

Evidence of Student Learning

The ultimate goal of our work in education is to move students toward a deeper understanding of the content we are teaching. In order to determine if our students are making sense of the content taught and assimilating the material with what they already know, we must collect evidence of student learning.

Purpose of Evidence

- Students need feedback on their performance so they know where they are doing well and where they need to place additional effort.
- Teachers need information about their students' understanding in order to make good decisions about what and how they teach. Collecting multiple types of assessment allows us to overcome inherent measurement error and demonstrates ongoing learning over time.

Ultimately, all evidence of student learning should be gathered, interpreted, and used to inform and impact teaching.

Evidence may be used to make judgements about student academic performance, to form student groups, to develop instructional plans, to identify misunderstandings or misconceptions as a result of instruction, to accurately reflect on teaching, and/or to effectively manage your classroom.

Types of Evidence

- **Summative** - this type of evidence reveals students' mastery of content.
This type of evidence should: mirror the learning goals, contain content that reflects the relative importance of each learning goal, align the format with the cognitive level of the learning goal, address the range of knowledge in the learning goals and that is reflected in instruction, and not require more from the student than was required during the learning.
Examples: traditional tests, essays, projects, portfolios, performance tasks, presentations
- **Formative** - this type of evidence reveals where students are in the process of learning and informs instructional decisions.
This type of evidence should: have clear goals, communicate goals to students, be tied closely to those goals, be interpreted and used to inform next steps in instruction, and is rarely graded.
Examples: thumbs-up, clickers questions, Frayer diagrams, writing prompts, exit tickets, quizzes, homework

Resources

- Angelo, T. A., & Cross, K. P. (1993). Classroom assessment techniques: A handbook for college teachers. San Francisco: Jossey-Bass.
- Angelo, T. A. (1999). Doing assessment as if learning matters most. AAHEBulletin.com. Retrieved from http://www.assessment.uconn.edu/docs/resources/ARTICLES_and_REPORTS/Thomas_Angelo_Doing_Assessment_As_If_Learning_Matters_Most.pdf.
- Barkley, E. F. (2009). Student engagement techniques: A handbook for college faculty. John Wiley & Sons.
- Barkley, E. F., Cross, K. P., & Major, C. H. (2014). Collaborative learning techniques: A handbook for college faculty. John Wiley & Sons.

- Barkley, E. F., & Major, C. H. (2015). *Learning Assessment Techniques: A Handbook for College Faculty*. John Wiley & Sons.
- Birkett, M., Neff, L., & Pieper S. (2012). Using personal interest portfolios to promote engagement and improve student learning in a large undergraduate course. *Journal on Excellence in College Teaching*, 23(2), 49-67.
- James, M., & Willoughby, S. (2011). Listening to student conversations during clicker questions: What you have not heard might surprise you! *American Journal of Physics*, 79, 123-132.
- McGuire, S. Y. (2015). *Teach Students how to Learn: Strategies You Can Incorporate Into Any Course to Improve Student Metacognition, Study Skills, and Motivation*. Stylus Publishing, LLC.
- Nilson, L. (2015). *Specifications grading: Restoring rigor, motivating students, and saving faculty time*. Stylus Publishing, LLC.
- Sambell, K., McDowell, L, & Montgomery (2013). *Assessment for learning in higher education*. New York, NY: Routledge.
- Stevens, D. D., & Levi, A. J. (2013). *Introduction to rubrics: An assessment tool to save grading time, convey effective feedback, and promote student learning*. Stylus Publishing, LLC.
- Walvoord, B. E., & Anderson V. J. (2010). *Effective grading: A tool for learning and assessment in college*. San Francisco, CA: Jossey-Bass.