

Building momentum for postsecondary success

Assessing Student Learning

In Corequisite Courses Delivered Online

Session resources https://tinyurl.com/SStF-Webinars2020



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Session Objectives

- Revisit the Promoting Equity session and reflect on its application to assessment of student learning
- Explore different types of assessments
- Collaborate with peers to share assessment techniques used in the classroom
- Discuss strategies for academic integrity



Equity-mindedness

"The term 'Equity-Mindedness' refers to the perspective or mode of thinking exhibited by practitioners who call attention to patterns of inequity in student outcomes. These practitioners are willing to take personal and institutional responsibility for the success of their students, and critically reassess their own practices."

> Center for Urban Education University of Southern California https://cue.usc.edu/about/equity/equity-mindedness/

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Exploring Types and Purposes of Assessment



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- Assessment activities lead to demonstration of learning outcomes.
- Assessments align with the objectives.
- Both formative and summative assessments are used throughout the course.
- Multiple assessments are administered during the course.

California Community Colleges California Virtual Campus – Online Education Initiative. Online Course Design Standards. <u>https://cvc.edu/professional-development/online-course-design-standards/</u>



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Types of Assessment - Breakout

- Quick introductions
- Choose a reporter and a timekeeper
- Timekeeper also ensures everyone gets a chance to talk

What's the difference in formative, summative, and self-assessment:

- In purpose?
- In use?
- In types of tasks?



What is formative assessment?

We use the general term *assessment* to refer to all those activities undertaken by teachers—and by their students in assessing themselves —that provide information to be used as feedback to modify teaching and learning activities.

Such assessment becomes formative assessment when the evidence is actually used to adapt the teaching to meet student needs.

Black and Wiliam (1998)

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What is summative assessment?

- "The goal of summative assessment is to evaluate student learning at the end of an instructional unit by comparing it against some standard or benchmark.
- Summative assessments are often high stakes, which means that they have a high point value.
- Examples of summative assessments include...a midterm exam."

~Carnegie Mellon University, Eberly Center

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The faculty's role in formative assessment

To tap the full potential of formative assessments, faculty must:

- Clarify and share learning intentions and criteria for success with students.
- Engineer effective classroom discussions, questions, and learning tasks.
- Provide feedback that moves learners forward.
- Activate students as owners of their own learning.
- Encourage students to be instructional resources for one another.

William (2008)



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Response System Prompts

• From College Algebra:

True or False. Two lines are graphed on the same axes. The lines intersect in at most one point.

• From Statistics:

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Which of the following cannot represent the probability of an event?

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Self-assessment tools

- Learning Logs
- Self-report note
- Pause



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Learning log prompts

- Explain how I organize my math notes. How does my organizational method help me?
- What do we do today? Why did we do it?
- What did I learn today? How can I apply it?
- What questions do I still have about it?



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Gut check

- I understand and can explain it to others.
- I understand and can work on this alone.
- I understand but still need a little help.
- I don't understand yet.



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Closing

"Close the lesson. Develop a culminating activity (or several) that brings closure to the class. Tie the lesson together with a review of the learning outcomes, and remind them of what it was that they were supposed to learn as a result of your teaching...A closing activity also gives the instructor an opportunity to describe what will come next for the students and what will be expected from them."

~Carnegie Mellon University, Eberly Center



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Academic integrity and conditions that foster cheating

Lang's four conditions that foster cheating:

- Emphasis on performance
- High stakes tests
- Extrinsic motivation for success
- Low expectation of student success



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Lang (2013)



Fostering academic integrity

Lang's four suggestions:

- Frequent low stakes assessments
- Stress mastery over performance
- Foster intrinsic motivation
- Help students develop self-efficacy



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	UT TeleCampus wcet	artners for change. cethnologies in practice.
	Best Practice Strategies to Promote Academic Integrity in Online Education Version 2.0, June 2009 This list of best practice strategies is based on "Institutional Policies/Practices and Course Design Strategies to Promote 1. State the academic integrity/academic honesty policy.	
	Academic Integrity in Online Education," produced by WCET in February 2009 and updated in April 2009. In May 2009, the Instructional Technology Council (ITC) surveyed its membership to invite feedback and additional strategies to enhance the VOCET work. This June 2009 document reflects the combined contributions of WCET, the UT TelcCampus of the University of Teose System, and ITC. This work is licensed under a Creative Commons Attribution-Neocommercial-Share Alike 3.0 United States license.	 view of the constraint of the const
	INSTITUTIONAL CONTEXT AND COMMITMENT 1. Establish a campus-wide policy on academic integrity that articulates faculty and student responsibilities. 2. Demonstrate an institutional commitment to enforcing the policy and in supporting faculty and staff in the handling of academic integrity matters. 2. Unit information and equipication is the policy of	 Require students to read and sign an agreement to the campus academic integrity policy. Write a letter to students about integrity and post it in the course. Ask students to restate the academic integrity policy (this can also be used as a writing sample to use when grading and reviewing student work).
	 Note internation of academic integrity casy to imit on the campus Web site, binary Web site, department Web site, course, within the syllabus and within specific assignments. Include ethics instruction within the core curriculum and/or area-specific within depres plans. Address academic integrity at student orientation programs and events. 	 Ack students to retice to mite academic integrity policy in the discussion baard. Include a lesson on avoiding plagiarism. Have assignments and activities in which appropriate sharing and collaboration is essential to successful completion. Foster a community of integrity by chocosing authentic learning tasks that require group cohesiveness and effort. For example, focus
	 Encourage faculty to report every suspected violation and act upon it. Secure student logins and password to access online courses and related resources, discussions, assignments and assessments. 	asignments on distinctive, individual, and non- duplicative tacks or on what individual students self- identify as their personal learning needs. 4. Provide students with a course or course lesson on research and/or study stills. Work with liberry staff to design assignments and prepare materials on plagiarism and research techniques.





Concerns about:

- Privacy
- Equitable access
- Pandemic issues



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Lang (2013)

Managing cognitive load - Darby

If you want students to

- Upload a photo of handwritten work for their first exam
- 2. Create a video presentation as part of a major project
- 3. Email you through the class LMS when they have an issue

First, ask them to

- 1. Upload a photo of a homework problem during week 1
- 2. ?



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Black, P. & William, D. (1998) Inside the black box: Raising standards through classroom assessment. Phi Delta Kappan, 80(2), pp. 139-148. California Community Colleges California Virtual Campus – Online Education Initiative. ۲ Online Course Design Standards. https://cvc.edu/professional-development/online-course-design-standards/ Carnegie Mellon University, Eberly Center. https://www.cmu.edu/teaching/assessment/basics/formative-summative.html Darby, F. How to be a better online teacher. The Chronicle of Higher Education, • https://www.chronicle.com/interactives/advice-online-teaching Dreon, O. (2013). Applying the Seven Principles for Good Practice to the Online Classroom. https://www.facultyfocus.com/articles/online-education/applying-the-seven-principlesfor-good-practice-to-the-online-classroom CCRC COMMUNITY COLLEGE STRONG START BVC PATHWAYS Mathematics 32

- Garrison, D.R., Anderson, T., Archer W. (1999). *Critical inquiry in a text-based environment: Computer conferencing in higher education*. The Internet and Higher Education, 2(2-3), pp. 87-105. <u>https://doi.org/10.1016/S1096-7516(00)00016-6</u>
- Hammond, Z. (2013). *Ready for Rigor: A Framework for Culturally Responsive Teaching.* <u>https://crtandthebrain.com/wp-content/uploads/READY-FOR-RIGOR_Final1.pdf</u>
- Harris, F., & Wood, L. (2020, March 27). *Employing equity-minded and culturally affirming teaching and learning practices in virtual learning communities* [webinar]. CORA Learning. Retrieved from https://www.youtube.com/watch?v=aMrf_MC5COk (In particular, the five principles and associated strategies start at about minute 28.)
- Johnson, E. (2009). *Using online discussion boards to foster mathematical dialogue*. Electronic proceedings of the International Conference on Technology in Collegiate Mathematics, New Orleans, LA. March 12-15, 2009.



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- Lang, J. (2013). *Cheating Lessons: Learning from Academic Dishonesty.* Cambridge, MA: Harvard University Press.
- Lang, J. (2013). *Cheating lessons part 1*. The Chronicle of Higher Education, <u>https://www.chronicle.com/article/cheating-lessons-part-1/139453</u>
- Learning Forward (2018). Culturally Responsive teaching puts rigor at the center. *The Learning Professional*, 39(5). <u>https://learningforward.org/wp-content/uploads/2018/10/culturally-responsive-</u> teaching-puts-rigor-at-the-center.pdf
- MGH Institute of Health Professions. <u>https://www.mghihp.edu/faculty-staff-faculty-compass-teaching-teaching-strategies/</u> <u>examples-classroom-assessment-techniques</u>



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• WCET. (2009). Best Practice Strategies to Promote Academic Integrity in Online Education.

https://wcet.wiche.edu/sites/default/files/docs/resources/Best-Practices-Promote-Academic-Integrity-2009.pdf

• William, D. (2008). Changing Classroom Practice. In *Educational Leadership. 65(4),* pp. 36-42.



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