



The Pathway To Success



We're For Strategic Planning

Goal One:

Increase Enrollment and Student Success

Initiative: 2 **Initiative Name:** Increase Retention and Graduation through Math Intervention and Mentoring in COT

Introduction

This initiative achieved its goal with transfer students and has expanded to target all students in the College of Technology. It began in Fall 2012 with a pilot program to use "any means possible" to improve the persistently low retention of transfer students. Two programs were initiated: Math Preparation and Mentoring. Both have proven very successful.

Math Preparation - An advanced system was licensed and developed to refresh and rehabilitate math skills. It works with each student individually, targeting weak foundational areas and building up toward strength.

Mentoring - A team of students with proven success in COT was hired to stay in close contact with transfer students, applying their experience to assist new transfer students to achieve a greater level of success.

Purpose

To continue the high retention level recently achieved with transfer students.

To expand the Math Preparation program to assist all students in the College of Technology.

To implement the Math Preparation program inside 100-level tech courses, raising the skills of newer students.

To facilitate intensive classroom learning experiences for students who need significant help with math.

To continue the voluntary Math Preparation program for students who are will develop their skills in advance of class.

To track and personally assist each student as progress is made toward completion.

To verify each student's accomplishment upon completion by retesting their math comprehension.

To report, alert and make recommendations based upon in-depth knowledge of each student's capability.

To expand the Mentor Team as needed to match the growing number of new transfer students in COT.

To help students improve their GPA, make progress toward graduation and enhance their satisfaction with ISU.

Methods

Math Preparation utilizes a computer system to personalize and optimize math instruction for each student based upon their need. The student begins with a complete evaluation of their math competency to focus on their most basic foundational issues. The process is a refreshing or rebuilding from the ground up to empower the student to move forward and learn new skills.

The Mentor Program was designed to be intrusive, pushing into each student's campus life to form a partnership for learning. The experienced mentor is able to bridge the gap for the new transfer student who is taking more advanced courses than freshmen, but lacks the experience and success of upper-class students. Mentors stay in close contact with students. The mentors meet weekly to review progress, seek guidance and receive support.



Discussion

This initiative has proven quite successful. The 1-year retention rate of fall 2012 COT transfer students jumped from 49% to 84% the first year. Their 2-year graduation rate improved from 16% to 25% and their 2-year retention improved from 28% to 54% for a combined 2-year success rate of 79%. Additionally, the fall 2013 cohort continued the 84% 1-year retention rate plus another 11% who graduated the first year.

Math Intervention has been expanded to target all students in the College of Technology. The need has been great, as strong analytical skills are required for many of our tech classes. Some students need a refreshing of their skills while others need more substantive rebuilding. Either way, this initiative has met the need for every student willing to work.

The 100-level ECT professors have found this very helpful in their classes, freeing them to focus on course material instead of stopping the class to teach basic math skills. During Math Prep, classes showed an average gain of 40% in basic math skills within the first 6 weeks of the class - in time to make a difference for these students in learning the material to pass the course.

Similar results were found with the roll-out into the MET area, starting with the CAD lab. With the reinforcement of skills, students were able to grasp the concepts of the lecture where previously they struggled.

This year, we also began a series of in-class quizzes to motivate student work and verify their accomplishments.

Overall, this is helping our students to succeed. We can see its impact in the classrooms and have evidence in improved retention, enrollment and graduation.

Summary

This initiative has met a great need in the College of Technology. While we were initially hopeful for a modest improvement in retention, it has proven to be a rescue "just in time" to save many students.

This program pays for itself through increased retention and persistence to graduation. Instead of costing, it has generated more in tuition dollars for the university.

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