

School Name Missouri State University, Springfield, MO

Course Name Introductory Psychology

Course Format Flipped, Hybrid

**Key Results** With MyPsychLab, student learning gains increased over the past three years from 32 percent to an average of 76 percent, as measured by a comparison of pre- and post-test scores. In addition, the university's per-student costs were reduced by 10 percent.

#### Submitted by

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#### Course materials

*Psychology*, Ciccarelli and White; MyPsychLab

### About the Course

From 2010 to 2013, the governor of Missouri and Missouri's public four-year institutions established a major course redesign initiative. The institutions partnered with the National Center for Academic Transformation (NCAT), utilizing the successful models and lessons learned from NCAT's course redesign programs. Our Introductory Psychology course, which serves over 2,500 students each year, was selected as Missouri State University's representative in this initiative and was one of the first to go through [this redesign process](#).

### Challenges and Goals

Despite being a popular course, Introductory Psychology had delivered less-than-satisfactory learning outcomes for many students. The course, before redesign, was lecture-based and typically taught by approximately 65 percent full-time faculty and 35 percent adjunct instructors. While there were common general education goals across all sections, each instructor was responsible for the choice of content and delivery of course material. This produced significant variability in what material was covered from section to section and led to "course drift" and inconsistent outcomes.

The goals we identified included improving student learning, reducing course drift, incorporating best practices teaching strategies, increasing course completion rates, and reducing institutional costs. Five full-time faculty members worked together as a team throughout the planning, pilot, and implementation of the course redesign. All sections were redesigned using the same syllabus, textbook, online course materials, and staffing plan.

### Implementation

The redesign included significant changes to the staffing structure. The traditional course had one instructor per section. The redesigned course utilizes seven staff members per section including one full-time instructor, one Senior Learning Assistant (a graduate assistant or adjunct instructor), and five Undergraduate Learning Assistants. So, although the redesigned course seats 300 students per section compared to 153 in the traditional course, the ratio of staff to students decreased from 1:153 to 1:43.

To improve learning outcomes, we transformed the traditional course into a blended or hybrid course with a flipped classroom. In this model, students read their text and complete the MyPsychLab chapter study plan and media assignments prior to class, allowing for more [active learning](#) during class time.

#### Assessments

48 percent	Unit exams (four)
18 percent	MyPsychLab chapter study plan and media assignments
16 percent	Comprehensive final exam
7.5 percent	Participation
6 percent	Study session attendance
3 percent	Research participation
1.5 percent	Introduction letter + online training and quiz

### Results and Data

Student learning gains have more than doubled, as measured by increases in a comprehensive pre- to post-test before redesign vs. after redesign with MyPsychLab (Figure 1). Further, more students are achieving overall course grades of A or B with MyPsychLab compared to previous semesters without MyPsychLab (Figure 2), indicating that many more students are now demonstrating mastery of the material. Additionally, despite having an already relatively inexpensive traditional course at \$73

*“Because students are reading the textbook and actively engaging with the material in MyPsychLab outside of class, they’ve started coming to class better prepared and more willing to participate in class discussions.”*

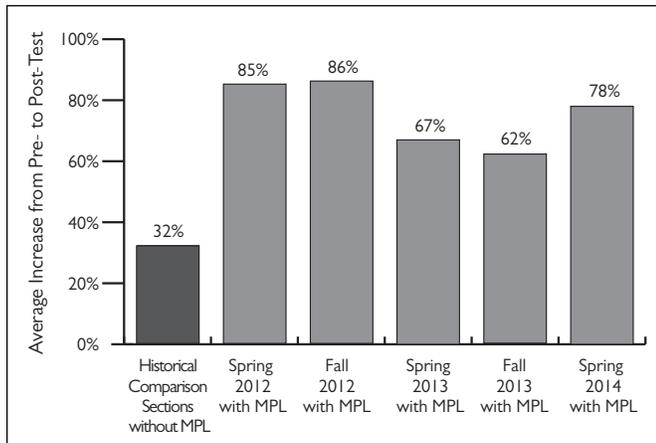


Figure 1. Comparison of historical department means without MyPsychLab ( $n = 2079$ ) to redesign means with MyPsychLab (Spring 2012,  $n = 102$ ; Fall 2012,  $n = 1202$ ; Spring 2013,  $n = 602$ ; Fall 2013,  $n = 1368$ ; Spring 2014,  $n = 785$ ) on 30-item comprehensive Pre- and Post-Test Exams.

per student, the combination of increasing section size and more efficiently assigning instructors and learning assistants brought the cost down to \$66 per student—a 10 percent reduction in instructional costs. The implementation of MyPsychLab played a major role in producing these improved results.

### The Student Experience

One of the challenges we faced before the redesign was the inability to identify and proactively reach out to struggling students early in the semester. In the redesigned course, early intervention teaching strategies, were introduced. The combination of frequent online assignments in MyPsychLab, used formatively to identify students' areas of weakness, and a staffing structure that allowed for more frequent and personalized monitoring of student progress, resulted in clear gains in learning.

Because students read the text and actively engage with the material in MyPsychLab outside of class, they come to class better prepared to participate in discussions. As a result, we now focus on more difficult concepts (based on students' performance on MyPsychLab assignments) and incorporate more active learning strategies (e.g., use of clickers, classroom demonstrations, online activities) into the seated class period. The students report they find these methods more engaging, and data indicates they are achieving greater mastery of the course content.

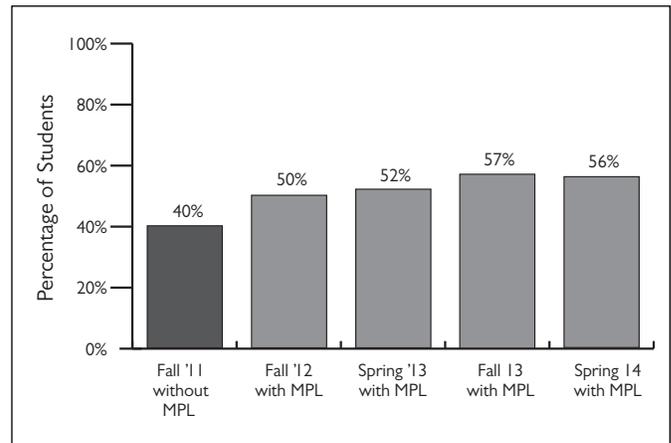


Figure 2. Percentage of students achieving overall course grades of A or B without MyPsychLab (Fall 2011,  $n = 302$ ) vs. with MyPsychLab (Fall 2012,  $n = 1340$ ; Spring 2013,  $n = 693$ ; Fall 2013,  $n = 1450$ ; Spring 2014,  $n = 847$ ).

### Conclusion

After three years, and through the use of a number of quantifiable measures, we have clear evidence of the efficacy of our redesigned course. Further, we've accomplished the majority of our initial goals. Reducing the number of students who receive a grade of D or F, or who withdraw from the course, proved to be the most challenging goal; however, data from the past two semesters shows substantial reductions. Overall, we created an innovative class utilizing many best practices in teaching. We developed a course that reduced course drift, was implemented at a lower cost than its traditional counterpart, and—most important—resulted in greater student learning. Looking forward, we plan further research in an effort to better understand the impact MyPsychLab is having on specific groups, including low-income and first generation students.

### References

- Hudson, D. L., Hudson, A. L., Whisenhunt, B. L., Shoptaugh, C. F., Rost, A., & Fondren-Happel, R. N. (2014) Redesigning a large enrollment course: The impact on academic performance, course completion and student perceptions in introductory psychology. *Psychology Learning and Teaching* 13 (2), 107-119. <http://dx.doi.org/10.2304/plat.2014.13.2.107>
- Drab-Hudson, D. L., Whisenhunt, B. L., Shoptaugh, C. F., Newman, M. C., Rost, A. & Fondren-Happe, R. N. (2012) Transforming Introductory Psychology: a systematic approach to course redesign. *Psychology Learning and Teaching* 11 (2), 146-157. <http://dx.doi.org/10.2304/plat.2012.11.2.14>