

## MyLab Entrepreneurship educator study examines quiz and exam scores at Oklahoma State University

<p><b>School name</b> Oklahoma State University, Stillwater, OK</p> <p><b>Course name</b> Introduction to Entrepreneurship</p> <p><b>Course format</b> Face to face</p> <p><b>Course materials</b> MyLab Entrepreneurship and <i>Entrepreneurship: Successfully Launching New Ventures</i> by Barringer and Ireland</p>	<p><b>Timeframe</b> Fall 2017</p> <p><b>Educator</b> Lincoln Brown, Professor</p> <p><b>Results reported by</b> Candace Cooney, Pearson Customer Outcomes Analytics Manager</p>
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### Key Findings

- 89 percent of students scoring above the median on MyLab quizzes earned an A for the final course grade.
- Students earning MyLab quiz scores above the median had average exam scores four percentage points higher than students who scored below the median, and the difference is statistically significant.
- On an end-of-semester student survey, 77 percent of respondents agreed that the use of MyLab helped them prepare for exams.

### Setting

- Locale: large, urban, four-year, land-grant, sun-grant, research institution in north-central Oklahoma
- Enrollment: more than 25,000 students, approximately 21,000 undergraduate
- Six-year graduation rate: 61 percent
- Freshman retention rate: 81 percent
- Gender: 51 percent male, 49 percent female
- Ethnicity: 69 percent – White, 6 percent – Hispanic, 5 percent – African American, 5 percent – American Indian, Other – 15 percent

## About the Course

Lincoln Brown is a third-year PhD student who has been teaching at Oklahoma State for three years. Introduction to Entrepreneurship is offered in sections of 35–40 students each semester and required of business majors. Learning goals for this one-semester, three-credit course include entrepreneurial opportunity recognition and creation, responsible risk taking, new venture creation, intrapreneurship, business planning, and the development of teamwork and communication skills.

## Challenges and Goals

In Fall 2017, Brown was assigned to teach Entrepreneurship for the first time. **To encourage students to read the textbook and attend lecture prepared with a basic understanding of the chapter topics, Brown chose MyLab Entrepreneurship for the pre-built quizzes.** Brown felt it was easier to assign quizzes in MyLab than in D2L, the school's learning management system. With MyLab quizzes already created and ready to go, Brown was able to quickly and easily generate his quizzes while making only minor adjustments.

## Implementation

### Inclusive Access

Oklahoma State uses the Pearson Inclusive Access (IA) model where students are billed automatically for the course materials during registration. This gives them immediate access to the MyLab course and eText as soon as Brown makes it available online, enabling a smooth course start. Students register for MyLab through D2L using a single access code provided by Brown. On an end-of-semester survey (97 percent response rate), students shared the following:

- 89 percent agreed that they appreciated having the MyLab and eText included as part of their course fee, rather than having to purchase additional course materials.
- 63 percent agreed that having access to MyLab and the eText on the first day of class increased their chances of earning a good grade in the course.
- 51 percent disclosed that prior to Inclusive Access, they purchased their course materials after the first day of class.

### Course materials

Although students received the eText as part of their course materials, they still had the option to purchase a print copy of the textbook.

- Just 3 percent (one out of 34 students) purchased a print textbook.
- 40 percent of students indicated that they were initially concerned about using only the eText for reading and assignments;
- However, by the end of the semester, 100 percent of these same students agreed they had become comfortable with the eText as their primary source for reading.

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Students shared the following comments on the survey about the eText:

- *"I liked that I didn't have to buy a book for this class."*
- *"[A benefit of MyLab] was always having the book but not having to carry it around."*
- *"Being able to use the online textbook to study [was a benefit of MyLab]."*

### **Class time and group work**

Class meets twice a week and utilizes lecture, video, and hands-on activities to convey entrepreneurial skills and information needed to successfully develop an entrepreneurial skill set and mindset. Students are placed on a team during the first week of class and work with the same group on a variety of projects throughout the semester. After a lecture on key chapter concepts, students work with their teams to apply the material to real-world business challenges. Frequently, this experiential work encourages students to apply entrepreneurship to other business disciplines as well as their other courses.

### **MyLab Entrepreneurship**

MyLab Entrepreneurship is required and used primarily for quizzing. Students are expected to read the required chapter in the eText prior to attending class, and MyLab quizzes are due prior to the first lecture each Tuesday. Fifteen weekly quizzes are assigned, and the ten highest scores account for the final score in the gradebook. Students may take all 15 quizzes, but should complete at least ten. Students must complete the first two quizzes, which Brown considers to be important for understanding the foundation concepts of Entrepreneurship. A typical quiz is comprised of 25 multiple-choice and true-false questions. Students have 60 minutes and two attempts at completion, with the highest of the two scores recorded in the gradebook. Brown maintains that MyLab quizzing not only saves him time, but allows him to assign more frequent quizzes with a greater quantity of questions than if he were hand grading.

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On the end-of-semester survey, students reported the following:

- 66 percent agreed that completing required chapter quizzes in MyLab encouraged them to read the textbook more than they otherwise would have.
- 77 percent agreed that the MyLab quizzes helped them prepare for their exams.
- Although optional, students reported that they also took advantage of other resources in MyLab to study for exams — 49 percent used the Study Plan, 31 percent used the chapter warm-up questions, and 31 percent used the flashcards.

### **Other assessments**

Students also complete two, paper-and-pencil exams consisting of 50 multiple-choice questions and they have 75 minutes for completion. Additionally, students create an executive summary, which outlines their idea for an original business. This 2–4 page paper includes a description of the product or service, an explanation of the market, a competitive analysis, and the student's role as the founding entrepreneur. A brief, three-minute pitch of their idea to the class concludes the project.

Class participation is an important part of the course, and students engage in a variety of experiential and group activities.

## Assessments

- 40% Midterm and final exams
- 23% Executive summary and presentation
- 15% Class participation
- 12% Team projects
- 10% MyLab quizzes (10)

## Results and Data

Grouping students based on median MyLab quiz score identifies that 89 percent of students scoring above the median earned an A as their final course grade. For students, successful completion of the formative MyLab quizzes is intended to help them identify where they may need additional remediation prior to completing the summative course exams. Confirming this, 77 percent of respondents on the student survey agreed that the MyLab quizzes helped them prepare for exams.

### Median MyLab quiz score and final course letter grades

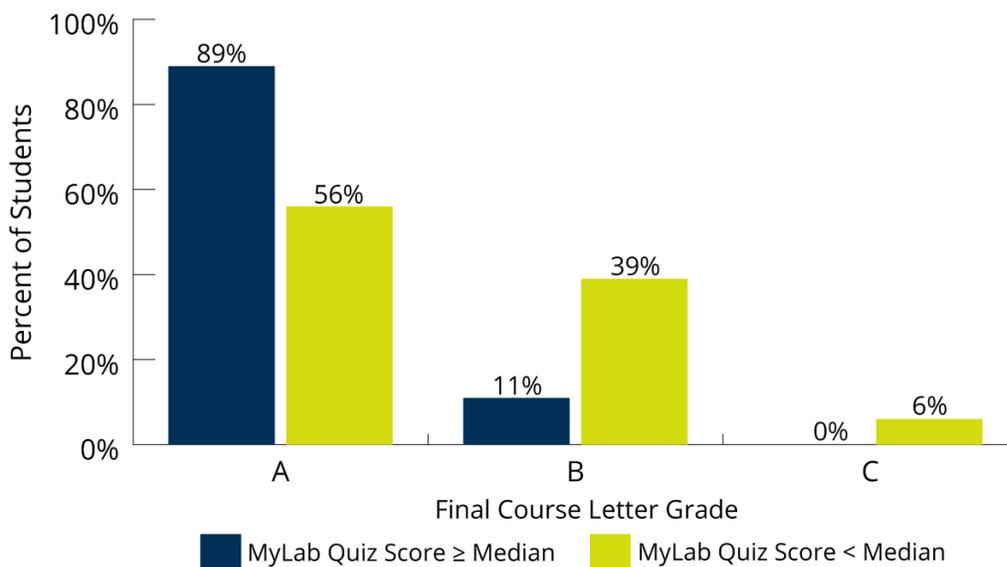


Figure 1. Relationship between Median MyLab Quiz Score and Final Course Grades, Fall 2017 ( $n=36$ )

Students were divided into two groups based on the median MyLab quiz score. Data show that students who earned above median MyLab scores had average exam scores 4 percentage points higher than students who scored below the median (figure 2). Results of a  $t$ -test, which compares the mean of both groups of students, confirms that the results are repeatable and not random, where  $t(68)=7.8$  and  $p<.001$ , indicating statistical significance.

## Median MyLab quiz score and average exam scores

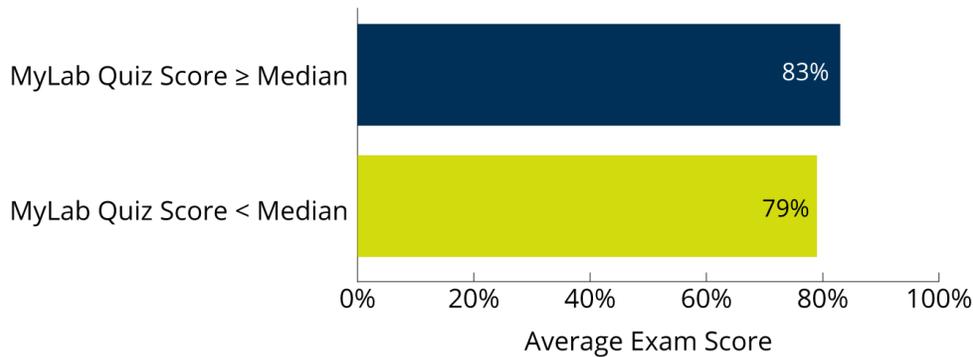


Figure 2. Average Exam Score for Students Scoring Above and Below the Median MyLab Quiz Score, Fall 2017 ( $n=36$ )

## The Student Experience

Responses from the Fall 2017 end-of-semester survey of Brown's students indicate that the majority of responding students recognize the value of MyLab Entrepreneurship.

- 77 percent of respondents agreed that the use of MyLab helped them prepare for exams.
- 74 percent of respondents agreed that they would recommend MyLab to other students taking this course.
- 75 percent of respondents used at least one of the optional resources in MyLab to prepare for exams.

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

- *"MyLab helped to keep me up to date with the information explained in class."*
- *"MyLab made me read the whole chapter to find answers and assured better reading and quiz grades."*
- *"[The benefit of MyLab] was the question feedback after each quiz."*
- *"MyLab helped me stay on track for studying for exams."*

**"MyLab helped me stay on track for studying for exams."**  
—Student, Oklahoma State University

## Conclusion

To encourage students to read the eText chapters prior to attending class, Brown used pre-lecture quizzes in MyLab. This strategy enabled students to come to class prepared to engage in discussion, exploration, critical-thinking, and other group activities, where they apply what they are learning to real-world business situations. On the end-of-semester survey, students concurred that completing MyLab assignments before lecture encouraged them to read the textbook more than they otherwise would have, allowing Brown to further support his students in better understanding course concepts through practical application.