

# LMS and Student Success at Greenville College: A Case Study

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Overcoming hurdles to improve student retention

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## SUMMARY

### Catalyst

Confusion lingers around how the learning management system (LMS) can be used by educational institutions to support student retention efforts, and meaningful progress has yet to be made. However, there are some exceptions. The adoption of the Student Success System from Desire2Learn (D2L) Insights by US-based Greenville College demonstrates that the challenges of using LMS to inform and support retention efforts can be overcome if the right strategy is applied. As the use of LMS for retention efforts is at an early stage, Ovum recommends that institutions use case studies such as this to identify important lessons that could be applied to their own campus needs.

### Ovum view

LMS vendors are increasingly developing analytics and retention solutions, and institutions are being held accountable for students dropping out, so the argument for using LMS data to support student retention has become more compelling. Institutions can learn how to overcome the hurdles of improving student retention from Greenville College's early success in using LMS and analytics solutions. Furthermore, partnering with firms that have made significant investments in analytics capabilities and predictive modeling, and also provide extensive customer service, can have a profound, long-term impact on student retention.

### Key messages

- Greenville's use of the Student Success System demonstrates that the challenges of using LMS to inform and support retention efforts can be overcome.
- Using a single solution provider for LMS and analytics offers attractive benefits.
- Establishing key performance indicators (KPI) before using analytics and retention tools is critical to program success.
- As using the LMS for student retention programs requires cultural change, keeping pilots small and handpicking participants improves the odds of success.

## ADOPTING THE STUDENT SUCCESS SYSTEM

### Greenville College

Greenville College is a private Christian institution founded in 1892 by leaders of the Free Methodist Church. Based in Greenville, Illinois, US, the College provides a liberal arts education to over 1,600 students, of which approximately 1,200 are full-time undergraduates. There are undergraduate, graduate, and online course options provided by 70 full-time faculty, and several adjunct faculty. Greenville College is accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools, and in the fiscal year 2013–14 it had an IT budget of \$1,490,392, of which \$209,876 was spent on online academic software including D2L software.

## Greenville's journey to the Student Success System

### **The freshman retention rate needs to improve**

Greenville College has struggled to improve its freshman (first-year student) retention rate for some time. Its average freshman retention rate, which is also an indicator of student satisfaction, is 69.7%. The institution loses revenue from students not completing their studies and it is difficult for admissions to make up the deficit. More important, it purports, is the moral and social justice aspect of losing students; as a Christian liberal arts college, the institution perceives an ethical obligation to do what it can to retain students and help them to succeed.

As a small, private institution, Greenville prioritizes delivering opportunities for students to engage actively with faculty. The student–faculty ratio at Greenville is 14:1, and 59.3% of its classes have fewer than 20 students. However, its retention rate is slightly below the national average of 71.6%, and considerably less than competitive liberal arts colleges such as Amherst College and Pomona College, which often have retention rates above 90%. It is surprising, to a certain degree, that the freshman retention rate at Greenville is an issue. Although research does point to the broader benefits of studying liberal arts in smaller settings, such as in gaining positions of leadership later on, it is likely that the retention rate at Greenville is low due to the cost of private education and the inability of students to pay. Furthermore, students that are not academically prepared for college are less likely to succeed. Following the results of a year-long self-study through the John N. Gardner Institute, which was conducted with the goal of improving freshman retention rates, the college decided to start with a specific focus on freshman-level classes with high enrollment rates. The college decided that it was time for a fresh approach.

### **The decision to use Desire2Learn Insights and the Student Success System**

Greenville wanted a way to use its existing LMS data to help identify students who were struggling much earlier in the year, and to do so more effectively than traditional methods such as tracking grades and attendance. It had used D2L for the Learning Environment for three years and built a relationship with the vendor, so it made sense to use the D2L Insights and Student Success System solutions to access its LMS data and understand what could be done to predict student success. The Student Success System is a segment of D2L Insights that offers predictive modeling and real-time insights into and visualizations of students' capabilities, class dynamics, and learning trends. It enables institutions to synthesize outcomes, engagement, and assessment data to identify patterns of academic risk and respond accordingly. The exceptional customer service that Greenville received from D2L in the past and the long-term value of using the solution were factors taken into consideration when selecting this system.

### **The process of implementing the Student Success System**

The implementation of the Student Success System took slightly less than one semester, with support from D2L to explain the terminology associated with the system. Greenville selected 18 freshman-level classes with high enrollment rates to be a part of the initial rollout. During the first semester, Greenville decided not to use the Student Success System to actually monitor student performance; instead, it focused on training faculty on using the platform, to overcome the challenge of faculty resistance to new technology and build faculty buy-in. It was important to establish how best to use the information and understand what the predictions meant. This was also an opportunity for faculty to take the information produced by the Student Success System and compare it to what they were actually seeing in the classroom.

## The outcomes of using the Student Success System so far

One of Greenville's goals was for faculty to feel comfortable and confident using the Student Success System. Following the initial pilot, Greenville has been able to demonstrate the advantages of the Student Success System to faculty, and it has begun developing best practices for using and engaging with the learning environment. The key advantages include the following:

- Faculty are able to look across a very broad set of indicators of student success in the categories of assessments, preparation, participation, and social connectedness, which demonstrates that D2L has a very clear set of hypotheses about the types of data that would be predictors of student success.
- Faculty are able to make sense of the data through straightforward visualizations. They saw considerable value in success-trending indicators that are displayed in the system as "up" and "down" arrows, most notably in the way they direct them at a glance to students with declining success.
- The promise of predictive analytics to deliver early indicators of academic struggle is driving new opportunities for Greenville's faculty to understand the engagement, performance, and achievement of the students. By recognizing students' potential for success or failure early in a course, Greenville has been able to do more to retain students.

## OVERCOMING HURDLES

### Greenville took a step-by-step approach

One of Greenville's key strengths is its ability to openly recognize institutional weaknesses. This has in part, framed its eager mission to retain and transform the lives of its students. Its step-by-step approach to the challenge of improving student retention has served it well.

Although there was executive support for dealing with low retention rates and implementing the Student Success System, faculty were not using the LMS or the Student Success System as much as they should have been. A cultural shift and change in mindset was needed, so the faculty that were the most technologically adept and the courses that needed the most attention were targeted as examples to other faculty. Ovum believes by starting with faculty that have a high likelihood of success, institutions can build a group of potential advocates and peers that can help move along those likely to struggle and/or resist the initiative.

Prior to using the Student Success System with the initial batch of 18 courses, Greenville identified five courses with high rates of enrollment and ran simulations using data from previous terms. One of the challenges facing Greenville was the absence of a rich historical data set for these courses, as it had only been using the D2L Learning Environment since autumn 2012, prior to which it used the Angel LMS platform. Some of the classes did not have enough enrollments in previous terms to have 100 student data sets available for use, but the more data that becomes available, the better the predictions will be. Furthermore, there is currently no exchange of data between Greenville's student information system (SIS) and the LMS. A beta implementation of a Student Success System component that taps into data from the SIS, such as students' grade point average (GPA), will further refine each student's success index.

It was difficult for Greenville to define the KPIs and grasp some of the terminology associated with the Student Success System; D2L provided training and support to help it identify what was to be measured and explain the terminology. Greenville was pleased that D2L listened, and the vendor has since been making incremental changes to avoid overwhelming faculty and staff.

There are no specific student advisers at Greenville; faculty both teach students and provide support for those who are struggling. However, there is a Student Success Office, where two staff members who have access to the Student Success System look for trends, and these are the biggest proponents of accessing more data. Furthermore, Greenville is waiting for D2L to create an advisers' view in the Student Success System so that they too will be able to monitor any student at any point of their studies. This is currently on D2L's roadmap.

Greenville is in the process of setting baselines using data from the registrar's office along with data in the Learning Environment. It plans to roll out the Student Success System more broadly, and it will look for gains in retention figures and see whether they can be linked to the system's use. Although it is still early days for Greenville and predictive analytics technology, the possibilities are promising given the interest in improving student results with the tool.

## LESSONS LEARNED

### Greenville's experiences tell an interesting story

Greenville College was one of the early adopters of LMS data to improve student retention. Consequently, there were some challenges both internally and with D2L in fully establishing predictive analytics technology within the college. It learned the following key lessons.

#### **Establish the KPIs before attempting to use analytics and retention tools**

Greenville struggled to define the KPIs and learning objectives to be measured. As a result, its retention efforts have not progressed as easily as anticipated. Greenville understands that it is important to define its own KPIs before trying to interrogate LMS data, because it is the questions, rather than the data, that will drive retention efforts. By identifying the KPIs to be monitored around student success and retention – identifying the characteristics of those that drop out and why, and at what point they are at highest risk of doing so – Greenville and other institutions will be able to put the appropriate processes in place to help increase the use of LMS and analytics solutions for retention efforts.

#### **Use the analytics capabilities of your current LMS provider**

Over the past few years, all major LMS providers have created tools to enable faculty and institutions to use LMS data to aid student academic performance, course completion, retention, and learning outcomes. Ovum believes that with these capabilities, the value of the LMS has increased: it is not only a resource of instructional content, but also a source of student performance data. D2L Insights and the Student Success System is a prime example, and Greenville decided to use the solution because it had already established a relationship with D2L in its use of the Learning Environment, and because of the clean data it would gain access to. Furthermore, for small institutions like Greenville, working with a smaller number of vendors or a single vendor for LMS and analytics means the institution has more influence over decision-making and fewer integration challenges.

## **Be strategic about building faculty buy-in**

Faculty resistance to using new technology can drastically delay new schemes and programs that an institution is seeking to implement. Greenville was faced with this hurdle, so it attempted to involve faculty in the process as much as possible and demonstrate to them the value of using the information extracted from the Student Success System. Ovum believes that to drive student success and retention efforts, it is important to have strong faculty advocates with a positive approach. The goal for Greenville, as for most institutions, is to help faculty to help students, therefore faculty buy-in is necessary; if faculty view analytics and retention solutions as just another tool or another task that does not provide valuable information to them, they will be disengaged.

## **Keep pilots small to manage to manage bumps in the road**

Keeping pilots small is fundamental to a successful analytics project, as training and rectifying errors is easier in a smaller group. Initially, Greenville decided to roll out the Student Success System pilots across 18 courses. In the first two semesters, 20 faculty members who were fairly savvy with technology and open to using the Student Success System were involved. These were also the faculty who used tools such as "Gradebooks" in the Learning Environment fairly easily. As the pilots were successful, Greenville will now focus on rolling out the Student Success System to more courses under more faculty, so that the institution can continue to refine what student success and retention means across all of its programs.

# APPENDIX

## Further reading

*Leveraging LMS to Support Student Retention Efforts*, IT008-000202(March 2014)

*Higher Education Proceeds Cautiously in Adopting LMS Analytics*, IT008-000180 (July 2013)

## Methodology

This independent research report was prepared with the support and approval of Greenville College. It is based on interviews with Greenville executives and information provided by the college.

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