Georgia State University

Case Study

Student Engagement, Exam Scores, Grades, and Pass Rates Improve with SmartBook®

Setting

With six campuses throughout metro Atlanta, Georgia State University provides its world-class faculty and more than 52,000 students with unsurpassed connections to the opportunities available in one of the 21st century's great global cities. A national leader in graduating students from diverse backgrounds, Georgia State provides a rich experience with award-winning housing, hundreds of student clubs and organizations, and one of the most diverse student bodies in the country. Students, faculty, and alumni enjoy a unique campus personality and culture based on ambition, hard work, dedication and perseverance.



Study Specifics

School Name:
Georgia State University

Course Name:
Managing People in Organizations

Program:
McGraw Hill Connect® Management with *Organizational Behavior: Improving Performance and Commitment in the Workplace*, by Jason Colquitt, Jeffery LePine, and Michael Wesson

Educator:
Chad Hartnell, Ph.D.

Educational Challenges

In Fall 2021, Dr. Chad Hartnell's students returned to face-to-face (F2F) classes at Georgia State University for the first time in a year and a half due to COVID. The students were struggling to learn how to think critically and study appropriately for closed book exams and had become accustomed to memorizing material for a test without adequately understanding it. "After approximately eight weeks, my students' grades were significantly lower than in previous semesters, and I needed to intervene," stated Hartnell. Hartnell worked with his local McGraw Hill representatives to incorporate Connect into one of his classes to evaluate whether or not it would improve student learning outcomes.

Goals

Hartnell's goals were for students to improve their performance on exams, and he was also looking for students to come to class more prepared and with a clearer understanding of basic course concepts. Overall, Hartnell wanted students to feel more comfortable and confident with their command of organizational behavior so they could put the ideas and theories into practice and improve their ability to relate well with others.

Implementation

Breakdown of Course Grade

- Quizzes (in-person) 10%
- Exams (in-person) 60%
- Team Project 20%
- Peer Evaluation 10%
- SmartBook adaptive assignments 2.4% (extra credit)

Hartnell taught two sections of the same class in Fall 2021. Students in both sections performed nearly identically on tests and quizzes throughout the first half of the semester. Hartnell chose one section to implement SmartBook for all students in the class. "I offered students three extra credit points to complete the SmartBook assessment for eight chapters throughout the remainder of the semester," explained Hartnell. Students had to complete the SmartBook assessment before the class, in which Hartnell talked about the chapter in class. If students completed less than 100% of the SmartBook assignment prior to the deadline, they received the same percentage of the three extra credit points (e.g., 50% completion = 1.5 extra credit points). The control group (no SmartBook access) was offered three extra credit points for attending each class that remained in the semester (up to a total of 24 points).

On average, students completed one SmartBook assignment per week that coincided with the chapter discussed in class. Students answered approximately 30 questions, which took 45 minutes to complete. "SmartBook afforded students the opportunity to test their comprehension with low-stakes questions and return to the text to understand what they answered incorrectly. In short, SmartBook encouraged a learning orientation and challenged students to read the textbook with a purpose (not just to memorize key words to pass a test)," remarked Hartnell.

Hartnell utilized the Connect performance tracking tools to instantaneously identify the chapter concepts students found most challenging and customize his in-class time focusing on content most helpful to student learning and retention. The Connect reports enabled Hartnell to have more customized conversations with students to help them deepen their understanding of course concepts and better prepare for quizzes and exams. "Connect reports give you a birds-eye view into your students' learning. Like an instrument panel on your vehicle, Connect reports help you create a healthy, constructive, and value-added learning environment to get your students to their desired destination (a good grade in your class) while feeling confident about what they've learned in the process," explains Hartnell.

Results

Students were already engaged in class discussion before Hartnell integrated SmartBook at the semester's midpoint. Three noticeable differences in student engagement occurred after adopting SmartBook.

- Students were more confident answering questions and sharing insights.
- More students participated in class discussions (more than the customary 10-20% of students who typically carry class discussions).
- Students came to class prepared to ask proactive questions. These questions deepened their understanding of course material and increased the quality of class discussions.

"The most unexpected outcome from using McGraw Hill Connect was that students came to class more confident and excited to engage in class discussion. I was concerned that students would not appreciate a 45-minute weekly assignment outside of class in addition to the required reading. I was wrong. Nearly every student found the time invested valuable, purposeful, and worthwhile. They appreciated the opportunity to receive feedback on their learning and comprehension before they came to class."



Data

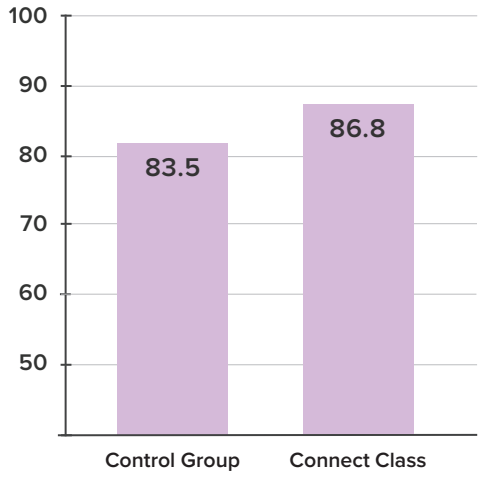
Before adopting Connect at the semester's midpoint, students across two sections performed identically on exams and quizzes. After adopting Connect in one of the two sections, students in the Connect section outperformed students in the control group section (no access to Connect) by 6% on Exam 3, 11% on Exam 4, and 6% on the Final Exam.

Students using connect outperformed the control group by **7.5%**

In addition to the 7.5% performance improvement on exams compared to the control group, Connect increased the final class grade average by 3.3% (from 83.5% to 86.8%) compared with the control group. Notably, the Connect class earned 22 A's, whereas the control group earned 13 A's (equivalent student enrollment across the two sections) (Figure 1).

The significant performance differences between classes prompted Hartnell to investigate which students in the Connect section benefited most from engaging with SmartBook. His findings surprised him. Hartnell split the class into quartiles based on students' average performance across the first two exams (during the first half of the semester prior to students having access to Connect). Hartnell then calculated "Connect engagement" by assessing what percentage of SmartBook assignments the students completed (for the last eight chapters of the textbook) during the last half of the semester.

Figure 1:
Average Final Grade



Connect students did 3.3 percentage points better.

Thirty-nine of the 43 total students engaged at some level with the SmartBook assignments. Those students completed 75% of all the SmartBook assignments, on average. Of the four students who did not engage with SmartBook assignments at all, 1 was in the 1st quartile (highest performers), 1 was in the 3rd quartile, and 2 were in the 4th quartile (lowest performers).

The statistical analyses show that Connect engagement improved students' exam performance (3rd exam, 4th exam, and final exam) for students in the 2nd and 3rd quartiles (or the middle 50%). It did not significantly improve students' performance for the highest performers (1st quartile) or the lowest performers (4th quartile).

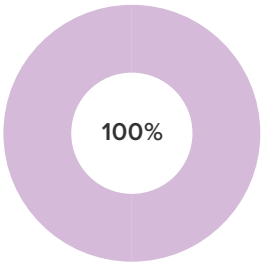
Dr. Hartnell's teaching tips and best practices for first-time Connect adopters:

1. Use Connect as a playground. Connect affords you a number of ways to structure student learning. Use it to help students learn and interact with course concepts without fear of failure.

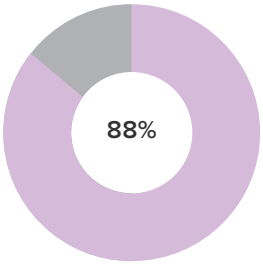
The 1st quartile students (the highest-performing students in the first half of the semester) still engaged with Connect, but it simply reinforced what they had already learned. The 4th quartile students (the lowest-performing students in the first half of the semester), on average, only completed about 60% of SmartBook assignments (lower than the 79% average in the other three quartiles).

100% of students in the Connect class passed the class. 88% of students in the control group passed the class (Figure 2).

Figure 2:
Percent of Students in the Connect Class who Passed the Class



Percent of Students in Control Group who Passed the Class



Conclusion

The Georgia State University Management faculty, impressed by the significant increment in students' learning outcomes with SmartBook, are collectively exploring the possibility of incorporating SmartBook and Connect's other features into all sections of "Managing People in Organizations."

Hartnell encourages instructors to consult with their McGraw Hill representative to learn more about Connect and its features. "The representatives will help you customize Connect to achieve your learning objectives. In addition, they will show you all available tools and resources and educate you on how to use them, and they have an implementation team to support you. If you are comfortable with Connect, you are much more likely to use it effectively to supplement your classroom instruction," responded Hartnell.

Hartnell checked in with his students weekly about their experience with SmartBook to assess whether or not the SmartBook assignment was "worth their time." "Students consistently expressed appreciation for having access to SmartBook. They found it useful, informative, and a great investment of time to structure their learning and assess their comprehension before coming to class. They expressed, without hesitation, that they would prefer access to SmartBook in future classes to improve their learning outcomes," concludes Hartnell.

2 Don't overwhelm students with "busy work." Connect is not a substitute for your guidance, coaching, and instruction. It's a supplement.

3 Start with "why?" Make a persuasive case to your students for why you are using Connect and how you are using it. If you provide them with quantitative metrics showing that their time investment will yield improved learning outcomes and final grades, they will be motivated to take it seriously and appreciate your thoughtful attention to design a class that focuses on their success.

Course Description

This course provides an overview of management in organizations. Students will be introduced to fundamental organizational concepts such as organizational systems, organization design and structure, and the decision-making process. In addition, students will be introduced to the study of human behavior in organizations. The organizational behavior topics emphasized include team building, communication, leadership, motivation, ethics, and social responsibility. The focus of the course is to examine, from a managerial perspective, the effect of individual, group, and organizational variables on organizational performance.

One of the great benefits of using a McGraw Hill product is that it is supported robustly by local representatives and an amazing implementation team who know the product well and are passionate about helping you succeed in the classroom. Meet them in person and get to know them on a first-name basis. They are your partners in education."



Chad A. Hartnell is an associate professor in the Management Department at Georgia State University's Robinson College of Business. He is passionate about creating great places to work by improving an organization's social context. Dr. Hartnell studies how an organization's social context (e.g., leadership, organizational culture, organizational climate, etc.) influences employees' motivation, attitudes, and effectiveness. His research focuses most centrally on leadership and organizational culture, how they interrelate, and the intervening mechanisms through which they influence organizational, unit, and individual effectiveness. His research has accumulated over 5,400 citations (Google Scholar) and has been covered in professional and popular press outlets such as *Harvard Business Review, Wall Street Journal, Talent Quarterly, Forbes, Financial Times, Atlanta Business Chronicle*, and others.

Dr. Hartnell currently serves on Personnel Psychology's editorial review board. He also serves as an ad hoc reviewer for multiple top journals in the Management and Applied Psychology domains. His research has been published in *Journal of Applied Psychology, Academy of Management Annals, Personnel Psychology, Journal of Organizational Behavior, and others.*

Get In Touch

We share your passion for learning and we believe that all students should have access to affordable, high-quality learning solutions built to help them succeed.

mheducation.com