MyAutomotiveLab

School Name	Pitt Community College, Winterville NC
Course Name	Steering and Suspension
Course Format	Hybrid

Key Results Final course data indicate a positive, significant correlation between average MyAutomotiveLab scores (exams and homework) and final course grades. Students who earned final course grades of A, B, or C scored an average of 35 percentage points higher than students who earned Ds or Fs.

Submitted by
Pete Gregory, Automotive Systems Technology Instructor

Course materials
Automotive Technology, Halderman

Challenges

Pitt Community College is a two-year higher education and technical training school serving more than 10,000 students a year from its campus in Pitt County, North Carolina. Steering and Suspension is a five-credit course is taken by approximately 125 Automotive Systems Technology majors annually. Upon successful completion of the course, students can service and repair steering and suspension components, check and adjust alignment angles, repair tires, and balance wheels.

Because course skills require hands-on practice in order to gain mastery, in spring 2008, Pete Gregory, instructor, chose MyAutomotiveLab to supplement his course. The program's real-world simulations provide students with alternative opportunities to practice, and because he now spends less time hand-grading assignments, Gregory can devote more time to other course-related tasks.

Implementation

MyAutomotiveLab is a required component of the course and is implemented across all sections of the school's Automotive Systems Technology department. "I initially only used MyAutomotiveLab for homework and exams," says Gregory. "But as I gained experience with the program—and realized just how robust and user friendly it is—I added interactive features, including video clips, animations, and simulations of important automotive principles, plus the Study Plan for more personalized instruction."

Students take MyAutomotiveLab Pre-Tests and Post-Tests in class, and use its Study Plan outside of class to remediate topics they still need help on.

Assessments

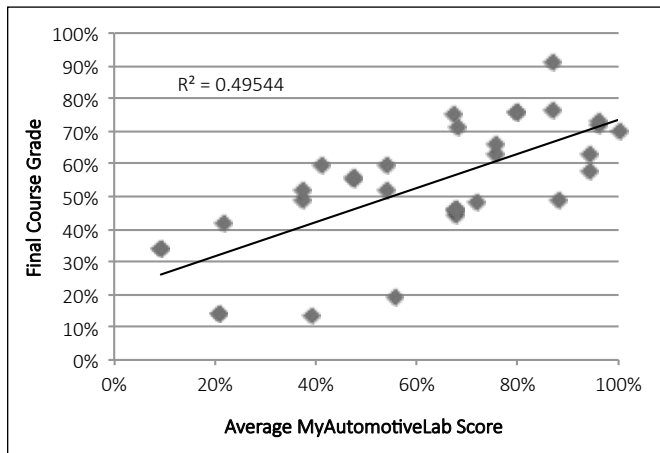|	
35 percent	Final exam
30 percent	MyAutomotiveLab exams
15 percent	Task sheets
15 percent	Performance/shop work
5 percent	MyAutomotiveLab homework

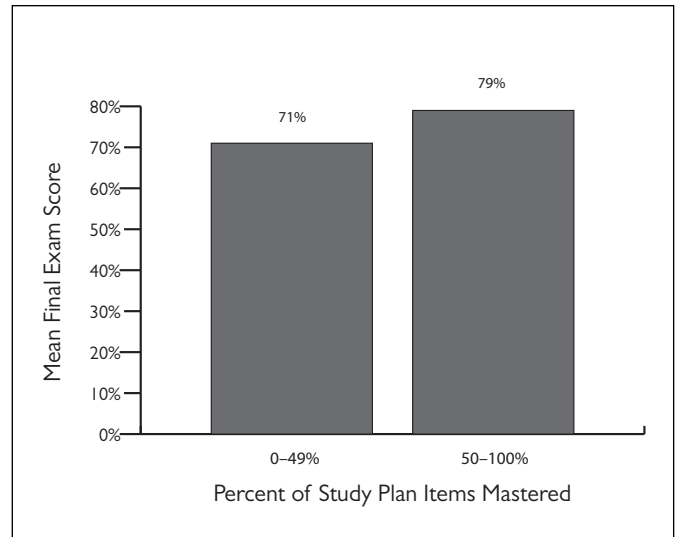Figure 1. Correlation between Average MyAutomotiveLab Scores and Final Course Grade, Fall 2013 (n=33)

Figure 2. Comparison of Average MyAutomotiveLab Scores (Exam and Homework) and Final Course Grades, Fall 2013 (n=33)

Results and Data

Gregory compared average MyAutomotiveLab scores (both exams and homework) with course success and D/F rates. The data indicated a positive correlation between average MyAutomotiveLab scores and final course grades (figure 1). Students who earned an A, B, or C in the course had average MyAutomotiveLab scores that were 35 percentage points higher than those who earned a D or F (figure 2). "I discovered that students who successfully completed MyAutomotiveLab assessments were more likely to succeed in the course," says Gregory.

The Student Experience

MyAutomotiveLab's personalized learning features accomodate students' learning styles. This offers students more than standard learning models do—especially in courses like this one, in which the content is hands-on and visual. Thanks to the variety of interactive ways to learn course material, including practice tests, animations, and simulations, Gregory's students are seeing concepts more often and retaining more overall.

Conclusion

Students who scored higher on MyAutomotiveLab assessments performed better in the course than students with weaker MyAutomotiveLab scores. In addition, the program's automated grading saves Gregory time, and its Gradebook feature provides him with convenient and easily accessed storage of course records.

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