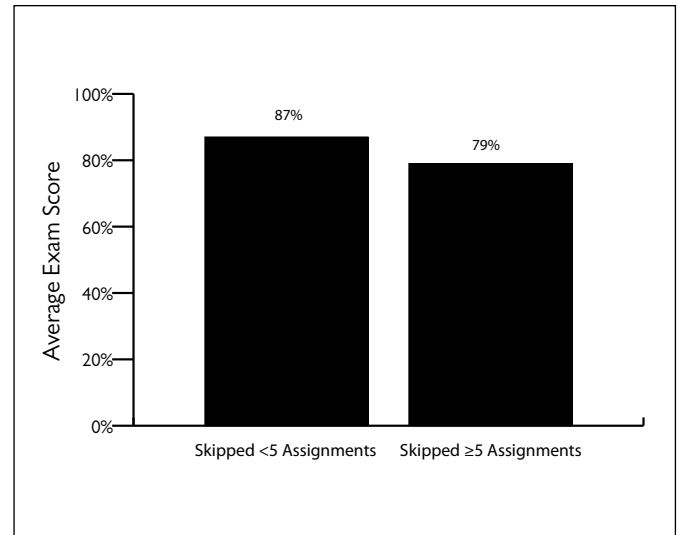


Figure 2. Average Exam Scores of Students Who Skipped Fewer Than Five and Greater Than Five MyITLab Assignments, Spring 2014 ($n = 26$)

Course Grade	Average Number of MyITLab Assignments Not Completed
A	2
B	3
C	7
D	12

Table 1. Final Course Grades Compared with Average Number of Skipped MyITLab Assignments, Spring 2014 ($n = 26$)

- Students who did not skip any MyITLab assignments earned an average course grade of 99 percent and an average exam score of 88 percent.
- 31 percent of students completed all assignments.
- 12 percent of students skipped more than 10 assignments.

Table 1 illustrates the relationship between the number of skipped assignments and final course grades: as more assignments are skipped, course grades decline.

Results and Data

A comparison of MyITLab homework scores and final course grades suggests that MyITLab homework scores are strong predictors of final course grades (figure 1). Further analysis shows that 84 percent of students who earned an A or B in the course scored at least 75 percent on their MyITLab homework.

In addition, students were placed into two groups based on MyITLab assignment participation: those who completed all or most assignments (skipped fewer than five assignments) and those who skipped five or more assignments. Students who completed all or most assignments earned average exam scores 10 percent higher than students who skipped five or more assignments: 87 percent compared with 79 percent (figure 2).

Further analysis indicated:

- Students who skipped fewer than five assignments earned an average course grade of 94 percent—12 percentage points higher than that of students who skipped five or more assignments.

The Student Experience

According to McCrory, MyITLab's simulated environment helps her students become more comfortable with the applications they are learning. As a result, they don't get intimidated when assessments require them to work in a live document. They are familiar with how things look and how to interact with the program, which leads to greater success on assessments and in the overall course.

Conclusion

Homework is key to learning Microsoft applications; students need frequent practice in the application environments in order to navigate a workplace setting. MyITLab gives McCrory's students the necessary tools to practice—and to repeat as necessary—until they've demonstrated mastery. And it works. Data show a strong relationship between MyITLab scores and overall course grades. In addition, students who complete most assignments (skip five or fewer) earn higher exam and overall course grades.

MyITLab

School Name [Tri-County Technical College, Pendleton, SC](#)
Course Name [Microcomputer Applications](#)
Course Format [Lecture](#)

Key Results After implementation of MyITLab, average exam grades increased across all applications, final course grades significantly improved, and retention rates increased from 66 to 91 percent.

Submitted by
George Fiori, Instructor

Course materials
GO! With Microsoft Office 2010 (custom), Gaskin, Ferrett, Vargas, and McLellan

About the Course

Tri-County Technical College, part of the South Carolina Technical College system, is a two-year community college serving more than 7,000 undergraduate students in both on-campus and distance-learning courses from four campus locations.

Microcomputer Applications is a required course for most majors and, as such, enrolls approximately 2,500 students a year. At course completion, successful students can proficiently use and integrate Microsoft Office applications: Word, Access, Excel, and PowerPoint.

Challenges and Goals

In 2007, Instructor George Fiori and his colleagues sought a reliable online homework and testing platform that could support both their large body of students and the significant number of faculty who administer and manage the program. Consistency across sections—in terms of content coverage and grading—was a key factor in their decision-making process. In fall 2007, MyITLab was implemented in all sections of the Microcomputer Applications course.

Implementation

Microcomputer Applications is offered in both traditional, face-to-face lecture format and online format, and course content is presented to both groups of students in the same way. Lecturing takes a backseat to practice; students proceed through the suggested course setup, with instructors available to assist students one-on-one as needed.

MyITLab's 24–7, online access means that students can complete the course at their own pace. While most students take the entire semester, some complete the course in just a few weeks.

All homework and course assessments are completed in MyITLab. To enable remediation between test attempts, students are allowed unlimited attempts to complete each chapter test by a specific due date. Exams are higher stakes: students are allowed just one attempt at completion within a specified time frame with a given due date.

Fiori encourages his students to use all of MyITLab's features, including optional chapter trainings, presentations, videos, and quizzes.

Finally, MyITLab's 24-7, online access means that students can complete the course at their own pace. While most students take the entire semester, some complete the course in just a few weeks.

Assessments

80 percent MyITLab exams (four)

20 percent MyITLab chapter tests (14)

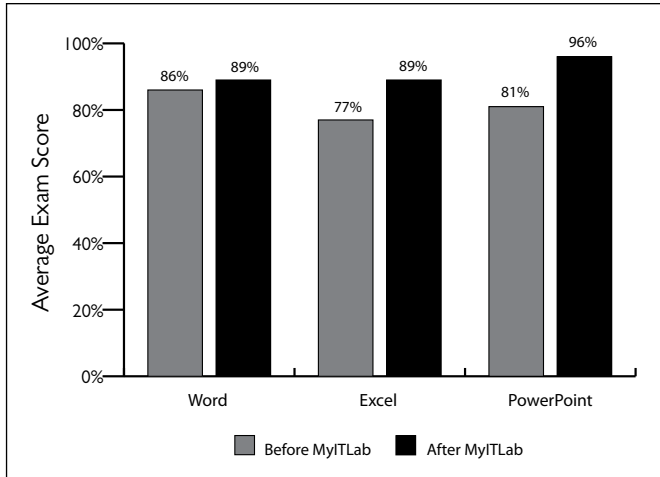


Figure 1. Average Exam Scores by Application before (Fall 2005–Spring 2006, $n = 44$) and after (Fall 2013, $n = 42$) MyITLab Implementation

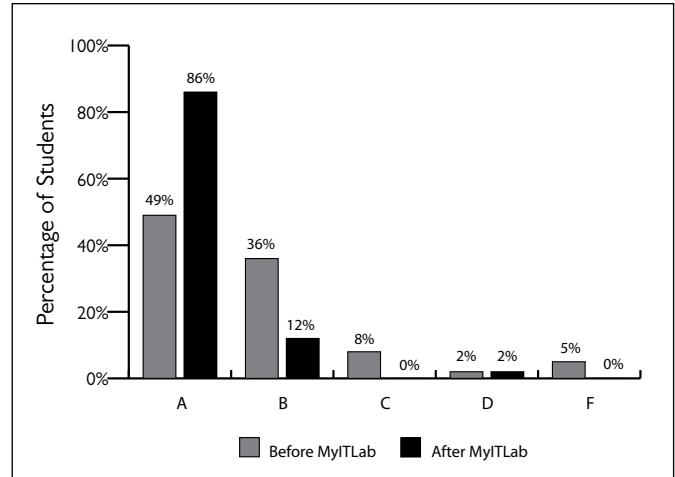


Figure 2. Grade Distribution before (Fall 2005–Spring 2006, $n = 44$) and after (Fall 2013, $n = 42$) MyITLab Implementation

Results and Data

An analysis of exam scores and final course grade distribution indicates improvement in student gains since requiring MyITLab. Average exam scores showed increases across applications, including the following (figure 1):

- Excel exam scores increased by an average of 12 percentage points.
- PowerPoint exam scores increased by an average of 15 percentage points.

Final course grades significantly improved: the percentage of As increased from 49 percent before implementation of MyITLab to 86 percent after (figure 2). Similarly, after implementation of MyITLab, the percentage of Fs dropped to 0.

Students using MyITLab developed stronger foundational skills, leading to improved performance and increased retention. The retention rate increased from 66 percent before implementation to 91 percent by fall 2013 (figure 3).

The Student Experience

Fiori's students appreciate the learning aids in MyITLab—specifically the View Submissions and corresponding Methods to Complete features, which provide a road map for learning concepts they missed on the chapter test. As one student said, "To earn an A in this class, use the resources in MyITLab and spend time in the assignments. The rest will come easily."

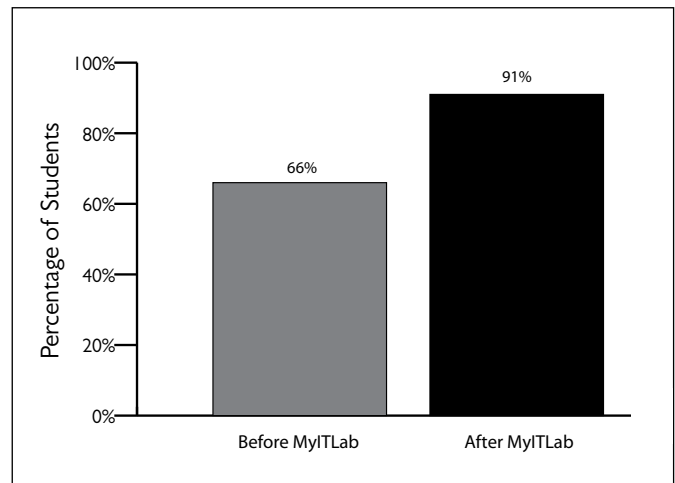


Figure 3. Retention Rates before (Fall 2005–Spring 2006, $n = 59$) and after (Fall 2013, $n = 44$) MyITLab Implementation

Conclusion

Fiori reports that the effort spent to implement MyITLab was worthwhile for both the structure the program offers students and the consistency it provides across multiple instructors. With MyITLab, exam scores, course grades, and retention rates have increased, and students are learning the computer application skills they need to succeed in their future careers.

MyITLab

School Name [Washington State University, Pullman, WA](#)
Course Name [Managing Information Technology](#)
Course Format [Lecture](#)

Key Results In a class test using MyITLab, students' scores on the course's Excel component substantially improved: the percentage of A/B scores increased from 37 to 65 percent, and C/D scores decreased from 60 to 24 percent.

Submitted by

Stoney Brooks, PhD, Assistant Professor

Course materials

Exploring Microsoft Office, Grauer (Custom Edition)

About the Course

Washington State University, one of the nation's top research universities, serves more than 20,000 students across four campuses. Managing Information Technology is taken by approximately 650 freshman and sophomore business majors each semester. The course covers contemporary information systems and their uses, as well as how to use Excel and Access to develop effective management tools and techniques in the workplace.

Challenges and Goals

Prior to spring 2014, the course did not have an online technology component; students attended two hours of lab per week, in which they completed a required Grader Project assignment for a weekly lab assignment grade. All assignments were hand graded by teaching assistants. Assistant Prof. Stoney Brooks sought an online assessment program that would (1) help students better retain course material and increase assignment scores, (2) be easy to use, and (3) be viewed by students as a value add.

Implementation

Lab assignments, which are Grader Projects from the application textbook, are crucial parts of the course grade. The fall 2013 students were assigned textbook sections to read before attending lab; during weekly two-hour lab sessions, students individually completed Grader Projects for grading.

In spring 2014, students were offered optional MyITLab Training Simulations to prepare them for the Grader Project assignments in lab. Use of MyITLab was strongly recommended.

Assessments

50 percent	Exams
25 percent	Lab assignments (Grader Project in MyITLab)
15 percent	Research studies
10 percent	Case studies/in-class assignments

Students' Excel grades were substantially higher when students used MyITLab.

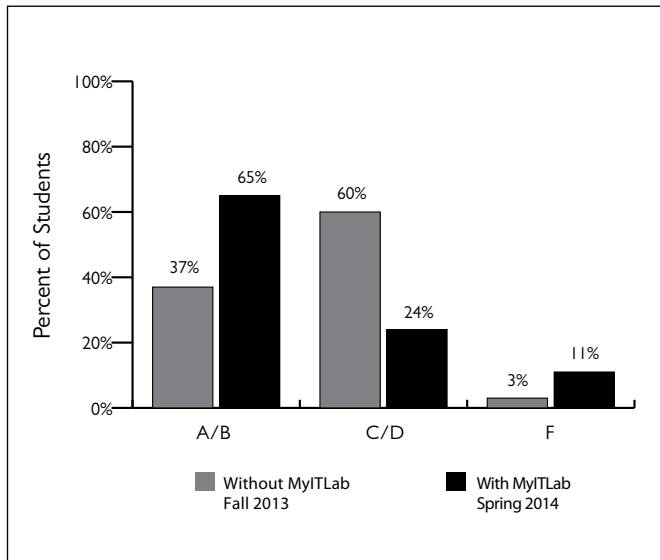


Figure 1. Grades on the Excel Portion of the Course before and after MyITLab Implementation, Fall 2013–Spring 2014 (Fall 2013: $n = 534$, Spring 2014: $n = 524$)

Results and Data

Brooks designed a class test in which he compared the results of students who used MyITLab in the Excel portion of his spring 2014 class with the results of students who took his course using the old format of hand-graded lab assignments (fall 2013).

Only 37 percent of students without MyITLab achieved an A or B on the Excel portion of the course; 60 percent of students without MyITLab earned a C or D. After the addition of MyITLab, the A/B rate increased to 65 percent, and students earning a C/D dropped to 24 percent (figure 1).

Brooks attributes the rise in Fs to grading by teaching assistants that was more subjective than that of MyITLab.

The Student Experience

After assessing data from the Excel portions of both the fall 2013 and spring 2014 classes, Brooks surveyed his students to learn how they felt about the addition of MyITLab.

78% Strongly agreed or agreed that their understanding of the course material increased as a result of using MyITLab.

65% Strongly agreed or agreed that they would recommend use of MyITLab in courses for which it is available.

In addition, students appreciated the program's accessibility, calling it "easy to use" and "organized." Comments included "the interface was simple" and "grading was immediate."

Conclusion

Students' Excel grades were substantially higher when students used MyITLab. It prepared them for assessments so they were able to repeat the work more completely in their weekly lab assignments. Most important, students found the program easy to use and helpful.

Based on Brooks's class test results, Brooks's department adopted MyITLab across all sections for fall 2014.

MyOMLab

School Name University of Louisville, Louisville, KY
Course Name Operations Management
Course Format Online

Key Results Required MyOMLab homework assignments promote mastery of course material and increased course success. Data indicate significantly higher quiz and final course grades for those students who earned higher MyOMLab homework scores.

Submitted by
Mahesh Gupta, PhD, Professor

Course materials
Operations Management, Heizer and Render

About the Course

The University of Louisville, a member of the Kentucky state university system, serves approximately 21,000 students. Operations Management, a three-credit, foundational course, is taken primarily by business majors; it covers operations management concepts and the analytical methods of handling problems in manufacturing and service operations. The central issue addressed in the course is how to design and operate a manufacturing or service organizational system.

Challenges and Goals

Operations Management is a challenging course in which even students in a traditional lecture format often struggle. When Prof. Mahesh Gupta taught the course online for the first time, in fall 2013, he sought a tool that would enable him to manage student homework and assessments in the online environment while also providing support for student learning outside normal academic hours.

Implementation

Students must use MyOMLab in order to complete the course. First, they are directed to read the textbook, watch videos of solved problems in MyOMLab, and work in optional MyOMLab Study Plans. They are then allowed three attempts at required homework assignments; the average score of their attempts is recorded. For extra credit, optional additional work, including supplementary problems similar to those assigned in the homework, is available in the MyOMLab Study Plan.

Once their homework assignments are completed and scored, students are allowed one attempt at MyOMLab quizzes. Quizzes comprise 10 to 15 questions and are timed to take 30–40 minutes each. Both the midterm and final exams are also timed and delivered via MyOMLab.

A final, crucial component of Gupta's online Operations Management course is its discussion board. For each discussion board assignment, students must contribute at least one original post and at least two response posts. This ensures that students cannot "hide" in the online nature of the class and that Gupta can quickly identify, respond to, and resolve any problems.

Gupta observes that his students' critical-thinking skills are sharpened by reading assignments in *The Goal* and completing experiential exercises, such as The Dice Game (a manual, as well as an Excel-based game) on the discussion board. In addition, these activities introduce students to the theory of constraints as a viable and practical theory in operations management. Gupta has published extensively in this area¹, and the instructions for the game are available upon request.

Assessments

30 percent	MyOMLab quizzes
20 percent	MyOMLab homework assignments
20 percent	Discussion board
15 percent	MyOMLab midterm exam
15 percent	MyOMLab final exam

¹ An Excel-based Dice Game: An integrative learning activity in operations management; Mahesh Gupta, Lynn Boyd (2011), *International Journal of Operations & Production Management*, the official journal of the European Operations Management Association, Vol. 31.2011, 6, p. 608–630.

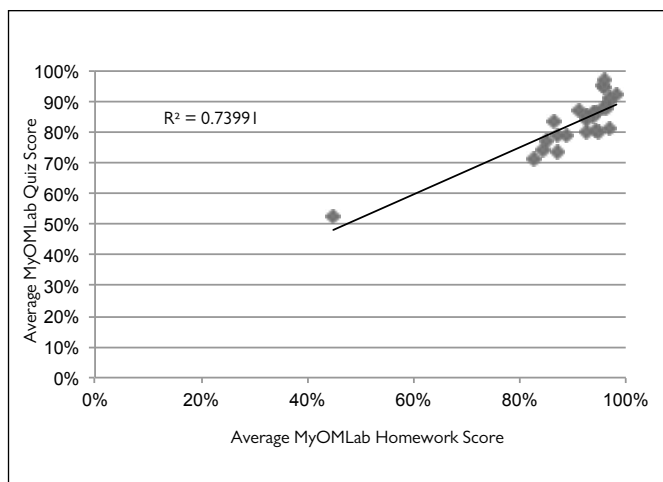


Figure 1. Correlation between Average MyOMLab Quiz Scores and Average MyOMLab Homework Scores, Fall 2013 ($n = 26$)

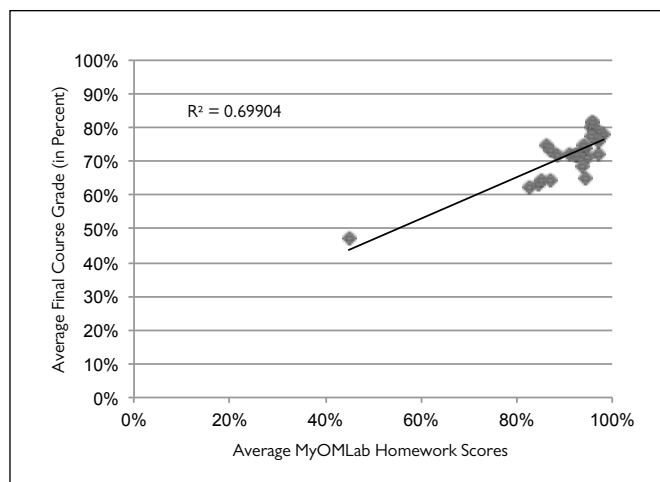


Figure 2. Correlation between Average Final Course Grades and Average MyOMLab Homework Scores, Fall 2013 ($n = 26$)

Final Course Grade	Average MyOMLab Homework Score
A	95%
B	92%
C/D	72%

Table 1. Comparison of Final Course Grades and MyOMLab Homework Scores, Fall 2013 ($n = 26$)

Results and Data

Data indicate that the correlation between MyOMLab homework scores and MyOMLab quiz scores is strong, positive, and linear: students who earn higher scores on MyOMLab homework assignments also earn higher quiz scores (figure 1). This is confirmed by the correlation value, 0.86,* which is significant at $p < 0.0001$. Furthermore, when a statistical analysis using a simple regression model is performed, MyOMLab homework scores as an independent variable and MyOMLab quiz scores as a dependent variable. The overall model fit is significant: $R^2 = 0.74^*$ ($p < 0.0001$). The parameter estimates for MyOMLab homework scores is significant: 0.77^* ($p < 0.0001$), with $SD = 0.09$. This shows that MyOMLab homework scores are significant predictors for MyOMLab quiz scores. There is also a significant, positive relationship between MyOMLab homework scores and final course grades (figure 2).

In addition, MyOMLab homework scores are strong indicators of students' final course grades. Students who earned As and Bs in the course scored an average of 93.5 percent on MyOMLab

homework assignments; students who earned Cs and Ds in the course scored an average of 72 percent (table 1).

The Student Experience

MyOMLab offers much-needed structure and accountability to his online students, because they become responsible for completing their homework in a timely manner, which ultimately sets them up for success on subsequent quizzes and exams. They appreciate the student-centered learning provided by MyOMLab's Help Me Solve This option and other interactive learning features, such as videos and immediate feedback. They appear to see the value in required, weekly assignments and the structure that MyOMLab brings to their studying and learning.

Conclusion

Gupta reports that MyOMLab is an invaluable aspect of his online class and that he wouldn't teach without it. The combination of the program's algorithmic problems, plus students' freedom to repeat and review problems as needed for quiz and exam review enables students to practice as much as they need to, remediate, and master course content.

Plans for the future include making minor modifications to the course, such as eliminating the extra-credit points and implementing a new strategy to encourage students to do additional homework problems. Even though MyOMLab quizzes will still account for 30 percent of the final course grade, for students who complete the Study Plan while doing homework assignments, the quizzes will drop to 20 percent, and the Study Plan will account for the additional 10 percent.

Gupta will continue tracking results and looks forward to sharing more data in the future.

* Significant at 0.05 alpha level.

Best Practices: 10 Steps to Success with Your MyLab Implementation

The institutions included in this report did more than simply add a new learning technology to their curricula: the ways they implemented Pearson's MyLab solutions significantly contributed to their positive results. Following are ten recommended best practices that will help you and your students get the most out of your MyLab implementation.

- 1. Identify the problems you want to solve.** An examination of the most successful MyLab implementations show that one common thread emerges: schools that have achieved success knew precisely what they wanted to accomplish. They established clear educational goals at the outset and then designed implementations specifically so as to achieve them.
- 2. Choose the learning technology, textbook, and method of delivery that best fit your goals.** Assign the specific MyLab features that will help you achieve your stated goals.
- 3. Build an assessment plan.** How will you measure success? What are the quantifiable goals you want to achieve? Pertinent metrics might include comparisons of homework grades, exam scores, final course grades, or retention rates with those of previous semesters; correlations between MyLab assessment scores and exam scores; or student success rates in subsequent courses they take.
- 4. Get everyone—and keep everyone—on the same page.** Communicate your goals clearly to colleagues, students, and administrators. Train all full-time instructors, part-time instructors, adjuncts, tutors, and other key players—and make available plenty of opportunities for continuous training. Pearson provides product and implementation training to help ensure that your implementation aligns with your goals.
- 5. Start small.** Slowly integrate MyLab into your course. Start with requiring homework such as chapter exams, study plans, or writing assignments. When you're ready, add more assignments and activities.
- 6. Position students for success.** Students tend to skip "optional" assignments. Experienced MyLab users recommend that you count MyLab as at least 10 percent of a student's final course grade. Provide structure: clearly communicate course and workload expectations to students and set firm and consistent deadlines. Finally, conduct a Getting Started orientation on the first day of class to show students how to access the MyLab materials and assignments they'll be responsible for. Visit www.pearsonmylabandmastering.com/educators/support for details.
- 7. Connect and engage with students.** Educators implementing MyLab products in their classes are unanimous about the importance of individually connecting with students both in class and outside class. Some educators recommend not waiting for students to ask questions about their work. Rather, they suggest circulating in the classroom proactively to assess what students need, thereby avoiding student embarrassment. For outside class, consider sending weekly emails containing kudos for those doing well and offering support and intervention to those who are having trouble or not completing their work.
- 8. Employ personalized learning.** The most successful learning solutions include personalization and immediate feedback that engage students in active learning and enhance and inform assessment. Students using MyLab products can complete assessments at their own speed and, via diagnostics performed as they progress, can follow a personalized learning path that both targets the exact content/skills they need to work on and delivers the right material they need for mastering the requisite skills.
- 9. Conduct frequent assessments.** Educators have long recognized the necessity of assessment as both a measurement of how well students are learning and a tool for critical feedback. MyLab implementations enable educators to exponentially increase the *power* of assessment by increasing the *number* of assessments, thereby offering students a firsthand account of what they know and what they do not know and providing educators more opportunities to intervene before a student falls too far behind.
- 10. Track learning gains.** What you don't track you can't measure. And what you haven't measured you can't prove has actually happened in your class. Educators who consistently track and measure learning gains are able to make informed decisions about course transformations, redesigns, or programmatic shifts and can strengthen their ability to prove institutional effectiveness, meet accreditation standards, track quality-enhancement plans, and fulfill grant requirements.

Getting Started: Planning Your Implementation

1. What are the main issues you are trying to address?

2. What are the quantifiable goals you want to achieve?

Example: Increase student retention rates by 10 percent over the course of a semester; increase student success rates by 15 percent over the course of a semester.

3. When do you want to start integrating a MyLab solution into your course? Will you start with a pilot course? If so, at what point do you foresee moving into a full implementation?

4. What course materials are you using? Do they align with your intended outcome?

5. Have you pursued grants or initiatives? If yes, what are they?

Note: Check with your Pearson partner or visit Pearson's Grant Help Center at www.pearsonhighered.com/granhelp/ to learn more.

6. Will you hold organizational or professional development meetings for faculty, lab staff, IT administrators, or others?

7. What are at least three ways to educate the culture of your colleagues involved in the project?

Example: Invite guests from institutions that have successfully implemented or redesigned with a Pearson MyLab solution.

8. Who is on your implementation or redesign team (faculty, staff, lab directors, senior administrators)? Who will manage the actual implementation or redesign?

9. How will you measure success?

Example: Retention rates, final exam scores, final course grades, and subsequent success.

10. Will you use historical data to support the efficacy of your MyLab solution? Will you administer common exams and assessments?

11. What percentage will your MyLab solution contribute to a student's final course grade?

12. Do you have—or must you seek—approval from your school's institutional review board?

13. What is your main concern about implementing a Pearson MyLab solution?

14. At the end of the course, would you like assistance in analyzing your data? If so, contact your local Pearson representative.

Glossary

To ensure clear and consistent understanding of the terms used in this report, we define several of them here. The definitions are only for the purposes of this report and do not necessarily reflect either official or dictionary-true versions.

Completion rate is the percentage of students who registered for a course and completed the course through the final exam, excluding students who officially dropped (withdrew from) the course. Also called the retention rate.

Course redesign is the process of restructuring the way the content of a course is delivered. It generally involves redesigning a whole course (rather than individual classes or sections)—usually to achieve better learning outcomes often at a lower cost. Course redesign is typically accomplished by taking advantage of technology's capabilities and is most effective in large-enrollment courses.

Distance-learning course is a course wherein students do not have regular face-to-face class meetings and do not have to maintain a regular presence on the particular campus that is granting the credit. Most if not all learning activities are conducted online. Also called an online course.

Drop/fail/withdraw rate is the percentage of students who register for a course and at the end earn a grade of D, F, or W (drop, fail, or withdraw, respectively) in the course.

Dual-enrollment/dual-credit programs offer high school students the opportunity to simultaneously enroll in high school and college courses. Students receive both high school and college credit for successfully completed college classes.

Hybrid course is a course that has both face-to-face classroom activities and lab-based activities.

Integrated use refers to an instructor's making a MyLab product a part of the syllabus and assigning work to be completed by students.

Lab-based course is a course in which much if not all of the student learning takes place in a computer lab where students work independently and use technology to enhance learning. Called the emporium model when there are few if any face-to-face meetings in a traditional classroom setting.

Online course is a course in which students do not have regular face-to-face class meetings and do not have to maintain a regular presence on the particular campus that is granting the credit. Most if not all learning activities are conducted online. Also called a distance-learning course.

Pass rate is the percentage of students whose final grades are A, B, C, or D. This is not the same as the success rate, because the grade of D is included in the pass rate.

Required use means an instructor requires that students use a MyLab product for an individual grade that is part of the final course grade. It is the opposite of optional use.

Retained students are students who registered for and completed the course through the final exam. It excludes students who officially dropped (withdrew from) the course.

Retention rate is the percentage of students who registered for a course and completed the course through the final exam. It excludes students who officially dropped (withdrew from) the course. Also called the completion rate.

Subsequent success refers to the success that students experience in higher-level courses based in part on their having first successfully completed other, lower-level MyLab courses.

Success rate is the percentage of students who registered for the course and earned a final course grade of A, B, or C. Note that a final grade of D is not included in the success rate.

Traditional course refers to a course that usually is taught in the same way as in years past. It frequently involves a lecture format with little or no use of technology.

Various formats refers to an institution's use of diverse, assorted implementation models for teaching with a MyLab product.

Conclusion

More than merely successful implementations, the courses, programs, and initiatives described in this report are victories. Behind the successful outcomes—in the forms of improved final exam grades, increased persistence, success in subsequent courses, college readiness, and other learning gains—are students who have become better equipped to pursue their academic goals and achieve their life dreams.

An Ongoing Process

We applaud the participating institutions for their efforts and determination. But those efforts are not over: a successful technology implementation is an ongoing process, ever evolving with the emergence of new and improved pedagogy, the entry of each unique cohort of students, and the increased amounts of information generated by the long-term tracking and measuring of student data.

Pearson's Faculty Advisor Network (FAN) is available to help you improve the teaching and learning experience in your courses. Visit the FAN Web site to meet and engage with a community of educators who are eager to share advice, tips, and best practices related to MyLab & Mastering products. Join the network by visiting the site at <http://community.pearson.com/fan>.

Pearson Family of Solutions

Pearson offers solutions for all kinds of educational needs, for all types of courses, and for all of the ways those courses are taught and delivered. Combined with one of the many proven-successful best practices, the possible configurations of an effective MyLab & Mastering implementation increase exponentially. Let us help you:

- **Increase achievement.** Instant access to reliable data can help in the development of personalized learning, assessment, and instruction and can provide a blueprint for faculty and institutional effectiveness.
- **Expand access.** From digital course materials and real-time assessments to fully online courses, MyLab & Mastering learning solutions are more flexible, more powerful, and more accessible than ever before.
- **Enable affordability.** Innovative technology offers the best opportunity to deliver personalized, scalable, and engaging solutions that drive results up and drive costs down.

We look forward to hearing about your achievements, and we hope you'll want to include your experience in the next MyLab & Mastering report. To tell us about your success, contact Candace Cooney, efficacy results manager, at candace.cooney@pearson.com.

HELPFUL PEARSON LINKS

Following is a list of links developed to inspire, support and promote conversation among educators and to communicate the latest and most-effective practices across the industry. We hope you find them useful and urge you to share them with your colleagues and others committed to improving the teaching and learning experience.

MYLAB & MASTERING: 10 BEST PRACTICES

www.pearsonmylabandmastering.com/northamerica/educators/results/

MY COURSE REDESIGN COMMUNITY

<http://community.pearson.com/courseredesign>

COURSE REDESIGN

www.pearsoncourseredesign.com

FACULTY ADVISOR NETWORK

<http://community.pearson.com/fan>

RESULTS GALLERY

www.pearsonmylabandmastering.com/results

TEACHING AND LEARNING BLOG

www.pearsonlearningsolutions.com/blog/channels/college-career-readiness/ask-the-experts-course-redesign-to-boost-achievement-and-lower-costs-part-2

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Pearson is committed to providing products and services in support of effective teaching and learning. We do this by fostering partnerships with all industry stakeholders, including you, our customers. This is your community. In a spirit of sharing best practices among peers, we offer instructors informative reports, present online forums and trainings, and sponsor various on-ground events throughout the year. We encourage you to participate, and we welcome your feedback.

MyAccountingLab[®] MyBCommLab[®] MyBizLab[®] MyEconLab[®]
MyFinanceLab[®] MyITLab[®] MyManagementLab[®]
MyMarketingLab[™] MyMISLab[™] MyOMLab[™] MyStatLab[™]

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