

MyEconLab

School Name Rock Valley College, Rockford, IL

Course Name Principles of Economics: Microeconomics, Principles of Economics: Macroeconomics

Course Format Flipped, lecture, online

Key Results Data show that students who earned higher MyEconLab scores also earned higher average exam grades. Data also indicate that students who completed all the MyEconLab homework assignments achieved higher average quiz, exam, and final course grades than students who skipped at least one MyEconLab homework assignment.

Submitted by

Michael Youngblood, Professor

Course materials

MyEconLab and *Economics Today: The Micro View*, Miller, and *Economics Today: The Macro View*, Miller

Setting

Rock Valley College, part of the 48-institution Illinois Community College System, is a public two-year community college in Rockford, a midsize city in the rural Great Lakes region. The school offers more than 100 courses for transfer, career programs, and certificates to approximately 8,600 students year: the average age is 25.9 years, 55 percent attend full time, and 21 percent identify as minority.

Principles of Economics: Microeconomics and Principles of Economics: Macroeconomics are one-semester three-credit general education courses taken mostly by business majors, but also by students for social science credit. Upon successful completion of these courses, students will be able to do the following:

1. Explain the factors that determine and influence the general level of output, employment, and prices in the U.S. economy.
2. Understand the reasons for differences in competing economic theories explaining the behavior of the national economy and advocating alternative policies.
3. Apply basic economic principles to contemporary problems in our society.
4. Define and use the terms and concepts related to macroeconomic analysis.
5. Analyze and interpret economic data and their graphical representation.

6. Identify key economic indicators and explain what they attempt to measure.

7. Demonstrate critical and analytical thinking skills.

Challenges and Goals

In summer 2013, Michael Youngblood, professor, was teaching an online version of his Microeconomics course and had little time to work on creating online quizzes and tests. Since commercial digital programs were available, he decided that trying to recreate the time-consuming work around summative assessments that had already been produced and designed was an inefficient use of his time. MyEconLab had the necessary quizzes and exams for an online course, and the inclusion of homework creation and student help aids facilitated its incorporation into his face-to-face classes, as well.

Implementation

Youngblood's course primarily comprises reading assignments, assessments, and lectures that are based on the premise that students have completed the required reading before class. Students are expected to be familiar with all material covered during scheduled class time. To encourage their engagement, Youngblood offers students a prescribed approach to prelecture work.

1. Print the Learning Objectives (posted on the course LMS) before reading each chapter.
2. Read the chapter Summary to get the "big picture" of the material covered in the chapter.
3. Read the chapter, underlining/highlighting the key points a student may want to review before completing a homework assignment or taking a quiz.
4. Review the definitions in the margin, identifying examples for each as the chapter is read.

My students are more engaged than they were in the past. They ask more sophisticated questions since they are familiar with the material after doing the assigned homework.

5. Redraw Key Figures (listed in the Learning Objectives), paying particular attention to:
 - The variables that are being measured along each axis
 - The slope (positive or negative) of the line on the graph
 - The reason why the graph is shaped the way it is
 - If any lines in the graph intersect, know the economic implication of that point of intersection.
6. Watch the animated explanation of the graph on MyEconLab (under Chapter Resources and Animations)
7. Do the related homework and quiz on MyEconLab.

MyEconLab homework assignments are not timed, and learning aids are turned on. Assignments are due by 11:30 p.m. on the Sunday prior to the week in which the material will be covered in class. Each assignment includes approximately 20 questions, depending on the rigor of the material; the lowest homework grade is dropped from the calculation of the final homework grade. No late homework is accepted under any circumstances. The Study Plan is optional, but Youngblood encourages students to use it for more personalized learning, particularly when studying for quizzes and exams. In Youngblood's end-of-semester-survey, one student noted, "What I like best about [MyEconLab] is the Study Plan tool. I used it to practice learning concepts and problems instead of spending hours reading a book."

MyEconLab quizzes are timed, and learning aids are turned off. The purpose of the time limit, explains Youngblood, is to limit a student's ability to refer to their book or notes during the quiz. Quizzes are due by 11:30 p.m. on Friday of the week prior to the exam covering the material. Each quiz comprises 15–20 objective questions, and the lowest quiz grade is dropped from calculation of the final quiz grade. No late quizzes are accepted.

Summative assessments include three midterm exams and a final exam. Exams are administered face-to-face and cover material from the text and lecture, including those questions that require students to apply the techniques of economic analysis. There are no make-up exams under any circumstances; if a student has a verifiable and documented reason for missing an exam, they receive 90 percent of their final exam score as the grade for the missed exam.

Flipping the class, where MyEconLab homework is due *before* lecture, ensures that Youngblood's students come to class ready to learn. "My students are more engaged than they were in the past," he says, "They ask more sophisticated questions since they are familiar with the material after doing the assigned homework." Youngblood reports that he now can spend lecture time focusing on the more challenging topics where students usually struggle. Students enjoy and appreciate that there is more time for class discussion of the many real-world applications of their course content.

Assessments

60 percent	Exams (three midterms + one final)
25 percent	MyEconLab quizzes
15 percent	MyEconLab homework assignments

Results and Data

Student success on course assessments is generally measured in terms of students earning an A, B, or C. Figure 1 shows that the average MyEconLab grade for students who showed mastery of course material by earning an A, B, or C on exams was 19 percent higher than the average MyEconLab grade for students who earned a D or F as their average exam grade. This analysis

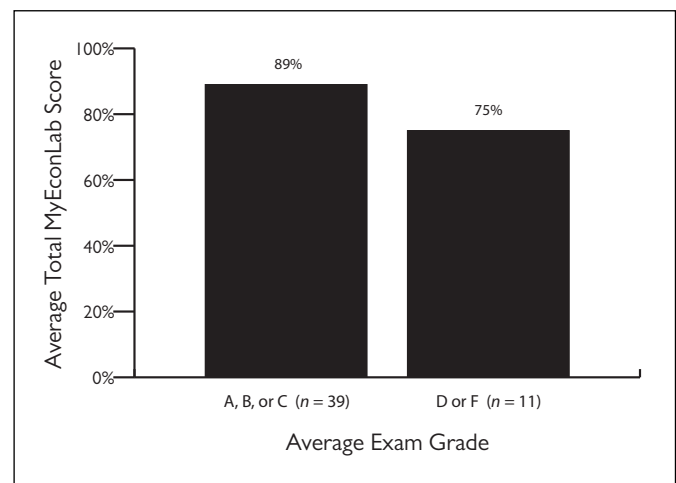


Figure 1. Average Exam Grades by Average MyEconLab Scores, Microeconomics, Spring 2015 (n = 50)

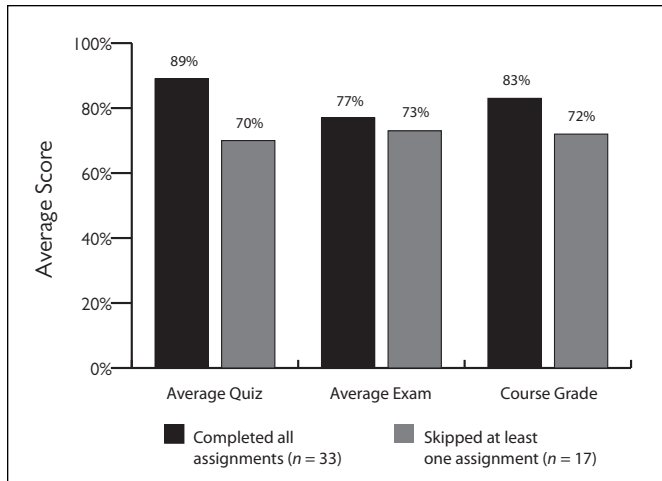


Figure 2. MyEconLab Homework Completion by Average Quiz, Exam, and Final Course Scores, Microeconomics, Spring 2015 (n = 50)

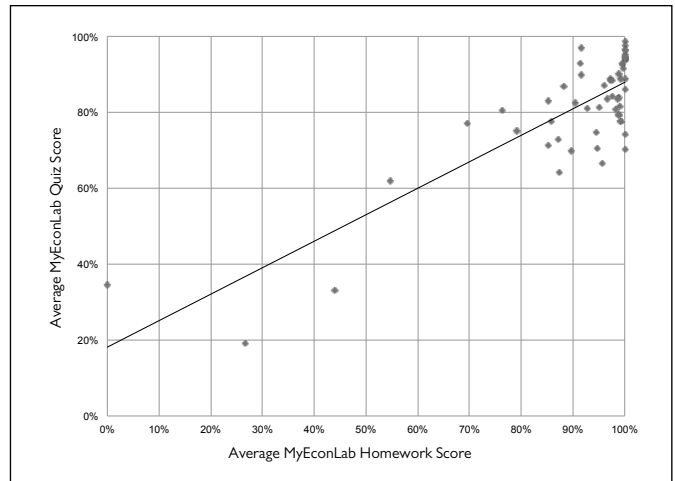


Figure 3. Correlation between Average MyEconLab Homework Scores and Average MyEconLab Quiz Scores, Macroeconomics, Spring 2015 (n = 67)

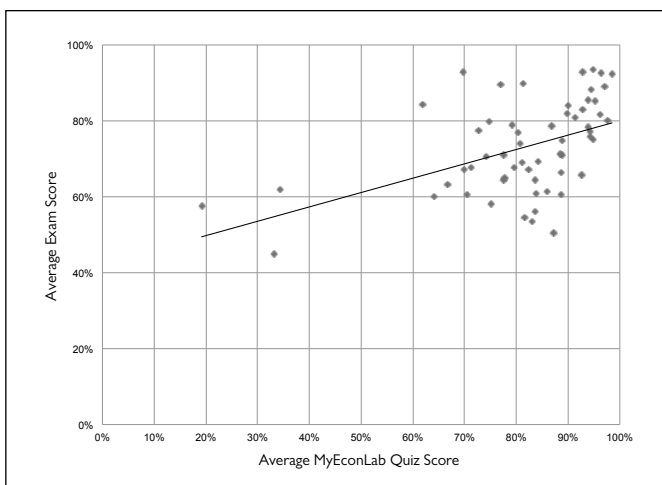


Figure 4. Correlation between Average MyEconLab Quiz Scores and Average Exam Scores, Macroeconomics, Spring 2015 (n = 67)

does not include two students in Microeconomics who only took one exam and did not complete the course.

MyEconLab homework completion rates were analyzed to determine if a relationship exists between homework completion and average quiz, exam and final course grades (Figure 2). Students were placed into two groups, based on the average number of skipped quizzes. Data show that students who completed more than the average number of skipped homework assignments earned substantially higher average quiz, exam, and final course grades.

66% Percentage of students who completed all assignments

1 Average number of skipped MyEconLab homework assignments

- Students who completed all MyEconLab homework assignments had average quiz grades 25 percent higher than students who skipped one or more homework assignments.
- Students who completed all MyEconLab homework assignments had average exam grades five percent higher than students who skipped one or more homework assignments.
- Students who completed all MyEconLab homework assignments had final course grades 13 percent higher than students who skipped 1 or more homework assignments.

Figures 3 and 4 are correlation graphs. Correlations do not imply causation, but instead measure the strength of a relationship between two variables. The p value measures the statistical significance/strength of this evidence (the correlation); a p value $< .01$ is considered strong evidence. Data show a very strong positive correlation exists for average MyEconLab homework scores and MyEconLab quiz scores, where $r = .83$ and $p < .01$; and a strong positive correlation of average MyEconLab quiz scores and average exam scores, where $r = .50$ and $p < .01$. As a best practice, MyEconLab grades may help Youngblood identify students early on who are struggling and might be at risk of poor overall course performance.

Youngblood uses the Search and Email by Criteria feature to connect proactively with his students and alert them that they are at risk of falling behind.

The Student Experience

In spring 2015, students were asked to participate in a voluntary end-of-semester survey. The survey was administered by Youngblood and covered the use of MyEconLab and its impact on learning and assessment. Of the students who responded:

- 86%** Agree or strongly agree that they would recommend use of MyEconLab to another student.
- 85%** Agree or strongly agree that their understanding of the course material increased as a result of using MyEconLab.
- 81%** Agree or strongly agree that using MyEconLab provided additional resources that helped them learn more than they would have from more traditional pencil and paper homework.
- 76%** Agree or strongly agree that the use of MyEconLab positively impacted their quiz and exam scores.

On the same survey, when asked what they liked best about MyEconLab, student answers included the following:

“The Help Me Solve This feature was incredibly useful in my understanding and solving of problems that just didn’t make sense through the book’s explanation. This feature works great for visual learners.”

“The ability to receive immediate feedback on homework assignments when questions were answered incorrectly.”

“The best part of MyEconLab was how the system gave corrections to wrong answers on the homework. They were usually detailed and helped me to understand the material.”

“How it related very closely to the book and how it gives great real-world scenarios.”

“Explanations were well written and understandable in a simple, yet effective way. There were always enough extra study problems so I never had to resort to an external website to find out what I wanted to.”

“The homework Help Me Solve This button. It really helps seeing additional problems and working through them step by step to get a better understanding of specifically what to do. Also the fact that when I answered a question right or wrong, it prompted me with a little blurb about what I did correct or wrong.”

Conclusion

Youngblood recommends that instructors use MyEconLab’s gradebook to help ensure their students keep up with homework and other assignments. A quick glance at the gradebook shows which students are not doing homework or who might be falling behind on due dates. Youngblood then uses the Search and Email by Criteria feature to connect proactively with his students and alert them that they are at risk of falling behind.

Youngblood reports that a key motivation for him to flip his classroom was his desire to increase student participation and involvement during lecture. He knew there was a better way than the passive learning of course content through PowerPoint. According to Arthur Chickering and Stephen Ehrmann, “Learning is not a spectator sport ... [students] must talk about what they are learning, write reflectively about it, relate it to past experiences, and apply it to their daily lives.”¹ Youngblood confirms that the flipped format helps him accomplish exactly the kind of interaction he sought.

Chickering, Arthur W. and Ehrmann, Stephen C., “Implementing the Seven Principles: Technology as Lever,” American Association for Higher Education and Accreditation Bulletin, 1996.

This user-report case study documents implementation practices and evaluates possible relationships between program implementation and student performance. These findings are not meant to imply causality or generalizability beyond this specific instance. Rather, findings from this study demonstrate associations that are potentially useful for further theory testing in future experimental studies. For this case study, a mixed-methods design was applied, and the data collected included qualitative data from interviews, quantitative program usage analytics, and student performance data. An open-ended interview protocol was used to guide data collection.