

# **Teaching from a Distance**

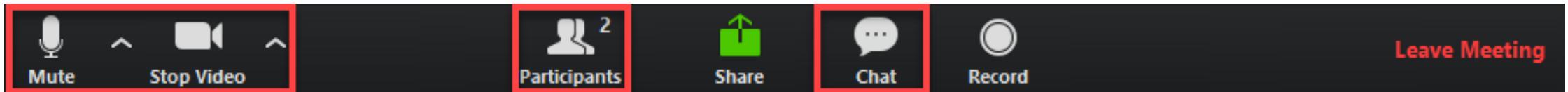
## **Authentic Assessment and other Assessment Strategies**

The Learning Innovations Team



# Zoom Housekeeping

- **For questions:** use Chat or unmute your Microphone.
- **For nonverbal feedback:** Select Participants and use the icons at the bottom of the window.
- **Slides and Survey:** Provided via a link in the chat near the end of the presentation.



# Today's Objectives

- Identify effective approaches for assessment in an online environment.
- Discuss the importance of using measurable learning outcomes as the foundation of assessment.
- Identify ways to organize students for self and peer assessment.
- Discuss the use of formative assessment to support student's learning.
- Locate, adapt and use rubrics for outcomes-based assessment



# **Purpose of Assessment**



# Why do we assess?

- Ultimate aim is to improve student learning
- Inform decisions about curriculum and instruction
- Link student performance to specific learning outcomes
- Measure the extent to which students are learning the course material
- Indicate the effectiveness of teaching
- Provides useful feedback to both instructors **and students**



# Authentic Assessment

A form of assessment in which students are asked to perform real-world tasks that demonstrate meaningful application of essential knowledge and skills

-- Jon Mueller

Provide more chances for a diverse student population to:

- Engage with course content
- Be a part of a learning community
- Become active participants in their learning
- Broaden student perspectives and knowledge
- Learn relevance of course content in their lives and future endeavors

Learn more about [Authentic Learning Experiences and Assessments](#)  
[Source and more examples of Authentic Assessment](#)

# **Measurable Learning Outcomes**

The foundation of assessment



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# Learning Outcomes

## What are they?

Statements identifying concrete and measurable actions that students **will be able to do** as a result of taking the course.

## How is it helpful?

- The alignment of instruction and assessment
- Shared expectations among students and faculty
- Students in monitoring their own progress

[Learn more about Authentic Learning Objectives.](#)



# Reviewing Outcomes

- Is it observable/measureable?
- Is it aligned with assessments and activities?



# Learning Outcomes (examples)

You will be able to:

- **Evaluate** evidence provided by a data set to investigate the role of natural selection in evolution
- **Assess** the credibility of primary and secondary sources and make judgments about their usefulness and limitations as evidence about the past.
- **Use** derivatives to analyze properties of a function.
- **Explain** how different beliefs about the federal government's role in U.S. social and economic life have affected political debates.



# Misalignment

## Learning Outcomes

Explain

Relate

Prove

Apply

## Assessment

APA Formatting

Grammar

Spelling

## Student Activity

Memorize

Describe



# Alignment

## Learning Outcomes

Explain

Relate

Prove

Apply

## Assessment

Explain

Relate

Prove

Apply

## Student Activity

Explain

Relate

Prove

Apply



# **Forms of Assessment**



# Formative

Assessment *for* learning

Ongoing

Allows for future improvement

# Summative

Assessment *of* learning

At conclusion

Used to rank and score



# **Formative Examples**

Discussions

Clicker questions

Weekly quizzes

1-minute reflections

# **Summative Examples**

Exams

Final project

Final essay

Final report



# Formative Assessment



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# Formative Assessment is...

“... the systematic collection and analysis of information to improve student learning.”

Martha Stassen, *Course Based Review and Assessment: Methods for Understanding Student Learning*, 2001, pg. 5

...an ongoing process aimed at understanding and improving student learning. It involves making our expectations explicit and public; setting appropriate criteria and high standards for learning quality; systematically gathering, analyzing, and interpreting evidence to determine how well performance matches those expectations and standards; and using the resulting information to document, explain, and improve performance.

Thomas Angelo, *AAHE Bulletin*, November 1995, p. 7

# Formative Assessment: Benefits

“Students receive feedback that

- Identifies strengths, weaknesses
- Can be applied to future assignments
- Promotes instructor to student engagement
- Promotes student to student engagement
- Provides opportunity for self reflection
- Identifies areas for growth and development

-Brown, Sally, and Peter Knight. *Assessing Learners in Higher Education*



# Formative Assessment

"The Big point-- it comes up over and over again as crucial-- is the importance of quick and detailed feedback. Students overwhelmingly report that the single most important ingredient for making a course effective is getting rapid response on assignments and quizzes."

-Richard Light, Walter H. Gale Professor of Education at Harvard University's Kennedy School of Government,  
Harvard Assessment Seminars

# Self Assessment

## What is it?

Students assess the process and product of their learning. By doing this they take more ownership of the learning process and practice the meta-cognitive skills necessary to monitor their own progress.

## Examples

- Portfolio
- Reflection logs
- Instructor-student interviews
- Learner diaries, journals, etc.
- Students attach a self-assessment to each assignment submitted (Alverno)



# Peer Assessment: What is it?

A type of collaborative learning technique where students **evaluate the work of their peers and have their own evaluated by peers**.

This dimension of assessment is significantly grounded in theoretical approaches to active learning and adult learning.

Source: <https://cft.vanderbilt.edu/student-assessment-in-teaching-and-learning/>



# **Peer Assessment: Examples**

## **Examples**

- Peer review of writing
- Feedback in discussion
- Think Pair Share/ Peer instruction
- Group Work

## **Collaborative Tools**

- Perusall
- Threaded Discussion
- VoiceThread
- Zoom



# Classroom Assessment Techniques (CATs)

## What is it?

- Quick and easy formative evaluation methods that help you **check student understanding** in “real time”.

## Examples

- Background Knowledge Probe
- Minute Paper
- Muddiest Point
- What's the Principle?
- Student-Generated test questions

[Learn more about low-stakes formative assessments](#)



# CATs: Purpose and Value

- provide day-to-day feedback that can be applied immediately
  - Insights gained can be used to modify/improve course content, adjust teaching methods,
- provide useful information about what students have learned without the amount of time required for preparing tests, reading papers, etc.
- allow you to address student misconceptions or lack of understanding in a timely way
- help to foster good working relationships with students and encourage them to understand that teaching and learning are on-going processes that require full participation

Source: <https://www.celt.iastate.edu/teaching/assessment-and-evaluation/classroom-assessment-techniques-quick-strategies-to-check-student-learning-in-class/>

# CATs: For Students

- Help develop self-assessment and learning management skills
- Reduce feelings of isolation, especially in large classes
- Increase understanding and ability to think critically about the course content
- Foster an attitude that values understanding and long-term retention
- Show your interest and support of their success in your classroom.

Source: <https://www.celt.iastate.edu/teaching/assessment-and-evaluation/classroom-assessment-techniques-quick-strategies-to-check-student-learning-in-class/>

## Background Knowledge Probe

Short, simple questionnaire given to students at the start of a course, or before the introduction of a new unit, lesson or topic. It is designed to uncover students' pre-conceptions.

## Minute Paper

Tests how students are gaining knowledge, or not. The instructor ends class by asking students to write a brief response to the following questions: "What was the most important thing you learned during this class?" and "What important question remains unanswered?"

## Muddiest Point

One of the simplest CATs to help assess where students are having difficulties. The technique consists of asking students to jot down a quick response to one question: "What was the muddiest point in [the lecture, discussion, homework assignment, film, etc.]?" The term "muddiest" means "most unclear" or "most confusing."

## What's the Principle?

CAT is useful in courses requiring problem-solving. After students figure out what type of problem they are dealing with, they often must decide what principle(s) to apply in order to solve the problem. This CAT provides students with a few problems and asks them to state the principle that best applies to each problem.

## Student-generated Test Questions

Divide the class into groups and assign each group a topic on which they are each to write a question and answer for the next test. Each student should be assured of getting at least one question right on the test.

# **Alternatives to Traditional Exams**



# Potential Issues with traditional tests

(Traditional here means timed, closed-book, high-stakes tests)

- **Motivation:**

- Tests motivate the wrong types of learning: cramming, memorization, etc.
- High-stakes tests motivate students to cheat.

- **Certification**

- Performance on tests predicts... performance on tests. Not solely, but more than we want to admit.
- With high-stakes tests, one bad day can change the course of your life

- **Feedback**

- Students tend not to see these tests as formative feedback: the grade is the end.

- **Workload**

- We generally don't think about this part, but high-stakes tests often deaden our enjoyment of the class and push our work into crunch times that are unfair to us.



# Poll

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Which  
would  
you like  
to learn  
more  
about?

Performance Assessment

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Two-Stage Exams

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ePortfolio

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# Performance Assessment

## What is it?

- Designed to closely reflect the performance of interest
- Allow students to construct or perform an original response
- Close similarity between the performance that is assessed and the performance of interest
- Open-ended and without a single, correct answer

## Examples

- Conduct a scientific investigation
- Construct an original product or response
- Creation of a news magazine
- Debate
- Performance or recital
- Portfolio
- Written explanation of one's solution to a mathematics problem
- Application principles or procedures to real world problems



# Two Stage Exams

Students are given the opportunity to work on an exam in two stages: individually and with a group.

1. Students first complete the exam individually.
2. Students then work in small groups and answer the exam questions again.
  - Students receive immediate, targeted feedback on their solutions from fellow students and see alternative approaches to the problems.
3. Instructor listens to group discussions to understand misconceptions
4. Instructor has wrap up discussion afterward to address misconceptions or confusion heard during the group conversations.



# ePortfolio

- A purposeful collection of sample student work, demonstrations, and artifacts that showcase student's learning progression.
- A learning tool for students to clarify their educational goals and integrate and solidify learning through reflection.
- By reflecting on what they learned and how they learned it, students start to take control of their own learning.



# Rubrics



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# What are Rubrics?

“Explains to students the criteria against which their work will be judged. More importantly, it makes public key criteria that students can use in developing, revising, and judging their own work.”

-Mary Huba and Jan Freed, Learner Centered Assessment on College Campuses, pg.155, Allyn and Bacon

# How are they useful?

- Provides a reference point for students to consult repeatedly as they monitor their own learning and develop the skills of self- and peer-assessment.
- Develops a sense of shared expectations among students and faculty.
- Provides evaluators and those whose work is being evaluated with detailed descriptions of what is being learned and what is not.

-Mary Huba and Jan Freed, Learner Centered Assessment on College Campuses, pg.155, Allyn and Bacon



# **Questions to Ask With any Assessment**

- Are the expectations and learning outcomes clear?
- Are models provided, exemplary and otherwise?
- Are the skills and abilities that are being evaluated aligned with the learning outcomes?
- How will the results be used to improve student learning?



# Questions?



# **Thanks for attending!**

Taking this training is one step towards your Mastery Certificate!

**Let's explore the possibilities together!**

[aoi.li@wsu.edu](mailto:aoi.li@wsu.edu)

li.wsu.edu

**How did we do?**

<https://tinyurl.com/WSU-AOI-EventSurvey>

# Resources



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# **Resources: Assessment, Outcomes, & Rubrics**

## **Assessment**

- [Course Based Review and Assessment: Methods for Understanding Student Learning](#)
- [Johns Hopkins- Assessing Learning Online](#)
- [Measuring Student's Learning](#)
- [Assessing Student Learning- Indiana University](#)

## **Learning Outcomes/Objectives**

- [Setting Learning Objectives](#)
- [Bloom's Taxonomy Revised with Key Words and Model Questions.](#)
- [Backward Design- Harvard Bok](#)
- [Backward Design](#)

## **Rubrics**

- [AACU Value Rubrics](#)
- [Using rubrics to provide feedback to students](#)
- [Setting expectations with rubrics](#)
- [Grading and Performance Rubric Examples](#)
- [Berkeley: What is a Rubric](#)

# Resources: Formative Assessment & ePortfolios

## Formative Assessment

- [Low Stakes Formative Assessments](#)
- [Stregthening Colleges and Universities: the Harvard Assessment Seminars](#)
- [Assessment in Teaching and Learning - Vanderbilt](#)
- [\*Making the Most of College: Students Speak Their Minds\*, Richard Light](#)
- [Low-Stakes Writing Assignments](#)

## ePortfolio

- [Tufts University: IDEA About the Learning Portfolio](#)
- [Stanford Engineering Electronic Portfolios](#)
- [Michelle Grau: STEM ePortfolio](#)
- [Michelle Warner: STEM ePortfolio](#)
- [Loyola University: Learning portfolio examples](#)
- [Berkeley- ePortfolio](#)



# Resources: ePortfolios (cont)

## ePortfolio (cont.)

- [Auburn digital portfolio](#)
- [Ball State University Portfolio Support | Reflection vs. Rationale](#)
- [Scaffolding Reflection with Adolescent and Adult Learners](#)
- [Facilitating Reflection: A Manual for Leaders and Educators. University of Vermont](#)
- [Learning and Assessing through Reflection \(PDF\)](#)
- [Instrumental and Ontological Reflection by Roy Williams](#)
- [Reflective Framework and Template](#)

## Guides for Student Portfolios

- [Clemson University](#)
- [Penn State University](#)
- [Salt Lake Community College portfolios](#)



# **Resources: Performance & Peer Assessment**

## **Performance Assessment**

- [Performance Assessment: State of the Art](#)
- [Authentic Ways to Develop Performance-Based Activities](#)
- [What is Performance Based Assessment](#)

## **Peer Assessment**

- [Peer instruction strategies](#)
- [Iowa State: Peer Assessment](#)
- [Peer review as a strategy for improving students' writing process. McGill University's Teaching and Learning Services Peer Assessment webpage](#)
- [Designing Peer Assessment Assignments: A Resource Document for Instructors \(PDF\)](#)
- [Collaborative assignments](#)
- [Structured team collaboration](#)
- [Types of feedback](#)
- [Creating discussion prompts](#)



# **Resources: Two Stage Exams & CATs**

## **Two Stage Exams**

- [Two Stage Exams](#)
- [Collaborative Testing: Evidence of Learning in a Controlled In-Class Study of Undergraduate Student](#)
- [Video: Two Stage Midterm Exam](#)
- [Examinations That Support Collaborative Learning: The Students' Perspective](#)

## **Classroom Assessment Techniques**

- [Muddiest Point Surveys](#) and other classroom assessment techniques
- [Indiana University: CATS](#)
- [Vanderbilt: CATS](#)

