

# MyLab IT educator study examines impact of homework completion and achievement at Mohawk Valley Community College

## Key Findings

- 95% of student survey respondents agreed that they prefer to have required course materials included in the course fee (through Pearson Inclusive Access) rather than having to purchase them on their own.
- 90% of student survey respondents indicated an appreciation for LMS integration that simplified the experience of accessing MyLab IT via Blackboard without needing a separate login and password.
- As the completion rate of homework assignments increased, the unit exam average also increased. Similarly, students who scored 90–100% on unit Grader Project homework in MyLab IT had higher corresponding unit exam scores than students who scored 80–89% on Grader Project homework.

## Study Specifics

**School name:** Mohawk Valley Community College, Utica, NY

**Course name:** Computers and Society

**Course format:** Face to face

**Educator:** Robert Huyck

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

**Course materials:** MyLab IT and eTexts:

*GO! with Office 2016 Volume 1* by Gaskin, Vargas, Geoghan, and Graviett and *Technology in Action* by Evans, Martin, and Poatsy

**Timeframe:** Fall 2018

## Setting

- Established in 1946 to help train and educate veterans returning from World War II, [Mohawk Valley Community College](#) (MVCC) has evolved to become New York State's first community college, the largest college between Syracuse and Albany, and the region's primary provider of college education and non-credit training.
- The college, which spans two campuses — one in Utica and another in Rome — offers 90 degree and certificate options for its enrollment of 6,000 full- and part-time students. MVCC also serves another 6,000 people through its corporate and community education programs.

## About the Course

This course provides knowledge of relevant computer skills and a solid foundation in the terminology and concepts of computer technology. Experience is provided with a variety of microcomputer software applications, including word processing, electronic spreadsheets, graphics, file management, and integrated software. Concepts and terms focus on preparing for a technologically oriented society and using the computer as a tool for productivity, research, and communication.

The course, housed within the Business, Cybersecurity, and Computer Sciences Department, is a mandatory class for business students at the college. Robert Huyck has been teaching at Mohawk Valley Community College since 2007 and has been using MyLab™ IT since that time. Each semester, Huyck teaches three sections with approximately 20 students per section. In total, about 10 sections are offered each semester and all instructors use MyLab IT.

## Challenges and Goals

When MyLab IT was adopted in 2007 by the department, Huyck welcomed the addition of technology, as he previously graded all course assignments by hand. Huyck appreciates how MyLab IT autogrades all work and has saved him time. He especially loves the Grader Projects, specifically how they allow students to learn about and correct their errors, and in the process, become more independent learners.

## Implementation

### **Inclusive Access / Learning Management System (LMS) integration**

In Fall 2017, Pearson's Inclusive Access program was implemented course-wide, giving students direct access to their digital course materials on the first day of class at a reduced cost. Students do not need to provide payment upfront in order to access the course materials. Rather, they are billed directly to their student account, and students that need financial aid do not have to wait for access or request a trial account. In this way, all students are able to log in and interact with the assignments and eText as soon as they receive LMS-course access and the access code from the instructor.

On an end-of-semester student survey:

- 95% of respondents agreed with the statement, "I prefer to have the required course materials included in the course fee rather than having to purchase them on my own."
- 90% of respondents agreed that "Having first-day-of-class access to MyLab IT increased my chance of getting a good grade."
- 90% of respondents agreed that they "were able to easily access MyLab IT through Blackboard and appreciated not having a separate, second login and password." One student commented, "It made it less confusing." Another student summarized, "It's all through Blackboard and you don't have to worry about going onto a different website and finding where you have to go to complete your assignments."

Huyck has "absolutely" noticed a difference in student access after the implementation of Inclusive Access, sharing that "students are ready to go on day one with no problems."

### **Class time**

Class meets twice a week for 55 minutes of lecture and another 55 minutes of lab over a 14-week semester. Attendance is taken at every class session. Missing more than four classes results in a loss of 5 percentage points from the final grade for every subsequent class missed.

During lecture time, Huyck discusses content from the first five chapters of the *Technology in Action* text. Huyck supplements lecture with videos that introduce people working in various technology fields. Students are given a multiple-choice midterm and final exam testing on content from *Technology in Action*. These exams are taken outside of class time during scheduled dates in the semester. Huyck created the tests and houses them in MyLab IT where they are autograded.

### **MyLab IT homework**

Lab time is primarily used for students to work in MyLab IT. All assignments are made available from the beginning of the semester, so students may work ahead if they choose. Homework is due the following class after which it is assigned, although students may make up homework within one week of the due date. The final MyLab IT homework score is calculated by the number of assignments completed with a score of 70% or higher out of the total number of assignments (35).

Course content includes three chapters each of Word, Excel, PowerPoint, and Access from the *GO!* text. Students spend eight weeks covering Word and Excel and four weeks covering PPT and Access. For each

Microsoft Office application, students have nine homework assignments (one [Simulation Training](#) and two [Grader Projects](#) for each chapter) plus a [Capstone Grader Project](#) which counts as the unit exam. Students have unlimited attempts on Grader Projects and one attempt on the Capstone Grader Project. Students achieving 90% or higher on the Capstone Grader Projects will earn a [digital badge](#) through the Acclaim system. Says Huyck, “I inform students this is a great resume, LinkedIn, or other job search reference.”

During lab time, Huyck occasionally gives demos and often answers questions. He encourages students to talk with one another or search the internet when they have a question in order to become more self-reliant. Encouragingly, on the end-of-semester student survey, 89% of respondents reported always or often using the available learning aids in MyLab IT for assistance when unable to complete a step in a Simulation Training.

Huyck also shows students how to access the [Grader Project report](#) in MyLab IT which includes their score and details on errors made. He tells students, “You don’t have to redo your project — simply save your file, make the changes, and re-submit.” Several times throughout the semester, Huyck will remind students of this. On the end-of-semester student survey, 94% of respondents agreed that the Grader Project report helped them understand what steps they did wrong in order to improve their score on a subsequent attempt.

## Assessments

- 60% Unit exams / MS Office application Capstone Grader Projects (4)
- 30% Midterm exam and final exam on *Technology in Action* content
- 10% MyLab IT homework (23 Grader Projects; 12 Simulation Trainings)

## Results and Data

The goal of assigning students a combination of both Simulation Trainings and Grader Projects is to set them up for success in being able to learn and practice skills in a low-stakes environment and then deliver those skills as projects live in the MS Office applications.

Huyck calculates the final MyLab IT homework score by the number of assignments completed with a score of at least 70% out of the total number of assignments (35). To study the potential impact of homework completion on the unit exam average, figure 1 examines the average Capstone Grader Project score averaging all four Microsoft Office unit exams — Word, Excel, PowerPoint, and Access — based on the percent of homework assignments completed. As the completion rate of homework assignments increased, the unit exam average also increased, from 66% for students completing 70–79% of homework to 84% for students who completed 100% of homework. (Note: one student who completed 26 of 35 homework assignments but had zero scores for all four Capstones was removed for the purpose of this analysis.)

### Unit exam average based on homework completion rate

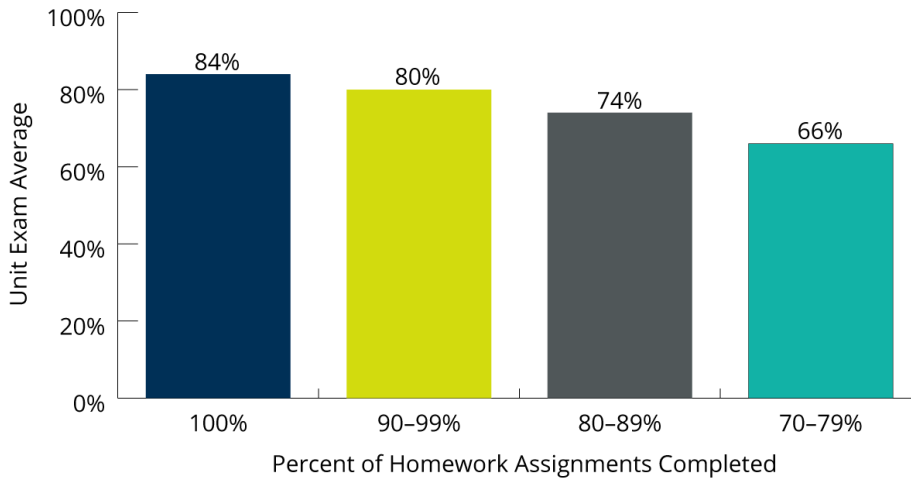


Figure 1. Unit Exam Average Based on Percent of Homework Assignments Completed; 100% Homework Completion ( $n=12$ ); 90-99% ( $n=8$ ); 80-89% ( $n=8$ ); 70%-79% ( $n=6$ ), Fall 2018

To examine the specific impact of unit Grader Projects on unit exam (Capstone Grader Project) scores, figure 2 illustrates average unit exam scores based on three ranges of unit Grader Project homework averages: 90%-100%, 80-89%, and less than 0-79%. Students who scored 90-100% on unit Grader Project homework had corresponding unit exam scores 9 percentage points higher than students who scored 80-89% on Grader Project homework and 11 percentage points higher than students scoring less than 80%. (Note: students who received a zero score on a Capstone or on their unit Grader Project homework were removed for the purpose of this analysis.)

### Average unit exam score based on unit Grader Project homework score

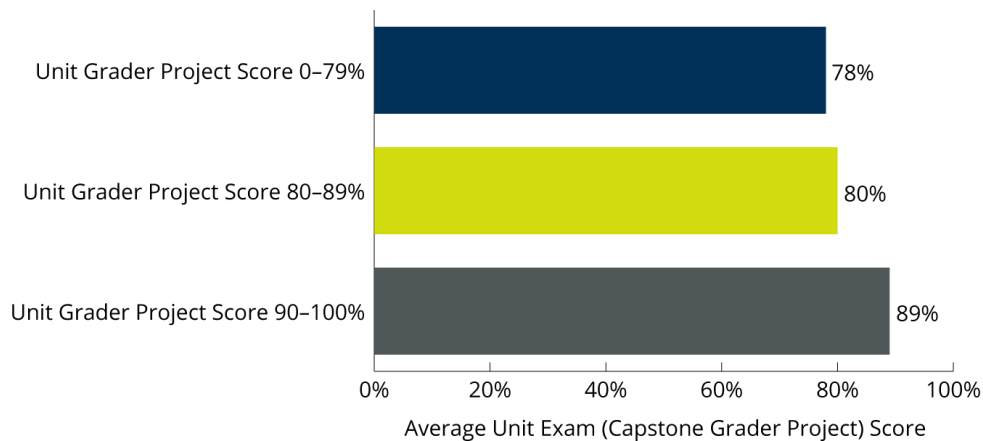


Figure 2. Average Unit Exam (Capstone Grader Project) Score Based on Unit Grader Project Score of 0-79% ( $n=27$ ); 80-89% ( $n=50$ ); 90-100% ( $n=67$ ), Fall 2018

Data from figure 1 and figure 2 are encouraging as the data suggest when students complete more homework and score higher on unit Grader Projects, Capstone Grader Project scores also tend to be higher, leading to greater achievement in the course.

## The Student Experience

Students in Huyck's Fall 2018 sections were sent an optional survey at the end of the semester (21 out of 48 students responded, a 44% response rate). Summary responses included:

- 100% of student survey respondents agreed that their understanding of the course material increased as a result of using MyLab IT.
- 83% of student survey respondents said they would recommend MyLab IT to other students.

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

- *"It's a simple and effective way to learn Microsoft Office."*
- *"Super easy to use, [I] like the set up and how it shows your grades immediately."*
- *"[Provides] expanded knowledge on software and programs used everyday by any profession."*
- *"Hands-on work with topics we're learning in class."*
- *"It has all of the homework there for you already, and in my opinion, it is much easier to understand."*
- *"They allow me to do all my assignments on the computer instead of writing them out on plain paper."*

## Conclusion

MyLab IT has now been in use at Mohawk Valley Community College for 12 years as an assessment tool. MyLab IT results are used in many of the program outcomes, linking the class and assessment directly to a few of the college's degrees.

Incorporating Pearson's Inclusive Access program has facilitated access to course materials, and students have responded positively, with 95% of survey respondents agreeing that they prefer to have required course materials included in the course fee rather than having to purchase them on their own.

Huyck continues to appreciate the utility of the program, stating, "The Grader Projects are the best, as students work live in the application. I believe the software assists students greatly, not just in receiving a prompt grade, but by allowing the student to see what they need to work on." Huyck notes that it can take up to two weeks for students to get accustomed to using the program, but many catch on before then. Regardless, "The ease and accessibility give students a great resource." He concludes, "I love the program. MyLab IT is a useful tool and one that we should use for many semesters to come at MVCC."