University of Kentucky

ALEKS PPL Provides Developmental Support, Places Students More Accurately, and Improves Student Success

Institution Profile

The University of Kentucky, located in Lexington, Kentucky, was founded in 1865. In the fall of 2014, just over 30,000 students enrolled and pursued undergraduate and graduate degrees in 16 colleges on an urban campus that covers 784 acres.

A Change for Math Placement

Before ALEKS PPL, incoming students at the University were placed using a variety of measures, resulting in a lack of consistency across the board. Students were retesting immediately after taking their first placement attempt and not improving their chance to place into a higher-level course. Overall, the process led to lower morale for students and an increase in cost to the University because it was paying for each test attempt.

In recent years, the University had tried a number of different placement models, all of which seemed too expensive for how inaccurate and inconvenient they were for students.

Between 2007-2009, the University of Kentucky used an in-house, paper-and-pencil math placement test for thousands of incoming students each year. The results suggested highly inaccurate placement because the D/F/W rates ranged from about 35% to as high as 50% in some 100-level math courses (Collegiate-level courses up to Calculus I).

In response to a state-wide policy initiative in 2009, the University outsourced the developmental math support to a local community college. As a result, math faculty and student support professionals at the University had no oversight of the curriculum, assessment, and relative level of preparation that was being provided to students in developmental math. Unfortunately, there was no substantive improvement in student success rates when students enrolled in the 100-level math courses at the University of Kentucky, and the outsourcing cost was approximately $300,000 its first year.

The University of Kentucky also tried different placement programs, such as placing students based on their ACT or SAT sub-score, but none of these models made a measurable difference in helping students succeed.

After trying multiple placement models, the University of Kentucky implemented ALEKS PPL in January 2015 and overall the experience has been a positive one. The transition to ALEKS PPL was facilitated by bringing together a group that represented mathematics faculty, administrators, testing professionals, academic advising professionals, and IT staff. The composition of this group allowed for inclusive decision-making processes and it provided opportunities to educate all stakeholders on the importance of cohort-wide math placement testing.

Implementation

ALEKS PPL is used to place all incoming first year students who have an ACT sub-score of 30 in mathematics (680 SAT) or below. This decision is in part based on the Kentucky Council for Postsecondary Education, who has set

PLACEMENT COURSES: Students place into eight courses from Developmental Math to Calculus I.
STUDENTS TAKING PLACEMENT: 4,500
CASE STUDY TERMS: January 2015

specific college readiness standards for the state of Kentucky. Students who have a sub-score of 30 or above may enroll in any math class up to Calculus I.

Students who test into developmental math courses are placed into courses that were designed by the math department and Academic Enhancement, the department on campus that provides centralized academic support services. They review the ALEKS PPL diagnostic data regularly to inform how the developmental math courses should be structured, and to determine what topics are most relevant in ensuring that students are placed into 100-level math courses accurately.

Placement exams are taken at home and un-proctored. When allowed to take the ALEKS PPL placement exam online on their own schedules, 95% of students complete the exam by the deadline. This timeliness allows academic advisors the opportunity to review the results and be ready to help students register for the appropriate classes.

With ALEKS PPL, students are required to spend a minimum of three hours working in the Learning Modules before students can attempt the test a second time.

Results

When ALEKS PPL is used to place students in developmental courses, fewer students need developmental support. "This is directly attributable to the online Learning Modules that are integrated into ALEKS PPL". says Ali Cicerchi, Assistant Director of Academic Enhancement. Prior to implementing ALEKS PPL, 20% of students needed developmental courses when enrolling in the University of Kentucky.

After implementing ALEKS PPL, only 11% of students need developmental math support when enrolling at the university (Figure 1). This decrease is especially significant because the size of the cohort increased from about 3,900 to 5,000 students.

Percentage of Students Who Need Developmental Math Courses

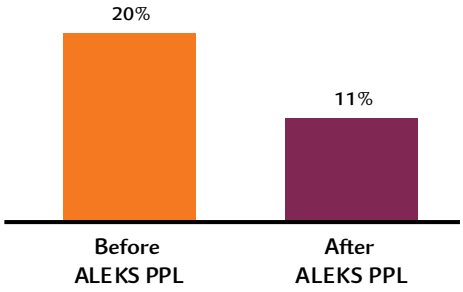


Figure I

Additionally, students who enroll in the developmental math courses enjoy a significant decrease in time-to-readiness. When students enrolled in the community college courses, they were often spending a year or more working toward math readiness.

After implementing ALEKS PPL, the University of Kentucky has seen as many as 84% of students enrolled in ALEKS-based developmental math courses demonstrate math readiness in just one semester. Moreover, when these students enroll in a 100-level math course, 86.5% complete that course successfully. The first-to-second fall retention rate for students who matriculate needing developmental math support has increased to 77%, showing that math success has broader impacts for students.

Further, students save money. Previously, students were paying testing fees to private centers that charged as much as $70 per test. Because of the anticipated cost savings to the University of Kentucky, it currently underwrites the cost of ALEKS PPL, and students are not charged for the test.

"Implementing ALEKS PPL has saved admitted students real dollars."

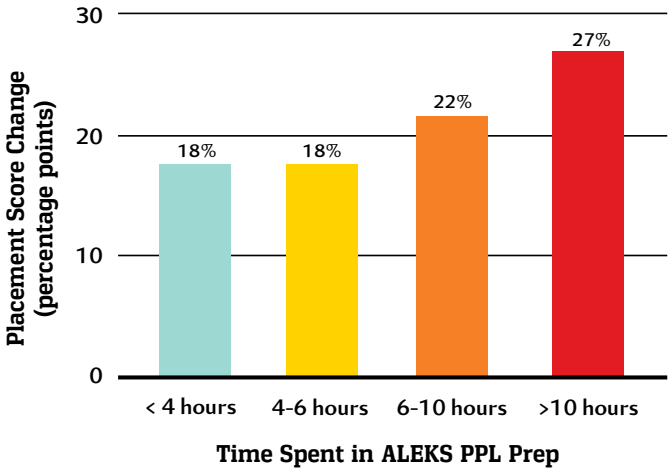
–Dr. Jim Breslin, Director of Academic Enhancement

University of Kentucky (cont.)

In a pilot implementation of ALEKS, the university saw more accurate placement, resulting in decreased need for students to retake courses. Additionally, implementing ALEKS in developmental math coursework alone saved the university more than $150,000 compared to the previous model of outsourcing to a community college. This cost savings alone was sufficient to fund the initial year of nearly universal ALEKS PPL for incoming students.

At University of Kentucky, ALEKS PPL is configured to require students to work in the Prep and Learning Modules a minimum of three hours before taking the placement exam again. During the spring 2015 term, 367 students accessed a second attempt. Of those, 226 spent more than the required three hours in the Prep and Learning Modules. Data shows, on average, for any student who spends at least three hours in Prep and Learning mode, and then takes a second assessment, their placement score increases by 18.46 percentage points. Jim Breslin says, "We see significant correlations between time spent in the Prep and Learning Modules and score increases on a second test attempt."

Impact of Time in ALEKS PPL Prep and Learning Modules on Placement Scores



Conclusion

ALEKS PPL has made a significant impact on the University of Kentucky's ability to place students in appropriate math courses. Additionally, students who are placed in developmental math courses are able to efficiently remediate to math readiness, pass the course, and stay enrolled at the University of Kentucky.

More appropriate math course placement early in students' college careers helps them succeed academically and save money by reducing testing fees and the amount of time the students spend in math readiness courses. Jim Breslin states, "Research is clear that math success is connected to overall student success."