

Changing Your Relationship with Data: New Opportunities for Institutional Effectiveness

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When the academy was first conceived, it catered to members of an elite group. Today, colleges and universities serve students from all walks of life. And although their intellectual talents and aspirations vary, the students as a whole reflect a generation that's comfortable with technology in the classroom and concerned about marketable skills. In fact, many of today's undergraduates are likely to see their college experience as a straight path to career success, not as a serendipitous pursuit of knowledge.

Given this perception of a higher-education degree as an important (and expensive) commodity, institutions are forced to compete within an increasingly crowded marketplace. How can they attract and retain students? How can they demonstrate to these students (and anxious parents) that the experience they promise—through flashy websites and glossy viewbooks—is worth the investment of time and money? How can they demonstrate their ability to deliver on this promise? And how will they continue to meet the expectations of accrediting bodies, especially in light of diminishing resources?

Explore your unique ecosystem of data

Regardless of an institution's location, size, or mission, reliable information is a key asset for tracking progress and guiding continued growth. Yet all too often, instructive data is scattered across a campus and locked away in silos. Moreover, data is typically collected in response to compartmentalized, time-sensitive requests linked to accreditation reporting or another bureaucratic process. While the information gleaned from national reports and benchmarking data is valuable, standardized reports can't fully address an institution's specific challenges or goals. To map out current and future progress, colleges and universities should also look inward by leveraging their unique ecosystem of campus-wide data. This data comes from many sources and can provide insight into many aspects of institutional effectiveness—from stewarding limited resources to measuring program effectiveness. But perhaps the most relevant data points are those that derive from the heart of an institution's mission: the evaluation of student learning and development.



Go beyond the classroom

When we think about student learning, we tend to envision a traditional academic classroom. If the goal is to assess learning, however, attention shouldn't be limited to the classroom. There's a treasure trove of data available through interactions in other learning spaces, including libraries, tutoring centers, work-study jobs, internships, and service-learning opportunities. "Learning can—and does—happen in all of these spaces, and students should be empowered to take advantage of all opportunities to learn and recognize their increased knowledge and skills when they do."¹



Leverage shared data

Similarly, if the goal is to measure student engagement, campuses should take advantage of data points that were unimaginable just a few decades ago. The Internet of Things has accelerated our data-sharing culture, and the possibilities are as exciting as they are disconcerting. Hyperconnected "Net Gen" students have grown up with laptops and smartphones. They carry around personal devices that remind them when their next class starts, when an assignment is due, or how many "likes" or "hearts" their latest social media post garnered. The ability of these everyday, connected technologies to anticipate human needs can yield new approaches to student retention and institutional effectiveness. In our post-9/11 era, students are also used to walking through metal detectors or swiping their ID card through a magnetic reader. The type of tracking that universities can do these days—everything from card swipes at events to real-time polling in a lecture hall—taps into the hidden layer of data on campus. By harnessing the power of data creatively—and of course, responsibly—campuses can access information that will equip them with different and potentially better insights. A respect for individual privacy should guide any action, even as campuses leverage today's predisposition to sharing in order to see where the data points lead them.

¹Office of Educational Technology, "Reimagining the Role of Technology in Higher Education: A Supplement to the National Education Technology Plan," January 2017 (<https://tech.ed.gov/files/2017/01/Higher-Ed-NETP.pdf>)



Resist the temptation to compartmentalize

Point solutions and services feed the appetite for technology-driven metrics. But because these compartmentalized solutions aren't designed to connect seemingly disparate data points, they can't support a long-term strategy for fresh insights. By providing quick fixes for discrete areas, these solutions can actually work *against* institution-wide progress. Instead of breaking down silos, they mirror them—and during a time when the paradigm needs to shift, solutions that mirror the traditional silos aren't real solutions.

On their own, even the most robust student involvement statistics about campus organizations can't contribute to the learning conversation. But when this data is connected to retention rates for an academic major, its utility increases. By leaving data sets in their traditional silos, not only do campuses miss opportunities, they can also wind up with misleading information. Consider one example that's all too familiar to IR offices: a student inadvertently gets counted twice because of the way departments report their numbers for enrollment management. Or imagine a campus losing 100 out of 600 freshmen after the first year, only to have 38 of them re-enroll over the next three years. Every time retention figures for this cohort are reviewed internally, the number could fluctuate.

How does the point-solution approach affect institutional progress in the long run? The benefits are short-term, and campuses end up spending significant amounts of money on multiple products, including fees for implementing and integrating them with existing systems. Without a centralized data system and the ability to triangulate data, institutional researchers can't connect the data points and then evaluate them in relationship to one another. The value of a common data model for higher ed has never been more apparent; a broadened approach requires a new way of thinking about old problems. Indeed, the aha moments are more likely to come when leaders focus not on a familiar process, but on the transformative possibilities.

Target new insights, not more research

Institutional Effectiveness offices bear the brunt of decentralized-data challenges. And as any overworked research director knows, the ability to access campus-wide data often hinges on the responsiveness of equally busy colleagues. In this scenario, how is it possible to be proactive? How can the IE staff evolve from serving as collectors and managers of data to being strategists and visionaries? Campuses should also see the assessment coordinator as a potential capacity builder, capable of performing multiple roles to help move an institution forward.



To meet the pressures of an increasingly crowded higher-ed marketplace, institutional leaders have focused on different questions. *What's happening?* has quickly shifted to *Why is it happening?* and *What will happen over the next decade?* A new question might be: *How can we make something that we need happen?* It's a shift that necessitates activating new insights, not necessarily doing more research. For this shift to be successful, it's important to:



Remember that data always refers back to the student experience. *IE researchers aren't looking at mere spreadsheets of random data; they're interacting with information that both illuminates and impacts the lives of students on campus.*



Pursue a selective and purposeful approach to streamlining and evaluating the data. *No office across campus should be able to dictate that its individual data be involved in every decision. Institutional leaders need to know what matters in the ecosystem in relation to the specific challenge being addressed.*



Understand the difference between statistical and practical significance. *Campuses should preserve a sound data ecosystem that will help IE offices avoid both "analysis paralysis" and the temptation to cherry-pick statistics or fall back on isolated anecdotes.*

With a truly connected data ecosystem, IE offices can use intentional data mining to identify relationships that have been overlooked. Here are just a few examples of connections that might be explored:

- To best position themselves for graduating on time, in what order should students majoring in chemistry take their prerequisite courses?
- Do students perform better in upper-level courses that are offered after 1 pm?
- To what extent does having an on-campus job increase a student's chances of being retained from their freshman to sophomore year?
- Are students who have campus meal plans after their first year of enrollment more engaged on campus?
- How do early friendships impact post-graduation connections to campus?

A thoughtful use of the data ecosystem can also help administrators build an application-to-donation map of the student experience at their institution. Eduventures has coined this as educational intelligence, or "leveraging data at multiple points across the student lifecycle to make intelligent decisions to positively impact student outcomes."²

²Max Woolf, "Educational Intelligence Should Be in Your Vocabulary," Eduventures, September 8, 2015 (<http://www.eduventures.com/2015/09/educational-intelligence-should-be-in-your-vocabulary/>)



Enable a data-informed strategy with an enterprise approach

Instead of continuing to view assessment as a process to coordinate, why not transform it into a roadmap for continual progress? With a holistic approach, colleges and universities can access the expanded data layer that exists across their campus ecosystem. The IE staff can then think critically about the data, make use of purposeful analytics, apply data science, and play an integral part in strategic planning for the institution. When institutions have a comprehensive picture of how their students think and act, especially to the extent that these factors can predict their success, it becomes easier to:

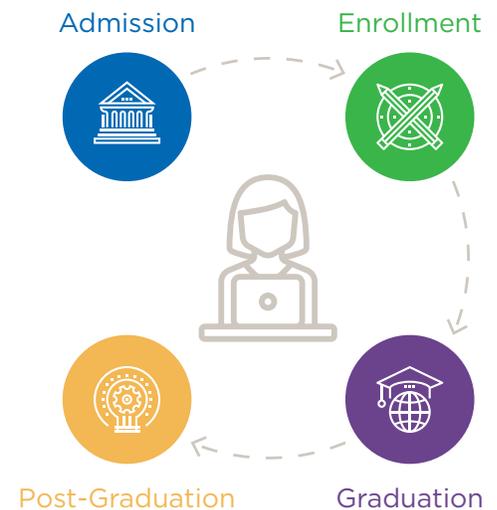
- Recruit and matriculate students who will likely succeed, and not absorb the cost of replacing students who can't be retained
- Offer newly matriculated students services that have been demonstrated to lead to success for students with similar academic profiles and challenges
- Design intentional learning experiences that enable students to reflect on their own learning, make informed choices to extend that learning; and then support them in appropriate, relevant, and individualized ways
- Align co-curricular and extra-curricular opportunities with what students want and need to excel in and out of the classroom
- Make informed choices about limited resources, and strategically direct time, money, and human capital to programs and services that best serve and support student learning

Let's focus on two areas where looking differently at data can surface new information and clear benefits.

Teaching and learning

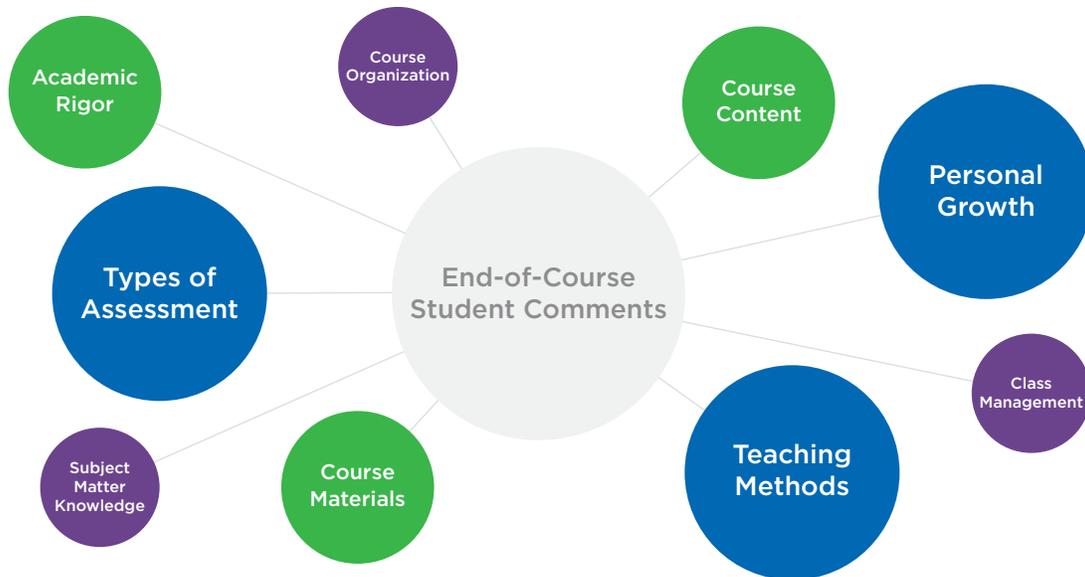
For more effective teaching and learning, institutions need to go beyond templated assessment. Consider a new data set around course evaluations. The process typically focuses on a faculty member's performance, broken down by discrete courses and reduced to a number on a five-point scale. Now imagine if the qualitative data buried in end-of-course student comments were given greater scrutiny through data science.

The team at Campus Labs recently analyzed qualitative data from a random sampling of 200,000 comments from 23 campuses. Applying text analytics revealed information that can't be captured in a typical scaled evaluation. Students with strong negatives tended to provide lengthier comments, compared to students with strong positives. Students in the middle range tended not to provide any comments. The comments were then classified into four main categories: course-related, instructor-related, assessment-related, and personal growth. Each of these



The Student Lifecycle

areas was then broken down into subcategories, such as teaching methods, subject matter knowledge, class management, types of assessment, course content, course materials, and academic rigor. This analysis yielded deeper insight into the areas that institutions care about most, especially the relationship between quality of instruction and students' perceptions of their own learning.



? QUESTIONS FOR REFLECTION

Can student comments offer any insights connected to institutional learning outcomes?

How can data be aggregated to highlight course-related or departmental trends?

How can faculty use student comments to fine-tune their instructional methods?

What can the data tell us about students' perceptions of their own learning?

Student engagement

A closer look at campus data can also shed light on co-curricular involvement, especially as it relates to competency-based learning outcomes. Is there a quality-of-experience difference between on-campus and off-campus work? What types of on-campus involvement lead to deeper engagement? A campus can begin exploring how much involvement might be too little, and how much might be too much, by comparing student engagement data against retention and academic success rates.

With integrated data, students can be encouraged to reflect on the connections between “required” general-education courses, student organization involvement, campus employment, and potential career interests. Advisors would also be better-informed when helping them make decisions about academics, co-curriculars, and career goals.

Progress begins with a single step

At Campus Labs, we work with more than 1,000 colleges and universities. Our enterprise platform offers integrated solutions for all aspects of institutional effectiveness, and we help campuses clarify their mission-driven priorities through the strategic use of data.

As just one example, one of our Midwest campuses is a private four-year university focused on improving its student success rates. Through collaborative exercises, we've helped the university think more innovatively and have reinforced the value of a holistic approach. All the key stakeholders—from the institutional researchers to faculty—have been included in big-picture conversations about the strategic goals and mission from the start. The stakeholders are now attuned to best practices for data use, and steady progress is evident. Silos have broken down, and conversations reflecting a wider view of institutional effectiveness are a reality. The campus has begun exploring a much more impactful approach to student success.

As higher education continues to adapt to new demands, campuses will need to explore new ways to measure and guide their institutional effectiveness. Will dramatic changes be achieved overnight? Of course not. But even one step can signal progress, enabling an incremental transformation for long-term success. Don't be afraid to tap into your expanded data layer, break down the traditional silos, and embrace a new approach to the information-rich resources you already have.

WHAT DO WE KNOW, BASED ON OUR 15 YEARS OF WORKING WITH MEMBER CAMPUSES?

Adaptability is essential. *The pursuit of data, as opposed to the data itself, drives the greatest success. Campuses that understand this distinction become more open to discovering actionable insights, and more likely to reach their strategic goals.*

Technology works for people, not the other way around. *Software is a tool to support the human element of what higher ed institutions do. It's never a substitute for the passion that drives the mission.*

Transformational progress is a long-term investment, not a quick fix. *Depending on when an institution was founded, it might take decades to establish traditions and trusted administrative practices. Not surprisingly, introducing and implementing an enterprise approach requires an investment of time and energy. "An important theme, often absent from the dialogue, is an acknowledgement of the heavy lifting required to leverage analytics as a strategic enabler to transform an institution. There is no 'easy button' for improving the financial, educational, and operational outcomes across an institutional enterprise."³*

³Javier Miyares and Darren Catalano, "Institutional Analytics Is Hard Work: A Five-Year Journey," EDUCAUSE Review, August 22, 2016 (<http://er.educause.edu/articles/2016/8/institutional-analytics-is-hard-work-a-five-year-journey>)



About Campus Labs

Campus Labs empowers institutions to make valuable connections with their data. We offer a complete set of integrated solutions for areas such as assessment, retention, teaching and learning, student engagement, and institutional effectiveness. We're proud to serve more than 1,000 public and private colleges and universities.

To learn more about the integrated solutions of our enterprise platform, visit CampusLabs.com. To stay current with the latest in our thought leadership for higher education, visit CampusIntelligence.com.

