More accessible, streamlined access to digital learning content that fits the way instructors and students want to work

A look at the *WileyPLUS/Blackboard integrated* experience across a number of disciplines
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Introduction

In 2012, Wiley launched a new integrated offering for using its digital content within the industry-leading Blackboard Learn™ Learning Management System (LMS). This integration was created through feedback from thousands of students and instructors in a full-semester field trial prior to its launch.

Designed to meet varying levels of digital usage, this new solution creates a single sign-on user experience within Blackboard Learn. For students, the integration is meant to make their Wiley digital content and assignments both more visible and easily accessible, allowing them seamless movement from Wiley content and assignments to LMS tools like wikis, blogs, and discussion boards, to enrich their learning.

What impact does this integration have on student and instructor experience, and how can instructors best leverage the integrated workflow of the WileyPLUS/Blackboard platform?

Wiley analyzed these questions in 2013 with a series of in-depth interviews among instructors who’ve used the integrated product in their courses and a follow-up quantitative study to measure student grade impact in using the integrated platform compared to a prior semester.

This paper examines findings from the interviews and quantitative data to identify ways for instructors to optimize the value of using the WileyPLUS/Blackboard integration when designing their course.

(See Appendix page 13 for study methodology details.)

Executive Summary

Instructors in this study largely report that the integration of WileyPLUS and Blackboard streamlined their workflow as well as their students’ workflow, allowing them more time to incorporate other elements into their courses and contributing to improved student engagement and learning.

Instructors were looking for solutions to save themselves time and keep students more connected.

They expected the new WileyPLUS/Blackboard integration to deliver greater efficiency in assembling and managing digital course content and tracking grades. They also envisioned that the more direct access to course materials would make it easier and more motivating for students to find and use course materials and become more engaged in their own learning.

The WileyPLUS/Blackboard integration helps to streamline instructor workflow, focus students and provide more visibility into student progress in the course.

Expectations for improved workflow from the WileyPLUS/Blackboard integration were largely met, as instructors report far less time assembling course resources, and performing administrative functions like enrolling students and grading.

The single-point-of-access to all course resources via the integrated product also facilitates the instructor’s ability to organize all course materials from multiple sources, prioritize areas of focus for students and track student progress and remediation needs.

For students, a single sign-on makes it harder to miss posted assignments and other course resources and easier to communicate with instructors when they have questions. Several instructors also report that students are better able to take the "reigns" on their own learning with ready access to assignments and assessment tools.

In addition to instructor observations of more engaged students and greater participation in homework and practice, a quantitative study comparing student learning in courses pre- and post-use of the integrated product show an average 1% increase in GPA following one semester of use.

Instructor engagement with the WileyPLUS/Blackboard integrated product is the key to more successful student outcomes.

Instructors who reported consistent use of product features like online assessment noted increased student engagement in and completion of assignments. The more instructors commit to using the variety of resources available within the integrated product, the more success their students experience.

A majority of instructors feel that the WileyPLUS/Blackboard integration improved their students' learning.

“I don’t know how I could teach without it now. I think it makes communication with the students a lot better. I used to spend a lot of time on how to and now I spend much more time talking about why, so it makes the class better.”

— Accounting & Finance instructor, 4-year public university

The goal?

To give instructors flexibility to search for and embed content into courses and streamline their workflow, as well as automatic assignment and quiz grading and synchronization with the grade book.
Because all course materials are organized and visible in one place on the LMS, the WileyPLUS/Blackboard integration allows all course instructors to share what they’re doing and coordinate to ensure a consistent course experience across sections.

“It helps because we have multiple instructors teaching the same course. It helps us to see what other instructors are doing and to streamline, maintain the integrity of the course and keep it the same level. I like using other instructors’ assignments and I like when they use mine.”
— Science & Mathematics instructor, 2-year public college

Two-thirds of instructors interviewed use graded WileyPLUS assignments, and more than a third used regular WileyPLUS quizzes in their courses. Particularly with growing class sizes, the ability to assign automatically graded homework gives instructors peace of mind that students are practicing and getting feedback, since they no longer have time to manually grade. This becomes even more powerful when instructors have visibility into all course assignments in one place, including the assignments that take place in Blackboard, like discussions or small group projects.

The WileyPLUS/Blackboard integration also makes it more efficient for instructors to track overall student progress and to help them when they have an issue with the online homework or need remediation on a particular concept or section.

“If they send me an email saying this question is not working, I can just go to Blackboard and find Wiley and go to the grade book, find the student and actually see what answers he or she has. I can address their concerns very effectively because all of the answers and the wrong answers are there and I can see them very easily. I haven’t found that with any other software or at least I was not aware that that existed.”
— Chemistry instructor, 4-year public university

Drivers for use of the WileyPLUS/Blackboard integration

The appeal of the integrated platform is a streamlined workflow with better visibility of and access to course resources.

The ability to have everything in one place, for both instructors and students, affords more visibility of course materials and increases the likelihood that students will actually see and do assignments.

Instructors report time savings, improved organization and increased student engagement as a result of running their course through the WileyPLUS/Blackboard integrated platform.

Several study participants said their use of the WileyPLUS/Blackboard integration eliminated former time-consuming administrative work in troubleshooting student enrollments and questions about how to access course materials.

“Instead of spending ages setting up 800 students, from an administration point of view, I can go through and do batch files to insert so I don’t have to worry about it.”
— Business instructor, 4-year private university

The seamless integration of WileyPLUS and the Blackboard grade book also facilitates syncing grade books.

“Well, before we had to export from WileyPLUS and import into Blackboard, and if the instructor didn’t have everything perfect it would be really easy to get off a row and students would get the wrong answer or the wrong scores in their Blackboard grade book. WileyPLUS and Blackboard just eliminated that whole instructor side of it. All we have to do is push a button now to get the grade books to talk to each other.”
— Anatomy & Physiology instructor, 2-year public college

Course Design at Its Best

“All the WileyPLUS material is right there; students don’t have to go to different places to access homework, reading material, or lecture notes and quizzes. Everything is a few clicks away within a folder. So there is no guessing at what is being covered on a test and what is due at a certain time.”
— Science & Mathematics instructor, 2-year public college

Integrating WileyPLUS and other course resources within the LMS system opens the door for more sharing and coordination among all instructors in the course.

Positive impacts of the WileyPLUS/Blackboard integration:

• Ability to easily share and coordinate with other course instructors
• Better communication between instructors and students
• Centralized access to all course content, resources and communications makes it easier to find and access everything at-a-glance
• “Forced practice” via WileyPLUS keeps students current and more prepared; allows instructors to devote more class time to exploration of concepts than review
Quantitative grade analysis among more than 2,200 students points to an increase in student GPA from using the WileyPLUS/Blackboard integration for at least two semesters.

Have used WileyPLUS/Blackboard for more than one term

<table>
<thead>
<tr>
<th>Control group</th>
<th>Test group</th>
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<tbody>
<tr>
<td>2.38 GPA</td>
<td>2.40 GPA</td>
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</table>

Students’ results improve as instructors become accustomed to the WileyPLUS/Blackboard integration and start to shape their course around the resources that are available to them. Among those who have used the integrated product for at least a previous semester, the average GPA of students increased 1% from the control classes to the test classes that incorporated the integrated WileyPLUS/Blackboard.

Instructors who base more than 70% of the student learning experience on materials/exercises from WileyPLUS/Blackboard report an increase in student GPA with the use of the integrated product.

Based more than 70% of course on WileyPLUS/Blackboard materials

<table>
<thead>
<tr>
<th>Control group</th>
<th>Test group</th>
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<tr>
<td>2.39 GPA</td>
<td>2.46 GPA</td>
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In this group, student grades increase by an average of 3% from the control classes to the test classes. These instructors’ students also had a greater overall GPA than did those in which less than 70% of the course was based on the integrated product.

The focus on the integrated WileyPLUS/Blackboard resources can be used as a proxy to measure the commitment of an instructor to using the integrated product. The more the instructor is committed to using WileyPLUS/Blackboard, the better their students will perform.
Instructors who make online homework a sizeable portion of the grade show an increase in student GPA with the use of the integrated product. Instructors who either frequently or very frequently assigned students to complete post-activity assessments saw a significant increase in GPA—and a greater overall GPA—than those who didn’t fully utilize this feature. Students’ grades increase by an average of 1% from the control classes to the test classes.

When instructors assign more post-activity assessments, it increases the amount of interaction with the integrated WileyPLUS/Blackboard for both the instructor and the students, leading to better student results.

Instructors who based at least 20% of the overall grade on online homework had a significant increase in student GPA—as well as a higher overall GPA—than those who based less than 20% of the grade on online homework. Students’ grades increase among those who based more of the overall grade on online homework by an average of 3% from the control classes to the test classes.

As with instructors who base a majority of their course on the integrated WileyPLUS/Blackboard resources, prioritizing online homework can also be a proxy for the instructor’s commitment, which in turn can positively impact student outcomes.

Use of post-activity assessments in the integrated product after students complete a self-study exercise results in an increase in student GPA. Instructors who either frequently or very frequently assigned students to complete post-activity assessments saw a significant increase in GPA—and a greater overall GPA—than did those who didn’t fully utilize this feature. Students’ grades increase by an average of 1% from the control classes to the test classes.

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“...I did a correlation coefficient analysis of homework grades to the final grade in the class. The homework scores had an extremely high correlation with the final grades in the course. So, if they were averaging 80 on the homework, they tended to get an 80 on the whole class. And the tests didn’t predict that one as well, but the homework did.”

—Accounting instructor, 4-year private university

Instructors who find Blackboard’s assessment tools “very valuable” experience an increase in student GPA with the use of the integrated product because “deep linking” WileyPLUS graded assignments is seamless. Students’ grades in the test group increase by an average of 1% from the control group among those who find Blackboard’s assessment tools to be very valuable. This represents a significant increase in student GPA compared to measures among students of instructors who didn’t view the Blackboard assessment tools as valuable.

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Best practices for adapting workflow with a WileyPLUS/Blackboard integration

The integration of WileyPLUS and Blackboard resources can pave the way for instructors to shift more responsibility onto students for their learning and boost critical thinking.

The most-noted changes based on the WileyPLUS/Blackboard integration involve the instructor employing additional resources to build student engagement, both with the learning materials and each other.

Promoting Class Preparation
By letting WileyPLUS handle the “how” of problem-solving and practice, instructors help ensure that students are prepared for class and thus can free up more class time to discuss the “whys” of the concepts behind the problems.

“My goal this coming year is to move out of the ‘how do you do these problems,’ and let Wiley take care of that. Let your links and resources, and let my videos take care of that stuff. Then we move into the conceptual theory-type case studies in class.”

–Accounting instructor, 4-year private university

“They’re given what we call a prep, which they complete by midnight the night before each class. Most of the questions in the prep are from the Wiley test banks. They take a ten-question prep. This is new. We never did it before we were integrated.”

–Management Information Systems instructor, 4-year public university

Promoting Engagement
A couple of instructors cited the integrated Blackboard discussion boards as valuable resource for boosting students’ interaction in their learning.

“Well, we’re a commuter school, so most of our students don’t live on-campus. Getting them to be able to work in teams and find the time to do that physically, face-to-face, is almost impossible. So that has been a major step forward. We’re doing it for the first time this summer, where every week they have a team project to work on, and they use the discussion board, and then they supplement that with any other communication channels that they want to use, but the anchor is the discussion board on the integrated site.”

–Management Information Systems instructor, 4-year public university

A few leveraged the integrated resources to design their course for the way their students consume information. This includes functionalities like building a targeted platform of resources on which students should focus, giving students some leeway/additional opportunities to boost their grades and incorporating features that allow for self-evaluation of learning styles.

“So instead of them reading through twenty pages of notes in a forty chapter textbook, all they have to do is concentrate on the reading assignment, that resource assignment, which may be side questions and as they go through there I get to pick and choose how I want them to study this material. So basically, I am building a learning platform in WileyPLUS that I think is going to be best for my students.”

–Science & Mathematics instructor, 2-year public college

“With the points that are available from the homework, now I have more points available. So what I’ve done is gone to a model where I used to give three exams during the semester and then I gave four exams during the semester. Now what I’m doing is I’m giving four exams and then dropping the lowest exam.”

–Chemistry instructor, 4-year public university

“We also had an orientation quiz and we used the learning styles in WileyPLUS as part of that: have students look at how they learn and how might they gear their own self-review according to their learning style.”

–Biology instructor, 2-year public college

Instructors note that the improved organization and integrated access to resources helps to better focus students on what matters most and where they need to improve.

“94% of interview participants would recommend the WileyPLUS/Blackboard integrated product to other instructors.”

“I think students are much more effective and we’ve had higher retention rates and higher student engagement.”

–Biology instructor, 2-year community college

“It’s a way to make certain that they read the chapters before they come to class, because that’s always been a major problem.”

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Appendix

Details of the Wiley 2013 study of instructor experience and student learning outcomes:

Qualitative research
• 16 45-minute telephone interviews conducted among instructors who had taught using the WileyPLUS/Blackboard integrated product.
• Ten of the instructors had used WileyPLUS previously to trying the integrated product.
• Instructors are geographically diverse and represent a variety of 4-year private, 4-year public and two from 2-year institutions.
• Instructors were asked about the expectations for their using the WileyPLUS/Blackboard integration, their experiences in using the product, observations about the impact on students from using the integrated platform, and how they employed the various product features in their course.

Quantitative research
• Instructors who use WileyPLUS integrated within Blackboard were recruited to participate in a study about how student grades were affected compared to the grades from a term prior to the use of the integrated product.
• Eleven instructors provided both pre-integration and post-integration student data for a study using quasi-experimental designs; a total of 2,280 students are represented in the data.
• Eleven instructors participated in an associated survey that describes their usage of the integrated systems.

Promoting Ownership

“My initial thought when we integrated was that they would really become more engaged more with their own learning; to really have ownership of what they put to knowledge rather than having the instructor be the owner of their knowledge. And I find that with the integration because it was a single sign-on that more students were using their textbook. They were reading; they were doing practice quizzes and it really did help the overall understanding of the material better. I find that if they didn’t do well on a particular subject in the chapter then they would go do the interactive exercises that are on Wiley. So I found that because of the integration that the students were asking better questions; they were thinking a little bit more in-depth into the material.”
—Anatomy & Physiology instructor, 2-year public college

Recommended resources for instructors
Overview of WileyPLUS/Blackboard integration features/sign up for a live demo:
http://www.wileyplus.com/go/blackboard/

YouTube instructional video for setting up the integrated product access:
http://www.youtube.com/wileyplusvideos

Questions or comments?
Contact:
wileypluspromo@wiley.com