

MyLab Management educator study documents the impact of pre-lecture MyLab homework assignments in the flipped classroom at Florida A&M University

School Name Florida A&M University, Tallahassee, FL	Timeframe Fall 2016
Course name Business Policy	Submitted by Jennifer Collins, Associate Professor
Course format Face to face, flipped classroom	Results reported by Candace Cooney, Pearson Customer Outcomes Analytics Manager
Course materials MyLab Management with <i>Strategic Management: Concepts</i> by David	

Key Findings

- Students earning MyLab Management scores higher than the average also earned higher quiz scores and final course grades.
- Required assignments in MyLab were a significant component of flipping the class. A majority of students (95 percent) on an end-of-semester survey agreed that completing assignments in MyLab prior to attending lecture enabled them to be more prepared to participate in class.
- A core objective of this capstone course is to develop the capacity to think strategically about a company and its business position. 97 percent of respondents on the student survey who completed extra credit writing projects in MyLab (76 percent of total students) agreed that the assignments required them to think critically and apply analytical reasoning skills to their writing.

Setting

- Locale: mid-sized, city, public, historically black, four-year institution located in the hills of Tallahassee
- Enrollment: approximately 8,000 students
- Class size, 20–50 students: 54 percent
- Student-faculty ratio: 15:1
- Freshman retention rate: 82 percent
- Graduation rate: 40 percent (six-year)

- Age 18–21: 62 percent
- Gender: 62 percent female
- Diversity: 90 percent African-American

About the Course

Jennifer Collins has been teaching for ten years, including nine years at FAMU, where she has been offering Business Policy to approximately 60 students each semester. This one-semester, three-credit capstone course is required of all graduating seniors in the School of Business and Industry. Business Policy is a capstone course requiring students to apply knowledge acquired from the different functional areas within the business curriculum to develop strategic processes with real-world organizations. This integrative effort provides students with a conceptual overview and practical experience necessary to understand the synergistic effect of strategic formulation, implementation, and evaluation processes. The overall objective of the course is to develop skills that will enable students to use their cross-functional knowledge to make rational and ethical decisions in a dynamic and global environment by strategically planning to capitalize on opportunities and minimizing potential threats.

Upon satisfactory completion of this course, students should be able to:

- Prepare an in-depth strategic analysis on a real organization;
- Devise strategic, cross-functional business decisions for real organizations; and
- Develop a strategy implementation plan.

Challenges and Goals

As part of her plans to flip her classroom, Collins sought a digital course companion that would require students to complete pre-work before attending lecture. She had been using end-of-chapter questions to generate discussion and lead into active-learning activities in class, but having the support of an online component would increase the stakes for students, while the auto-grading functionality would give Collins more time for class activity preparation and planning. She hoped that a digital program with quizzing functionality would encourage students to read more of the chapter background material so she could spend less time lecturing and more time focusing on case studies and other experiential applications of the course content. Collins adopted MyLab™ Management in Fall 2014 as she moved toward a [flipped classroom](#).

Implementation

MyLab Management is required; the program is used primarily by students working at home on a personal computer. Students use MyLab for understanding content, homework assignments, quizzing, and additional practice. Collins' goals for assigning work in MyLab are to introduce new concepts, provide homework and practice opportunities, and to help students assess their own understanding of the course material. As the course instructor, her role is to assign content and homework in MyLab and provide remote support to students using the program at home. Collins anticipates that students will spend at least two hours per week working in MyLab, which may include reading the eText, watching videos, and completing assignments. Based on results of a voluntary, end-of-semester survey (62 percent response rate), 37 percent of students said they spent 2–3 hours using MyLab while an additional 50 percent of students indicated they spent more than three hours working in the program.

Collins' course is designed for interactive, self-directed learning. Students are expected to read required assignments, attend class and actively participate in discussion, with participation having an important role in the learning process. The learning strategies used in Collins' class include experiential projects, case analyses, research projects, and lecturettes. These strategies enhance the course goals of analytical and critical thinking, application, synthesis, communication (oral and written), leadership, decision-making, and cooperative-learning skills.

MyLab Assignments

Following a Pearson best practice, Collins has a Pearson representative attend her lecture on the first day of class to review MyLab, showing students how to register and get started. Typical MyLab start-up documents can be found [here](#). Collins generally covers two chapters per week and students complete one MyLab assignment for each chapter. She utilizes a variety of MyLab assignments, including:

- **Chapter Warm-up assignments:** students complete these 5–10 question, multiple-choice quizzes 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 just one attempt at completion.
- **Decision Making Mini-Simulations:** Mini-simulations called 'Try-It' put Collins' students in the role of manager as they make a series of decisions based on a realistic business challenge. The simulations change and branch based on their decisions, creating various scenario paths. Each simulation takes about 15–20 minutes to complete.
- **Video assignments:** 'Watch It' and 'Think Like a Manager' videos explore a variety of business topics related to the theory students are learning and assess students' comprehension of the concepts covered in each video. Videos are less than ten minutes in length and students have one attempt at completing a five-question, multiple-choice quiz.
- **Extra credit writing assignments:** Collins offers students the opportunity to earn extra credit by completing auto-graded writing assignments in MyLab. Students have an additional opportunity to practice critical thinking skills and gain a deeper understanding of the course content through analysis. Collins believes that while all the MyLab assignments are beneficial and the homework assignments encourage her students to read and engage with the chapter content, it is the MyLab writing assignments that most inspire critical analysis and application with her students.

Because success in a flipped class relies on student preparedness, completion of the MyLab assignment is essentially a student's ticket into lecture. A student who has not completed the MyLab worked is deemed unable to participate in class and is then given a paper-and-pencil, short essay-type assignment which they must complete for accuracy. Once finished, that assignment is turned in for partial credit, and the student is then able to join and participate in class. Collins reports that by the end of the second week of the semester, all students are completing the MyLab homework assignments prior to attending lecture.

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

- 97 percent of respondents agreed that completing the MyLab assignments (Warm-ups, simulations, and video quizzes) prior to class helped them get familiar with chapter content before attending lecture.
- 95 percent of respondents agreed that completing MyLab assignments prior to lecture enabled them to be more prepared to participate in class.

- 87 percent of respondents agreed that the video exercises in MyLab helped them visualize the chapter contents in action.
- 89 percent of respondents agreed that the simulations in MyLab helped them practice decision-making and apply the chapter content to a real-world business challenge.
- 76 percent of respondents completed extra credit writing assignments in MyLab.
- 97 percent of students who completed extra credit writing assignments agreed that they were challenged to think critically and apply critical-reasoning skills in these assignments.

Student comments from the survey about the MyLab assignments include:

- *"The [MyLab] quizzes and other assessments prepared me for the in-class conversations and assignments."*
- *"The types of questions asked [in MyLab] were relatable and applied to real-life situations and decision making. In addition, the videos and simulations were very engaging and made me think about real business situations."*
- *"The simulations and videos enhanced my understanding of the topics and chapters that were discussed in class."*

Additional course assignments

Team strategic plan/service learning project: [Service learning](#) is a methodology that combines learning goals and community service; this project is a collaboration between faculty and community partners where students apply course content to community-based activities, giving students experiential opportunities in the real-world. Students work in teams to complete a strategic analysis of an organization, develop a project management plan for a given assignment, create a high-quality, professional project deliverable, and produce a high-quality, professional, client-oriented presentation.

Case presentations: Students work in teams to present case study analysis for a case study selected from the textbook. Every team member is required to participate in the both the 15–20 minute presentation and the question-and-answer session that follows.

Quizzes: Weekly paper-and-pencil quizzes consisting of 10–15 application-based, multiple-choice questions that require critical-thinking and analysis are administered at the beginning of class, pertaining to the chapter content previously covered. Quizzes are based on textbook reading, videos, other assigned reading, class discussions, and class experiential exercises.

BSG simulation: Students work in teams on this business strategy simulation, which has each team running an athletic footwear company. Students make weekly strategic decisions and see immediately how their decisions impact the company's bottom line. The competition begins with two practice sessions and concludes with ten competitive rounds. One team is announced the winner at the end of the semester, and all teams are ranked nationally against participating teams from other universities.

Financial strategic plan: students consult with Financial Literacy coaches to create a comprehensive, executable personal strategic plan, complete [FDIC's Money Smart modules](#), and attend three financial literacy workshops during the semester.

Lecture: Lecture is a combination of three activities. After the initial quiz, Collins reviews the more challenging chapter contents as identified by [item analysis](#) in the MyLab gradebook, where she looks for weaknesses in the learning objectives covered. Collins reports that item analysis drives her lecture, focusing only on areas identified as more difficult or misunderstood by her students. She caters her lecture to specific topics, leading to more time for case studies and critical analysis activities. The majority of class time, however, is spent on experiential activities. Students work in groups on their team presentations, the BSG simulation, and other application-oriented case studies. Finally, students work on their service learning project as time allows. Groups consist of 4–5 students but can change after the first couple of weeks. Collins solicits team leaders, who must apply via resume to her. Once leaders are selected, the other students must apply to be part of a leader’s team. Generally, this is a two-week process before group project work can begin in class.

Assessments

- 25% Strategic team plan/service learning project
- 25% In-class quizzes
- 15% Business strategy computer simulation
- 10% MyLab assignments
- 10% Financial strategic plan
- 10% Professionalism
- 5% Case presentation

Results and Data

Students were divided into two groups based on the average MyLab score. Students who scored above average on MyLab assignments earned higher quiz scores and final course grades than students who scored below the MyLab average (figure 1).

- Average MyLab score: 82 percent
- Students earning MyLab scores above average earned average quiz scores five percentage points higher than students scoring below the MyLab average.
- Students earning MyLab scores above average earned final course grades five percentage points higher (the difference between earning a C or a D) than students scoring below the MyLab average.
- 67 percent of total students earned a MyLab score higher than average ($n=41$)

Relationship between MyLab scores and quiz and final course scores

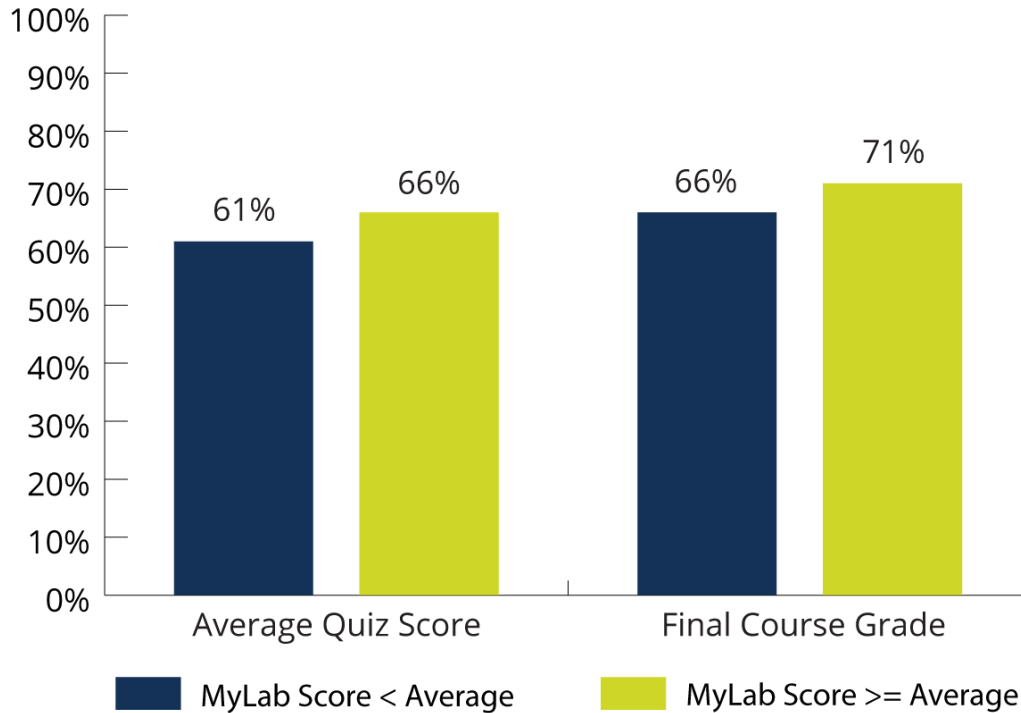


Figure 1. Relationship between Average MyLab Scores and Average Quiz and Final Course Grades, Fall 2016 ($n=61$)

Correlation analysis is frequently completed in an educator study between the MyLab scores and other course assessment scores like quizzes and exams. 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 r value is to 1.0, the stronger the correlation.

As noted above in Collins' implementation of the MyLab, the assignments are completed prior to attending class to provide students with the background and basics that enable Collins to flip her class and do more experiential, critical analysis activities in class. The in-class, paper-and-pencil quizzes are more challenging, comprised of questions that may include material from the textbook, videos, class discussion, and other assigned readings. The correlation between average MyLab scores and average quiz scores was weak, where $r=.26$. This may be explained in part by these format and difficulty differences between the MyLab assignments and the quizzes, where the average score differed by 18 percentage points:

- Average MyLab score: 82 percent
- Average in-class quiz score: 64 percent

Additional research is needed to develop and test this concept further.

The Student Experience

Responses from the Fall 2016 end-of-semester, voluntary survey of Collins' students indicate that the majority of responding students recognize the value of MyLab Management.

- 95 percent of students strongly agree or agree that their understanding of the course material increased as a result of using MyLab.
- 86 percent of students strongly agree or agree that they would recommend MyLab to another student.
- 79 percent of students strongly agree or agree that the use of MyLab positively impacted their quiz scores.

Student survey responses to the question, “What did you like most about MyLab?” include:

- *“It allowed for me to study extra material to help me understand my projects.”*
- *“The program used real-life examples and companies which helps give you an idea of which decisions you should make and the reasoning behind the answer choices.”*
- *“I found that doing the modules prior to attending class helped me understand the material (even if my reading was not very thorough).”*
- *“I liked how the system would tell me what was incorrect so I could go back and study that material.”*

Conclusion

Teaching in a flipped class gives Collins more freedom to decide what topics to cover and how much time to allocate to them, given the strengths and weaknesses of the current group of students. Completion of MyLab assignments prior to class enables her students to come to lecture 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, her students overwhelmingly concurred that completing MyLab assignments before lecture prepared them to participate. And Collins is able to support her students in better understanding the concepts through practical application. Conversation and collaboration have increased as students explore the course concepts in a deeper way, putting the skills they are learning in practice through a wide variety of classroom activities, made possible by pre-lecture assignments and flipping the class.