Portland State University

ALEKS PPL Improves Student Success

Institution Profile

Portland State University has an annual enrollment of over 23,000 undergraduate students, with over 4,000 students enrolling in ten entry-level mathematics or statistics courses. The university's motto is "Let Knowledge Serve the City", and it does so, with a large population of non-traditional students and returning adults.

Portland State University set out to increase success rates in ten mathematics and statistics courses ranging from Elementary Algebra to Calculus. A common cause of failure was student deficiencies in prerequisite knowledge; likely due to the lack of placement testing and prerequisite enforcement at Portland State. A Placement Committee decided that ALEKS Placement was the best placement tool available, due to its accuracy, flexibility, and built-in remediation tool. In 2012, the first year of implementation, Portland State saw a 6% increase in pass rates for students who used ALEKS Placement when compared to 2011. For students who did not use ALEKS Placement, but instead satisfied the prerequisite through a previous course, Portland State saw a 2% decrease in pass rates; indicating that ALEKS better assesses and prepares students for mathematical success.

Implementation

Prior to using ALEKS Placement, Portland State University had no method for placing students into their mathematics and statistics courses. Additionally, there were recommended prerequisites, but none were enforced. Once ALEKS Placement was implemented for placement in 2012, the policy enforced by the Department of Mathematics and Statistics was that students must either place at the necessary level on the placement test in ALEKS or have successful completion ("C" or above) of the prerequisite course or higher. The placement program at Portland State is designed so that students can take the assessment at any time and location most convenient to them. If the desired score is not initially reached, students can utilize a 6-month, self-paced remediation tool within the ALEKS Prep and Learning module, and retake the assessment. This process makes placement much more convenient for students and less nerve-racking for those with math and/or test anxiety. The ALEKS Prep and Learning Module also takes the guess-work out of reviewing; it tells the student exactly which topics they know, don't know, and more importantly, which topics they're ready to learn next. This can save a student several hours of either reviewing topics that are already mastered (boredom) or reviewing topics that are too difficult for their current knowledge state (frustration).

Results

In 2012, Portland State had 3,371 students complete the ALEKS Placement exam. A total of 891 students re-took the assessment in an effort to improve their placement score. Of those students, 86% (767) improved their score enough to move up at least one course. Additionally, of the 3,371 students who completed the placement test, over 50% (1,699) were

Number of Courses Jumped	Number of Students	Percent of Students
1	325	37%
2	215	24%
3	182	20%
4	45	5%

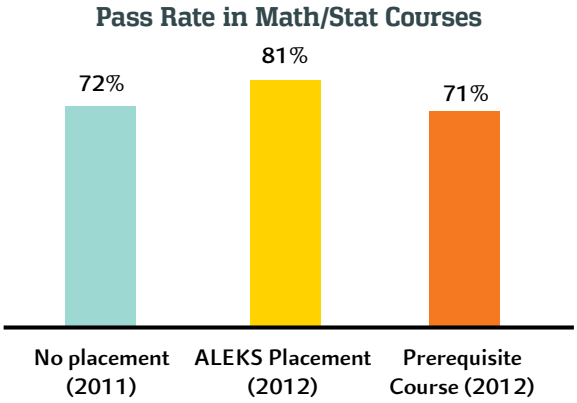
PLACEMENT COURSES: ALEKS Prep for Calculus course placement into Elementary Algebra through Calculus

STUDENTS TAKING PLACEMENT: 3,700

CASE STUDY TERM: 2012 calendar year

initially placed into a remedial course (either Elementary or Intermediate Algebra). For those remedial students who chose to reassess (806 students), 64% of them (519) were able to place out of a remedial course and into a college-level course. This leads the way to increased retention, reduced time to graduation, and more major/degree options.

Within the first year, Portland State saw an interesting change in the pass rates. Although the pass rates only increased by 1.6% overall compared to 2011, there was a significant difference in course performance between students who got into the class by placing via ALEKS Placement, as opposed to passing the prerequisite course. Students who placed with ALEKS Placement had a 10.5% higher pass rate than those who had passed the prerequisite course. This shows that ALEKS Placement better assesses and prepares students for mathematical success. Additionally, after ALEKS Placement was implemented, instructors reported anecdotally that students seemed better prepared, creating an improved classroom dynamic for more effective and consistent instruction.



Conclusion

The Placement Committee has been very happy with the results that ALEKS Placement has produced and have begun using ALEKS Placement, Preparation, and Learning (PPL). Both students and instructors have seen first-hand the benefits of math preparation and remediation with ALEKS. Students are still able to enroll in their preferred course, but only after ensuring that they are adequately prepared and likely to succeed. This allows instructors to teach the course as intended, and even present more challenging and motivational problems to students.

"ALEKS not only gives students the opportunity to place into their preferred course through remediation, but also helps students succeed in that course."

– Austina Fong, Math Placement Coordinator