

MyLab Marketing educator study explores student performance at The Ohio State University

Key Findings

- Data show a very strong, positive correlation between MyLab assignment scores and MyLab quiz scores for both hybrid and online sections.
- MyLab assignments and assessments enabled students in both hybrid and online formats to have the same, quality course experience, with students earning similar homework, quiz, exam, and final course grades across both course formats.
- 87% of respondents on an end-of-semester survey agreed that the MyLab Mini Sims allowed them to practice business decision-making skills and helped them understand the impact of the decisions they were making.

Study Specifics

School: The Ohio State University, Columbus OH

Course name: Principles of Marketing

Course formats: Hybrid and online

Course materials: MyLab Marketing for *Principles of Marketing* by Kotler and Armstrong

Timeframe: Fall 2018

Educator: Rebecca Reczek, Dr. H. Lee “Buck” Mathews Professor of Marketing

Results reported by: Candace Cooney, Pearson Results Manager

Setting

- Locale: large, urban, public, four-year, land-grant, sea-grant, and space grant university with five campuses state-wide
- Enrollment: over 60,000 students on the main campus in Columbus
- Freshman retention rate: 94%
- Six-year graduation rate: 81%
- Total minority population: 21%

About the Course

Rebecca Reczek has been teaching at Ohio State since 2009. Principles of Marketing is a three-credit, entry-level course required of all business majors, enrolling approximately 2,000 students per year. The course provides students with an overview of the marketing function with an emphasis on creating value through marketing, market research, consumer behavior, pricing strategies, marketing channels, and various methods of promotion.

Challenges and Goals

In 2013, Reczek was interested in seeing how her students would respond to technology-enhanced learning. Faced with large lectures and students not reading the textbook prior to lecture, she viewed online homework as a way to engage students with the course content. With lecture sections of 250 or more students, hand-grading was not an option, and objective grading was appealing. As a solution, Reczek adopted MyLab™ Marketing for her course. The Mini Sims in MyLab would give her students an opportunity to apply course concepts and develop their decision-making skills. Additionally, the course format was changing from three face-to-face hours per week to a hybrid delivery, where students would spend two hours per week in class and one hour online, allowing extra time for out-of-class assignments.

Implementation

Conscious of the fact that course materials can be expensive, Reczek gives her students options when purchasing MyLab and the textbook. On an end-of-semester survey of her students, 75% of respondents indicated they purchased the low-cost MyLab code with eText, forgoing a print text completely.

Students use MyLab for understanding content, homework assignments, and assessment. Reczek estimates that students will spend approximately 2–3 hours per week on MyLab assignments, which includes the one hour per week for outside-of-class assignments as well as additional homework assignments. On the student survey, 52% of respondents said they spent 1–2 hours in MyLab, 36% spent 2–3 hours in the program, and 12% spent more than 3 hours using MyLab. Reczek views the MyLab assignments as formative — an opportunity for students to experiment and learn. They are completed weekly and consist of chapter warm-ups, video questions, marketing simulations, and chapter quizzes. Students are expected to read the textbook chapter and complete the chapter warm-ups prior to lecture, while all other MyLab assignments and assessments are completed after lecture.

Week one MyLab assignments: Reczek gives students a chance to ease into MyLab assignments. During the first week of classes, they must register for MyLab and complete all MyLab assignments for chapter 1 as well as the chapter warm-up exercises for chapters 2 and 3. Individual scores on these assignments do not count toward the final grade, but students do earn 100% for completing the exercises or 0% for lack of completion, which is ultimately worth 2.5% of the final grade.

Chapter warm-ups: Multiple-choice quizzes are completed after reading the chapter and before attending lecture. These quizzes are essentially a temperature check to assure that students have read the assigned material. Students have three attempts at completion. 80% of respondents on the student survey agreed that the chapter warm-ups helped them identify key chapter vocabulary and prepared them for lecture.

Video case studies: These visual cases help students check their understanding of the chapter material and reinforce basic concepts. Each video case is followed by multiple-choice questions, providing an opportunity for students to apply what they are reading to the real world. On the student survey, 67% of respondents agreed that the video cases provided a practical application of the chapter material and highlighted important chapter concepts.

Mini Simulations: Simulations ask students to apply course concepts to realistic business challenges they are likely to experience in their future careers, covering topics like marketing mix, marketing research, creating customer value, and strategic marketing. Students make a series of decisions, and the Mini Sim then branches, creating various scenario paths based on answers given. This personal learning experience provides an opportunity for Reczek's students to build and develop their critical thinking skills. Students find both the simulations and the grading of them challenging, so Reczek allows five attempts at completion for each exercise because they are a formative assignment. On the end-of-semester survey, students indicated the following:

- 83% of respondents agreed that the Mini Sims in MyLab provided a real-world application of the chapter material that allowed them to apply course concepts to realistic business challenges.
- 87% of respondents agreed that the Mini Sims allowed them to practice business decision-making skills and to understand the impact of the decisions they were making.
- 91% of respondents agreed that the Mini Sims were a different and engaging way of working with the chapter content.

Overall, students found the Mini Simulations challenging, yet valuable. Student survey comments on the Mini Sims include:

- *"I thought the Mini Sims were very helpful. Students always look for applicable material and these real-life instances were memorable as a student because of that."*
- *"Mini Sims encouraged critical thinking."*
- *"I particularly liked the simulations. I thought they were extremely helpful and I enjoyed being able to try out different choices to see how it affected my outcomes."*

MyLab quizzes: Weekly quizzes are comprised of 15 multiple-choice questions per chapter. The questions are selected from the test bank and are randomized and pooled to negate cheating. Students have one attempt at completion.

The midterm exam covers nine chapters and is comprised of 60 multiple-choice questions. Reczek utilizes test bank questions along with select questions she has written herself. Students have 110 minutes for completion. The final exam is comprised of 75 multiple-choice questions and is cumulative in nature, although only one-third of the questions assess concepts from the first half of the course.

Assessments

- 35% Cumulative final exam
- 35% Midterm exam
- 15% MyLab quizzes (18)
- 5% MyLab Mimi Sims (17)
- 5% MyLab video exercises (18)
- 2.5% MyLab Warm-up exercises (19)
- 2.5% MyLab registration and week one practice assignments

Results and Data

Figure 1 is a correlation graph; correlations do not imply causation but instead measure the strength of a relationship between two variables, where r is the correlation coefficient. The closer the positive r value is to 1.0, the stronger the correlation. The corresponding p -value measures the statistical significance/strength of this evidence (the correlation), where a p -value $<.05$ shows the existence of a positive correlation between these two variables.

- A very strong positive correlation exists between average MyLab assignment scores and average MyLab quiz scores in Reczek's hybrid section where $r=.81$ and $p<.001$ (figure 1).
- A strong positive correlation exists between average MyLab assignment scores and average MyLab quiz scores in Reczek's online section where $r=.76$ and $p<.001$ (not shown graphically).

MyLab assignments and quizzes are intended to help students identify how prepared they are to successfully complete the summative course exams.

Correlation of MyLab assignment score and MyLab quiz score

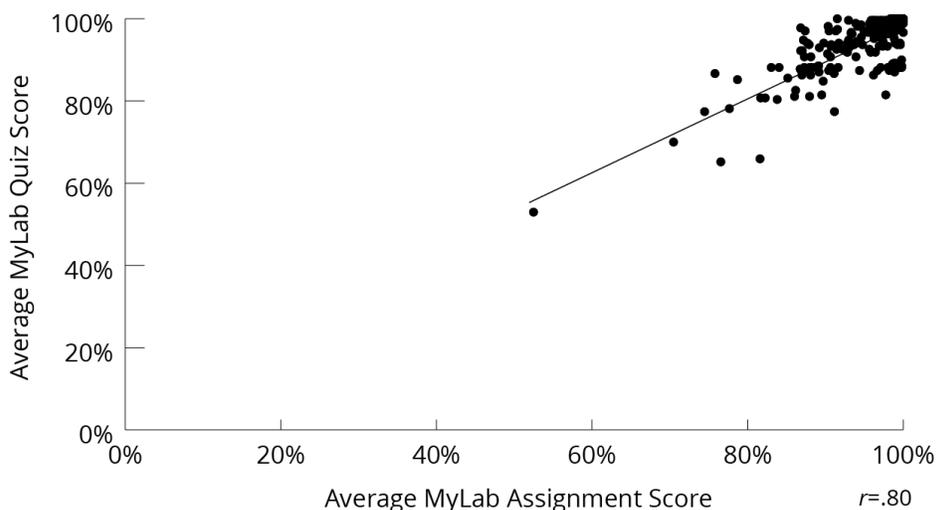


Figure 1. Correlation of MyLab Assignment Score to MyLab Quiz Score, Fall 2018 ($n=249$)

MyLab technology is intended to bring teaching beyond the classroom, holding students accountable for their personal learning. By offering identical assignments and assessments in both her hybrid and online class sections, Reczek was able to offer online students (who have no face-to-face instructor contact) a comparable experience to those students she meets with twice per week. The data support this and show that both assignment and assessment scores are nearly identical across both formats (table 1).

	Online	Hybrid
Avg Mini Sim	95%	96%
Avg Video	93%	93%
Avg Warm-up	95%	96%
Avg MyLab	94%	95%
Avg Quiz	95%	95%
Avg Midterm	77%	80%
Avg Final Exam	77%	78%
Avg Exam	77%	79%
Avg Course Score	82%	84%

Table 1. Average Course Assignment and Assessment Scores for Online ($n=316$) and Hybrid Sections ($n=249$), Fall 2018

The Student Experience

Responses from the Fall 2018 end-of-semester survey of Reczek's students indicate that the majority of responding students recognize the value of MyLab Marketing.

- 86% of respondents agreed that their understanding of the course material increased as a result of using MyLab.
- 80% of respondents agreed that MyLab homework assignments positively impacted their exam scores.
- 81% of respondents would recommend MyLab to another student.

Student responses to the question, "What were the benefits of MyLab?" included:

- *"It gave me real-world applications to the topics we learned in class and also reinforced key ideas to help prepare for exams."*
- *"Great way to stay engaged with the material (except for mini sims). Questions were great in terms of covering material."*
- *"Getting immediate feedback and everything in one centralized place."*
- *"The varying formats of practice with the material gave a more well-rounded definition of the concepts."*
- *"It helped reinforce the lecture material and helped me keep up with the class material."*

Conclusion

Often, large class sizes can create a barrier to meaningful homework and assignment completion. Reczek saw an opportunity to enhance learning and engage students in course material through the adoption of MyLab Marketing. Reczek's well-rounded use of MyLab encouraged students to read the text and complete assignments prior to lecture, helping students focus on important chapter content. Additionally, MyLab simulations added a critical thinking component to Reczek's course. Based on survey responses, students found these assignments challenging, but helped them develop important decision-making skills.