MyITLab

School Name MacEwan University, Edmonton, Alberta, Canada

Course Name Business Computing

Course Format Flipped, blended, ebook

Key Results Data indicate strong positive correlations between MyITLab training assignments and MyITLab Grader Projects and between MyITLab Grader Projects and average exam grades, suggesting positive relationships exist between successive course assignments. In addition, students who earn higher Grader Project scores perform better on exams and earn higher final course grades.

Submitted by
Randy Jenne, Associate Professor

Course materials
Exploring Microsoft Office 2013, Volume 1 and 2 (ebook), Canadian edition, Poatsy, et al.

Setting

MacEwan University serves more than 19,000 full- and part-time students across three urban campuses. The largest of the three campuses, City Centre, spans six city blocks in downtown Edmonton. Students are an average of 23 years old; 65 percent are women, 35 percent are men.

Business Computing is a one-semester, three-credit course taken by approximately 700 business certificate and diploma students each year. Students use the Windows operating system to develop foundational skills in the areas of file management, word processing, spreadsheets, presentation software, and emerging technologies to both support them in subsequent courses and prepare them for the business world. Projects emphasize problem solving, data analysis, and the use of Internet communication tools.

Challenges and Goals

Randy Jenne, associate professor, piloted MyITLab in 2008 after being disappointed by a different online homework management program. Jenne was specifically interested in offering his students training simulations, as well as comprehensive exercises and assignments in Word, Excel, and PowerPoint to enable the kind of rich, hands-on learning that a simple lecture format cannot provide.

Implementation

Jenne employs a flipped classroom in which MyITLab is used to teach basic concepts, as well as for practice and homework. Students work at their own pace, but have firm due dates for assignment submissions. Students complete required MyITLab Skill Trainings before midnight of each lecture. They have unlimited attempts to complete their assignments, usually four per application. Lectures are conducted in a lab setting—approximately one half is spent addressing challenging chapter content; during the other half, students begin MyITLab Grader Project assignments, which are due at midnight that night and on which they have unlimited attempts. For both Skill Trainings and Grader Projects, all learning aids are turned on and students' highest scores are recorded as their final grades.

After students complete all the chapters (three to four) in a given application, Jenne uses the MyITLab project creation tool to generate a cumulative capstone project that covers all skills and is graded in MyITLab. He also creates an exam that is similar to the capstone project and that requires students to work in Microsoft applications. The exams are hands-on, with students applying the knowledge and skills they've learned using Word, Excel, and PowerPoint.

In addition, Jenne has developed a series of five-minute "how to" videos to explain the most difficult topics in each application. Students are encouraged to use these videos for review, homework, and exam preparation.

By the end of the course, students will have completed a total of 12 simulation trainings, 12 Grader Projects, and 3 exams in MyITLab.

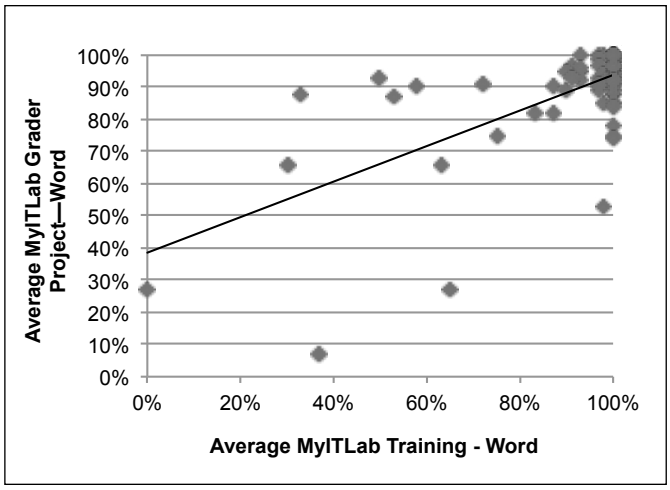

Figure 1. Correlation between Average MyITLab Word Training Simulation and Grader Project Scores, Winter 2015 (*n* = 76)

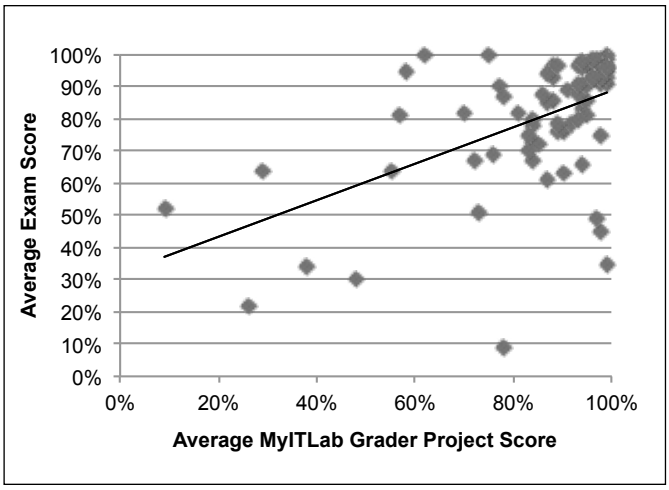

Figure 2. Correlation between Average MyITLab Grader Project Scores and Average Exam Scores, Winter 2015 (*n* = 76)

Assessments	
18 percent	MyITLab Grader Projects
17 percent	MyITLab trainer activities
16 percent	Excel exam
10 percent	PowerPoint exam
10 percent	Word exam
8 percent	Excel capstone project
5 percent	File management capstone project
5 percent	PowerPoint capstone project
5 percent	Publisher/emerging technologies capstone project
5 percent	Word capstone project
1 percent	Quizzes

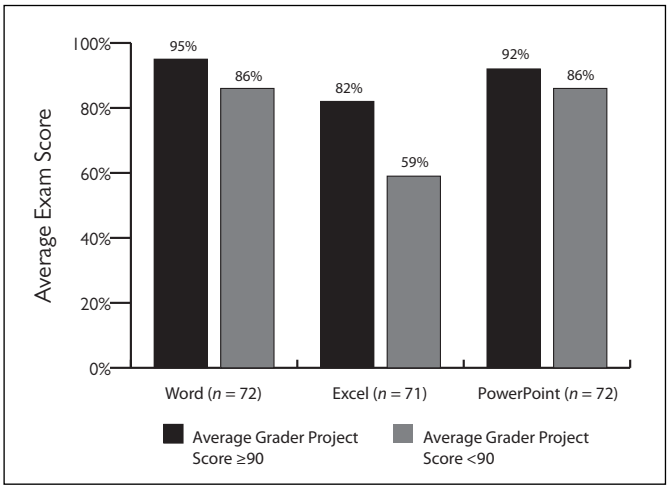

Figure 3. Comparison of Average Exam Scores per Application by Grader Project Scores, Winter 2015 (Word ≥ 90 percent, *n* = 46, < 90 percent, *n* = 22; Excel ≥ 90 percent, *n* = 30, < 90 percent, *n* = 39; PowerPoint ≥ 90 percent, *n* = 56, < 90 percent, *n* = 15)

Results and Data

Student performance data from Word training simulations and Grader Projects indicate a strong, positive correlation where $r = .65$, p value $< .001$, suggesting a positive relationship between success on the simulation trainings and the Grader Projects (Figure 1).

Figure 2 shows a strong, positive correlation ($r = .52$, p value $< .001$) of overall average MyITLab Grader Project scores to average exam scores. Jenne chose 90 percent as the cut point for his analysis and split the class into two groups: students who earned 90 percent or higher on Grader Projects, and students who earned less than 90 percent. Students who earned, on average, greater than 90 percent on Grader Projects also earned higher average exam scores on all three applications (Figure 3). This suggests that working to achieve higher scores on Grader Projects may successfully prepare students for MyITLab application exams. (Only students who completed Grader Projects and took the corresponding exams were included in this analysis.)

Data also indicate a very strong, positive correlation between the number of completed MyITLab assignments and a student's final course grade (Figure 4). Skipping training assignments and student final grades show a very strong correlation ($r = .90$, p value $< .01$), as did skipping exams ($r = .93$, p value $< .01$), and Grader Projects ($r = .77$, p value $< .01$). On average, students

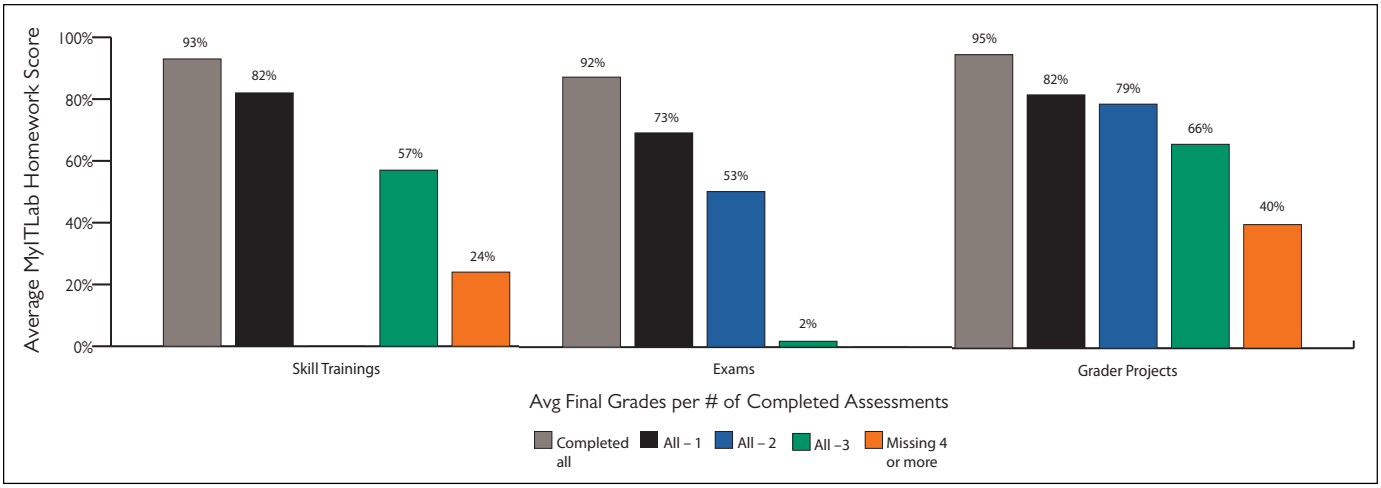

Figure 4. Correlation between Number of Completed Assignments and Students' Grades per Type of Assessment, Winter 2015 (n = 76)

who missed three or more out of a total of 22 assignments received a failing grade in the course while, on average, students who missed three or fewer assignments received a passing grade in the course. Those students who completed all 22 assignments consistently scored the highest final grades.

The Student Experience

At the end of the fall 2014 semester, students were asked to participate in an eight-question survey about their use of MyITLab and its impact on their learning and assessments. Twenty percent of the students agreed to participate in the survey.

100% Agreed or strongly agreed that their understanding of course material increased as a result of using MyITLab.

95% Agreed or strongly agreed that the use of MyITLab positively affected their quiz and exam scores.

When asked what they liked best about MyITLab, student responses included the following:

"The [skill trainings]. It was great to be able to go back and watch how to do things."

"The learning aids. There is no way to not understand a subject if a student uses them. They make studying fun."

"The marked-up report because it showed me in detail what areas I needed improvement on."

"MyITLab was easy to follow. It showed me how to complete steps when I was stuck. I took full advantage of these features and would recommend them to anyone taking a course with MyITLab."

Conclusion

Implementing MyITLab in a flipped classroom has changed how Jenne teaches. Because many of today's students are less willing to passively sit through a PowerPoint lecture or even read a textbook, Jenne requires assignments be completed *prior* to lectures. Knowing that MyITLab has covered the basics enables him to focus lectures on the course's most challenging topics.

Thanks to Jenne's clear schedule and mandatory timetable for assignment completion, students are able to work more independently. Jenne reports that some students complete assignments well ahead of the due dates. In fact, Jenne also reports that students in the flipped/blended environment attend class less frequently because their work in MyITLab takes the place of learning concepts via lecture. "The need for lecture depends on what type of learner the student is," says Jenne. "With MyITLab, traditional lecture is no longer the only—or even the best—way to teach this course." As a result of fewer students attending lectures, Jenne's future plans include possibly scheduling two sections at the same time.

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.