

Bridging Student Learning Outcomes & Student Success Analytics



"If existing resources were redirected to trying to understand student learning, we could revolutionize education in the next ten years"

*~David Eubanks in
AAHLE 2017 Fall
Intersection*

Bridging Evidence of Grit & Greatness

How can we enhance our data-informed culture at UMBC?

The first program in the Faculty Development Center's Leadership & Teaching Series challenges you to ask questions about student learning and success. Our presenters raise their own questions and demonstrate how they synthesize direct and indirect evidence to find answers.

What Are My Students Learning?

Liz Stanwyck examines connections between outcomes and grades, asking, "Are grades an accurate reflection of students' knowledge and skills acquisition?" To find out, she analyzes the results from pre- and post-tests aligned to course-level outcomes alongside students' grades. The evidence confirms a positive

correlation between course grades and student learning.

Asking the Right Questions: How Do We Know What We Know?

Jill Randles explains the Office of Undergraduate Education's assessment and analytic processes. Analysis of outcome and retention data allows OUE to pinpoint

possible achievement gaps and craft evidence-based interventions.

How Can We Use Analytics To Support Student Success?

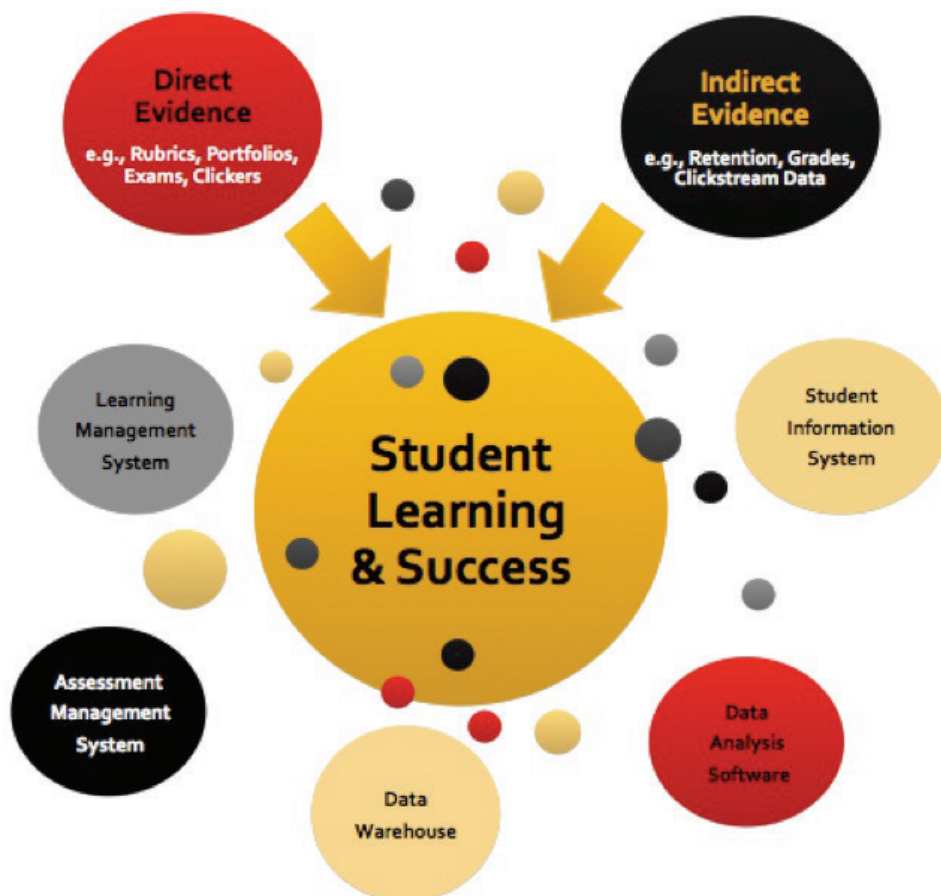
Tom Penniston offers an overview of UMBC's data ecosystems, defining analytics tools that can contribute to your data-informed decision making.

Faculty Development Center's Leadership & Teaching Series

Sessions in this series are designed to help you to reflect on challenges in teaching facing higher education and how you, in your role as a formal or informal leader at UMBC, can contribute to innovative solutions. Faculty and staff colleagues will address specific challenges in interactive presentations designed to help you explore key questions, for example:

- How can you use research to improve teaching, learning, and curriculum design?
- How can you connect to other teaching leaders to identify common challenges and devise shared solutions?
- How can you contribute to a collaborative culture of evidence-based teaching to improve student learning?
- How can you identify policies, processes, and technologies that make it easier to gather and use evidence of student learning?

First Steps in Bridging Outcomes & Analytics



When institutions integrate multiple measures of student learning, they can more effectively make evidence-based decisions to improve student learning and minimize achievement gaps.

Taking Outcomes Data to Scale

Vertical alignment of outcomes is a key first step. Which course, program, or UMBC outcomes are you assessing? See the FDC's Outcome Alignment Worksheet for help: <https://tinyurl.com/ycjc92zf>.

Extracting Outcomes Data

Next, consider how you will extract the direct evidence.

- For rubrics or tests in Blackboard, use EAC Visual Data to program your outcomes. Access instructions on the FDC assessment resources page <https://tinyurl.com/ycjghgdq>

- If you use Scantron to give tests, export the results to Excel and map questions to outcomes.
- Qualtrics, Google Forms, and other survey software allow you to export the data to Excel.
- Excel and Google Sheets can also manage your direct evidence. See the FDC curriculum mapping resources <https://tinyurl.com/y7hpbcc3>

Identifying Analytics Tools

Once your direct evidence is organized, you can begin to consider which tools or datasets can help you triangulate your data.

Glossary

- The *Assessment Cycle* has four parts: setting *student learning outcomes* (measurable goals), offering *learning opportunities*, *measuring* (direct and indirect), and *closing the loop*, applying the results to improve learning.
- Curriculum Mapping* uses vertical and horizontal alignment to align outcomes, maps outcomes to learning opportunities, and illustrates how programs scaffold and assess student learning.
- Direct Measures*, like rubrics, tests, and minute papers, look directly at demonstrations of student learning and often rely on subject-matter expertise.
- Indirect Measures*, like student surveys and grades, retention and graduation rates, and usage data look at factors related to learning.
- Learning Analytics* collects and analyzes data associated with student learning to improve student success through evidence-based interventions.
- Narrative Aggregation* gathers assessment data into cohesive views of student learning. Until institutions can aggregate learning data to the institutional level, they rely on narrative aggregation to tell their story of student learning
- Triangulation* integrates multiple measures of student learning, so educators can contextualize learning evidence.