Success Story

Texas A&M University



Challenge

Dr. Jon Stauffer faced challenges when creating assignments directly in Canvas, specifically in identifying tools to create randomized problem sets, improving student engagement with pre-class readings, minimizing errors in large class sections, and integrating a comprehensive capstone project for students.

Solution

McGraw Hill Connect® Operations Management and SmartBook™

Operations and Supply Chain Management by F. Robert Jacobs and Richard Chase

Result

Connect helped overcome Dr. Stauffer's educational challenges by offering algorithmic questions to reduce academic dishonesty, SmartBook assignments to maximize pre-class preparation, and a comprehensive capstone simulation for practical business experience using Practice Operations.

> **Connect's algorithmic questions significantly reduced academic dishonesty by requiring students to discuss problem-solving methods, while its SmartBook assignments ensured students reviewed material before class. Additionally, the flexible question pooling for quizzes and the comprehensive capstone simulation provided practical business experience, making Connect an invaluable tool in achieving our educational goals."**
>
> –Dr. Jon Stauffer



Dr. Jon Stauffer
Associate Professor
Director, Supply Chain Consortium
Mays Business School–Texas A&M University

The Challenge

Dr. Stauffer faced significant challenges in his course, including creating randomized problems for large sections, engaging students with the textbook, and minimizing errors in course materials to avoid a flood of student emails. "It was difficult to create problems with randomized answers for large sections in the school's learning management system," he noted. Additionally, he struggled to get students to engage with the textbook before class discussions.

Seeking a comprehensive solution, Dr. Stauffer turned to Connect, aiming to achieve several goals: incorporating more algorithmic questions to reduce academic dishonesty, motivating students to read and engage with the chapters, and providing a capstone simulation experience. "Connect has many algorithmic or randomized questions, which is primarily what all my homework assignments include. This forced students to talk about how to solve a problem with their friends instead of simply sharing the exact answer," he explained. Furthermore, he implemented SmartBook adaptive reading assignments to ensure students reviewed the material before class and assigned the Practice Operations simulation as a capstone project, giving students hands-on business experience.

The Solution

Dr. Stauffer effectively integrated Connect and SmartBook into his course to address educational challenges and enhance student learning. "A SmartBook assignment for each chapter is due before we discuss it in class, ensuring students review the material beforehand," he explains. After most chapters, students complete Connect homework or case-based questions primarily composed of algorithmic questions, which mitigate copying by encouraging problem-solving discussions. Dr. Stauffer assigns Connect quizzes for each module, encompassing 3-5 chapters, incorporating algorithmic questions and a pool of similarly difficult questions to maintain variability. He emphasizes the Practice Operations simulation and as a capstone project where students manage operations for a clothing manufacturing and distribution company. On average, he assigns 2-3 weekly assignments, with SmartBook assignments, calculation-heavy homework, and comprehensive quizzes. Integration with the Canvas learning management system further streamlines the process, allowing seamless access and automatic grade synchronization, which Dr. Stauffer finds particularly beneficial for managing large sections.

The Results

Implementing Connect improved student engagement and performance in Dr. Stauffer's courses. "I like that SmartBook assignments force students to at least review chapters before they are covered in class," he notes, highlighting how this approach ensures students are better prepared for discussions. The Practice Operations simulation has been particularly popular, with students expressing a desire to continue using it after the semester ends, treating it like a video game. "Most students appreciate the simulation activities, and some students love them. I have students asking every semester if they can extend their course subscription to continue playing the simulation as a video game after the course is complete," Dr. Stauffer shares. This enthusiasm underscores the effectiveness of the simulation in providing an engaging, hands-on learning experience. Additionally, the case-based questions and larger analytical questions in Connect have allowed Dr. Stauffer to assign homework that requires critical thinking and problem-solving rather than simple, straightforward questions.

Dr. Stauffer also values the robust reporting features in Connect, which aid in monitoring and supporting student progress. "I use the Item Analysis report to see if students are having problems with any particular question," he explains. This report helps identify and address common areas of difficulty, ensuring no student is left behind. The Student Performance report is another favorite, as it provides a comprehensive view of each student's work, allowing for timely and targeted assistance.

Additionally, the implementation of Connect has provided significant logistical and financial benefits. **"It has allowed myself and others to teach large sections without requiring the expense of TAs or graders,"** Dr. Stauffer points out. This cost-saving aspect has made it feasible to offer more sections and serve more students, providing flexibility in scheduling and reducing demands on adjunct faculty.

Teaching Tips

- Assign SmartBook assignments before discussing that chapter in class.
- Use primarily algorithmic questions on homework. I like to let them check their answer at least once, so the focus is more on learning than simply getting it correct.
- Utilize the larger analytical questions, which read like case-based questions with a lot of text and data that help students understand which data needs to be used. Reading critically is important for learning.