Strategic Activities to Improve Student Success Rate in Branch Campuses

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Abstract: Branch campuses are the open doors to those who would not otherwise be able to attend college. They are an open-access, four and two-year public regional campus. Because of open access, many students come to the branch campuses academically underprepared, struggle with math and writing deficiencies, and have difficulties acclimating to college. Only small percentage of STEM majors pass their developmental math courses. This paper discusses several strategies designed to help students succeed at branch campuses.

Keywords: Student success, Developmental math

Introduction

Students come to branch Campuses academically underprepared, struggle with math and writing deficiencies, and have difficulties acclimating to college. Branch campuses are also typically understaffed in academic advising and there is no specific advisor support offered for developmental or at-risk students.

Many branch campuses serve regions with a wealth of industrial and agricultural businesses that need to keep the STEM talent pipeline local. In order to accomplish this, the campus needs to improve academic support and infrastructure for all students, particularly those who are academically underprepared for STEM careers with math deficiencies, and those from underserved and underrepresented populations. A more cohesive student success program coupled with intrusive advising and improved developmental math programming and technology will enhance student services and academic support at the campus [1-5]. The following strategic activities will improve success rate: 1. Expand/Revitalize Student Success Center and Support Services; 2. Expand/Improve Academic Advising for Developmental Math/At-Risk Students; 3. Expand/Improve Developmental Math Program; 4. Improve Student Interest in Math.

Profile of Today's Students

We must first recognize that 21st century students do not fit the traditional profile (see Figure 1).

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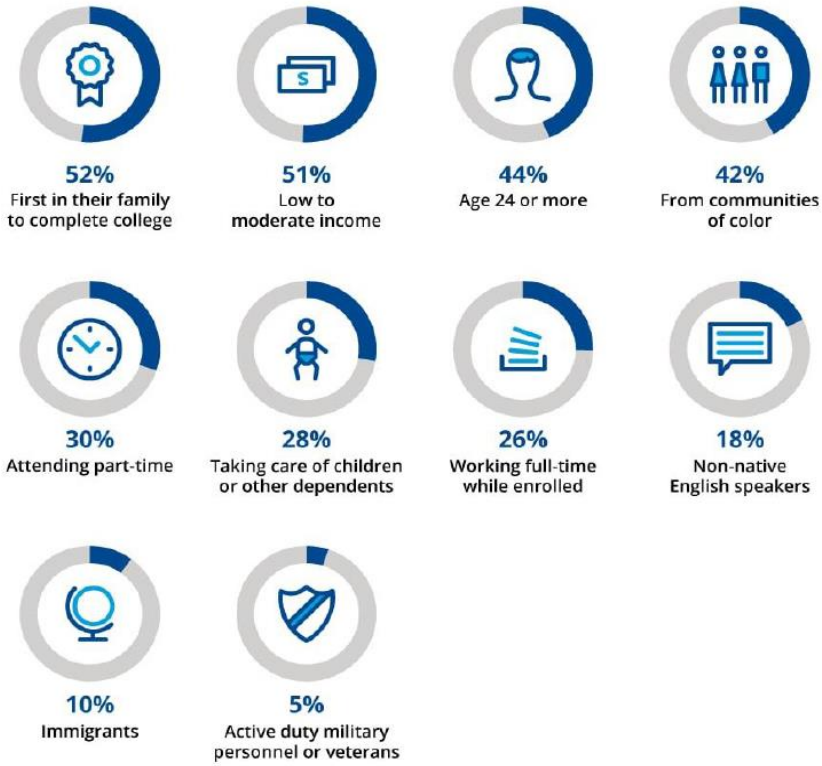

Figure 1. 21st Century Students Profile

Expand/Improve Student Success Center

Success coaching is a form of peer mentoring that helps students prepare for their courses and address obstacles that hinder their ability to stay in school. The Student Success Coach should be housed within the Student Success Center (SSC). The coach will incorporate comprehensive support services tailored to address students' unique needs and helps them identify their academic, personal, and career goals while helping them address any barriers that keep them from completing college. The Student Success Coach will help identify and familiarize students with both campus and community resources that help them stay in college. Since large number of students are Pell-eligible, Student Success Coaches will be trained to be familiar and current with resources that may alleviate financial burdens such as locating and applying for jobs and scholarships, applying for Medicaid and SNAP benefits, and locating childcare and other resources that benefit high-financial need students. Success Coaches will also help students create course calendars, make tutoring appointments, review course syllabi, operate the college's learning management system and more.

Expand/Improve Advising

Academic support providers are often challenged to identify students who need assistance because standardized tests are not particularly helpful in predicting which student will experience academic difficulty, and students meeting with an advisor one time per semester is not enough time for the advisors to detect if they are struggling to navigate college resources that will help them earn good grades. Research showed that these students do not

have the knowledge they need regarding college resources to be successful, and they do not know that they need help until itis too late, they do not take the steps necessary to seek it out, or they do not know what questions to ask to be successful. They reported that developmental advising is one strategy to help first-time, first-generation students with little to no social know-how navigate college.

Hiring a developmental advisor is needed. The Development Advisor will serve as a connection to the success coaches, as well as the Student Success Center and tutors, referring students to make an appointment with success coaches and/or tutors, and communicating with developmental math faculty to ensure particular struggling students' needs are met. To implement a meaningful advising philosophy, the developmental advisors need to attend professional development workshops, meet other professionals in the field, learn about opportunities and challenges in the field, and have access to experts in the association.

Expand/Improve Developmental Math Program

Supplementing traditional coursework with additional instruction or support is thought to improve success by providing developmental education students extra academic and non- academic resources. As an example, tutoring and math labs are designed to provide individualized instruction to meet students' unique academic needs. With additional embedded tutors in the Math Center, students will receive that faster, on-demand help they need as called for in theory. Adding more embedded tutors will reduce the frustration students often experience while being stuck on a specific problem.

Improve Student Interest in Math

What does it take to improve student success and interest in math? The Philadelphia-based Society for Industrial and Applied Mathematics (SIAM) asked more than 400 U.S. high school math teachers for their advice related to teaching and learning mathematics. They recommended:

1. Build confidence. More than two-thirds of respondents (68 percent) cited lack of confidence as a problem that prevents their students from succeeding in mathematics.
2. Encourage questioning and make space for curiosity. Sixty-six percent of respondents said their best piece of advice for students looking to do well in math was to not only pay attention in class but also ask for clarification when they need to better understand something.
3. Emphasize conceptual understanding over procedure. Three out of four respondents (75 percent) emphasized that working hard to understand math concepts and when to apply them versus simply memorizing formulas is essential to doing well.
4. Provide authentic problems that increase students' drive to engage with math. Sixty-three percent of participants pointed to students' desire, initiative, and motivation to succeed in math as being critical, and the majority of them (80 percent) said that applying math to real-world problems helps increase both student interest and understanding.

5. Share positive attitudes about math. Teachers suggest that parents avoid talking negatively about math, and especially avoid saying that it is hard or useless (74 percent)—instead they should encourage their kids not to give up, and help them find math mentors when they're not able to answer questions (71 percent).

Conclusion

The strategies listed above in several published studies showed that they do improve student success. Students who received Success Center tutoring services during the 2012–2015 academic years had an overall success rate 7% higher than the campus-wide average for students enrolled in courses that provided tutoring support but did not utilize Center services. Also, Retention rates for students who received Center services were slightly higher than the campus-wide average for students enrolled in courses that provided tutoring support but did not utilize Center services, with an average increase of 3%.

As a branch campus educator and previous administrator, I plan to seek a grant to implement the strategies discussed in this paper and publish student success data after the implementation is complete.

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