Pearson

MyLab IT educator study

A look at impact of computer application assignments at South Plains College

Key findings:

- Students who completed all MyLab IT™ Simulation Trainings earned average Grader Project scores 11 percentage points higher than students who skipped one or more Simulation Trainings.
- Students who scored above average on MyLab IT Grader Projects earned average exam scores 12 percentage points higher than students who scored below average on Grader Projects.
- On an end-of-semester survey, 96% of respondents agreed that their understanding of the course material increased as a result of using MyLab IT.

Setting

- South Plains College (SPC) is a comprehensive, two-year community college serving a 15-county area that comprises the southern portion of the Texas High Plains.
- Overall, SPC serves more than 15,000 individuals annually through its various educational programs.
- Nearly half of all SPC students are the first in their families to attend college.

School name: South Plains College, Levelland, TX

Course name: Business Computer Applications

Course format: Face to face

Course materials: *Exploring Microsoft Office 2016, Volume 1* by Poatsy et al. and *Technology in Action* by Evans, Martin, and Poatsy

Timeframe: Fall 2018

Educator: Patrick Logue, Professor of Computer Information Systems

Results reported by: Sara Kasper, Pearson Results Manager

About the course

The emphasis of this course is on business applications of software, including word processing, spreadsheets, databases, presentation graphics, and business-oriented utilization of the internet.

Patrick Logue has been at South Plains College for 17 years and has taught the Business Computer Applications course since 2001. He teaches six sections (including face to face and online) of the course in the Fall semester. In total, six educators teach 20+ sections of the course in the Fall to more than 500 students.

Challenges and Goals

In 2015, Computer Information Systems (CIS) faculty went through a committee adoption process for the 2016 version of Microsoft Office. They had previously been using a competitor's digital product but found it unreliable. Faculty felt MyLab IT was a superior product and selected it for the course. Additionally, many students at South Plains College were already using MyLab in their math classes; CIS faculty believed this would ease the transition. Logue states his own reasons for liking the program: "MyLab IT gives me freedom and control over the course materials. I can create my own Grader Projects (using the Project Creation Tool), exams, multiple-choice questions, etc."

From experience, Logue knows that students need to have things demonstrated to them or written out with a step-by-step process and screenshots. His students are community college students, many of whom are also enrolled in developmental courses in writing, reading, and math. He teaches a variety of students with different abilities to learn. Says Logue, "Our goal at the college is getting students to complete the course." For reporting purposes, and to support funding for the course by the state of Texas, administrators also use MyLab IT to gather and share course data.

Implementation

Learning Management System integration: MyLab IT is integrated with Blackboard, the Learning Management System (LMS) used at South Plains College. On a Fall 2018 end-of-semester survey, 100% of respondents agreed that they were "able to easily access MyLab IT through Blackboard and appreciated not having a separate, second login and password for MyLab IT."

Class time: Twice a week students meet for a 75-minute lecture followed by a 75-minute session in a computer lab. Students are expected to read the assigned chapters prior to class. A typical class session involves Logue demonstrating the technology and covering the concepts and skills from the textbook. Depending on the course material and the amount of work, one to two chapters are covered each week. Logue often will work out a Grader Project for students in class. For his online section(s), he will email hints for steps on projects that students might find confusing.

During lab time, students can work on their assignments and ask questions. Logue shares that motivated students will typically stay and complete all their work during lab time, while many students will leave class following the lecture and complete their homework at another time.

Pretests: There are five, one-hour pretests that students must take in MyLab IT at scheduled times throughout the semester. The pretest must be taken before the student can read the course material and complete the assigned homework and exams for each of the individual sections. The first pretest, covering essential computer concepts, contains 50 multiple-choice questions with one attempt per question. The following four pretests for Word, PowerPoint, Excel, and Access have 30 performance-based tasks with three attempts per task. The pretests count as completion credit — if students attempt/complete the pretests, they receive full credit. If they do not, they receive zero credit. Faculty use these scores as a data point to show improvement from pretest to exam scores for course funding through the state.

Homework: Homework in MyLab IT includes matching and multiple-choice questions, Simulation Trainings, and Grader Projects. Assignments in MyLab IT are made available at 8 a.m. each Friday. Logue gives his students 10 days to complete their work; all MyLab homework assignments are due by 11:59 p.m. the following Sunday night. Once the due date has passed, submission of homework is not accepted.

For each chapter that covers a specific application (Word, PowerPoint, Excel, and Access), students complete Simulation Trainings in MyLab IT that assist them in mastering the software skills covered within the chapter. Students have unlimited attempts. When unable to complete a step in a Simulation Training, 78% of student survey respondents reported always or often using the available learning aids for assistance. One student commented, "I valued the videos."

The Simulation Trainings are designed to prepare students for the Grader Projects, completed live in the Microsoft application. In fact, 100% of survey respondents agreed that the Simulation Trainings helped them get familiar with and practice skills in Microsoft Office before completing the Grader Project assignments. Logue assigns one mid-level Grader Project per chapter and students have two attempts.

At the end-of-semester student survey:

91% of respondents agreed that viewing the Grader Project Report/ Score Card Detail helped them understand what steps they did wrong.

65% of respondents reported always or often accessing this report.

65% reported always or often making an additional attempt of the Grader Project assignment in order to improve their score.

Exams: The first exam contains 50 multiple-choice questions covering essential computer concepts and students have one attempt and one hour to take the test. The next four exams test students' mastery of software skills for Word, PowerPoint, Excel, and Access. Each exam is a modified Capstone Grader Project from MyLab IT. Students have two attempts and the highest grade is recorded in the gradebook.

Best practice: Logue uses the Project Creation Tool (PCT) in MyLab IT to modify the Capstone Grader Projects for the exams. He is a fan of the PCT as, in his words, " It allows faculty more freedom and control over the course materials within MyLab." He states, "Logue modifies the exams for a few reasons":

1. to provide more clarity with certain instructions/steps;
2. to include all possible calculations or formulas that a student might put into a cell which would give the same answer or result; and
3. to improve portions of the exam that were unnecessarily difficult and brought scores down due to errors.

> "The Project Creation Tool allows us to customize our exams to our students' learning needs and to our learning objectives."
>
> —Dr. Patrick Logue, South Plains College

Assessments

- 30% MyLab IT homework (16 Grader Projects + 7 additional assignments)
- 25% Exams (5)
- 20% MyLab IT Simulation Trainings (54)
- 15% Group project
- 10% Pretests (5)

Results and Data

Logue assigns MyLab IT Simulation Trainings to give students plentiful low-stakes practice opportunities to hone their skills before attempting the project-based Grader assignments. On the end-of-semester survey, one student commented specifically on the benefits of simulations: "When you don't know how to do a certain task, you can get assistance that shows you how to do it. Then you can complete it for yourself, which helps you determine what you were doing wrong."

To examine the impact of Simulation Trainings completion on Grader Project scores, students were divided into two groups: those who completed all 54 Simulation Trainings and those who skipped 1 or more (indicated by a zero score). The following was identified:

Students who completed all MyLab IT Simulation Trainings earned average Grader Project scores 11 percentage points higher than students who skipped one or more Simulation Trainings.

The 16 Grader Projects (four for each Microsoft application) assigned throughout the semester are designed to prepare students for the four summative Microsoft Office application exams (Word, PowerPoint, Excel, and Access). To examine the impact of Grader Project achievement on exam scores, students were divided into two groups based on the average score (86%) of the 16 assigned Grader Projects. Results illustrate that:

Students who scored above average (> 86%) on MyLab IT Grader Projects earned average exam scores 12 percentage points higher than students who scored below average (< 86%) on Grader Projects.

On the end-of-semester student survey, 100% of respondents agreed that, "Use of MyLab IT positively impacted my exam scores."

The Student Experience

Responses from the Fall 2018 end-of-semester survey of Logue's students (54% response rate) indicate that the majority of responding students recognize the value of MyLab IT.

96% of respondents would recommend MyLab IT to other students.

96% of respondents agreed that their understanding of the course material increased as a result of using MyLab IT.

96% of respondents agreed "MyLab IT was a good value for the course."

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

> "Good visual aid for learning [Microsoft Office] programs."

"I was able to see my progress and my grades, I could also see mistakes made and re-do what I wasn't happy with."

"Helps you learn more about the material and if you get stuck they have practices and videos you can watch."

"It teaches you everything in detail."

Conclusion

As CIS faculty sought a new digital solution for their Business Computer Applications course, MyLab IT has provided a range of benefits to both educators and students at South Plains College. Logue is pleased with the freedom and flexibility MyLab IT offers, as he is able to tailor the course to his students' learning objectives and needs. Students are benefitting from plentiful skill-building practice that, as one student says, allows for "easy comprehension of course materials." Course data from Logue's Fall 2018 sections supports the notion that completion of MyLab IT Simulation Trainings impacts performance on Grader Projects and Grader Project achievement impacts exam scores. On the end-of-semester survey, students overwhelmingly agreed that MyLab IT was not only a good value, but increased their understanding of the course material.