How can we predict learner failure while a learner is in the middle of a course, with enough advance notice to change their outcome? What can we do to identify course materials and activities that are particularly effective?

Learner engagement is one of the most important components of long-term student success. The emerging field of Learning Analytics has begun analyzing how learners interact with course materials, learning activities, and one another, to help educators develop a more accurate and real-time understanding of which students may be at risk of failing a course.

How Blackboard Analytics Improves Learner Engagement

John Whitmer, Ed.D., Director of Platform Analytics and Educational Research, Blackboard Inc.
Further, Learning Analytics can reveal the impact of different course design choices on learner achievement. But how can schools measure engagement and assess risk level without investing in a lengthy and expensive data integration and discovery process?

For many schools, the answer is Blackboard Analytics paired with Blackboard Learn, Blackboard's learning management system (LMS). The LMS is the most heavily deployed academic technology in the field of higher education – in fact, a recent study of undergraduate learners found that over 87% of learners used the LMS over the past year, with 28% using it in all of their courses. (Dahlstrom and Bischel, 2014).

Instructors use Blackboard Learn to augment face-to-face courses, to create 'flipped classroom' environments, or to offer fully online courses. All learner activity in the platform is tracked, so educators can see how learners interact with and respond to learning materials within courses, across courses, and across terms.

By using Blackboard Analytics to analyze this data, instructors, departments, and entire institutions can generate powerful insights into how students are learning – and immediate steps that can be taken to improve learning outcomes.

**Immediate & Detailed Understanding of Learner Course Interactions**

By adding the Blackboard Analytics platform to Blackboard Learn, campuses gain the ability to analyze LMS use across the institution. Instructors can analyze the way learners engage with courses in fine-grained detail. Our Analytics platform integrates seamlessly with the Blackboard Learn to gather data and generate insights into learners’ activity. In addition to information from the LMS, Blackboard Analytics brings in learners’ demographic data and prior educational experience to create a comprehensive portrait of the learner that can be used to provide holistic recommendations.

LMS activity is a significant predictor of learners’ grades in a course. While conventional demographic and prior academic experience variables predict 3-5% variation in learner grades, Blackboard Learn data can predict up to 50% of that variation, as this data is immediate, contextual – and most important, can be acted on immediately.
Improving Course Design
The benefits of Blackboard Analytics combined with Blackboard Learn can also be used to improve course design practices.

By analyzing data on students’ LMS activity, educators can examine patterns in learners’ interactions with course resources and their relationship to learner success. If every learner who receives an “A” on five quizzes also earns an “A” in the course, for example, the instructor would have evidence that those quizzes are a strong indicator of overall success. But if no relationship between the quizzes and final grades were visible, the teacher would have reason to believe that the quizzes may not be a useful way for learners to spend time.

It is also possible to study changes in course design over time. If a school implements a new instructional design, educators can compare learners’ achievement to their outcomes in past classes and adapt or develop the course accordingly.

Taking Advantage of Blackboard Analytics and Blackboard Learn
Once faculty sees that the LMS engagement translates to learner success, they are typically eager to leverage the powerful insights that Blackboard Learn and Blackboard Analytics make available to them. In fact, some educators even redesign their classes in order to collect better data – and ultimately achieve better results.

From learners to instructors to the entire institution, Blackboard Analytics and Blackboard Learn can make a powerful impact at every level of the college or university. When educators employ Blackboard Analytics to analyze and encourage learner engagement, they give both their institutions and their learners the tools to succeed.

About the Author
Dr. John Whitmer is the Director of Platform Analytics and Educational Research at Blackboard. His research interests include predicting at-risk students and creating effective interventions to improve their performance using data captured by student interaction with academic technologies (LMSs, Web Conferencing, MOOCs, etc.). John has participated in six large-scale studies, including support from the Gates Foundation and the National Science Foundation. He holds a Doctorate in Educational Leadership from UC Davis and a Master’s Degree in Sociocultural Anthropology from UC Davis.
Conclusion

Blackboard Analytics isn’t a solution for one department or role within your organization. It’s a comprehensive data infrastructure designed to support educators, learners and decision-makers alike.

For higher education institutions, the challenges of today and tomorrow are demanding and plentiful. But Blackboard Analytics was designed to help meet these challenges head on. With a comprehensive platform, you can help your institution make more proactive, data-driven decisions; target, engage, and retain the right students; improve your fiscal fitness, and much more.

As schools compete in the new higher education marketplace, those with the ability to act on rich institutional data will take the lead. With more focused understanding of data and data-driven decision making, these institutions will become the educators of the future.