How ACHIEVE Read & Practice supported “Running Start” student success in a Psychology course at Bellevue College

Institutional and course context
With an annual enrollment of about 37,000 students, Bellevue College is the largest of the 34 institutions that make up the Washington Community and Technical College System. The institution offers Associate and Bachelors degree programs as well as a host of training and continuing education programs. This study was conducted in a Psychology course that is taught face-to-face on campus and had 38 students enrolled. The majority of the students in this course were “Running Start” students who are high school students concurrently taking college level courses. The instructor has over 15 years of experience teaching Psychology and has previously used digital technology in this course.

Instructor implementation
This instructor replaced the digital learning tool they had been using with ACHIEVE Read & Practice. The instructor chose to assign regular activities and require that students complete them. Students were able to retake the quizzes but retaking quizzes did not count toward their performance score. In total, the instructor assigned 27 activities and students’ performance on all activities assigned made up a total of 20% of a student’s final grade. Read & Practice activities were used to reinforce classroom lectures and to help students check their understanding of the assigned reading they were required to complete. The instructor used the dashboard analytics to check which students were staying on track with the reading and to also identify trends in performance. If they identified trends suggesting difficult topics they would spend more time on them in class.

“I think it's a great system...it really reinforces their learning.” - instructor

Course Goals and Challenges
“Running Start” students making up the majority of the enrolled students in the course introduces unique challenges. Specifically, while students are motivated to enroll in higher level courses, the instructor notes that it is very challenging to motivate students who are non-majors (as high school students are) and to help students develop strong study habits. Additionally, the instructor notes that having students complete assigned reading and come to class prepared is equally challenging. This instructor expected that Read & Practice would help motivate their students, keep them on track with reading, and positively influence their classroom participation.

“Read & Practice helps you prepare for class and get ahead.” - “Running Start” student

Study Design
This study examined whether the use of ACHIEVE Read & Practice supported student engagement, positively influenced students review and reinforcement behaviors, and positively
influenced overall academic performance in a course with the majority of students (60%) in a “Running Start” program. Surveys that were refined during pilot tests were deployed to instructors and students at the start and end of the course, instructors kept weekly logs of implementation and perceptions, a protocol for observing the classroom was used on site visits (adapted from Lane & Harris, 2005), an instructor interview protocol and student focus group protocol were implemented. Product usage data, self-reported prior academic performance data, and records of current academic performance data were collected. Data were matched across sources and descriptive and correlational analyses were conducted.

Results

ACHIEVE Read & Practice helped students stay on track with their assigned reading. The Read & Practice activities remain “locked” until a student has accessed the section of the text that is required to be read before he or she completes a quiz. Activity completion can therefore be used as a reasonable proxy for completing the reading. The majority of students completed all assigned activities. Although a decrease in completion rate is observed as students progressed further through the textbook, there remained a high overall completion rate. The instructor was asked to think about this group of students in comparison to the group they taught last semester and compare how motivated students were to complete assignments. The instructor noted that students using Read & Practice were more motivated to complete the assignments.

ACHIEVE Read & Practice supported comprehension of course material. One of this instructors’ concerns was that students will not complete the reading, rather they will skim to find answers. Examining whether students were comprehending the material rather than just “searched for an answer” is an effective way to evaluate comprehension. Students were asked on the post-survey to rate (scale 1 = “strongly disagree” through 4 = “strongly agree”) the extent to which they agreed that they comprehended the course material. The average rating of agreement was 3.5. One open response item on the post-survey asked students to indicate what the most beneficial part of Read & Practice was. One of the response trends was that the tool supported comprehension, with 20% of student responses coded as “comprehension”. For example, one student remarked, “It can tell which part is the answer, but not specifically the answer”, suggesting that the student was not able to read only to find the answer.

“I took each quiz the day before class and was able to understand the concepts and I’ve gotten As on all of my tests.” - student

The instructor and the students in this course found ACHIEVE Read & Practice to be effective and enjoyable. Students were asked to rate (scale 1 = “not at all” through 10 = “very much”) the extent to which they thought that using Read & Practice contributed to their success in Psychology; the average rating was 9. Students were also asked to rate how enthusiastic they would be (1 = “not enthusiastic at all” through 10 = “very enthusiastic”) if they enrolled in another course where Read & Practice was used; the average rating was also 9. The instructor was asked to rate how likely they would be to use Read & Practice again (scale 1-10) and also provided a rating of 9. When asked how likely they were to recommend to a friend they rated their likelihood a 10.

Insights for Optimization

Students were asked to provide any feedback for product optimization. The open responses trended toward a review of some of the content for item wording and open response wording rules. That is, students considered some of the responses correct but the program did not recognize the wording. Developers and editors are working through content and wording review using further data mining to support review and revision.

Insights for Instructors

The results of the study in this course suggest that ACHIEVE Read & Practice is an appropriate tool to use in a course where “running start” or “dual enrolled” students may enrol. The product’s ease of use and game-like features appear to be motivating to all students in the course.

Note: These data represent one instructor and group of students that participated in a larger ACHIEVE Read & Practice implementation study. To access the full report and results please visit http://www.macmillanlearning.com/catalog/page/learningscience