7 Strategies to Power Analytics on the Road Ahead

By Mark Milliron, Civitas Learning

1. TURN YOUR OWN LIGHTS ON
Anchor Your Student Success Science and Artistry in Your Data
Anchoring your efforts to help students learn well and finish strong in historic, real-time, and predictive data is essential. This conversation will focus these efforts as you move away from one-size-fits-all, facile recommendations to a richer understanding of your students, their pathways, and how successfully they are engaging with your policies and practices. While it would be nice, our work clearly shows that there is no Uber model, and basing your innovation, interventions, or inspirational outreach on other people's data is not only imprecise, it can cause real challenges for your students. External data and best practices might be directional and informational, however, turning your own lights on—developing a production-quality, predictive flow model—is a must. We'll unpack examples of diverse institutions with diverse students taking on diverse challenges to explore this issue.

2. ADOPT A TRY AND TEST MENTALITY
Predictive Models are Powerful, but Only a Predicate
Once the lights are on and hindsight, insight, and foresight clearer, the hard work begins. Marie Cini, Provost at University of Maryland University College, made the case in our first Civitas Learning Partner Summit that this kind of strategic data infrastructure outfits us to help intervene and inspire in real time, and ahead of time. However, she originally thought the predictive model would be the answer; what she found was the predictive flow model is only a predicate. The work of trying and testing with policy and practice across the institutions—the heart of student success science and artistry—is the path to progress. This is the opposite of seeking a silver bullet. A try and test mentality says that we are going to continually tune our student learning and success work and we're going to leverage data as an asset, not the answer.

3. ACCEPT ANALYTICS AS MISSION CRITICAL
Analytics Infrastructures are Moving from Nice-to-Have to Mission-Critical
More institutions are developing infrastructure and teams to drive educational analytics strategy, and it's moving beyond just reporting, accreditation, and planning. These efforts are becoming core to how the organization operates day-to-day. From early warning systems to advanced planning tools, to weekly stat-chats, analytics are becoming mission-critical resources used every day. The move is similar to the transitions in educational infrastructures that took place as integrated ERP systems—the technology tools that undergird our finance, HR, student information, financial aid functions—entered education in full force in the 70s, 80s, and 90s; and to how the LMS systems moved from a side-note innovation in our distance learning departments to a core instructional delivery platform for on-ground, blended, and online courses over the course of the last 20 years. As the shift happens, we need to be intentional about how we leverage this mission-critical function and infrastructure across the institution.

4. USE DESIGN THINKING ON THE FRONT LINES
You Can Be Dead Right with Data and Lose Badly

As Civitas Learning's partner institutions' use of analytics has taken shape over the last three years, the rule of the four rights has been a core conversation. Put simply: you have to build the *right infrastructure*, to get the *right data*, to the *right people*, in the *right way*. All four rights matter; however, the work of identifying the right people and ensuring we are bringing our best thinking and careful testing in the right way is imperative. Indeed, a flashing red light that tells an at-risk student they've been flagged by your predictive model might be the signal that actually ends their education journey, not enables it. As a result, design thinking has become a necessity as we do this data work in education. From visualization strategies and simplifying outreach, to ensuring that people are effectively connected and involved in the process, our partners are making sure that as data is brought to the front lines of learning—e.g., advising, instruction, co-curricular activity—there is careful consideration to the how, when, why, and way these data are used. It is our belief that an "app-ecosystem" will emerge over the coming years that will be powered by data, but the apps will be carefully designed for desired outcomes with front-line users.

5. CATALYZE CONVERSATIONS ABOUT AND WITH ANALYTICS
Be Willing to Engage, Catalyze, and Keep Conversations about Analytics in Education Going

From important topics such as student privacy and data breaches to broader dialogues on how you make the most of the data you already have, our partners have shown us that you have to be willing to dive into the dialogue. Students, for example, have consistently told us that they are okay with institutions using their data *if it can be used to help them* —e.g., make a better choice, choose the right course, understand their options more clearly, connect with the right support, or master a key concept. Faculty have been open to the data use if it used to enable their instruction and improve learning, not focused on simplistic data points that have little to do with their goals. In addition, there are next-level conversations about exciting new directions and innovations taking shape in educational analytics, including exploring toxic and synergistic course sequences or combinations; impact of non-cognitive factors and student agency; combining adaptive pathways with adaptive learning; and course scheduling based on graduation pathway optimization.

6. TAKE SYSTEMS AND CULTURE SYNC SERIOUSLY
Analytics can be Catalyzed or Crushed by Systems and Culture

The best analytics systems need to work well within the operational and social context in which they are deployed. At best they reflect and assist the systems and culture as they strive to improve. At worst, they can be thwarted by restrictive policy or active cultural immune systems. From our experience, for analytics efforts to take off, two core cultural issues have to be tackled: (1) Moving from a primary focus on accountability analytics—where data efforts mostly serve the needs of administrators, accreditors, trustees, and legislators—to at minimum an equal focus, if not greater focus, on action analytics. Action analytics leverage data to help teachers, advisors, support services, and learners on the front lines of our institutions. (2) Moving from a culture of blame—where when hard data come up, the first move is to find and shame who is to "blame" for it—to a culture of wonder. A culture of wonder is open to deeply exploring the data, including determining if there are incorrect correlation/causation assumptions being made, and staying away from personal attacks.

7. LEADING IN THE AGE OF ANALYTICS
Leadership and Learning Shifts in the Age of Analytics

Presidents and provosts are feeling the pressure to become literate in analytics, just as they had to develop technology literacy over the course of the last two decades. But it goes deeper than just presidents, provosts, and even deeper than the traditional bastions of data work in IR, IT, and institutional planning. What we are seeing in the work of our partners is a focus on embedding the skill and will to use analytics across the institutions. Better tools, lighter apps, and engaging strategies will certainly make this easier. However, there is core work to be done to enable the current and next generation of leaders to begin to make the most of analytics in their efforts to help students on their journeys. There are implications for leaders in academics, advising, career counseling, student life, housing, finance, financial aid, and more. Faculty in particular will need to lead in this work. There are so many ways these analytics tools can be used to empower faculty as learning and research professionals. Regardless of role, it's fast becoming clear from our work that helping create a broad leadership culture that understands, appreciates, and is careful with data will be a must for those looking to make the most of analytics on the road ahead.

Reprinted with permission from civitaslearningspace.com.

Dr. Mark Milliron

Dr. Milliron is an award-winning leader, author, speaker, and consultant who has worked in universities, community colleges, foundations, corporations, and associations across the U.S. and around the world. As Chief Learning Officer and Co-Founder of Civitas Learning, he focuses on a wide range of activities for the company, from shaping product development to engaging the education community in leading research projects.