

MyAccountingLab

School Name Worcester State University, Worcester, MA
Course Name Financial Accounting
Course Format Blended, lecture

Key Results Data for this course indicate strong positive correlations between MyAccountingLab homework and quiz scores, as well as MyAccountingLab quiz scores and average exam scores (blended sections). Data also show that students who completed most MyAccountingLab homework assignments had exam grades 13 percentage points higher than those who skipped at least two assignments (lecture sections).

Submitted by
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Course materials
MyAccountingLab and *Financial Accounting*, Harrison, Horngren, and Thomas

Setting

Worcester State University is a four-year public university in residential Worcester, the second-largest city in New England. The school serves approximately 5,500 students: 97 percent are from in-state, 67 percent attend full time, 61 percent receive need-based financial aid, and 17 percent report an ethnicity other than Caucasian. Its small size means that 75 percent of the school's classes have fewer than 20 students.

Mary Clay, assistant professor, has taught full time for 12 years, the last four years at Worcester. She has taught Financial Accounting for 12 years, the last two years in the current course format.

Financial Accounting is a one-semester, three-credit course that is part of a two-semester sequence. It is required of all business majors, as well as other majors, such as criminal justice, where it is part of the curriculum.

Upon successful completion of the course, students will be able to do the following:

- Define basic accounting terminology, the accounting equation, principles, and concepts.
- Use the accounting cycle process and demonstrate how businesses use this information to form financial statements.
- Understand the purpose and structure of the four main financial statements: balance sheet, income statement, cash flow statement, and statement of retained earnings.
- Demonstrate critical-thinking and problem-solving skills, ethical concerns, and the ability to use appropriate computer software.

Challenges and Goals

Prior to spring 2014, Clay was thinking about offering a blended course for Financial Accounting; the need for homework assignments and automated grading had her looking at the various options presented by publishers. Several of her colleagues were using MyAccountingLab, and after reviewing all available digital resources, she chose MyAccountingLab. Main benefits included its ability to work in both blended and more-traditional lecture courses: she could assign both formative and summative assessments, such as homework and quizzes in MyAccountingLab, thereby offering flexibility to students with varied scheduling needs.

Implementation

Clay requires use of MyAccountingLab in both her blended and lecture sections. In blended sections, students meet face-to-face six times per semester, and use MyAccountingLab for homework, extra practice, and summative quizzes. Use of MyAccountingLab is self-paced, and students typically use personal computers to complete their work. Clay encourages students in her blended sections to spend at least seven hours per week reading the textbook, working with the PowerPoints and study notes she creates, reviewing worked problems with annotations, and working in MyAccountingLab.

In lecture sections, students use MyAccountingLab for homework and additional practice. Clay expects lecture students to spend at least three hours outside of class reading and doing homework in MyAccountingLab. Lecture time is a combination of content presentation and problem solving. Clay spends the first half of lecture reviewing challenging textbook content or other content that needs further explanation with PowerPoints; the remainder of lecture is spent working a specific problem, step by step, so students can see how each part of the solution fits together. Students then work in groups or pairs on a similar type of homework problem.

Clay gives 21 MyAccountingLab homework assignments (three per week) comprising one or two in-depth, multipart problems per assignment. Students are allowed unlimited attempts at completion, and learning aids are turned on. Homework may be started in class when time permits, but students have firm deadlines; each assignment is due before the beginning of the next lecture.

In blended sections, students complete four MyAccountingLab quizzes (one every two or three weeks). Students are allowed two attempts, learning aids are turned off, and the quizzes are timed. The final quiz grade is the average of the two quiz attempts. Students in lecture sections do not take quizzes.

All exams are pencil and paper and given face-to-face. Students in lecture sections complete four exams and have 50 minutes to complete them; students in blended sections complete three exams and have 60 minutes to complete them. Make-up exams are given only when scheduled with instructor approval prior to the original exam date and time.

Assessments

Blended

60 percent	Exams (three)
20 percent	MyAccountingLab homework assignments (21)
20 percent	MyAccountingLab homework quizzes (4)

Lecture

85 percent	Exams (four)
15 percent	MyAccountingLab homework assignments (21)

Results and Data

For the lecture section, average exam scores and average MyAccountingLab homework scores were compared. Data show that students who showed mastery of course material (earned an A, B, or C average on exams) also had average MyAccountingLab homework scores 13 percentage points higher than students who earned a D or F average exam grade (Table 1).

Average Exam Grade	Average MyAccountingLab Homework Score
A, B, or C	96%
D or F	83%

Table 1. Average Exam Grades and MyAccountingLab Homework Scores, Lecture section, Spring 2015 ($n = 28$)

Also for the lecture section, MyAccountingLab homework completion rates were analyzed to determine if a relationship exists between homework completion and average exam scores. Students were placed into two groups based on the average number of skipped assignments. Data indicate that students who completed more than the average number of skipped assignments earned substantially higher average exam scores (Figure 1).

- Average number of skipped homework assignments: 1
- Students who skipped 1 or fewer MyAccountingLab assignments had average exam grades 13 percentage points higher than students who skipped 2 or more MyAccountingLab assignments.
- Fifty-four percent of students completed all quizzes ($n = 15$).

Figures 2, 3 and 4 are correlation graphs. Correlations do not imply causation but instead measure the strength of a relationship between two variables. The corresponding p -value measures the statistical significance/strength of this evidence (the correlation), where a p -value $< .01$ confirms the existence of a positive correlation between these two variables.

- Average MyAccountingLab homework scores and average MyAccountingLab quiz scores (blended section): very strong positive correlation where $r = .92$ and p -value $< .01$.
- Average MyAccountingLab quiz scores and average exam scores (blended section): strong positive correlation where $r = .66$ and p -value $< .01$.

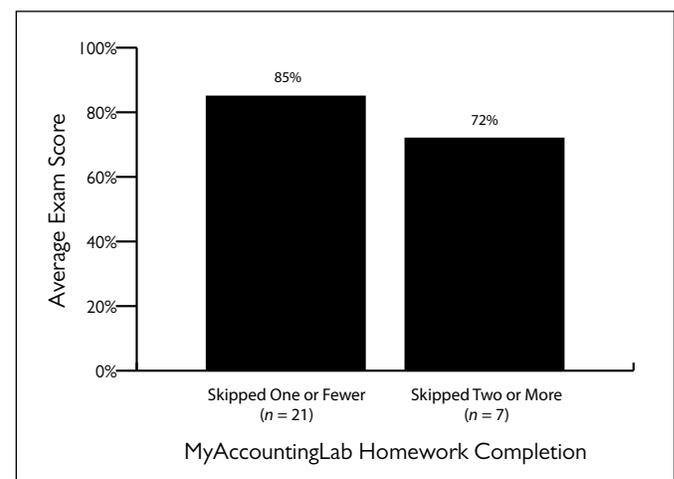


Figure 1. Relationship between MyAccountingLab Homework Completion and Average Exam Scores, Spring 2015, Lecture Section ($N = 28$)

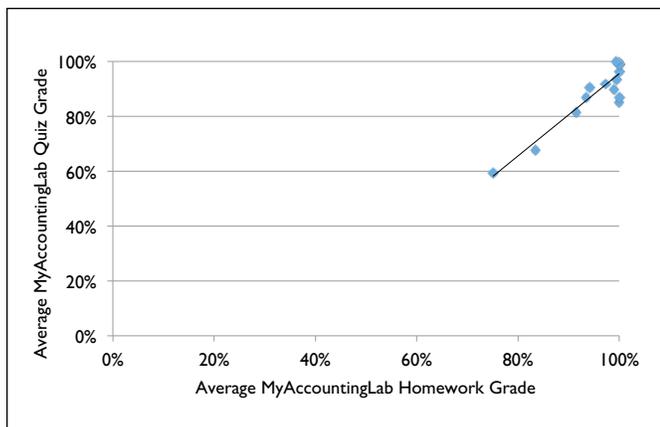


Figure 2. Correlation between Average MyAccountingLab Homework Scores and Average MyAccountingLab Quiz Scores, Spring 2015, Blended Section (n = 16)

- Average MyAccountingLab homework scores and average exam scores (lecture section): strong positive correlation where $r = .53$ and p -value $< .01$.

The formative MyAccountingLab homework grades may help students identify where they stand in terms of successfully completing the quiz and exam assessments. (Additional research is needed to develop and test this concept further.) As a best practice, MyAccountingLab is intended to help Clay identify students early on who are struggling and might be at risk of poor course performance.

The Student Experience

In an end-of-semester student survey, Clay asked her students to respond to 10 questions about the course, including the following question about MyAccountingLab:

Using a response scale from 1 (unsatisfactory) to 5 (excellent), how effective was the technology used for the class in helping you learn?

4.42 out of 5 Average satisfaction score for the blended section of the course.

4.41 out of 5 Average satisfaction score for the lecture section of the course.

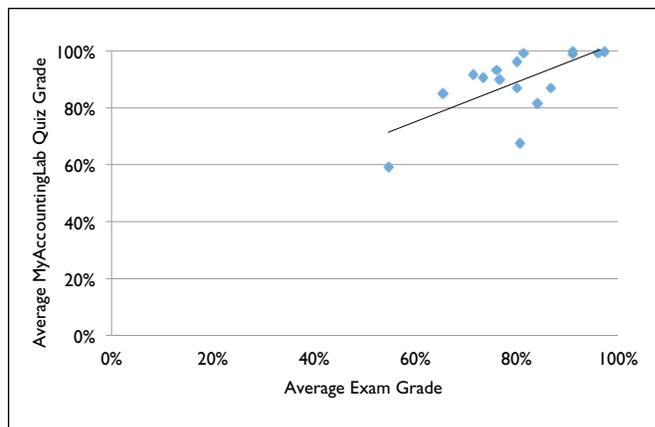


Figure 3. Correlation between Average MyAccountingLab Quiz Scores and Average Exam Scores, Spring 2015, Blended Section (n = 16)

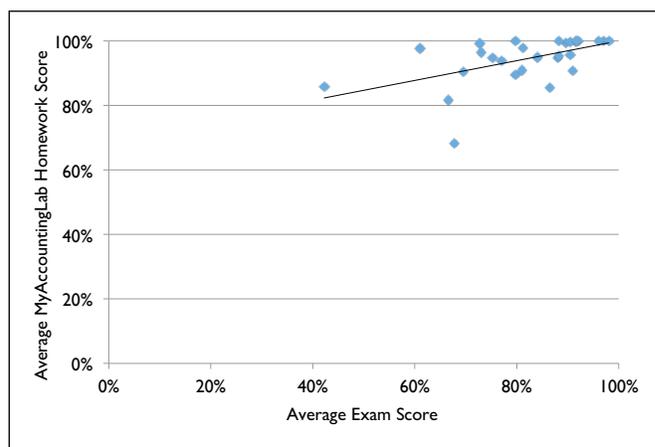


Figure 4. Correlation between Average MyAccountingLab Homework Scores and Average Exam Scores, Spring 2015, Lecture Section (n = 28)

Conclusion

Clay believes that use of MyAccountingLab resulted in positive changes in both her blended and lecture Financial Accounting sections. The data show noteworthy correlations between MyAccountingLab homework scores and both average quiz and average exam scores, and illustrate that students who earned higher MyAccountingLab homework scores also earned higher average exam scores. In addition, because Clay knows that students are learning course basics from MyAccountingLab, she can target lectures to cover the most challenging content that requires more in-depth, hands-on coverage.

Implementation and results case studies share actual implementation practices and evaluate possible relationships between program implementation and student performance. The findings are not meant to imply causality or generalizability within or beyond these instances. Rather, they can begin to provide informed considerations for implementation and adaptation decisions in other user contexts. For this case study, mixed-methods designs were applied, and the data collected included qualitative data from interviews, quantitative program usage analytics, and performance data. Open-ended interviews were used to guide data collection.