Using Personalized Technology to Increase Student Success

Beth E. Barnett[1], Ellen V. Whitford[2]

Abstract

Higher education seeks to serve students with diverse backgrounds, level of preparation, and goals. Students within the United States are increasingly focused on obtaining high paying jobs but have no understanding of pathways to graduation and obtaining skills and knowledge necessary for employment. Institutions of higher education are faced with the need to provide personalize learning for each student in order to promote student success through retention and graduation.

Personalized learning requires a team approach with focus on meeting the individual needs of each student. Recruitment by interest, flexibility in path to degree, broad academic and student support, individualized advising, and a culture of customer service are elements that facilitate goal attainment. However, cross division teaming is needed to coordinate the development of a successful and personalized pathway for each student and create a safety net to catch students in distress. Key to this teaming is a technology platform that records student progress, engagements, and interventions and allows communication across education providers, usually faculty, and service providers. This makes possible holistic views of each student and an understanding of their needs. In addition, academic and support personal experience a virtual team meeting each time they access the platform in order to work with an individual student.

The goal of this project was to improve student success as measured by first to second year retention and graduation rates. Teaming with Starfish, a proprietary technology provider, to customize the technology platform on which virtual team meetings occur, we have focused on an "intrusive" advising model used by staff and faculty. Initial results have been promising and the implementation of the "team advising" approach has yielded better communication and consistency in advising as well as increased first to second year retention rates

This presentation will discuss the planning model used to implement change in advising from a courses-to-be-taken model to an expanded model which includes pathway to graduation and career. The technology used to implement this model will be described, student success data will be shared, and plans for future expansion will be outlined.

1. Introduction

College affordability has become a concern for USA college students and their parents. In the United States, over 70% of students graduate with student loan debt averaging over $28,000. While the percentage of students borrowing to finance their education grew only slight (4%) from 2004 to 2014, the amount owed at graduation has increased sharply (56%) [1]. Despite this financial burden, completing an undergraduate degree is still worth the time and expense. According to Cochrane and Reed, "four-year college graduates continue to experience far less unemployment and to earn higher salaries than their counterparts with only a high school education" [2].

While students within the United States increasingly seeking higher education as a means of obtaining higher paying jobs, they often have little or no understanding of pathways to graduation and to obtaining skills and knowledge necessary for employment. Many students enter higher education only to flounder, taking longer to graduate or dropping out altogether. USA college completion rates in 2013 were 33.3% for four years and 57.6% for six years [3]. These rates vary widely among racial groups including Whites (36.7% and 60.6%), Blacks (17.4% and 40.3%), and Hispanics (23.8% and 50.6%). Actions that increase graduation rates and decrease time to graduation could greatly impact average student debt at graduation. Many institutions have focused on retention and timely graduation as ways to avoid excessive student debt. Students who graduate within four years spend (borrow) less and enter the job market sooner, increasing changes of career advancement and higher overall earnings.

2. Approaching the problem

Ramapo College of New Jersey is a medium size (6,000 students), institution located in New Jersey, USA. While the College enjoys higher than the national average four year (59%) and six year (73%) completion rates, reducing the cost of college (and student debt at graduation) is an institution-wide goal. Ramapo College began to study time to graduation with focus on meeting the individual needs of each student, understand individual student context, and developing the processes necessary to create individualize pathways to college completion. Review of existing data pointed towards

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[1] Ramapo College of New Jersey, USA
[2] Armstrong State University, USA

academic advising as an area where institution-wide change was needed. Student responses on various surveys indicated that the most common source of advising was their peers. Review of the 2012 Senior Survey showed that only 57% of students agreed that their faculty advisor was helpful and only 44% agreed that the Center for Advising was helpful. Further, 2012 results from the national Survey of Student Engagement (NSSE) indicated that Ramapo College First Year Students and Seniors ranked the quality of advising significantly lower (2.88 and 2.71 on a four point scale) than students from similar institutions (3.15 and 3.05). Recognizing that poor advising can slow progress towards degree and increase student debt at graduation, the College developed an advising plan that placed greater emphasis on academic advising, early alert for students experiencing difficulties, and a team approach to advising. An intrusive rather than passive approach was planned where students would be "pushed" to meet with advisors and directed toward appropriate support services when necessary.

In 2013, Ramapo College selected Starfish Retention Solutions for advisement case management and early alert. This system provided the technology platform for recording student progress, engagements, and interventions and facilitated communication across education providers, usually faculty, and service providers. Faculty used the system to send "Great Work Kudos" and Academic Progress Alerts (including attendance, participation and assignment completion concerns) to students, make referrals and alert staff and advisors of the referrals for tutoring and other support services, and to identify academically at-risk students. Students were held from registration until they had visited their academic advisor and advising faculty used Starfish to lift registration holds and to note any special directives given to individual students by other faculty or staff.

3. Results

Results of the 2015 Senior Survey showed an increase in student agreement that the faculty advisor had been helpful (70%) and that the Advising Center had been helpful (51%). In addition, results of the 2014 NSSE (now using a 5 point scale) showed senior students ranked the quality of advising at 4.7 while first year students ranked the quality of advising at 4.8.

In 2013, when Ramapo College first implemented Starfish Retention Solutions for advisement case management and early alert, 61% of faculty used the system to communicate with their students. In 2016, the use of Starfish has expanded to include 14 offices in both academic and student affairs while the current participation rate of faculty in the early alert academic progress surveys has reached 77%. More students are aware of their academic progress in individual courses and faculty advisors can review where and when individual students are experiencing difficulty.

In 2017, four year graduation rates will be available for the first cohort of students who have been advised using Starfish. First to second year retention rates have increased from 86.0% to 87.7%. However, additional data are necessary before conclusions can be drawn.

4. Discussion and future direction

The use of Starfish Retention Solutions for advisement case management and early alert has resulted in increased and more intrusive advising for students. Results of several student surveys (Senior Survey and NSSE) indicate an increased satisfaction with advising. Data trends suggest positive changes in student retention. An increase in four and six year completion rates is expected.

In 2015, Ramapo College received an Educause iPASS Grant, funded by the Bill and Melinda Gates Foundation and Helmsley Charitable Trust. The goals of this initiative include: implementation of a new degree planning software that shows faculty advisors and students course by course progress made towards the degree and optional pathways to degree; greater emphasis placed on transfer student advisement through intrusive advising, expanded early alerts, and assessment of best pathway to degree (using the new degree planning software); and finally, to increase rates of retention (to equal overall retentions rates) of targeted populations by using predictive modeling to make earlier identification of at-risk students within these populations and to design individualized degree pathways for them.

References

[1] Cochrane, D. and Reed, M. "Student debt and the class of 2014", The Institute for College Access and Success, Washington, D.C, USA, 2015, 2.
[2] Cochrane, D. and Reed, M. "Student debt and the class of 2014", The Institute for College Access and Success, Washington, D.C, USA, 2015, 3.
[3] "College Completion: Who graduates from college and who doesn't and why it matters", The Chronicle of Higher Education, retrieved on 01 April 2016 from http://collegecompletion.chronicle.com/state/#state=nj&sector=public_four.eeds