



Case Study

Somerset Community College

Inclusive Access and *Connect*[®] Reduces Financial Burden for Students, Provides Immediate Access to Course Content, and Improves Students' Grades

To address low passing rates for students, Dr. John Starnes and his colleagues wanted to provide access to the textbook and other learning materials on the first day of class. Many of his students would not buy a textbook or would not have financial aid at the beginning of the semester. "Because students pay for Inclusive Access when they pay their tuition, all students have access to the course materials they need to be successful much earlier in the class," says Starnes.

Earlier access to learning materials has improved pass rates and grades. Since implementing *Connect* and Inclusive Access, students who earned A's, B's, and C's in the course climbed from 51% without *Connect*, to 70% with *Connect*, to 74% with *Connect* and Inclusive Access. Consequently, the percentage of students who passed the course went up by approximately 4%, and retention rates jumped by 20%.

Starnes says, "*Connect* allows me to make sure students get the content that is needed and to provide targeted supplemental work when I notice students are having problems. Students are also more direct in what they don't understand. Instead of saying, 'I don't understand anything,' students say, 'I don't understand X in the chapter.' I am able to spend less time teasing out of students what they really need help with."

Digital Product in Use: *Connect*[®] *Biology* with Inclusive Access

LMS: Blackboard

Course Name: BIO 112 Introduction to Biology

Course Type: Online

Credit Hours: 3 hours (Three)

Program in Use: *The Living World*, 9th edition, by George B. Johnson

Instructor Name: John H. Starnes, PhD

Enrollment: 30-60 students per section; 1 section; 450 year (university total)

Case Study Terms: 2011-2012 (without *Connect*), 2015-2016 (with *Connect*)

"Inclusive Access helps improve students' pass rates by making sure students have access to the material they need to start the course. When all students can start at the same point much earlier in the semester, I can spend more time devoted to working with students on the content of the course and all students have the opportunity to succeed."

—Dr. John Starnes

Students are immediately enrolled in Inclusive Access and don't have to opt in. The fewer steps students need to go through to access course content is critical, especially for students who are just beginning their college careers.

Implementation

The course grade is determined by the following:

40% – Exams administered within *Connect*

30% – *Connect* and *SmartBook*

20% – Quizzes administered in class and within *Connect*

10% – Research paper

Students are given five *SmartBook* assignments per week and are expected to work through the assignments and reading prior to class. Because of this, students are coming to class able to focus more on content and have deeper discussions on real world applications from the materials they are learning about. Starnes says, “In class, we focus on the areas students have the most difficulty with or address other areas of interest. For example, some days we dissect a major biology finding that impacts their daily lives once they understand the basic concepts from the textbook.”

After class, students complete *Connect* assignments to reinforce the material. Starnes assigns online discussion board topics to help students learn the topic through communication with other students. Additionally, there is a midterm and a final to assess how well students retain the material.

Starnes uses *Connect* with Blackboard. “Students are able to use a program they are comfortable with from other courses to receive extra material from me and to be able to jump right into the *Connect* assignments that are laid out in the order they should complete the assignments.” Grades are kept in one place so students can access them quickly if necessary.

Using the Student Performance, Item Analysis, and Category Analysis reports in *Connect*, Starnes can see which students may need extra help, which topics several students may be struggling most with, and which learning outcomes they may need to review in class. Starnes says, “I spend more time covering content in my course using *Connect* because I don’t have to give quizzes as much during class. I can assess how well students understand the material by reviewing the reports in *Connect*.”

In *SmartBook*, Starnes analyzes the Student Details report to see how much time a student is spending on an assignment, the Missed Questions report as a jumping off point for a content-related discussion in class, and the Most Challenging Learning Objectives report to develop content and provide additional assignments for the class. “This report allows me to target heavily on what the students need to understand. Sometimes I send students a short video or an extra assignment to help them grasp a concept that continues to be missed,” says Starnes.

Students are also learning to use the reports to help themselves. Starnes acknowledges he was surprised to see that, after discussing the Missed Questions report in class, students started to use the review topics next to the questions in *SmartBook* themselves for their own review.

Instructor’s implementation goals:

- Provide students with affordable access to course content immediately
- Improve students’ low pass rates
- Spend more time devoted to working with students on the content of the course
- Provide students with the opportunity to engage with course content in an interactive way
- Reduce time spent grading assignments
- Make students’ grades and feedback available immediately

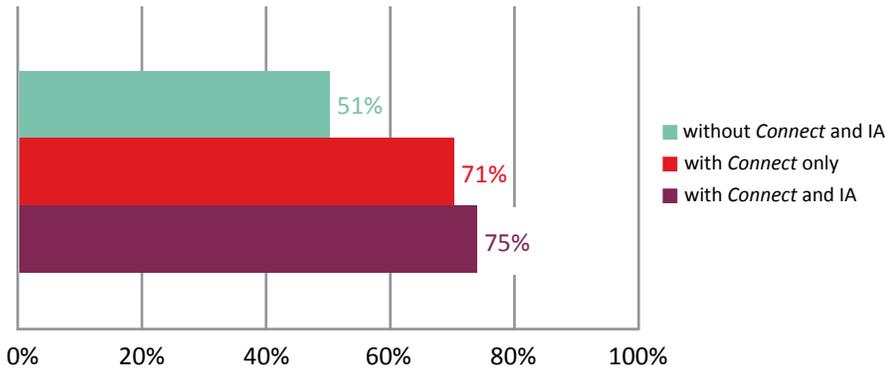
Issues for instructor before using *Connect* and Inclusive Access:

- Having to offer make up work for students who started the semester without access to instructional materials
- Working with students who are at different places in the textbook and having to catch up on coursework
- Unable to know if the students do have access to the instructional materials and where in the course content students may be struggling

Results Achieved

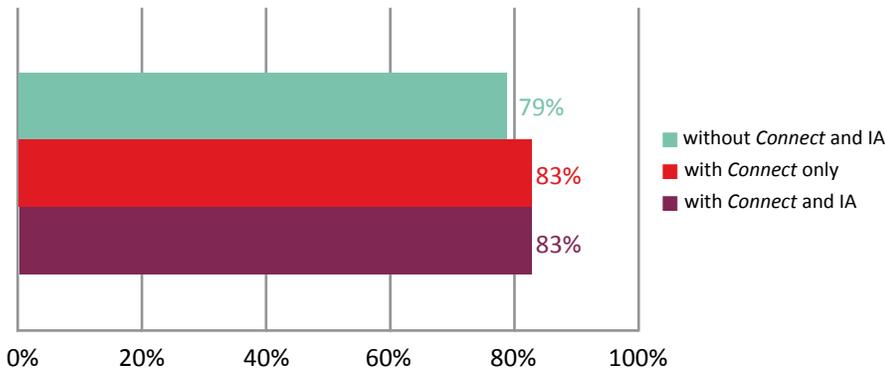
The opportunity to access course materials immediately, to review topics prior to class, and to delve deeper into content in homework assignments has led to higher grades for more students. Starnes says, "Since using *Connect*, I have seen an increase in the number of students earning an A, B, or C. Prior to implementing *Connect*, the percentage of A's, B's, and C's was 51%. After using *Connect* only, the average jumped to 71%. Once Inclusive Access was added, the average now shows 75% of students earn an A, B, or C in the course" (Figure 1).

Figure 1: Percentage of A's, B's, C's



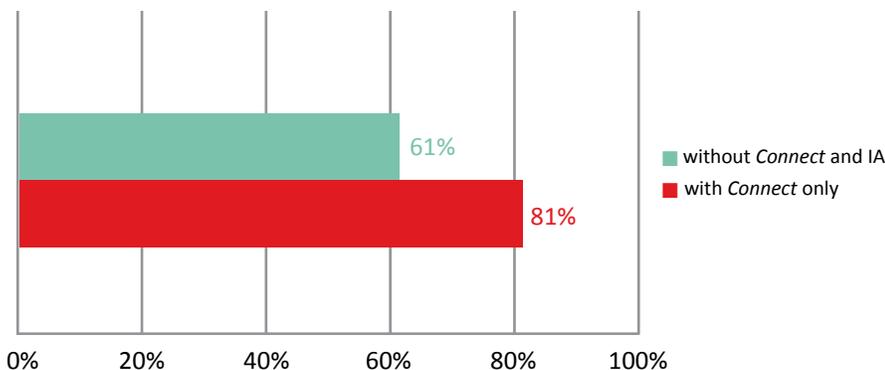
Pass rates have also improved. Pass rates without *Connect* and Inclusive Access was 79%. With *Connect* and with *Connect* and Inclusive Access, pass rates increased by 4% to 83% (Figure 2).

Figure 2: Pass Rates



Retention rates climbed 20% after switching from a traditional textbook to a *Connect* and *SmartBook*.

Figure 3: Retention Rates

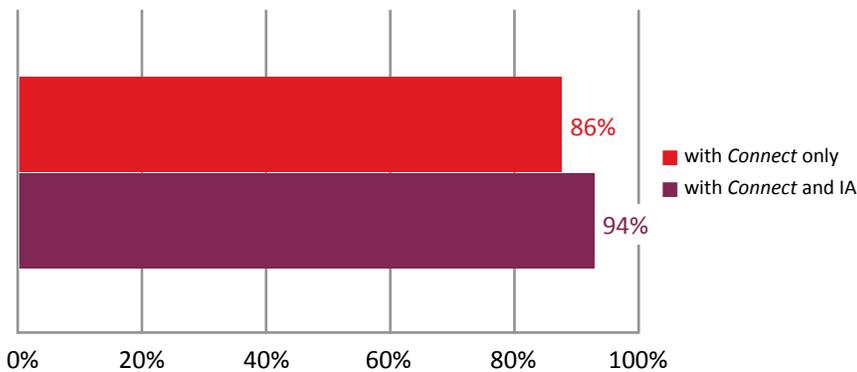


Benefits to instructor after using *Connect* and Inclusive Access:

- Access to course content provided to students immediately in a cost-effective way
- Ability to have deeper discussions on real world applications of biology in students' lives
- Access to reports that show where students are struggling
- Better able to focus lectures on topics where students struggle
- Less time spent grading

Starnes believes the key to student success is the opportunity for all students to have access to course content early in the semester. Previously, 86% of students had access to required material on the first day of class. Since implementing Inclusive Access, 94% of students have access (Figure 4).

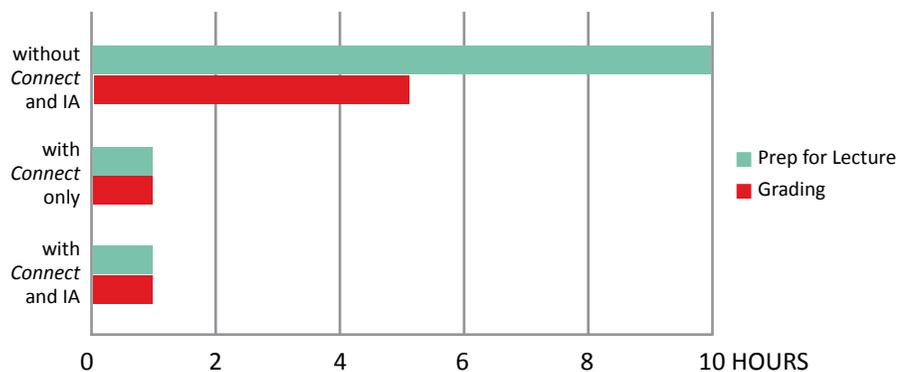
Figure 4: Percentage of Students with Access to Required Content on First Day of Class



Starnes does not have data regarding access to instructional materials prior to using *Connect*, but he says, “With Inclusive Access, students are able to jump right into the content. Before students would wait to purchase their book or to log in and complete work. Now, even before class starts, I can have material up and ready for students to begin working on. Many students take advantage of this head start.”

Starnes says he is also able to spend much less time prepping for lecture and his classroom can be more engaging (Figure 5). He uses the results of the *SmartBook* assignments to help him plan mini-lectures that address questions students missed the most. “I can be more targeted in the content I develop for class activities by focusing on which topics are confusing to the students.”

Figure 5: Hours Per Week Instructor Time Reduced



He also spends less time grading. In fact, the ease of grading has allowed his department to switch to larger sections in an online environment. Starnes says, “We have started to add hybrid courses so that students can do most of the coursework online, but they still meet in a classroom where they have access to an instructor and peers and have an opportunity to participate in more hands-on exercises.”

Course Description:

BIO 112, Introduction to Biology, teaches the basic study of structure, function, and interactions of living organisms, including cell theory, genetics, energetics, evolution, and ecology.

Institution Profile:

Somerset Community College is a two-year college in the Kentucky Community and Technical College System that offers associate degrees, diplomas, and certificates in over 60 different areas of study, including nursing, criminal justice, business administration, surgical technologies, early childhood education, computer and information technologies, and aviation technology.

Conclusion

Implementing *Connect* with Inclusive Access has improved students' grades, pass rates, and retention rates. Inclusive Access offers students instructional materials on the first day of class. By utilizing the reports available in *Connect* and *SmartBook*, lecture prep time has been reduced for instructors and students class time is spent focusing more on content and having deeper discussions on real world applications on the materials they have learned.



Dr. John Starnes is an Associate Professor of Biology at Somerset Community College in Somerset, Kentucky where he has worked for the last seven years. He completed an undergraduate degree in Agriculture Biotechnology at the University of Kentucky, a M.Sc. degree in Biology at Western Kentucky University, and a Ph.D. in Plant Pathology at the University of Kentucky.

"Overall, *Connect* and Inclusive Access allows students to have immediate and less expensive access to instructional materials and students are engaged with course content earlier. I can use the various reports in *Connect* to focus my lectures on areas students have the most trouble understanding and help more students succeed in the course."