Using Data & Texting to Increase Retention:

A Success Story at the Oregon Tech Institute of Technology

Case Study: Oregon Institute of Technology Retention

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April 17, 2018

Many states are going to outcomes-based funding policies to hold higher education institutions more accountable for their retention and graduation rates [1]. As well, many higher education institutions are looking for more modern and effective ways to communicate with their students, such as texting. The combination of outcomes-based funding and other higher education academic changes, student retention is an essential topic for every university and college across the US today. If retention, persistence and/or graduation rates are low, then a schools funding could be negatively impacted. We define retention as the rate of students continuing their studies from freshman to sophomore year including part-time and full-time transfer, readmitted and post baccalaureate students; persistence as the continuation of academic study from one term to the next and graduation as the rate of students receiving their diploma. One of the main outcome-based funding policies is based on graduation rates, however retention rates, minority student achievement, affordability, campus diversity are performance indicators that are growing in importance [2]. For example, part of the funding to higher education institutions in the state of Virginia is determined by enrollment rates of in-state undergraduate students of underrepresented background, such as low-income, first-generation, and racial/ethnic minority [1]. At most colleges and universities, a stand alone Department/Office of Retention is not common, but instead is hidden in the Enrollment Management or Student Affairs departments.

At the Oregon Institute of Technology (Oregon Tech), the Office of Retention is a new branch in the Enrollment Management department. The Office of Retention is growing rapidly in importance and in the past 5 years the retention rate has grown by 11% to a total retention rate of 79.5% in 2017 [3]. Oregon Tech, located across Oregon with their main campus in Southern Oregon, has approximately 5,500 students, with an online student population that is notably expanding [4]. The student population is comprised of students mainly from Oregon and other West Coast states, but a handful come from around the world. To the Oregon Tech administration, the reasons as to why some students successfully graduated and why some students did not has been unclear.

Five years ago, Barb Conner was hired as the Director of Retention at Oregon Tech and was the first employee to analyze retention full time in many years. As the Director of Retention, Barb's first task was to identify the current state of retention by using Oregon Tech's student data. Most public universities are required to collect, report and analyze student data, which is then submitted and used as indicators of performance [2]. To Barb's frustration, trying to obtain data and reports from Banner and other software platforms around campus was incredibly

difficult. Barb was shocked by the lack of streamlined and easily accessible data on their students. When asked how current decisions relating to student retention and success were made, Barb was told decisions were often based on 'gut-feelings'. Oregon Tech is not the only university that was doing this. Surprisingly, many institutions base their decision-making on gut feelings, even though institutions that utilize data have a competitive advantage over "this is the way we've always done it" mentality [5]. Within the ever fast-changing environment of higher education, including the added pressure from government funding, the role of data to aid administrators on decision making is often neglected [6].

Before Barb could develop a plan to address retention, she needed to know where the University was succeeding and where potential for improvement existed. She first began by reviewing existing reports from various departments across campus. Although Barb thought she was looking at the data she needed, it turned out that she was missing entire student populations. While the reports worked well for their original, intended purpose, without having access to the report logic, it was impossible to determine the parameters of the these reports. The only way to identify specifically what each of these reports included was to contact the University Information Technology department. This approach was not sustainable and Barb quickly realized she needed another solution.

With some direction from the University Information Technology department, she found another possible solution, Millennium FAST reporting. As Oregon Tech was already using Millennium's FAST applications, Barb found it also worked for her. Within FAST, she could easily pull the information she needed from multiple sources, from every corner of campus and into one streamlined application. "Schools think they have all the data, but when you have it in many different places, the data doesn't line up", says Corey Murphy, Coordinator of Retention, Texting. As data collection and use of different software's across campus's increases, data is scattered across computers and departments and if shared, reports are usually received in different formats, making them difficult to analyze [6]. The key to effectively using data at higher education institutions and allowing administrators to make informed decisions is to consolidate data, all while securing sensitive information [6]. FAST pulls data from ERP systems, such as Banner, admissions software, etc. and streamlines it into one user-friendly platform. Within FAST, filtering data, reorganizing reports, building graphs, creating dashboards, can all be accomplished without opening Excel. "The flexibility in FAST is so key, so important", explains Barb. One of the unique and important features in FAST is that with every upgrade of FAST there is no overwriting customer created modifications, meaning every custom report will stay

the same in every upgrade. In upgrades of other solutions like Argos, Banner, Colleague, PeopleSoft, Work Day, Cognos, etc., the IT departments must go back and re-write every custom report for each upgrade, which could be hundreds of reports at some schools.
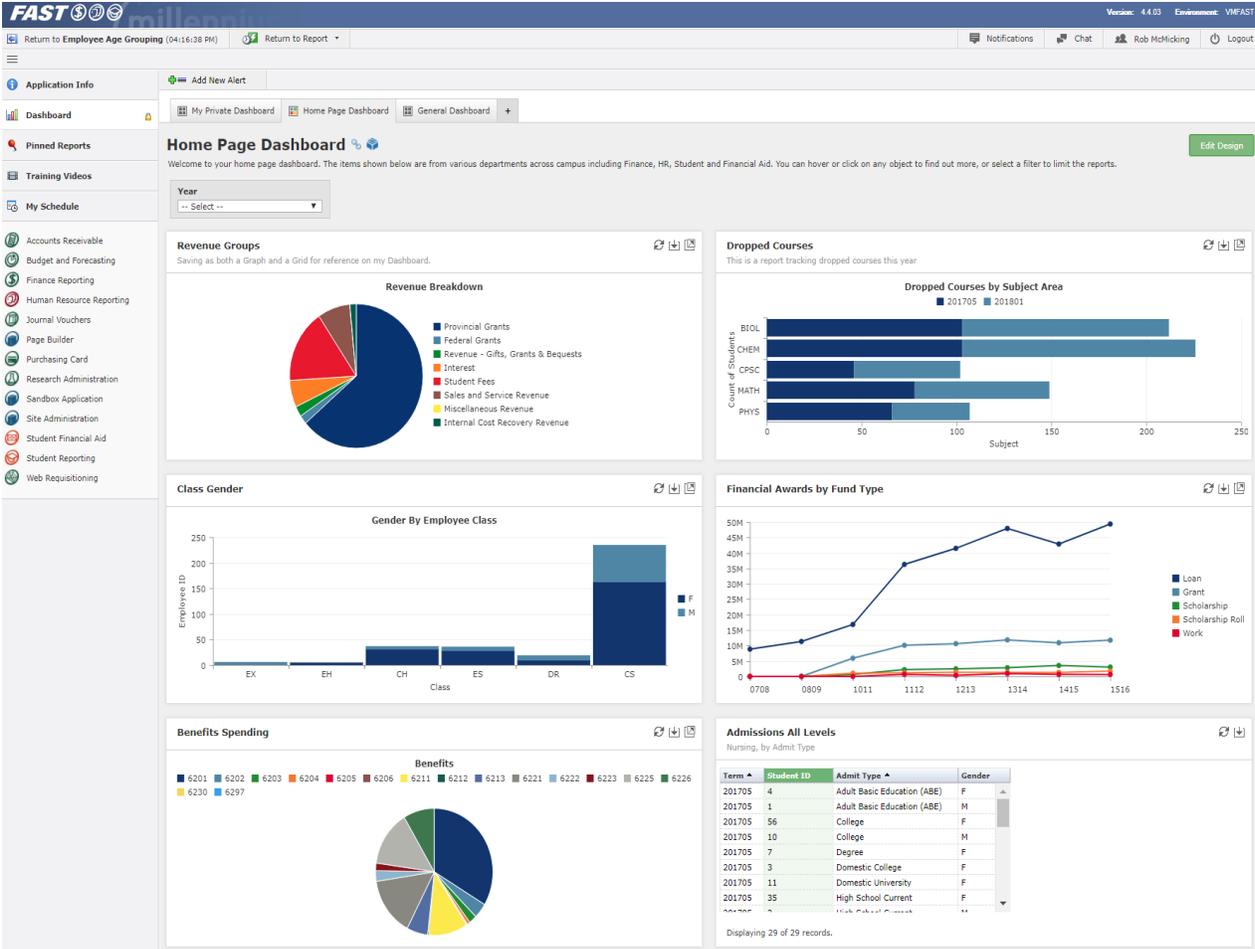

Figure 1. Image of FAST Dashboards from demo site, one of many features within the suite of FAST applications (http://mcsl.com/)

With access to reliable and comprehensive data in FAST, Barb began the second phase of increasing retention, analyzing the data to determine why the retention rate at Oregon Tech was low. Barb began to look at incoming high school students and tried to find the trends of retention in this group. As suspected, but to the surprise of others, the reports she was making in FAST did not reflect the administration's "gut-feelings". Barb was beginning to find why specific groups of students were not returning to Oregon Tech and had data to prove it. She explains, "you need a picture from the last 3-4 years, if the data is consistent, then it will be easier to find the common issue. But if the data is inconsistent, then it cannot really be used,

and it is going to be harder to find the root cause". After obtaining a base knowledge set via multi-year data and demographics, Oregon Tech found that the next critical step was to look at student behavior. "If we can understand [student] behavior, then we know their experience, then we can change the experience", explains Corey. The data was showing many correlations, and many of them were relatively easy fixes from the administration. Corey points out that "a lot of schools will be approached with issues, then they will put a lot of time and work and money into these issues; when really it is just a small change that can make a large difference. We needed to find the problem, not fix things we just thought were issues. We had to find the common issue and change the issue". For example, sending out a quick text reminder to students that they were not enrolled in the upcoming semester solved a lot of retention and persistence issues. Discovering these trends in the data and creating solutions that seemed small yet effective, began the third phase of increasing retention.

Oregon Tech now had access to data, the data tools they needed to analyze the data, some analysis of the data and correlations in student populations. Defining what success meant for the Office of Retention was a critical next step. Did success mean increasing the retention rate based on common national measures which only include incoming freshman, which is only 50% of their newly admitted student populations. For Oregon Tech's Office of Retention, retention was defined as all students, not just first-time, full-time freshman but part-time and full-time transfer, readmitted and post baccalaureate students as well. More importantly, retention was put aside to focus on persistence, which in turn will lead to retention. Identifying this measure of success allowed the department to focus their energies toward that specific goal. This led them to the next step, selecting the first population of students to target with their retention efforts. The goal was to identify and correct the issues that were causing this population to leave the Institution prior to obtaining their educational goals. The Office of Retention developed a new program, *The Rock* to begin their goal of helping students successfully gain their diploma and increase student retention.

The Rock is mandatory for all incoming high school students. All students are assigned a professional Academic Specialist (AS) who they meet with bi-monthly. The main goal of the AS is to assist students with the transition from high school to university, giving them a foundation to succeed at Oregon Tech. Students work with their AS to create course schedules, establish study skills, advance personal development and understand the appropriate resources for academic and/or personal help. *The Rock* Program began in 2016 and saw a 4.2% jump in

retention in just its first year [3,7]. *The Rock* Program costs $740 per student for their entire year of services.

Not only was Barb using FAST to find the correlations in students leaving but was also using it to analyze the success of *The Rock* Program. The fifth and final phase of increasing retention at Oregon Tech was to analyze the outcomes of the new *Rock* program, the overall retention rates and prepare the future of retention at Oregon Tech. Before Barb was hired as the Director of Retention, the retention rate was 68.9% and after the Office of Retention at Oregon Tech was established in 2013 and some programs were put in place, the retention rate grew quickly to 79.5%, and is continuing to rise exponentially [3,7]. The graduation rate at Oregon Tech between 2007-2010 was 45.8% on average [8], which is well below national average of 59% [9], but Oregon Tech is expecting to see a significant increase in 2021 and beyond, as the first group of ROCK students will graduate. The success of *The Rock* has allowed Barb to grow the team by employing more specialists.
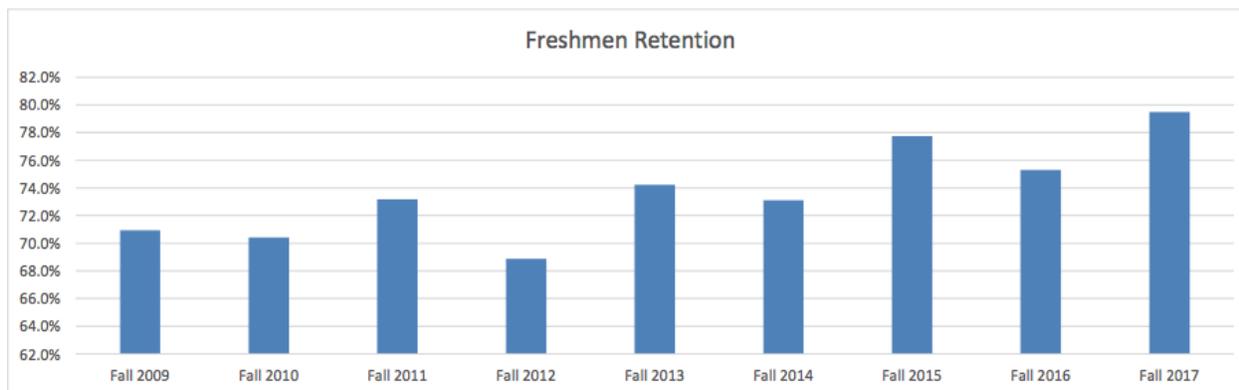

Figure 2. Student Retention Rate from 2009-2017 at Oregon Tech
(https://oregontechsfcdn.azureedge.net/oregontech/docs/default-source/institutional-research-
documents/retention_02fda10b-9ae4-4d0f-b472-2b6f96b5ebfd.pdf?sfvrsn=cea09760_10)

When a student has finished with their first year with The Rock, they are moved into a program titled Owl2Owl, which is a Peer Mentoring Through Texting program. Texting has proven to be the best way to communicate with students and again the data has proven this. Texting has proven so successful that even the Admissions Office has gotten in the game. They noticed a reply rate of 65% to text messages, much more than email at 2%. Texting was only taking 2 hours to send messages to all students of interest, compared to the multiple days it would take to email these same students. The Office of Retention is now preparing to focus on increasing its ability to text students with FAST's new texting feature. Everything will be

streamlined in FAST including communicating with students via texting. The Office of Retention is moving

toward training administration, academic advisors, faculty and staff on how to use FAST so that by having better access to data, they can directly communicate with students and help them succeed more effectively and efficiently.

"I love this program! I think every college should do this! It makes a new student feel connected from the very beginning!" ~Karen W.

"I want to thank you for being there for me this term. Even though we haven't 'met' I am so glad I had someone to talk to through the craziness this term." ~Fawn G.

"This program kept me connected to everything the school was doing. This was my first term at OIT and I really appreciated the texting program. It helped a lot!" ~Anonymous

Figure 3. Student Testimonial of Owl2Owl Program at Oregon Tech (https://www.oit.edu/students/owl2owl)

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