

## MyITLab

School Name North Arkansas College, Harrison, AR

Course Name Introduction to Information Technology

Course Format Online

### Key Results

Data for this course indicate that a very strong positive correlation exists between average MyITLab Skill Training scores and average MyITLab Grader Project exam scores, for the applications portion of the course. Also, students who had higher MyITLab Tech In Action homework scores had higher MyITLab Tech in Action quiz scores for the concepts portion of the course.

### Submitted by

Kim Potts, Associate Professor

### Course materials

MyITLab with *Technology in Action*, Evans, Martin, Poatsy  
*GO! With Office 2013 Volume 1*, Gaskin, Vargas, McLellan

### Setting

North Arkansas College, which serves approximately 2,000 students, is a comprehensive two-year public college with three campuses in the small town of Harrison. Forty-four percent of entering students are first-time, full-time, and 50 percent are part-time. The full-time retention rate is 51 percent, the part-time retention rate is 37 percent, and the graduation rate is 24 percent. Seventy-four percent of students receive grant or scholarship aid.

Introduction to Information Technology is a one-semester, three-credit course, required of all AAS degree-seeking students, and is a transfer course for AA degree-seeking students. The course provides a working vocabulary of terms used by computer personnel and an introduction to the latest version of Microsoft Office, an integrated software package that encompasses database management, presentation graphics, spreadsheet, and word processing applications. Mastery of this course will enhance students' efficiency and effectiveness, and provide marketable skills.

Upon completion of this course, the student should be able to:

- Compare and distinguish different types of microcomputers and peripherals that are available in business and industry.
- Use database management, presentation graphics, spreadsheet, word processing, Internet and email software.
- Define basic computer terminology.
- Describe the major components of a computer system.

- Navigate a network at the introductory level, including its computer files and folders.
- Integrate technology appropriate for learning.

### Challenges and Goals

In 2006, Kim Potts and her colleagues were all using different course content and online digital materials to teach the Introduction to Information Technology course. With many sections taught by adjuncts, Potts and her colleagues identified the need to add structure and consistency to the course, so that all students were receiving the same course experience. One important criterion they looked for was a digital homework and assessment program that included simulation for the Microsoft Office portion of the course; students needed to have that realistic skill-based training with practice right in the Office application using multiple methods of completion. MyITLab's cloud-based high-fidelity Office simulations provided that practice while the other competitive programs did not, making the decision to adopt MyITLab an easy one!

### Implementation

Potts requires that students use MyITLab in her course. Because the course is fully online, students primarily use the program at home on their personal computers. MyITLab is used for learning new concepts and content understanding, practice, and homework, in addition to summative quizzes and exams. Potts expects students to spend about three hours per week in MyITLab. In fact, in a voluntary end-of-semester survey of Potts' students (spring 2015, 35 percent total response rate), 50 percent of responding students said they spent between two and four hours per week working in MyITLab while the other 50 percent said they spent more than four hours with the program.

To help students register quickly for MyITLab and get started with their coursework immediately, Potts constructs an initial course assignment that requires students to register—thus

*Following a Pearson MyITLab best practice, Associate Professor Potts provides video instructions that walk students through the access code purchase, activation, and registration process.*

showing up in the MyITLab gradebook—by a specific due date. Following a Pearson MyITLab best practice, she provides video instructions that walk students through the access code purchase, activation, and registration process.

This course covers both IT concepts (six chapters) and Office applications (Word, Excel, Access, and PowerPoint), so students work in two different textbooks in MyITLab and are responsible for assignments and assessments from both. All work has assigned due dates, and is structured as follows each week:

**Concepts:**

- Read the textbook chapter.
- Watch the assigned videos.
- Answer critical thinking homework questions (graded by hand) following a rubric.
- Complete the Check Your Understanding quiz.

There are two exams: Exams are given every three chapters (75 multiple-choice and matching questions, timed to 90 minutes).

**Office applications:**

- View the North Arkansas self-recorded “how to” videos (approx. 20 minutes).
- Complete MyITLab Skill-based Training, IA and IB.
- Complete MyITLab Grader Project homework.
- Complete MyITLab Grader Project assessment.

For the applications portion of the course, the MyITLab Skill Trainings are scored for completion only, so students earn a 0 or 40; this is to give students a low-stakes opportunity to practice in the Office simulation environment without penalty. The first MyITLab Grader Project is a homework assignment and students have three attempts at completion. The second MyITLab Grader Project is an assessment and scored as the application exam; students have just one attempt at completion. Potts uses the Grader Project for assessment because of the MyITLab built-in Integrity Violation identifier; by inserting security tags into the code when a completed document is downloaded, MyITLab can detect students who are trying to pass off someone else’s file as their own, or, trying to copy and paste another student’s work.

The final exam is proctored and taken in a lab on campus. It consists of 75 multiple-choice and matching questions, and students have 90 minutes for completion.

“Attendance” in her online course is mandatory and evaluated by assignment submissions in MyITLab, discussion participation, and instructor contact.

At the beginning of the semester, students can “challenge” out of this course. Using the MyITLab 14-day grace period access, which gives students entry to MyITLab before purchasing an access code, students can take a challenge exam comprised of both concepts and application-oriented questions. The content aligns with what is covered in the course, and the exam is auto-graded for accuracy. Students are given a practice exam first, so they can get familiar with how the MyITLab program works and to sort through answer delivery options and expectations.

**Assessment**

**Concepts:**

- |            |                                       |
|------------|---------------------------------------|
| 25 percent | MyITLab exams (2)                     |
| 15 percent | MyITLab quizzes and homework (6 each) |

**Applications:**

- |            |                                    |
|------------|------------------------------------|
| 20 percent | MyITLab Grader Project assessments |
| 15 percent | MyITLab homework                   |
| 25 percent | MyITLab final exam                 |

**Results and Data**

MyITLab Skill Training completion rates were analyzed to determine if a relationship exists between Skill Training completion and average MyITLab Grader Project exam scores (Figure 1). Students were placed into two groups based on the average number of skipped Skill Trainings; students who completed all Skill Trainings earned substantially higher average MyITLab Grader Project exam grades than students who skipped one or more Skill Trainings:

- Average number of assignments skipped: 1.

Students who completed all MyITLab Skill Trainings had average MyITLab Grader Project exam scores 20 percentage points higher than students who skipped at least one Skill Training.

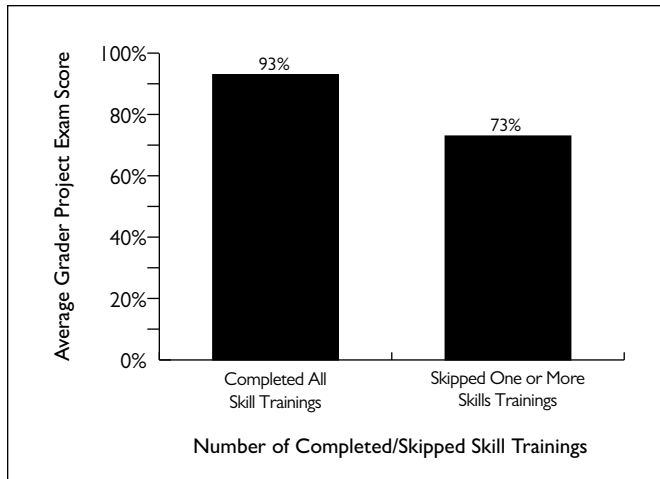


Figure 1. Relationship between MyITLab Skill Training Completion Rate and Average MyITLab Grader Project Exam Score, Spring 2015 (N=34 total, n=17 Completed All, n=17 Skipped one or More)

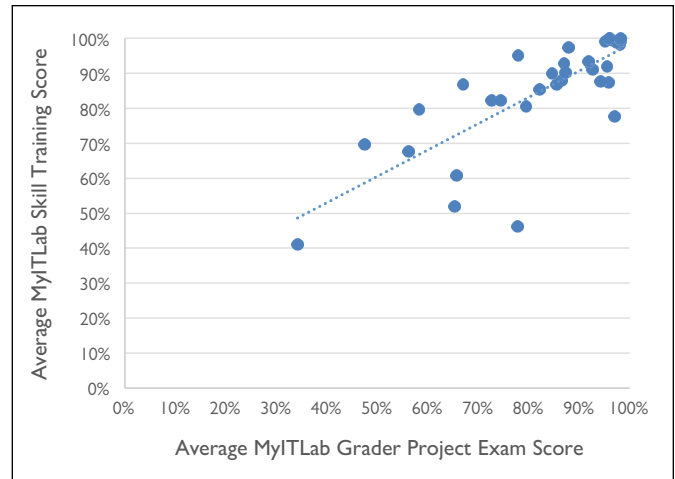


Figure 2. Correlation of Average MyITLab Grader Project Exam Score and Average MyITLab Skill Training Score, Spring 2015 (n=34)

- Fifty percent of students (n = 17) completed all MyITLab Skill Trainings.

Figures 2 and 3 are correlations graph; 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  $<.01$  shows the existence of a positive correlation between these two variables.

- A very strong positive correlation exists between average MyITLab Skill Training scores and average MyITLab Grader Project exam scores, where  $r = .78$  and  $p$ -value  $<.01$  (Figure 2).
- A strong positive correlation exists between average MyITLab Tech In Action Homework grades and average MyITLab Tech In Action quiz grades, where  $r = .57$  and  $p$ -value  $<.01$  (Figure 3).

For students, the formative MyITLab assignment grades are intended to help them identify where they are in terms of successfully completing the more summative MyITLab quizzes and exams. It appears that performance on these assignments could be a leading indicator of exam and course success (further research is needed to develop and test this concept further). As a best practice, MyITLab assignment grades are intended to help Potts identify students early on who are struggling and might be at risk of poor overall course performance.

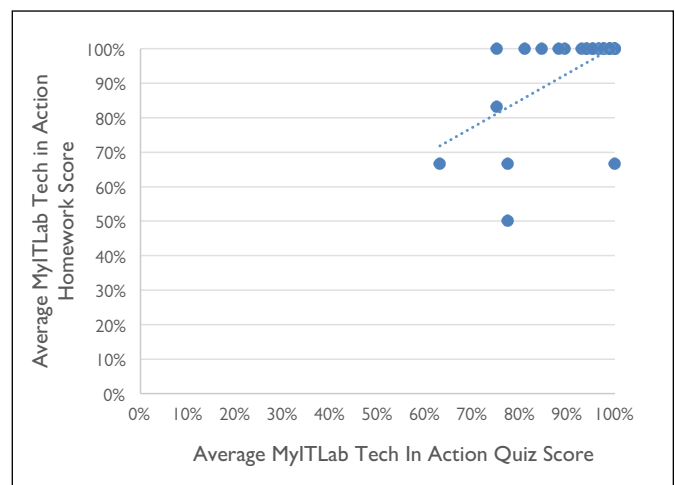


Figure 3. Correlation of Average MyITLab Tech In Action Quiz Grade and Average MyITLab Tech In Action Homework Grade, Spring 2015 (n=34)

## The Student Experience

Responses from a voluntary end-of-semester survey of Pott's students in spring 2015 (35 percent response rate) indicate that responding students recognize the value of MyITLab:

- 100%** Agree or strongly agree that the use of MyITLab positively impacted their quiz and exam scores.
- 100%** Agree or strongly agree that MyITLab provided additional resources that helped them learn more than they would have from more traditional pencil and paper homework.
- 100%** Agree or strongly agree that their understanding of the course material increased as a result of using MyITLab.

Student comments, when asked what they liked most about MyITLab on the same voluntary survey, included:

*"Helped me understand things better about the course."*

*"The ease of being able to work on it at my pace. Also, the navigation of the material was great!"*

*"It was a huge help. To be able to watch how the programs are run was awesome."*

*"Doing the projects hands on!"*

## Conclusion

"MyITLab is perfect for online courses," says Potts, because it allows her to "see" things that she couldn't before. It also gives students a view of things in the Office environment that are important for their success. The video tutorials (simulations) are ideal for online courses: They give immediate feedback and show students what their mistakes are and how to correct them in a step-by-step format.

MyITLab also enables Potts to conduct frequent assessments and manage the participation and engagement of her students in an online environment. This methodology is supported by the research of Elizabeth Reed Osika who writes, "It is important to keep students actively engaged in the 'classroom.' This is best accomplished by requiring frequent, small assessments that will require students to access the course two or three times a week."<sup>1</sup> Potts accomplishes this by requiring MyITLab weekly quizzes for the concepts portion of the course and weekly Training and Grader Project assignments in the applications portion of the course. These frequent assessments help students keep up with how they are doing in the course and give them time to adjust their work and study habits accordingly. Additionally, providing multiple opportunities for summative assessment takes the pressure off students to succeed on just two or three main exams during the semester, as the smaller chunking of assessments may lead to greater course engagement and success.

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<sup>1</sup> *Assessing Student Learning Online: It's More Than Multiple Choice*, Elizabeth Reed Osika, <http://connection.ebscohost.com/c/articles/21042684/assessing-student-learning-online-more-than-multiple-choice>.

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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.