

# MyLab IT educator study observes the impact of homework on exam scores at Walters State Community College

## Key Findings

- Students who scored 80%–100% on MyLab IT homework had average exam scores 8–10 percentage points higher on the Windows, Word, and PowerPoint modules and 26 percentage points higher on the Excel module, compared to students who score less than 80% on homework.
- On an end-of-semester student survey, 97% of respondents agreed that they were able to easily access MyLab IT through the school's Learning Management System and appreciated not needing a separate login and password.
- Digital badging through MyLab IT provides students with a way to “build their brand;” 81% of student survey respondents agreed that MyLab IT badges give them an advantage when applying to jobs.

## Study Specifics

**School name:** Walters State Community College, Morristown, TN

**Course name:** Computer Applications

**Course formats:** Face to face (lab-based)

**Course materials:** MyLab IT with *GO! Microsoft Office 2016 Volume 1* by Gaskin, Vargas, Geoghan, and Graviett

**Timeframe:** Fall 2018

**Educator:** Lois Blais, Associate Professor

**Results reported by:** Sara Kasper, Pearson Results Manager

## Setting

[Walters State](#) is a comprehensive community college established in 1970 to provide affordable and quality higher education opportunities for the residents of East Tennessee. Additional details include:

- More than 5,900 credit students and 4,000 noncredit students served
- Over 150 associate [degrees and technical certificates](#) offered
- [Campuses](#) in Morristown, Sevierville, Greeneville, and Tazewell

## About the Course

The three-credit course is designed to assist students in achieving proficiency in computer applications. Students will demonstrate a working knowledge of word processing, electronic spreadsheets, electronic communication, and online databases.

Students admitted to Walters State must meet a computer competency requirement; they have the option to take and pass a computer competency exam or enroll in and pass this course. Many students are required to take the course as part of their degree program.

Lois Blais is the course coordinator and sets up a master course in MyLab™ IT for the six full-time and four adjunct instructors teaching Computer Applications to approximately 800 students each semester. In Fall 2018, Blais taught five sections totaling 122 students.

## Challenges and Goals

MyLab IT was adopted by the Computer Science department at Walters State in the Fall of 2013 after having previously used a competitor's program. The faculty underwent a committee decision and reviewed multiple digital offerings. In the end, they chose MyLab IT for its design, simulations, videos, autograded projects, and its ability to provide all the necessary tools for student success. Blais summarizes, "MyLab IT was moving in the direction that we needed to go."

Additionally, with [digital badging](#) now available through MyLab IT, the program is giving students an opportunity to start "building their brand," as Blais references. By posting earned badges on LinkedIn, Walters State faculty hope students will be able to more easily make the transition from college to a career.

## Implementation

### Learning Management System (LMS) integration

Students [access MyLab IT through the LMS](#) at Walters State called eLEARN (D2L/Brightspace). This single sign-on process saves time and confusion, as students only need to use one login and password instead of two. On the end-of-semester student survey (89% response rate), 97% of respondents agreed with the statement, "I was able to easily access MyLab IT through eLEARN and appreciated not having a separate, second login and password for MyLab IT." Students additionally commented:

- *"I loved the experience of just being able to get to the subject material and assignments directly through eLEARN. It made completing assignments much easier and a smoother process."*
- *"It made it so much easier not having to remember the login information every time, because I used Pearson in other classes too."*

### Course materials

Students are given the option to purchase a print copy of the text + MyLab IT access code (which includes the eText) or simply purchase the eText + MyLab IT access code. According to student survey results, 66% of respondents opted to purchase a print copy of the text, while 34% purchased the eText-only option. Of the survey respondents who purchased the print copy of the text, 25% reported using the eText occasionally, and 22% reported using the eText at least half of the time. No matter what course materials students chose to purchase, 97% of respondents agreed that "MyLab IT was a good value for the course."

### Class time

Face-to-face sections are taught in a computer lab, with students meeting either two or three days each week. Blais's role tends to be one of a facilitator or guide, letting students work in the classroom and learn from the tools within MyLab IT. Class time may include working through an assignment (such as a [Grader Project](#)) as a class. She then takes time to answer questions and go over what needs further explanation. With a variety of student skill levels, Blais notes, "I'm not just teaching content, I'm teaching strategies." Many of her students struggle with study skills. She continues, "I show them how things work together within MyLab IT so they understand how the program will benefit them." Students are able to work ahead and many complete the course early.

### Module pre-tests

Pre-testing on the five modules occurs in the first week of class to determine students' prior knowledge, as well as their ability to test out of any modules. The pre-tests are not mandatory and the scores do not count towards the final grade. Blais uses the [Simulation Exams](#) in MyLab IT for the pre-tests. For the Windows 10 module, she uses a [Simulation Training](#) and withholds the learning aids. Blais tells students not to worry about their performance and to view the pre-tests as a preview of what is to come in the module. Students have 40

minutes to complete each pre-test. Typically students do not test out of the modules, but if they score 80% or higher, they have the option to bypass the module with their pre-test score counting as the module score.

### Orientation module

Four years ago, Blais created an orientation module in MyLab IT comprised of 14 short assignments broken down into nine steps. The goal of the module is to give students an introduction to the class and help familiarize them with using an LMS, MyLab IT, Office 365, and more. Blais gives credit for the inspiration of an orientation module to Alan Shapiro, Pearson's IT Faculty Advisor and an instructional designer.

The nine steps of the orientation module are as follows:

- ★ **Step 1:** "Introduce yourself" discussion board post in MyLab IT
- ★ **Step 2:** Syllabus quiz on attendance policy, drop deadline dates, and eText use
- ★ **Step 3:** Overview and quiz on required course materials, Mac vs. PC requirements, and Office 365 software (offered for free through the college)
- ★ **Step 4:** Computer policy quiz in which students must agree to the course policies
- ★ **Step 5:** Three short quizzes on MyLab IT videos for [Getting Started](#), [Course Materials](#), and [Assignment Calendar](#), followed by [eText](#) video tutorial and quiz covering content from all four topics
- ★ **Step 6:** Preview of assignments students will complete in MyLab IT including a practice Simulation Training that introduces students to four different tasks and helps students use (and become familiar with) the learning aids. After the Simulation Training, students watch a video on Grader Projects, then complete a Grader Project, typically Office Grader Project 1A. Often Blais will work with students in class on this step.
- ★ **Step 7:** Account creation with Acclaim and LinkedIn. The Acclaim account allows students to claim any [badges](#) they earn by completing a Capstone Grader Project at 90% or higher and post them on LinkedIn. Blais and her faculty encourage students to start "building their brand" so that they are able to more easily make the transition from college to a career. Students must take and submit screenshots (screenshot demo included in this step) of their new accounts.
- ★ **Step 8:** Information about Microsoft OneDrive and Office Online; creation of a Word Online document and screenshot of saved document in OneDrive
- ★ **Step 9:** Zip file creation. To demonstrate learning, students must take the screenshots from Step 7 (Acclaim and LinkedIn screenshots) and Step 8 (OneDrive screenshot) and compress them into a zip file.

On a scale of 1–5, with 5 being "very beneficial," 86% of student survey respondents rated the orientation module a 4 or 5. Open-ended comments regarding the module's benefits included:

- *"It showed us how the homework and tests were to be completed before we had to do them. It prepared us."*
- *"The navigating section was most beneficial to me, as it helped me figure out how to use MyLab IT better."*
- *"It was a good reference tool when I was confused."*
- *"[The module showed] how the course was completely laid out from day one, with all assignments and due dates clearly presented."*

### MyLab IT assignments

Students are assigned the A, B, and G Simulation Training and [Grader Project](#) for each chapter covered. Simulation Trainings are not graded and are meant to be used for learning and practice; students have unlimited attempts. On the end-of-semester survey, 97% of respondents agreed that "The Simulation Trainings in MyLab IT helped me get familiar with and practice skills in Microsoft Office before completing the Grader Project assignments." When unable to do something in a Simulation Training, 72% of respondents reported always or often using the available learning aids (Read, Watch, Practice) for assistance.

Student comments on Simulation Trainings and Grader Projects included:

- *"I love being able to see what I did incorrectly."*
- *"The simulations help to ensure you are ready for the tests."*
- *"It guides you step-by-step and helps you correct your mistakes along the way."*

Students have unlimited attempts on Grader Projects. On the end-of-semester survey, 84% of respondents reported always or often making an additional attempt on Grader Projects if they were unhappy with their first score. For the final in-class module exam — a [Capstone Grader Project](#) — students have three attempts.

Blais makes sure her students know how to access the [Grader Project report](#) and where they can view their submission in order to see corrections that need to be made. Eighty-two percent (82%) of respondents reported always or often accessing this report, and 95% agreed that the report helped them understand what steps they did wrong in order to improve their score on a subsequent attempt.

Assignments must be turned in on or before the due date — late assignments are not accepted. Blais recommends students submit their files even if they are not completely finished, as the feedback provided by MyLab IT will be useful when students resubmit. She reminds students that they need not worry about a low score on their first attempt, as the highest score on a re-submitted file will always count as the final score, and, even if they submit a partially completed project, "some points are better than no points!"

### **MyLab IT Project Creation Tool**

Blais has used the [Project Creation Tool](#) within MyLab IT to create the practice Grader Project within the orientation module. She has also used the tool to modify some Grader Projects specifically to allow for various permutations of a formula. While the Grader Project typically asks students to input formulas in a very specific way, she is aware that there is more than one way to complete a step in Excel.

### **MyLab IT coordinator course**

Across sections of the course taught by different instructors, the MyLab coordinator course brings consistency with chapter content, including identical module exams and one identical Grader Project per chapter. Although Blais sets up the master course, each instructor has the ability to alter due dates and the type of homework assigned. Instructors also take advantage of viewing [Integrity Violation alerts](#) through MyLab IT.

## **Assessments**

With the exception of the orientation module, homework comprises 40% and the exam comprises 60% of the total percentage points available for each module. Assessments are listed below in the order they are covered.

- 5%      Orientation module
- 14%     Windows 10 module (6% homework assignments / 8% exam)
- 27%     Excel module (11% homework assignments / 16% exam)
- 27%     Word module (11% homework assignments / 16% exam)
- 27%     PowerPoint module (11% homework assignments / 16% exam)

## **Results and Data**

Student performance data from Fall 2018 was examined to determine the potential impact of module homework scores on corresponding module exam scores. Students with a score of zero on the module homework or exam were removed for the purpose of this analysis.

Students who scored 80% or higher on MyLab IT homework had average exam scores 8–10 percentage points higher on the Windows, Word, and PowerPoint modules and 26 percentage points higher on the Excel module, compared to students who scored less than 80% on MyLab IT homework (figure 1).

Blais attributes the greater difference in the Excel module to a couple key reasons. It's the first Office application students work on, so there is a learning curve in completing Grader Project assignments and finding and using the associated feedback report. Secondly, the material is slightly more difficult material for students to grasp. Says Blais, "By the time students get through the Excel module, they know how complete the assignments in the manner they learn best." This includes using learning aids such as videos, and working on practice Simulation Trainings to get through the tougher material.

### Average exam score based on homework score in MyLab IT

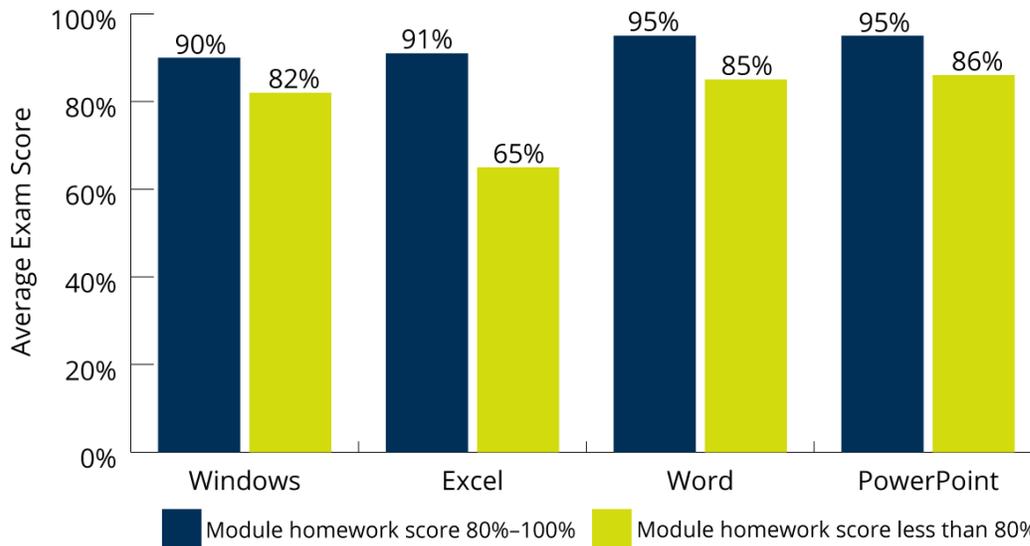


Figure 1. Average Exam Scores Based on MyLab IT Homework Score for Each Module; Windows Homework  $\geq 80\%$  ( $n=100$ );  $<80\%$  ( $n=18$ ); Excel Homework  $\geq 80\%$  ( $n=80$ );  $<80\%$  ( $n=36$ ); Word Homework  $\geq 80\%$  ( $n=86$ );  $<80\%$  ( $n=29$ ); PowerPoint Homework  $\geq 80\%$  ( $n=99$ );  $<80\%$  ( $n=14$ )

## The Student Experience

On an end-of-semester survey taken by 102 students (89% response rate) in Fall 2018, student summary responses included the following:

- 96% of respondents would recommend MyLab IT to fellow students.
- 95% of respondents agreed with the statement, "My understanding of the course material increased as a result of using MyLab IT."
- 81% of respondents agreed that, "MyLab IT badges give me an advantage when applying to jobs."

Open-ended responses to the question, "What are the benefits of MyLab IT?" included:

- *"It taught me how to actually use Word, Excel, and PowerPoint efficiently."*
- *"MyLab IT creates the ability to work with the material directly and in a sort of 'hands-on' manner. Instead of just learning the basic principles of the Microsoft suite, we get to actually apply those principles. It also makes the knowledge more long-lasting, in my opinion, because by applying the skills, one is more likely to retain them."*

- *"The benefits of MyLab IT are the integrative and interactive components which allow students to fully engage with computer application programs whilst providing instructional measures and assistance if needed."*

Student comments as to how MyLab IT increases college and career readiness included:

- *"Learning how to use Excel, I believe, that is a skill I will use for the rest of my career."*
- *"The information given in it is very beneficial to what any business person would need in the workforce."*
- *"Helped me understand how to do things on my computer that I can use for my other classes that I never knew I could do."*

Student comments regarding the benefits of digital badges included:

- *"They show the employer that you have practical skills that can immediately be applied on the job."*
- *"These badges add value to job applications, as they show extra skills that are possessed."*
- *"Employers can verify you took a course and are actually skilled in Microsoft products."*
- *"They allow businesses to see your accomplishments."*

## Conclusion

Since adopting the program, Blais concludes, "MyLab IT has been very helpful in improving our course and student success. We are thankful for the way it's made our lives easier as instructors — to have so many things automated in the program allows us to focus on teaching our students."

As mentioned previously, badging through MyLab IT is giving students a way to make the leap from college to career by posting their earned accomplishments on LinkedIn and resumes. Summarized one student "[Badges] show the employer that you have practical skills that can immediately be applied on the job." Down the line, Blais is interested in [offering Microsoft Office Specialist \(MOS\) certification](#) testing as a way for students to show their competency using Microsoft Office programs.