Writing Space

Efficacy implementation and results

2014

PEARSON

Welcome Letter

Dear Educator:

We at Pearson, the world's leading learning company, believe we have a responsibility and an opportunity to help people make progress in their lives through learning. This report highlights the importance of writing and critical thinking and how developing these skills can positively impact student learning.

Most educators understand writing is both an important skill in its own right and a highly effective learning tool. But some may struggle to find room in their syllabi to require writing and to provide timely, meaningful, and consistent feedback to students on their writing without sacrificing resources needed for covering important course content. Further, creating high quality writing prompts and valid assessment rubrics can be complicated and time-consuming. The cases studies featured in this report show how creative educators implemented Pearson's Writing Space to address these and other pedagogical and logistical challenges.

In partnership with Pearson, these educators have designed efficacy studies to measure Writing Space's impact on student learning. This report includes both quantitative and qualitative case studies, each detailing successful Writing Space implementations and positive measurable results across a range of general education courses in the Social Sciences, Humanities, and Business with both large and small enrollments and from both two- and four-year institutions.

We invite you to contact us if you are interested in learning more about partnering with Pearson on an efficacy study at your institution.

Sincerely,

Nicole Kunzmann
Senior Efficacy Results Manager, Humanities and Social Sciences
Pearson North America
nicole.kunzmann@pearson.com

Candace Cooney
Efficacy Results Manager, Business
Pearson North America
candace.cooney@pearson.com

John Tweeddale
Senior Vice President, Efficacy and Quality
Pearson North America
john.tweeddale@pearson.com

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Writing, Critical Thinking, and Learning

Derek Bok, former Harvard University President and one of the nation's most respected education experts, has said, "Many students graduate college today without being able to write well enough to satisfy their employers. Students lack the ability to reason clearly or analyze complex problems." A complex process, academic writing requires students to plan and organize ideas effectively, to communicate these ideas in clear, concise language, and to analyze and apply information to solve a problem or make a compelling argument. Virtually any meaningful writing task requires students to think critically, a central component of "deeper learning" or "higher-level learning", by which we mean the ability to not merely retrieve conceptual knowledge but to evaluate these concepts, connect them to others, and produce discourse that puts knowledge to work for some important purpose.

> *"Writing is both a process of doing critical thinking and a product that communicates the results of critical thinking."*
>
> —*John C. Bean,* Engaging Ideas

A number of recent publications connect critical thinking, writing, and improved learning. For example, Brown, et al. *Making It Stick: The Science of Successful Learning*, demonstrates that when learners are asked to work hard to actively generate their own answers to questions, rather than simply identify a key term or check a box in a multiple choice format exam, they learn the material more deeply. In another study, *Engaging Ideas: A Professor's Guide to Integrating Writing, Critical Thinking, and Active Learning in the Classroom, 2nd edition*, John C. Bean argues that when students are forced to struggle with their writing, they are, in fact, learning to struggle with thought. Writing allows students to move beyond simply memorizing and reciting basic course content so they can engage in deeper learning. The case studies in this report show improved student performance after the implementation of Writing Space, as students learn how to think and how to learn.

> *"Deeper learning is simply what highly effective educators have always provided: the delivery of rich core content to students in innovative ways that allow them to learn and then apply what they have learned."*
>
> —*Alliance for Excellent Education*

Research also highlights the importance of the way writing assignments are constructed, including both quality prompts and valid grading rubrics. Educators who have implemented Writing Space report that the program's embedded prompts and rubrics make this typically challenging and time-consuming aspect of assigning and grading writing easier.

> *"Good writing assignments evoke a high level of critical thinking, helping students wrestle productively with a course's big questions."*
>
> —*John C. Bean,* Engaging Ideas

Pearson's Writing Space

Writing Space, a feature of Pearson's MyLab products, is designed to help students master course content while developing critical thinking skills through writing. Writing Space provides a single place to create, track, and grade writing assignments; supply writing resources; and quickly and easily exchange meaningful, personalized feedback with students. Its built-in Turnitin feature can also check students' work for improper citation and plagiarism.

Writing Space implementation models

Depending on your course, Writing Space may offer up to four types of writing assignments, all of which are easy to integrate. Every version of Writing Space includes pre-loaded writing prompts and grading rubrics, which we refer to as "instructor-graded" assignments in this report's table of contents.

Select courses include auto-feedback assignments within Writing Space. Auto-feedback writing assignments utilize Latent Semantic Analysis (LSA) to evaluate student writing. A mathematically-based approach to interpreting textual meaning closely related to human language learning, LSA determines semantic similarity of words and passages by analyzing large bodies of related text. Using LSA, Writing Space can "understand" the meaning of text much like a human reader. As a result, Writing Space can evaluate essays both for substantive content and for more mechanical aspects of writing. Louisiana State University conducted an independent study on the reliability of Writing Space's auto-grader vs. human graders (graduate students who regularly taught the course). Using Cronbach's Alpha, a measure used to estimate assessment reliability, the result was an alpha of 0.8. These were strong results given that a good reliability measure should be between 0.6 and 0.9. (See page 26 of this report for details.)

Instructor-created and peer-review assignments are also available within Writing Space. For additional information on assignment types click here to access the complete Writing Space training guide.

Writing Space's impact on student learning

Educators who required frequent Writing Space assignments throughout the semester noted improvements in exam scores. Here are two examples, one from a two-year institution and one from a four-year institution (see figures 1 and 2).
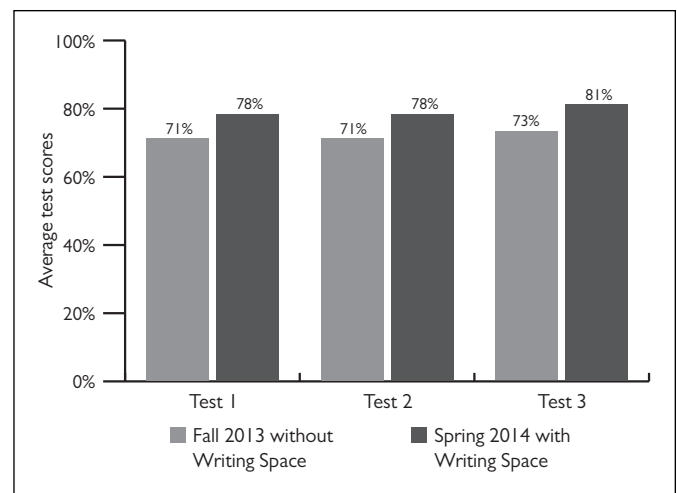
Figure 1. Writing improves students' ability to retain information over time. After implementing Writing Space at Dakota State University, test scores increased by over 7 percent. (Fall 2013, n = 83; Spring 2014, n = 100).
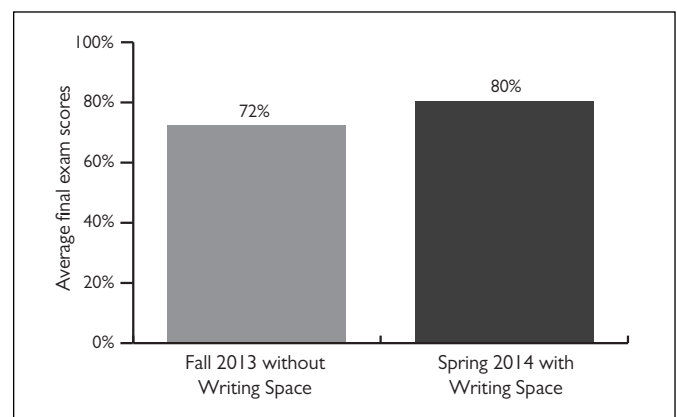
Figure 2. At Des Moines Area Community College, students who passed their Writing Space assignments averaged 8 percent higher on their final exams than students without access to Writing Space. (Without Writing Space, n=43; with Writing Space, n=46).

Some educators featured in this report had already been assigning writing but found it challenging to provide consistent feedback across all sections before implementing Writing Space. This was the case at the University of Minnesota, as described in this **20 minute webinar** featuring introductory psychology course coordinator, Professor Kathleen H. Briggs.

For more details on successful Writing Space implementations and results, read through the case studies on pages 6-23. **Click here** to access the report's table of contents for a quick overview.

"Some of my favorite things about Writing Space are how it tracks everything—due date, the progress of your work, and even the similarity report at the end."

> —*Christopher Cruz, St. Johns River State College, Student*

Writing Space implementation best practices

As you'll see throughout this report, educators implement Writing Space in different ways. In addition to these detailed case studies, we've compiled a list of best practices to help all educators using Writing Space achieve their desired results (**see page 24**).

As with the implementation of any new product, the first semester is often a learning experience during which educators uncover useful strategies for helping students get the most out of their assigned course material. Here, for example, is some "getting started" advice from Professor Gabe Mydland of Dakota State University, one of our Writing Space Faculty Advisors:

"Some students did struggle with the writing; to address this I plan to make a few changes in how I implement Writing Space next semester. Students who visited me during office hours found it helpful to see examples of good essays and poor essays. I think this type of activity could benefit the entire class; therefore, I plan to include at least one writing assignment as part of an in-class activity. I also plan to introduce Writing Space at the very start of the semester. At that time I'll be able to explain to students that some writing assignments might not be tied to the exact content that we covered in class that week, but it will help to prepare them for their next test. I will also explain more fully how essays are scored and how logical organization and solid development of ideas are the most important parts of a successful essay."

School Name	Bowling Green State University, Bowling Green, OH
Course Name	Business Communication
Course Format	Flipped Classroom

Key Results Data shows that students who achieved higher scores on their MyBCommLab homework assignments also earned higher final course grades. Further, Writing Space's automatic essay grading saved the instructor time and provided students with consistent, objective evaluations of their written work.

Instructor
Ruth White

Course materials
Business Communication by Shwom and Snyder with MyBCommLab

Serving approximately 20,000 students overall and located in Northwest Ohio, Bowling Green State University strives to provide an environment that supports students in reaching their fullest potential through learning, discovery, and service. The University's College of Business Administration expects its graduates to leave with extensive business knowledge as well as the ability to communicate clearly and to identify and solve problems critically, creatively, and ethically. BA 2030, Business Communication, is a three-credit course taken by nearly 350 students each semester, mainly Business and Sports Management majors. In this course students learn to communicate effectively through both written documents like reports and memos and through oral presentations for small groups and individuals.

Professor White wanted to "flip" her classroom, having students do reading, activities, and quizzes on basic course content before coming to class, so they could then spend class time working on realistic applications and group activities. She had previously used another Pearson digital product, MyMarketingLab, in a different course and wished to bring similar tools and content assets to her Business Communications course. She was also seeking a way to make grading written assignments less subjective and less time-consuming so she would have more time for planning lessons and developing activities. Writing Space, a feature included in MyBCommLab, provides objective and unbiased automatic essay grading so students receive fair grades and specific, immediate feedback on their writing.

Implementation

More than 2/3 of the assessment points (67.3 percent: 926 out of 1376 total) for this course come from MyBCommLab assignments: homework that includes the chapter Pre- and Post-Tests, 12 timed Chapter Objective-based exams, and three 100-point Writing Assignments completed in Writing Space. Prior to attending class, students read the assigned chapter, complete the Pre-Test to identify those topics they may not understand completely, remediate on those topics using the textbook and MyLab study aids, and then take the Post-Test. Since classes meet either two or three times a week, the first class session of each week is spent reviewing content. Students arrive prepared with specific questions, and Professor White adapts her lectures to expand on areas of interest and topics the Post-Tests indicate are problem areas. The subsequent class sessions are devoted to lively discussions and real-life applications, including breakout sessions, group work, and oral presentations.

The three Writing Space assignments are a critical component for success in this course—the students' bridge between concept mastery and critical thinking. Writing Space enables students to craft well-reasoned and logical documents informed by concepts they have learned from the text and the in-class activities. Writing Space includes customized rubrics that grade all essays objectively and consistently and generate immediate, personalized feedback to help students focus their thoughts and sharpen their writing.

Assessment

446 Points	Chapter Pre- and Post-Tests (MyBCommLab)
180 Points	Chapter Exams (MyBCommLab)
300 Points	Writing Space Assignments (MyBCommLab)
50 Points	Movie Assignments
50 Points	Resume Project
50 Points	Business Strategy Memo Report
65 Points	Oral Presentation
135 Points	Attendance & Participation
100 Points	Final Business Strategy Memo Report

"The three Writing Space assignments are a critical component for success in this course—the students' bridge between concept mastery and critical thinking."
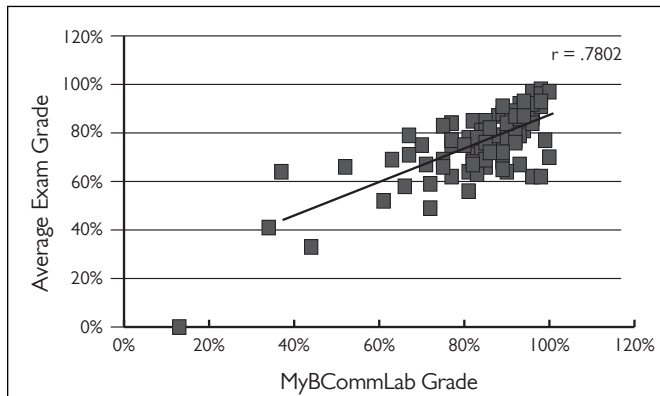
— *Professor Ruth White*

Figure 1. Correlation of student scores on MyBCommLab Pre-/Post-Test assignments with exam grades (*n*=116)

Total: 1376 points

Results and data

There is a strong positive correlation between the MyBCommLab Pre/Post Test Assignments to the Comprehensive Chapter Exams, where r = .7802 (figure 1). The pattern of required Pre-Test, remediate, retake Post-Test appears to be effective in preparing the students for their exams.

Course Letter Grade	Ave MyBCommLab % Grade
A	96%
B	88%
C	78%
D	57%

Figure 2. A comparison of Student Course Grades with scores on MyBCommLab homework (*n*=116)

A comparison of grades among the students grouped by course letter grade shows that students with a higher course letter grade achieved better results on the MyBCommLab Pre- and Post-Test homework assignments.

For example, students achieving an A scored on average 96 percent on MyBCommLab whereas students receiving a C for the course scored just an average of just 78 percent on their MyBCommLab assignments (figure 2).

The student experience

Students believe the Pre-Test/Post-Test sequence helps prepare them for both exams and the initial weekly class meeting. Because students have put effort into the MyBCommLab materials before coming to class, they arrive ready to ask targeted questions about challenging topics and to participate fully in the group work and application activities. Initially, students were nervous about having their written assignments graded by a digital program, but they quickly realized that Writing Space grades their assignments accurately for both format and content.

Conclusion

Now that students are doing so much preparatory work in MyBCommLab before class meetings, Professor White can adapt her teaching to focus on topics of particular importance or to explore students' questions about concepts they may not fully understand. Also, she now has extra time to bring new and more interesting activities into the class to give the students opportunities to apply what they now learn on their own time. Further, MyBCommLab's Writing Space feature has helped Professor White require more writing in her course, helping students improve their critical thinking skills without having to worry about subjective or inconsistent grading.

Because students are achieving improved results when successfully completing the MyBCommLab assignments, White plans to delve even more deeply into the program. For Fall 2014, Professor White will cut back some of the time she used to spend lecturing to include more small group work. She also hopes to use this extra time for creative in-class activities and students' oral presentations. Last, she thinks that MyBCommLab's new Knewton Adaptive Learning feature will provide students with even more focused and personalized instruction, freeing her to meet more often with students and coordinate their group work outside of class.

MyPsychLab with Writing Space

School Name	Dakota State University, Madison, SD
Course Name	General Psychology
Course Format	Flipped/Face-to-face and Online

Key Results Writing improves students' ability to retain information over time. After implementing Writing Space, test scores increased by over 7 percent.

Submitted by
Gabe Mydland, Ed. D., LPC

Course Materials
Psychology by Ciccarelli and White with MyPsychLab

The students who take this introductory survey of the field are not psychology majors, and this may be the only college-level psychology course they take. Because of this, one of my four key learning outcomes for the course is for students to be able to critically and purposefully apply course concepts and theories to contemporary issues.

I've used MyPsychLab for years as a means of engaging the students and implementing a "flipped classroom" approach. Assigning videos and other media activities tied to specific learning objectives in our textbook, combined with weekly quizzes administered through my school's learning management system (D2L), allows me to provide more active learning experiences in the classroom. As a result, our class time is devoted to applying important concepts rather than simply repeating what students have already read outside of class.

In addition to my focus on critical thinking and application of course content in class, I have always wanted to assign writing as a way to help students move beyond simple memorization of facts. Writing asks students to engage in higher-level thinking, leading to deeper understanding and long-term retention of the material. Having approximately 100 students per semester—about 70 in my face-to-face section and 30 in my online section—made it challenging for me to assign and grade writing in the past. Without TAs to help, there was no way I could provide timely and meaningful feedback on my students' written work. Because of this, I decided to integrate MyPsychLab's Writing Space assignments into the course for the first time this past semester. Writing Space's auto-graded assignments give students instant feedback on the structure and content of their essays, as well as instruction on the more mechanical aspects of writing. It also checks students' work for plagiarism with its built-in Turnitin feature.

Implementation

Writing Space assignments ask students to recall what they have read in their textbooks and then apply this knowledge to real world situations. For example, in the Learning chapter, students are presented with a scenario in which they must create a one-month behavior modification program based on the principles of operant conditioning they have studied. This type of writing assignment helps students develop a deeper level of understanding: they must understand both the basic concepts and how these fit together to provide a realistic solution. Further, they get valuable practice honing a range of written communication skills as they put forth these proposals for programs informed by concepts they have learned.

Students completed seven writing assignments throughout the semester, which counted for a total of ten percent of their overall grade. Since I don't cover every learning objective in the textbook, I was sure to assign topics that my students would also be assessed on later in their quizzes and tests. I also implemented regular media assignments, including simulations and videos within MyPsychLab.

Benefits

Auto-feedback writing assignments allow me to integrate writing into the course where in the past this had not been possible.

Writing helps students retain course content over multiple weeks and multiple learning objectives.

Assessments

30 percent	MyPsychLab (Writing Space's auto-feedback assignments; media assignments)
25 percent	Weekly Quizzes
20 percent	Flipped Classroom Group Assignments
15 percent	Tests (four)
10 percent	Quick Quizzes

"It's great to see students' progress in their learning and finally reach the point where they really "get it.""
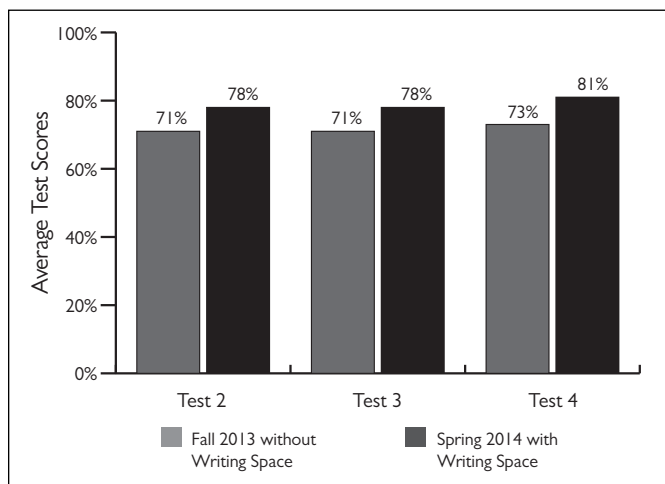

Figure 1. Average student test score for tests 2-4 without Writing Space (Fall 2013, *n*=83) vs. with Writing Space (Spring 2014, *n*=100). Includes both online and face-to-face sections.

Results and data

I was curious to see how the addition of Writing Space's auto-feedback writing assignments would impact student grades on both low-stakes "quick quizzes" and "weekly quizzes," as well as grades on higher-stakes tests covering learning outcomes from several chapters. Because the first writing assignment wasn't due until after the first test was completed, this analysis focuses on tests 2, 3 and 4. Student scores on tests 2-4 increased 7-8 points compared to the previous semester without Writing Space (figure 1). Interestingly, students' scores did *not* increase on the first test, which was taken before they began the writing assignments.

The results also indicate that performance on writing assignments is a strong predictor of success on test scores. Students who passed more writing assignments performed better on their tests (figure 2). In addition, there was no correlation between students simply attempting the writing assignment and student performance on tests. And, there was no correlation between the number of writing assignments passed and student performance on weekly quizzes. This points to the fact that the weekly quizzes usually require students to memorize smaller amounts of material for a short time vs. the tests, which demand deeper and more long-term understanding of course content, which writing helps students achieve.

The student experience

One student came to my office after completing a few writing assignments to tell me proudly that she'd "figured it out!" It's great to see students progress in their learning and finally reach the point where they really "get it."
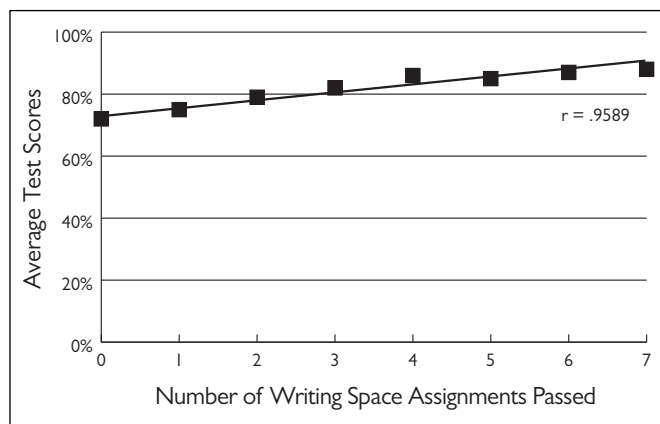

Figure 2. Correlation between the number of writing assignments a student passed vs. the student's average score on tests 2-4 (Spring 2014, *n*=100). Includes both online and face-to-face sections.

Some students did struggle with the writing; to address this I plan to make a few changes in how I implement Writing Space next semester. Students who visited me during office hours found it helpful to see examples of good essays and poor essays. I think this type of activity could benefit the entire class; therefore I plan to integrate at least one writing assignment as part of an in-class activity. I also plan to introduce Writing Space at the very start of the semester. At that time I'll be able to explain to students that some writing assignments might not be tied to the exact content that we covered in class that week, but it will help to prepare them for their next test. I will also explain more fully how essays are scored and how logical organization and solid development of ideas are the most important parts of a successful essay.

Conclusion

Integrating writing into my course with Writing Space has helped my students develop better critical thinking skills and perform better on tests. Next semester I plan to assign writing right from the start and to integrate writing into some of the classroom meetings, which I think will lead to all kinds of new and interesting discussions. Another instructional strategy I'm considering is "Peer Review"—a more student-centered pedagogical method where students learn as much from the review process itself as from writing their essays. Participating in such peer reviews helps students make the transition from writing primarily for themselves or for an instructor to writing for a broader, more diverse audience, an important communication skill that will help prepare them for success in more advanced courses.

School Name	Des Moines Area Community College, Ankeny, IA
Course Name	Introduction to Sociology
Course Format	Flipped/Face-to-face

Key Results   Writing Space helps students learn and retain information over time, while also helping them develop important writing and critical thinking skills. For students who successfully completed all Writing Space assignments, final exam scores increased 8 percent compared to previous semesters.

Submitted by
Laurie Linhart, Ph.D.

Course materials
The Sociology Project by Manza with MySocLab

In this general overview of the discipline of sociology, students are introduced to a wide range of topics, including: culture, socialization, organizations and institutions, deviance, inequality, gender, health, family, social change, theories, and research methods.

I've used MySocLab for a number of years and first implemented the chapter Study Plans as a way to "flip" my classroom. Students complete the MySocLab Study Plans for each chapter prior to the first class meeting of the week. With the basic concepts presented outside of class, I can elaborate on specific topics and incorporate more active learning into the class. As a result, student engagement has increased.

In the past I've included writing assignments as a way to help students master course content. Through the process of creating an essay in response to a thought-provoking prompt, students are forced to move beyond basic memorization and recitation to higher levels of learning as they analyze and apply concepts in their essays. The challenge for me was finding the time to grade student essays and provide meaningful feedback in a timely manner. This is why I decided to implement Writing Space's auto-feedback writing assignments as a solution.

Implementation

I conduct frequent assessments throughout the semester as both a measurement of how well students are learning and a tool for giving them critical feedback, which I feel is an essential part of the learning process. Students are required to complete MySocLab's Study Plan Post-Tests and selected Writing Space assignments prior to coming to class. Since this was the first semester implementing Writing Space's auto-feedback assignments, I decided to start slowly and only require two writing assignments—"Race and Ethnicity" and "Sociological Imagination." The quality and breadth of the writing prompts push students to higher levels of thinking as they complete the assignments. For example, the "Race and Ethnicity" prompt asks students to take a stance on a topical issue, argue their position, and then support it with evidence from the textbook. This type of assignment requires more than a simple definitional response. In keeping with Bloom's taxonomy of cognitive domains (Anderson and Krathwohl, 2001), this task forces students to use key higher order thinking skills, analyzing and creating, ultimately resulting in longer content retention and deeper overall understanding.

Benefits

*   By assigning MySocLab and Writing Space activities in advance, students come to class better prepared, which leads to more engaging class discussions.

*   In addition to providing students with feedback, Writing Space's auto-grader eliminates any potential "halo effect," grading all students objectively and consistently.

*   Auto-grading saves instructors time and provides students with personalized, immediate feedback on both content and mechanics to help them improve their writing and critical thinking skills.

"Students who passed their Writing Space assignments averaged 8 points higher on their final exams than students without access to Writing Space."
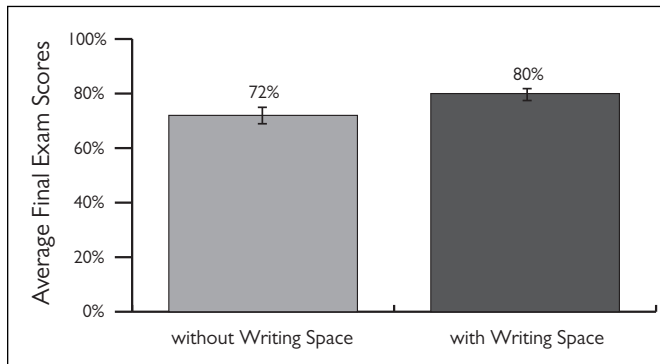

Figure 1. Average final exam scores for students who passed all assigned writing assignments without Writing Space (Fall 2013, *n*=43) vs. with Writing Space (Spring 2014, *n*=46).

Assessments

Fall 2013 without Writing Space

35.5 percent	MySocLab (14 chapter study plan post-tests)
20 percent	Writing assignments (four)
20 percent	Final exam
14.5 percent	Participation
10 percent	Midterm exam

Spring 2014 with Writing Space

55.5 percent	MySocLab (14 chapter study plan post-tests; two Writing Space assignments)
20 percent	Final exam
14.5 percent	Participation
10 percent	Midterm exam

Results and data

Students who passed their Writing Space assignments averaged 8 points higher on their final exams than students without access to Writing Space (figure 1). To me, the fact that students who received instant feedback on their writing did significantly better in the course suggests that Writing Space also had a positive effect on students' final exam scores.

The student experience

The majority of students who responded to an end-of-semester survey found Writing Space's auto-feedback assignments helpful, and almost all students indicated they would recommend MySocLab to other students taking this course in the future. Students also appreciated their flipped classroom experience, reporting that MySocLab helped them master basic chapter content before we engaged in discussions of greater depth in the class meetings.

Conclusion

Giving students more opportunities to practice writing can only improve their writing—a skill that will help them across all disciplines as well as in their future careers. Writing Space helps students learn and retain information over time while also enabling them to develop important writing and critical thinking skills. Because of these positive results, I plan to increase the number of Writing Space assignments required throughout the course going forward.

References:

Anderson, Lorin W., & David R. Krathwohl, Eds. (2002). *A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives*. New York, NY: Pearson.

MyArtsLab with Writing Space

CASE STUDY

School Name	Harper College, Palatine, IL
Course Name	Art History
Course Format	Face-to-face

Key Results Since implementing MyArtsLab with Writing Space, scores on my class's final papers have increased 7 percent, indicating students' deeper understanding of course material as well as their improved writing and critical thinking skills.

Submitted by
Stephany E. Rimland

Course materials
Art History by Stokstad with MyArtsLab

This course covers the history of art from the medieval age to the end of the eighteenth century. Focusing on major artistic styles, works of art, and monuments, it follows the historical development of the visual arts produced by western civilizations.

A wide range of students take this course, including both traditional and non-traditional aged students, and both art majors and non-majors. To get them to read the book carefully and engage with course material outside of class, I assign MyArtsLab. It allows me to emphasize and elaborate upon important specific topics. Also, because MyArtsLab assignments are a part of students' grade, they come to class more prepared for vigorous class discussions—a much more active form of learning than the traditional lecture format.

My exams measure students' ability to identify artists, artworks and architecture, and important changes and developments within different cultural and historical periods. These exams consist of multiple choice questions that assess students' basic understanding of course content and two comparative essays, which require them to demonstrate their higher-order learning skills. These exams are designed to prepare students for their final research paper, providing them with a foundation in academic writing and critical reasoning.

Implementation

I've been using MyArtsLab for two semesters now. Although it contains a wealth of resources, I decided to start slowly when integrating MyArtsLab into my course. I started with requiring weekly "Closer Look" and "Architectural Panorama" media

assignments. Closer Look assignments model how art historians talk about a work of art and teach students to zoom in on key details they might not otherwise see. They provide engaging facts and include audio to help with pronunciation of unfamiliar terms and names. The Architectural Panorama assignments provide 360-degree views of major monuments featured in the textbook, allowing students to gain a greater appreciation of how a building's many physical components work together in a given space.

I have steadily increased my use of MyArtsLab. Because an important part of my course involves developing students' writing and critical thinking skills, this past semester I used Writing Space's instructor-created assignment functionality as a way to more easily assign, track, and grade my students' final research paper. I created a customized rubric and inserted it directly into the Writing Space component of MyArtsLab, which made it easy both to grade my students' final research papers and to provide personalized feedback to them all in one place.

Benefits

- Closer Look and Panorama media activities provide an easy way to create and grade frequent assessments focused on important course content.

- Assigning students' final research paper in Writing Space allows me to more easily track and grade student papers.

- Writing Space automatically checks students' work for plagiarism using the built-in Turnitin feature.

Assessments

60 percent	Exams (three)
40 percent	MyArtsLab (Writing Space; Closer Look and Panorama media assignments)

In the process of using MyArtsLab with Writing Space my students are learning more, making better grades in my course, and becoming more accomplished writers and critical thinkers.
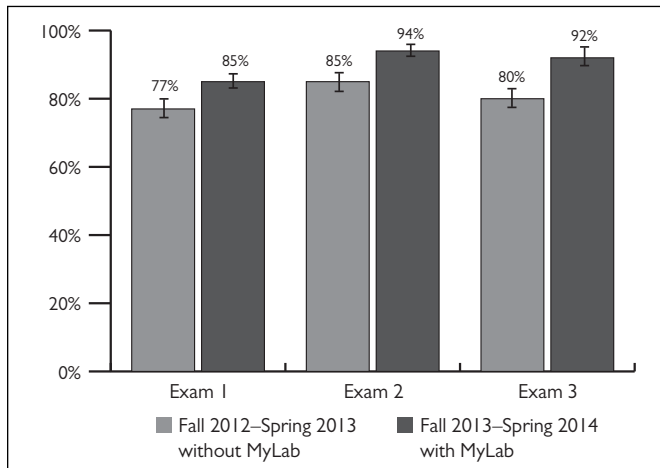

Figure 1. Average exam scores without MyArtsLab (Fall 2012-Spring 2013, *n*=50) vs. with MyArtsLab (Fall 2013-Spring 2014, *n*=47)

Results and data

To help measure MyArtsLab's impact on student learning I assigned the same exams each semester over the last two years to provide a baseline for comparison. Since I began using MyArtsLab I have observed significant improvements in exam scores: student performance on all three exams has increased between 8 and 12 percent (figure 1). In addition, student grades on the final research paper have risen by an average of 7 percent (figure 2).

The student experience

Students report that the MyArtsLab requirements integrated into the course help them succeed. They are especially pleased that Writing Space provides access to a number of valuable resources for their writing, including a built-in dictionary and thesaurus.
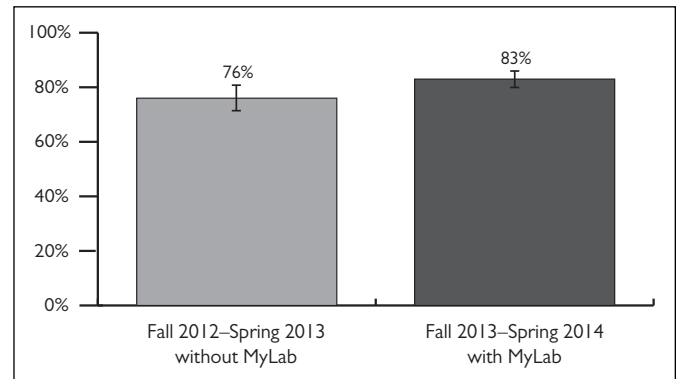

Figure 2. Average research paper scores without MyArtsLab (Fall 2012-Spring 2013, *n*=50) vs. with MyArtsLab (Fall 2013-Spring 2014, *n*=47)

Conclusion

I see evidence that MyArtsLab has a positive impact on student learning, and Writing Space makes the process of assigning a research paper as an end-of-semester summative assessment easier and more efficient for me by providing built-in tools like Turnitin. In the future, I am considering having students choose an object in a local museum, an art gallery, or their textbook, and write a formal analysis essay. I recently used this as an optional/extra credit assignment, and, because it worked so well, I may require this as a low-stakes written assessment to help all students prepare to write their final research paper. To sum up, in the process of using MyArtsLab with Writing Space my students are learning more, making better grades in my course, and becoming more accomplished writers and critical thinkers

School Name	Houston Baptist University, Houston, TX
Course Name	General Psychology
Course Format	Face-to-face

> **Key Results** After implementing MyPsychLab with Writing Space, average final exam scores increased eight percentage points.

Submitted by
Vicki Alger

Course materials
Mastering the World of Psychology, Wood, Wood, and Boyd; MyPsychLab

About the Course

Houston Baptist University has a very diverse student body, in beliefs, ethnicity, and background. The general psychology course is taken by a variety of majors, along with many freshmen who have not yet chosen their major. Many students live off-campus and commute to class which presents unique challenges. This survey course focuses on the basic principles underlying behavior and mental processes. Emphasis is placed on major areas of study in the field of psychology, such as learning, memory, personality, health and stress, human development, and psychological disorders.

Challenges and Goals

Tied to our college goals, the general psychology course is designed to improve critical thinking skills. After teaching this course for a number of years, I began assigning material in MyPsychLab. I have always provided my students with out-of-class study resources, and was interested in incorporating MyPsychLab's Writing Space, which automatically grades student essays and provides instant feedback on both content and mechanics. Through writing, students work toward a deeper understanding of the course material and develop critical thinking skills that will help them apply the material purposefully to their own lives. By incorporating frequent writing assessments, I hoped that student performance in the course would improve.

Implementation

Students complete 10 writing assignments within Writing Space throughout the course—one per chapter. These low-stakes assessments, designed to provide students with more opportunities to practice writing, are due before each exam. The prompts included within Writing Space ask students to apply what they are learning and move beyond basic conceptual understanding.

I also require my students to complete MyPsychLab's study plan before we begin discussing each chapter. MyPsychLab chapter study plans are due every Sunday night to provide consistency with assignments and to help ensure students stay on track throughout the course. Along with the writing assignments, the study plan post-tests count as part of students' course grade. Select media assignments (mostly video) focusing on some of the more challenging topics can be completed for extra credit. These frequent assessments provide personalized learning for each student, allowing them to focus on topics that give them the most trouble.

Benefits

Student scores on the cumulative final exam increased by an average of eight percentage points over two semesters compared to previous terms without MyPsychLab.

Frequent assessments and personalized learning help students better prepare for exams.

Students have multiple opportunities to write about the material, which improves their understanding of the topics while developing their critical thinking skills.

Assessments

60 percent	Five exams (lowest exam score dropped)
20 percent	MyPsychLab assignments (Writing Space; Study plan post-tests)
20 percent	Comprehensive final exam

*"The writing assignments required me to think deeper, and as a result,
I retained the knowledge more often."*
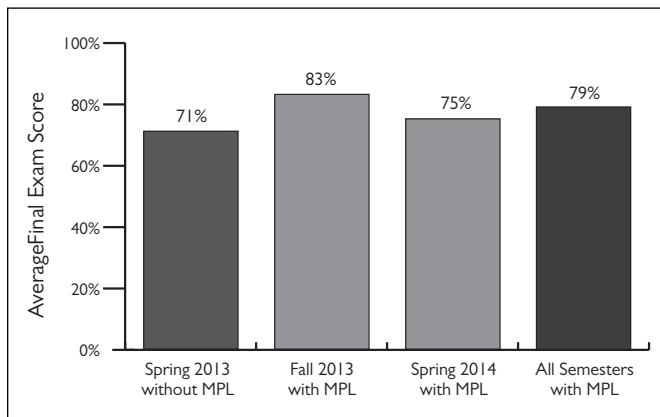
—General psychology student

Figure 1. Average final exam scores without MyPsychLab (Spring 2013, *n* = 27) vs. with MyPsychLab (Fall 2013, *n* = 29; Spring 2014; *n* = 83).
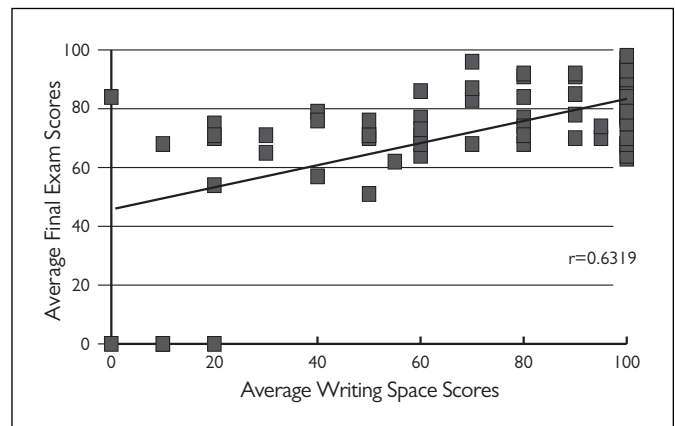
Figure 2. Correlation between students' final exam scores and average Writing Space assignment scores (average of 10 writing assignments per student) (Spring 2014, *n* = 83).

Results and Data

Since implementing MyPsychLab with Writing Space, cumulative final exam scores have increased from 71 percent to an average of 79 percent compared to previous semesters without MyPsychLab (Figure 1). I am also encouraged that success on both the MyPsychLab study plan and Writing Space assignments are positively correlated with students' higher final exam scores (Figures 2 and 3).

The Student Experience

Many students benefit from additional help when it comes to basic study skills. Since I started using MyPsychLab a number of students have told me they feel more prepared for their in-class exams; one stating that the MyPsychLab assignments were "pivotal to my success." Student feedback also points to the benefits of frequent writing assignments: "The writing assignments required me to think deeper and, as a result, I retained the knowledge more often."

Because computer-graded essays are a new concept for most students, I tell them in my syllabus that, if they think their essay grade is unfair, I will grade their essay by hand using the same rubric as Writing Space. Although not many request this hand-grading, I find they do like having this option. For students who are struggling, I provide sample student essays to help them understand what constitutes a good college essay.
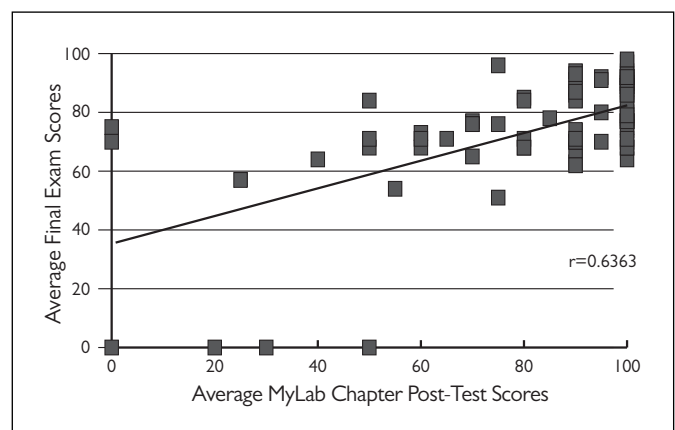
Figure 3. Correlation between students' final exam scores and average My-PsychLab chapter post-test scores (Spring 2014, *n* = 83).

Conclusion

After two semesters of implementing MyPsychLab with Writing Space, the data shows increased student learning. I believe this indicates that Writing Space helps students develop critical thinking skills, which, when they apply those to the material, leads to deeper understanding. I am not surprised to see higher average final exam scores in my course. Going forward I plan to explore ways to use MyPsychLab as a tool to "flip" my classroom, so that our in-class time is spent focusing on the topics students find most challenging.

School Name	Louisiana State University, Baton Rouge, LA
Course Name	Introduction to Psychology
Course Format	Face-to-face

Key Results After increasing MyPsychLab from 10 to 20 percent of students' overall course grade, success rates increased by 8 percent while D/F/W rates decreased. In addition, students continue to develop important writing and critical thinking skills with Writing Space's auto-feedback assignments.

Submitted by
Emily Elliott, Ph.D.

Course Materials
Psychology by Ciccarelli and White with MyPsychLab

The Introduction to Psychology course serves as a social science requirement for Louisiana State University's general education curriculum. Approximately 1,300 students from a wide range of majors take the course each semester. As part of this general education requirement, students are expected to demonstrate an understanding of factors associated with global interdependence including economic, political, psychological, cultural, and linguistic forces. In addition, students gain an understanding of psychological theory and research while learning to think critically and apply this material in their daily lives. One of the best ways for students to develop both a deep understanding of course content and critical thinking skills is through writing. Our challenge was finding a way to assign and grade 1,300 student essays consistently across sections and to provide personalized feedback in a timely manner.

Implementation

MyPsychLab was initially implemented to give students more opportunities to practice writing. Conceptual and applied writing assignments—corresponding to videos from the MyPsychLab Video Series—are due before each exam. These assignments are automatically graded for both content and the more mechanical aspects of writing. Students receive instant feedback within the program to help them identify weaknesses along with tools that can improve their writing skills. Psychology majors, like all students, benefit greatly from this writing practice which helps develop critical thinking skills necessary for success in more advanced courses.

After two semesters we began assigning weekly quizzes to help students master basic course concepts and prepare for lectures. In addition to their auto-feedback writing assignments, students also complete quizzes in MyPsychLab before each chapter is covered in class, and they have the option of referencing their textbook for help. (Many students like to use the MyPsychLab eText when taking these weekly quizzes.) Along with this change, we increased MyPsychLab from 10 percent to 20 percent of students' overall course grade.

Benefits

By providing reliable auto-feedback on student essays, Writing Space allows us to assign writing for all of our Introduction to Psychology students each semester. These assignments give students the opportunity to practice writing while mastering important psychology concepts. The process of writing, combined with Writing Space's immediate feedback, leads to more long-term retention of course content and the development of important writing and critical thinking skills. MyPsychLab also helps to ensure students are reading the textbook, which includes material covered on exams but not always covered in class.

Assessments

45 percent	Exams (three)
20 percent	Final exam
20 percent	MyPsychLab (Writing Space assignments; quizzes)
10 percent	Class participation (clicker questions)
5 percent	Research learning requirement

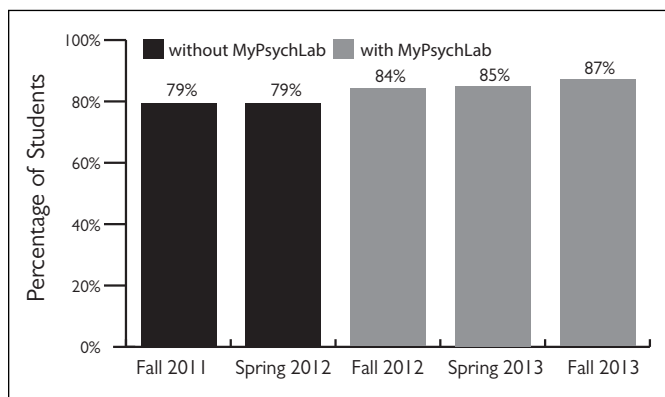*"The results indicate that MyPsychLab has had a positive measurable impact on our students' learning."*

Figure 1. Success Rates without MyPsychLab (Fall 2011, *n*=1,379; Spring 2012, *n*=1,135) vs. with MyPsychLab (Fall 2012, *n*=1,320; Spring 2013, *n*=1,258; Fall 2013, *n*=1,595). Success rate = the percentage of students receiving a grade of A, B, or C in the course.
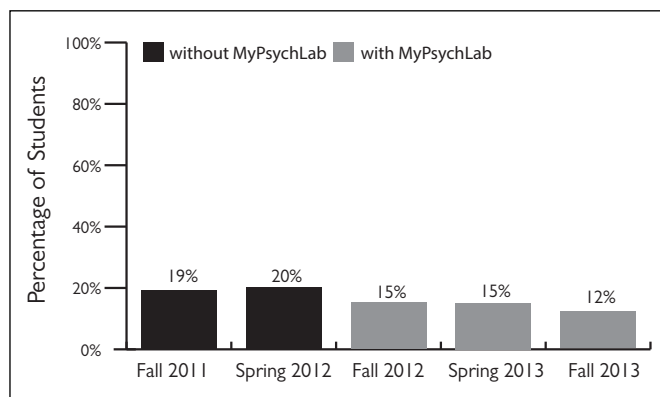

Figure 2. D/F/W Rates without MyPsychLab (Fall 2011, *n*=1,379; Spring 2012, *n*=1,135) vs. with MyPsychLab (Fall 2012, *n*=1,320; Spring 2013, *n*=1,258; Fall 2013, *n*=1,595). D/F/W rate = the number of students who receive an overall course grade of D or F, plus the number of students who withdraw from the course.

Results and data

To determine MyPsychLab's impact on student learning over time, we compared grade distributions and withdrawal rates from five consecutive semesters: two without MyPsychLab and three with MyPsychLab. The results indicate that MyPsychLab has had a positive measurable impact on our students' learning. Success rates have increased with more students now receiving overall course grades of A, B, or C compared to previous semesters without MyPsychLab (figure 1). In addition, fewer students are receiving overall course grades of D or F, and fewer students are withdrawing from the course (figure 2).

The initial increase in success rates in fall 2012 may also have been the result of more students reading their required textbook carefully in order to complete the quizzes. Although we do not have data measuring time spent using the textbook in current or previous semesters, we did see an increase in the number of textbooks (with MyPsychLab) purchased, so more students had access to all course materials. In fall 2013, results improved further when MyPsychLab was increased from 10 percent to 20 percent of students' overall course grade (figures 1 and 2). Requiring additional weekly assessments led to students spending more time actively engaged with course material within MyPsychLab. As a result, overall performance improved.

The student experience

Because this course is often students' first experience with computer-graded essays, they can be skeptical when they initially learn about these assignments. However, as the semester progresses we are able to work through these concerns. We have found it helpful to walk through a sample writing assignment together on the first day of class so students see the kind of feedback they will receive and how their essays will be scored.

Conclusion

The data indicate that our initial increases in student learning with MyPsychLab have been sustained over multiple semesters. Next semester we plan to move to the updated version of Writing Space's auto-feedback assignments so we can take advantage of the built-in Turnitin feature to help prevent plagiarism.

Going forward we plan to redesign the entire course with the goal of measuring and improving student learning outcomes while providing a more active learning experience in the classroom. We ran one pilot section during the spring 2014 semester where each week students spent three hours working with MyPsychLab resources in a computer lab and one hour in a traditional classroom. We learned a great deal from this experience, and we are now in the process of evaluating the pilot section data and planning the next steps in our course redesign.

School Name	University of Minnesota, Minneapolis, MN
Course Name	Introduction to Psychology
Course Format	Flipped/Hybrid

Key Results MyPsychLab's Writing Space enables the University of Minnesota to assign and grade students' writing more efficiently and consistently across sections. Students improve their writing and critical thinking skills because they are given more opportunities to practice writing while receiving immediate feedback.

Submitted by
Kathleen H. Briggs, M.A., Course Coordinator

Thomas Brothen, Ph.D., Faculty Director

Course materials
Psychology by Lilienfeld with MyPsychLab

Introduction to Psychology provides a broad overview of the scientific study of human behavior. A prerequisite for all other psychology courses, it is also taken by a wide range of majors.

We believe that writing is an excellent way to help our students consolidate what they are learning and develop critical thinking skills, and we believe the best way to learn writing is by doing it frequently. However, the time it takes to grade extended essays makes it prohibitive to assign them as often as we would like. In addition, with over 1,000 students each semester, providing adequate and consistent grading across many sections is a significant challenge. Graduate students in psychology are not trained as writing specialists so, even if they had the time, they don't provide particularly useful feedback on essays and they are not particularly consistent in how they grade. To insure consistent grading across all sections, we decided to adopt MyPsychLab and implement Writing Space, a feature that includes auto-feedback on written essays.

"I think writing the essays helped me understand the main concepts. Also, I feel my scores accurately reflected the amount of time and work I put into my writing."

—*Student*

Implementation

We assign MyPsychLab's writing assessments for each chapter in our textbook, specifically, the critical thinking questions provided at the end of each chapter. We keep the stakes low by calling it "writing practice," and students earn full credit for essays by scoring 70 percent or better. Student essays are automatically graded, and students get their grades immediately accompanied by feedback on both content and mechanics. Students seem to appreciate that they have all been evaluated with the same rubric.

We are impressed by how well Writing Space's auto-grading software works. The program uses Latent Semantic Analysis to identify the meaningful patterns underlying responses to each question. These responses were trained on 400+ human-scored student essays of varying quality. Writing Space's auto-feedback simulates human grading quite well. A high-scoring essay is typically a well-constructed four- or five-paragraph essay in which the student responds to the question fully and straightforwardly using an active voice, with correct grammar, punctuation, vocabulary and syntax. What most impresses me is that the program is able to identify when students fail to understand concepts or when they provide correct information without actually answering the question being asked of them.

At the beginning of the semester I thought Writing Space might be a solution to the challenge of providing writing in a large-enrollment class, but I must admit I was nervous about the whole process. By the middle of the semester, however, I was quite impressed. And by the end of the semester I'd become very enthusiastic about the program.

"I really liked the automatic grading on the essays because you knew that you were getting graded fairly and everyone was getting graded the same way."
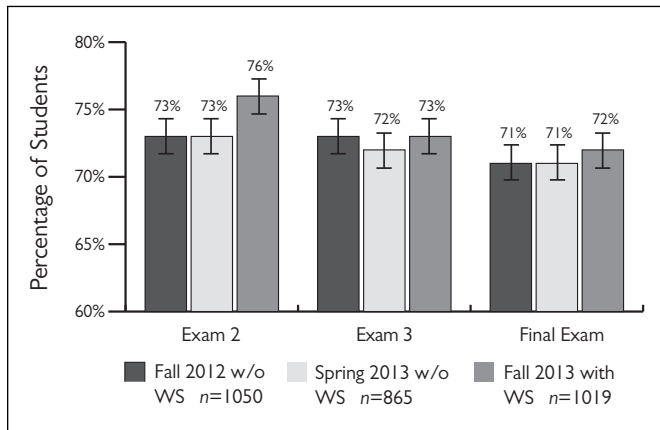
—*Student*

Figure 1. Exam 2-3 and Final Exam Scores with vs. without Writing Space (Fall 2012-Fall 2013)

Benefits

We have seen the benefits of computer-grading vs. human grading. For example, a well-trained computer has no bias; everyone is graded against the same rubric and held to the same standards. Graduate students who graded the student essays in the past would sometimes miss things that the computer now catches. With Writing Space's fast and consistent automatic grading and instructional feedback, students are given more opportunities to practice writing and, as a result, become better writers. In addition, Writing Space automatically checks the essays for plagiarism.

Assessments

31 percent	Exams (three)
20 percent	Comprehensive Final Exam
18 percent	Weekly assignments and group work
17 percent	Chapter quizzes (Moodle; using test bank questions)
13 percent	Writing Space (16 writing assignments, 4 points each)
1 percent	Supplemental activities (four)

Results and data

While writing has always been a required part of this course, we are now confident that students are getting the unbiased and consistent feedback they need in order to become better writers and critical thinkers. In addition to the significant benefits described above, we see promising indications that we are on the right track in terms of improving student learning; we hypothesize that this is a result of Writing Space since no other aspect of the course has changed. Average final exam scores were higher this semester compared to previous semesters without Writing Space (figure 1), and we expect this trend to continue as we learn and incorporate more "best practices" for using the program.

The student experience

Students report they find writing essays to be a more effective way of understanding and synthesizing the material than chapter quizzes alone. Also, they feel Writing Space's automatic grading gives them fair and consistent feedback on their writing.

Conclusion

Writing Space has given us a solution to a problem we've been struggling with for years: "How can we provide meaningful writing instruction in a class with a huge enrollment and limited resources?" Finding this solution is important because writing practice is essential for our students; it is how critical thinking develops. Writing Space has enabled us to assign and consistently grade weekly writing assignments. We implemented Writing Space for the first time last semester and saw a small but significant increase in exam scores. We will continue tracking student performance to see if the gains in exam scores are sustained in future semesters.

"These assignments make you think. They make you dig into the chapter, and most importantly, they help you to really understand psychology."

—*Student*

School Name	University of North Carolina, Charlotte (Charlotte, NC)
Course Name	US History Survey
Course Format	Flipped/Face-to-face

Key Results Integrating MyHistoryLab—especially Writing Space's assignments with auto-feedback—helps students develop the ability to think analytically and critically about important historical topics. Through my "flipped classroom," students do more work outside of class, allowing for a more interactive and engaging in-class experience.

Submitted by
David Goldfield, Ph.D.

Course Material
The American Journey, Concise Edition by Goldfield with MyHistoryLab

The US History survey course is taken mostly by freshmen, who often come into the class expecting to simply memorize a list of names and dates. My goal for this course is to help students appreciate that we cannot understand the present without understanding the past. I want students to develop a sense of humility and respect for the contingency of history (or, for the complexity of history) by analyzing people and events, not from today's perspective, but from the perspective and by the standards of the time. This course is often the first time students are asked to analyze and think critically for themselves, a major emphasis of mine.

Implementation
When I first adopted MyHistoryLab in 2009, it counted for 20 per cent of my students' overall grade. Over the years I have found it to be such a useful tool for enhancing the course that I now make it worth 65 per cent of their overall grade. In completing frequent, required assignments in MyHistoryLab, students learn to read and interact more deeply and thoughtfully with the material before coming to class. This allows us more freedom and flexibility in the classroom, and makes our time together more valuable because we can now bring in current events and engage in lively debate and discussion.

Further, I believe good writing skills are essential for students. However, with large sections of approximately 100 students it was, in the past, logistically impossible to assign and grade frequent writing assignments. With MyHistoryLab, students have many opportunities not only to write but also to get immediate feedback on content and mechanics, making them both better writers and thinkers. There are a wide variety of assignments in MyHistoryLab—maps, images, videos, document analysis, writing, and chapter exams—which help students develop the ability to think analytically and critically about important historical topics.

Benefits
With MyHistoryLab I am able to cover all course material in a more thorough and engaging way—something much more difficult to achieve in the past. My students develop valuable writing skills, and they retain more and learn better from MyHistoryLab's regular assessments accompanied by immediate feedback.

Assessments:

65 percent	MyHistoryLab (8 chapter exams, 4 writing assignments, and 35 media assignments)
15 percent	Midterm exam
10 percent	Final exam
10 percent	Christian Science Monitor

"MyHistoryLab has been so effective in improving my students' grades, critical thinking skills, and engagement with the material that I have "flipped my class," making MyHistoryLab worth 65 percent of students' overall course grade."
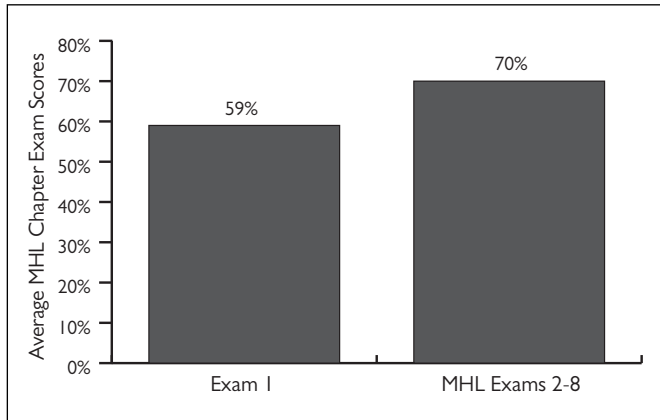

Figure 1. MyHistoryLab Chapter Exam Scores, Fall 2013. Does not include exam scores of "0".
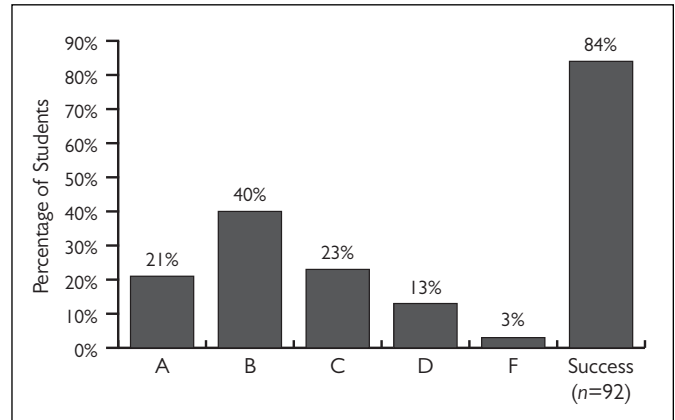

Figure 2. Student Success Rate, Fall 2013.
(Success rate = the percentage of students receiving a grade of A, B, or C in the course.)

Results and data

Rather than have students wait until the first in-class exam many weeks into the semester, I use MyHistoryLab's chapter exams throughout the term so they can gauge where they are much earlier and adjust their efforts accordingly. I have seen my students use this early assessment to "get themselves in gear." For example, this past semester average scores on the first MyHistoryLab chapter exam were below a passing grade--with students averaging just 59 percent. After students took note of this early feedback, average scores for the remaining seven MyHistoryLab chapter exams jumped to 70 percent (figure 1). In addition to the chapter exams, students complete interactive media assignments and Writing Space's writing assignments that provide auto-feedback. I believe these regular assessments and active, required use of MyHistoryLab increase student engagement and critical thinking, which manifest themselves in the course's high success rates (figure 2).

The student experience

Students want to be measured on their performance throughout the term. They don't want everything riding on just one or two exams, and they appreciate the opportunity to work on a variety of low stakes assignments throughout the semester. Without MyHistoryLab this would not be possible. Because students know where they stand and receive immediate feedback on their performance with MyHistoryLab, they are more motivated and do better on the chapter exams and other assignments.

Conclusion

As I've integrated increasingly more work in MyHistoryLab into the course over time, I feel I've been able to teach my students more and, at the same time, they are enjoying the course more. MyHistoryLab has been so effective in improving my students' grades, critical thinking skills, and engagement with the material that I have "*flipped my class,*" making MyHistoryLab worth 65 percent of students' overall course grade.

MyArtsLab with Writing Space | CASE STUDY

School Name	St. John's River State College, Orange Park, FL
Course Name	Humanities I and II
Course Format	Hybrid/Face-to-face

> **Key Results** Writing Space allows me to integrate college-level writing and critical thinking into my course, as required by Florida's "Gordon Rule," while providing timely and consistent feedback to students.

Submitted by
Sandi S. Landis Ph.D., Professor and Humanities Department Chair

Course Materials
The Humanities by Sayre plus MyArtsLab

The Humanities I course focuses on the ancient through the medieval periods of culture and history. Humanities II covers the Renaissance to the Modern periods of culture and history. Both courses emphasize developing an understanding and appreciation of cultural heritage. In both Humanities I and II, however, my greatest instructional challenge is assigning and grading the necessary amount of writing. Not only is college-level writing a required part of these courses per the state of Florida's "Gordon Rule," but I also believe writing helps students better understand course concepts than simply reading the textbook.

I adopted Writing Space in MyArtsLab as a way to provide timely, consistent feedback to my students while also helping them avoid plagiarism. In addition, creating prompts specific enough to keep student responses succinct and, at the same time, worded in ways to make students think critically—a skill needed for success in college, career, and life—can be challenging. I found the Writing Space prompts to be especially well conceived in this regard, and I have happily inserted them into my syllabus.

Implementation

All students in both courses must complete the "Museum Exploration" Writing Space assignment within MyArtsLab. Since different art exhibits in our local museum, the Thasher-Horne Center for the Arts, are relevant to a range of historical periods, the same essay prompt works well for both courses. This assignment asks students to assess the value of acquiring a broader cultural understanding from museum collections rather than just knowing the simple historical context of the works displayed. This type of assignment requires students to think more critically and judiciously about content covered in the course, something that simple multiple-choice questions often do not do.

I use the "Museum Exploration" Writing Space assignment in conjunction with our museum field trip with great success. Writing Space streamlines the entire process of assigning writing by including pre-loaded writing assignments along with pre-loaded grading rubrics. Plus, the built-in originality check is a huge benefit for both me and my students. Before Writing Space my students had to draft and revise to their essays in Microsoft Word, run them through Turnitin to check for plagiarism, and then post them to Blackboard. Now, this is all done in one place.

Within MyArtsLab I also require students to complete selected "Closer Look" media assignments before coming to class. My goal with these assignments is to expose students to the material early so they arrive in class prepared to participate actively. Making these assignments worth 25 percent of students' overall course grade gives students an incentive to take the time to complete all of them, even when there may not be time to cover some of this material in class.

Assessments (for both Humanities I & II)

50 percent	MyArtsLab (Writing Space; Closer Look media assignments)
25 percent	Midterm exam
25 percent	Final exam

*"I like Writing Space because it is easy to use, quick, and everything can be done at your own pace.
I like that you can go back and edit your drafts while still being able to see the questions.
It definitely made things easier for me!"*
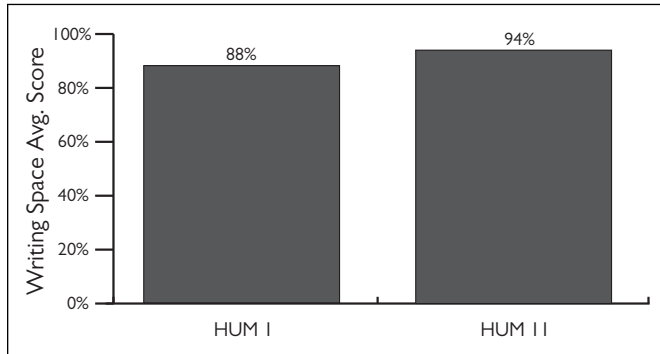
—Hannah Guthrie (student)

Figure 1. Average Writing Space assignment scores Spring 2014 (HUM I *n*=15; HUM II *n*=25).

Results and data

Writing Space allows students to practice and then demonstrate their college-level writing skills, like forming logical arguments and showing valid evidence. It also allows me to easily review, grade, and report on student performance. My students' high average scores on their Writing Space assignments in both Humanities I and II clearly demonstrate they are producing competent college-level writing (figure 1). I have not yet included revisions as part of the Writing Space assignment, but I am considering requiring one or two revisions going forward. This will give them practice not only in drafting their ideas about a topic but also in polishing, sharpening, and focusing their writing as they revise.

The student experience

"Writing Space is more convenient than Blackboard. It requires fewer steps for submitting a paper than are needed in my other classes. I also loved the link to Turnitin." –Naomi Pangborn (student)

"Some of my favorite things about Writing Space are how it tracks everything—due date, the progress of your work, and even the similarity report at the end." –Christopher Cruz (student)

Conclusion

Writing Space has made the process of assigning, collecting, and evaluating writing assignments easier. It is simple to create new assignments, upload relevant materials, monitor student progress, and receive alerts when students submit work. Moreover, students overwhelmingly prefer working in Writing Space to other kinds of assigned writing. Going forward, I may include additional Writing Space assignments such as the "Roman Architecture" essay for Humanities I. This should help me toward my ultimate instructional goal—to provide students with as much writing practice as possible so they can become better writers and critical thinkers.

Best Practices:
10 Steps to Success with your Writing Space Implementation

The institutions included in this report did more than simply add a new learning technology to their curricula. How they implemented Writing Space combined with Pearson's MyLab solutions significantly contributed to their positive results. Below you'll find ten recommended best practices that will help you and your students get the most out of your Writing Space implementation.

1. Identify the problems you want to solve. Do your goals include improving student success in your course? Do you want students coming to class more prepared? Do you want to give students more opportunities to practice and improve their writing skills? Are you interested in students achieving deeper learning by developing their critical thinking skills? In examining the most successful Writing Space implementations, one common thread emerges: those schools that achieve success know precisely what they want to accomplish. They establish clear educational goals at the outset and then specifically design their implementations to achieve them.

2. Select and assign the specific resources that will help you achieve your stated goals. Writing Space varies from course to course. Does the version you are implementing include writing prompts for every chapter? Are assignments auto-graded or is peer review an option? Based on this information you may choose to require Writing Space in combination with other MyLab assignments. Many educators report that students come to class more prepared when the MyLab and Writing Space assignments are due *before* those topics are covered in class.

3. Build an assessment plan. How will you measure success? What are the quantifiable goals you want to achieve? Pertinent metrics might include comparisons of in-class exam scores, final course grades, or retention rates with those of previous semesters. You may also track student success rates in subsequent courses.

4. Get everyone—and keep everyone—on the same page. Communicate your goals clearly to colleagues, students, and administrators. Train all full-time instructors, part-time instructors, adjuncts, tutors, and other key players—and make available opportunities for continuous training. Pearson provides product and implementation **training** required to help ensure that your implementation aligns with your goals.

5. Start small. Integrate Writing Space into your course at a pace that feels comfortable. Start with requiring weekly homework. If auto-feedback writing assignments are not available for your course, you can easily create one or two Writing Space assignments of your own that you require along with other auto-scored MyLab assessments (chapter exams or media assignments).

6. Position students for success. Students tend to skip "optional" assignments. Experienced MyLab users recommend that you require Writing Space and MyLab assignments and make them worth at least 10 percent of students' overall course grades. Provide structure: clearly communicate course and workload expectations to students and set firm and consistent deadlines. Conduct a "Getting Started" orientation on the first day of class to show students how to access the Writing Space assignments they'll be responsible for.

7. Connect and engage with students. Educators are unanimous about the importance of individually connecting with students throughout the semester. Some educators recommend not waiting for students to ask questions about their work. Rather, they suggest circulating in the classroom or computer lab proactively to assess what students need. Outside class, consider sending weekly emails containing kudos for those doing well and offering support and intervention to those who are having trouble or not completing their work.

8. Employ personalized learning. The most successful learning solutions provide frequent, personalized feedback. Students completing Writing Space with auto-graded assignments receive immediate, focused feedback. Even when the instructor grades students' writing assignments, having all completed essays in one place makes it easier and faster to give students their essay scores and relevant feedback, which appear instantly within Writing Space.

9. Conduct frequent assessments. Educators have long recognized the necessity of assessment as both a measurement of how well students are learning and a tool for delivering essential feedback. Writing Space allows you to evaluate student progress throughout the semester while helping them develop writing and critical thinking skills as they master important concepts.

10. Track learning gains. Educators who track and measure learning gains are able to make informed decisions about instructional methods, course transformations, redesigns, or programmatic shifts and can increase their ability to prove institutional effectiveness, meet accreditation standards, track quality-enhancement plans, and fulfill grant requirements.

An Independent Study Supporting the Efficacy of Pearson's Auto-Feedback Writing Assignments

Submitted by: Emily Elliott, Ph.D., Louisiana State University

All students were asked to complete the same writing assignment. 40 student essays were then randomly selected for our study.
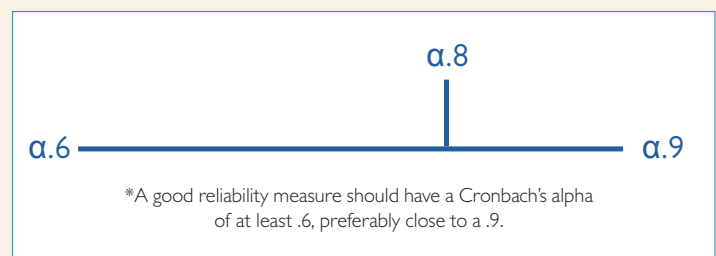
WRITING ASSIGNMENT
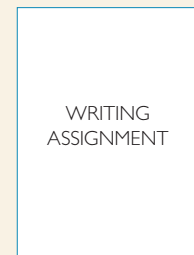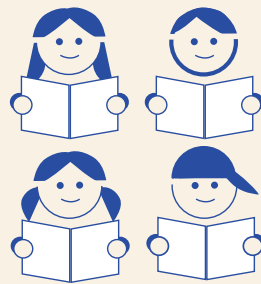
Two psychology teaching assistants plus Writing Space's auto-grader all scored each student essay using the same rubric. This provided us with three sets of essay scores to analyze.

WRITING SPACE
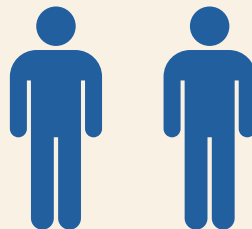
Results: Our analysis of these three sets of student essay scores using Cronbach's alpha* resulted in 0.8.

Based on these results we decided to implement Pearson's auto-feedback writing assignments across all introductory psychology sections.

α.8

α.6 ——————————————— α.9

*A good reliability measure should have a Cronbach's alpha of at least .6, preferably close to a .9.

For details on the results we've seen since implementing the program with our 1,000+ students per semester, see our complete **Case Study**.

Pearson's Standards for Efficacy Research

At Pearson, we believe that learning is a life-changing opportunity, and that education should have a measurable, proven impact on learners' lives. It's what Pearson's efficacy program and tools are all about. Pearson is putting the pursuit of efficacy and learner outcomes at the center of its global education strategy—you can read more at efficacy.pearson. com. When we publish our annual report in 2018, we will, in a rigorous and externally audited way, report on the progress we have made in improving learner outcomes.

Why Pearson is Interested in Efficacy Studies

Learner outcomes have always been important to Pearson— our fundamental purpose is to help people make progress in their lives through learning. We already have many examples of products that can demonstrate their impact on learners, but going forward our aim is to ensure that every action, every decision, every process, and every investment we make will be driven by a clear sense and understanding of how it will make a measurable impact on learner outcomes.

It is increasingly possible to determine what works and what doesn't in education, just as in healthcare. Growing research and evidence, advancements in technology and our enhanced ability to harness the power of data offers a huge opportunity to drive improvements in learning. Pearson, as the world's largest learning company, has both the responsibility and the potential to pursue and lead this conversation. Toward that goal, we actively seek out educators who wish to explore educational research questions and investigate the efficacy of our digital solutions and services.

Pearson's Efficacy Research Team

Our global efficacy team is headed by Sir Michael Barber, a leading authority on education systems and reform. The North American Efficacy & Quality team includes over 30 professionals dedicated to helping educators deliver desired learner outcomes.

We provide practical advice about tracking and analyzing student data as part of the implementation of a Pearson digital solution. Experts in psychometrics, educational statistics, and journal publications are available to support instructors who want to (1) conduct efficacy studies, (2) provide our editorial staff with detailed reports on the quality of our online content, and (3) advise our software engineers of new methodologies for collecting and processing student learning data within our digital solutions.

How Pearson and Instructors Work Together

Every research project is unique. The process takes time— generally a semester or longer. Instructors interested in conducting studies should expect an interactive and rewarding partnership.

How Pearson Can Help Instructors Get Started

Pearson can provide templates, guidelines, questionnaires, checklists, and samples on course redesign, efficacy studies, data collection, and more. *To maintain objectivity, Pearson does not offer compensation for participation in efficacy studies.*

Research Standards

Pearson adheres to the Software & Information Industry Association guidelines for evaluation of educational technology products. The key guidelines are:

- Ask the right question

- Support the implementation of the product or service

- Plan a study of sufficient size and duration to demonstrate an effect

- Plan for plausible causal claims

- Avoid (the appearance of) conflicts of interest

- Provide a comprehensive and detailed research report

- Make the research findings widely available

- Accurately translate research for customers

Contact Nicole.Kunzmann@pearson.com for more information.

List of Contributors/References

Contributors

Vicki Alger, Houston Baptist University, TX

Kathleen H. Briggs, University of Minnesota, MN

Thomas Brothen, University of Minnesota, MN

Emily Elliott, Louisiana State University, LA

David Goldfield, University of North Carolina, Charlotte, NC

Sandi S. Landis, St. John's River State College, FL

Laurie Linhart, Des Moines Area Community College, IA

Gabe Mydland, Dakota State University, SD

Stephany E. Rimland, Harper College, IL

Ruth White, Bowling Green State University, OH

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Pearson is committed to providing products and services in support of effective teaching and learning. We do this by fostering partnerships with all industry stakeholders, including you, our customers. This is your community. In a spirit of sharing best practices among peers, we offer instructors informative reports, present online forums and trainings, and sponsor various on-ground events throughout the year. We encourage you to participate, and we welcome your feedback.

Writing Space

www.pearsonmylabandmastering.com

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