

Formative Assessment Institute Day 1

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Time Frame 3 Hours

Essential Question(s)

What is the role of assessment in the design of effective learning environments?

Summary

During this introductory module, participants are introduced to foundational ideas about classroom assessment. They work to define and examine the main types of assessments and their role in a student-centered learning environment,

Learning Goals

- Identify the elements of an effective learning environment.
- Explain how they overlap using Bransford's model of knowledge-centered, student-centered, and assessment-centered environments.
- Define the different types of assessment as they relate to the purpose (diagnostic, formative, and summative).
- Construct a definition of assessment that includes the categories of diagnostic, formative, and summative assessment.

Attachments

- Diagnostic Assessment—Formative Assessment Institute Day 1.docx
- Diagnostic Assessment—Formative Assessment Institute Day 1.pdf
- Formative Assessment—Formative Assessment Institute Day 1.docx
- Formative Assessment—Formative Assessment Institute Day 1.pdf
- Note Catcher—Formative Assessment Institute Day 1.docx
- Note Catcher—Formative Assessment Institute Day 1.pdf
- Presentation Slides—Formative Assessment Institute Day 1.pptx
- Summative Assessment—Formative Assessment Institute Day 1.docx
- Summative Assessment—Formative Assessment Institute Day 1.pdf
- The Design of Learning Environments Shortened Version—Formative Assessment Institute Day 1.docx
- The Design of Learning Environments Shortened Version—Formative Assessment Institute Day 1.pdf
- True for Who Cards—Formative Assessment Institute Day 1.pptx

Materials

- Presentation Slides (attached)
- Note Catcher (attached; one per participant)
- The Design of Learning Environments (Shortened Version) (attached; one per participant)
- Diagnostic Assessment (attached; one per participant)
- Formative Assessment (attached; one per participant)
- Summative Assessment (attached; one per participant)
- True for Who? Cards (attached; one per group)
- Sticky Notes
- Pen or pencil
- Highlighters
- Chart paper
- Laptops or personal devices
- Wifi

Engage

Presenter's Note: Setting Up

Prior to beginning this session you will need to set up a few things.

1. Padlet - set up a response Padlet for your participants that will allow them to revisit at the end of the session and provide comments. Include the following question: *In your own words, how would you define assessment?*
2. Place 5 pieces of chart paper around the room labeled as follows: *community-centered, learner-centered, knowledge-centered, assessment-centered,* and *what is the role of assessment in an effective learning environment?* Ask your participants to complete **Explore #1** on sticky notes.
3. True for Who? Cards will need to be printed on card stock and laminated if possible.
4. Have handouts and materials available on the table for participants. All participants should receive a copy of the Note Catcher and The Design of Learning Environments (Shortened Version), Diagnostic Assessment,
   Formative Assessment, and
   Summative Assessment readings. Tables work best when organized into small working groups.

Welcome participants and briefly introduce yourself. Using the attached **Presentation Slides** display **slide 2** and welcome your participants to the Formative Assessment Institute.

Display **slide 3** and share with your participants that this is just day one of a four-day professional development institute covering formative assessment in the classroom.

Slides 4–6 are the GEAR UP for the FUTURE, O+K=C, and MY SUCCESS goals. Share the appropriate grant goals with your participants and hide the other two slides.

Display **slide 7** and instruct your participants to write down what they believe are the three most important purposes of formative assessment. Say: *The topic of this workshop is formative assessment. We will begin by gathering the group's current thoughts and ideas about formative assessment using a strategy called Stand Up, Sit Down. During this activity, we will generate an anchor chart that will serve as a foundation for us to generate a group definition of formative assessment.*

Display **slide 8** and share the instructional strategy, Stand Up, Sit Down with your participants. Have them all stand up and go around the room sharing just one of their purposes with the whole group. Prompt them to cross off any on their paper that someone else shares. Once all three of their purposes are crossed off they should sit back down. As your participants are sharing out, record their responses on a large anchor chart at the front of the room. Refer back to this as the occasion arises and make additions or changes as the workshop commences.

Display **slide 9** and share the following quote from John Bransford;

> New developments in the science of learning raise important questions about the design of learning environments—questions that suggest the value of rethinking what is taught, how it is taught, and how it is assessed.

Provide your participants an opportunity to share out their thoughts on this quote. Say: *In today's session, we will examine the effective design of classroom learning environments and begin to look at where assessment fits into effective learning environments. We will discuss the definition of assessment in general and then begin to narrow it down to the specifics of formative assessment. The remainder of the workshop will focus on formative assessment and how it can be used in the classroom.*

Display **slide 10**, pass out the attached **Note Catcher**, and go over the reflection questions for this with your participants. The goal of this is to get them thinking about its value in formative assessment as well as how they could use this in their own classrooms.

Display **slide 11** and share the essential question for the institute: *What is the role of assessment in the design of effective learning environments?*

Display **slide 12** and share the session objectives with your participants:

1. Identify the elements of an effective learning environment.
2. Explain how they overlap using Bransford's model of knowledge-centered, student-centered, and assessment-centered environments.
3. Define the different types of assessment as they relate to the purpose (diagnostic, formative, and summative).
4. Construct a definition of assessment that includes the categories of diagnostic, formative, and summative assessment.

Explore #1

Display **slide 13** and say: *Before we dive into assessment, we would like to talk about the environment in which learning occurs for students, and its implication for the design of instruction in the classroom. Bransford, Brown, and Cocking (2000) synthesized previous research on learning in a book called* How People Learn *and developed a model to guide the design of classroom environments. The model describes four interrelated research-based attributes of a learning environment that are necessary for optimizing student learning.*

Display **slide 14** and share the abbreviated definition for a community-centered environment.

Display **slide 15** and share the abbreviated definition for a learner-centered environment.

Display **slide 16** and share the abbreviated definition for a knowledge-centered environment.

Display **slide 17** and share the abbreviated definition for an assessment-centered environment.

Display **slide 18** and share the instructional strategy Jigsaw with your participants. Share with them that the reading, **The Design of Learning Environments (Shortened Version)**, is an excerpt from the book, *How People Learn*, and goes into more detail about Bransford's Model. Split your participants into groups of four and have each person read one section of the excerpt.

Display **slide 19** and share the instructional strategy Why-Lighting with your participants. Instruct them to highlight any information that helps them to answer the question, *What are the key elements of a _____-centered environment?* They should also provide an explanation for how it answers the question in the margins of their reading.

Display **slide 20** once your participants have completed their reading and instruct them to connect with those who read the same section. In their new groups, they should discuss key takeaways, questions they still have, things they are still curious about, and key elements of the environment.

Display **slide 21** and instruct your participants to regroup with their original partners to share what they learned from each of the sections of the reading, and how the sections help to define the learning environment.

Explain #1

Display **slide 22** and share the modified instructional strategy Three Sticky Notes. Instruct your participants to write down a word, phrase, or sentence that summarizes the information they learned about each perspective and to post their sticky notes on the poster with the correct heading.

Display **slide 23** and instruct your participants to answer the question: *How do the four types of learning environments interact with one another?*

Display **slide 25** and bring your participants' attention back to their Note Catcher. Provide them time to reflect on the assessment strategies that they have participated in up to this point and answer the question: *How was it used and how can I use it?*

Give your participants a break.

Explore #2

As your participants are coming back from their break, display **slide 26**. Say: *We have seen that assessment is one of the four most important aspects of a learning environment and that it should be integrated throughout instruction that is both student-centered and knowledge-centered within a set of community values and norms.*

Ask your participants to jot down their answer to the question: *What is assessment?* on the back of their Note Catcher.

Display **slide 27**, pass out the attached **Diagnostic Assessment**, **Formative Assessment**, and **Summative Assessment** one-pagers, and say: *We want to take some time here to look at the types of assessment that occur in an assessment-centered environment and how assessment fits into effective learning environments.* Provide your participants with a few minutes to skim over the one-pagers and then move to **slide 28** and share the purposes of each type of assessment, as defined by Page Keeley.

Explain #2

Display **slide 29** and share the instructional strategy True for Who? with your participants. Typically, this instructional strategy is used to analyze characters, but today your participants are analyzing statements about diagnostic, formative, and summative assessments and determining which assessment type is being described in the statement.

As you display **slides 30–45**, have your participants read the statement, discuss the statement with their table groups, and then hold up the appropriate, attached **True for Who? Card** that the statement is describing. As you move through the slides, the correct assessment type will appear at the bottom of the slide. If your participants do not correctly guess the assessment type, take some time to discuss it. Additionally, direct them back to their one-pagers to reference throughout the activity.

Extend

Display **slide 46** and instruct your participants to revisit their initial response to the question *What is assessment?* As they read their initial response they should consider how their definition has changed over the course of day one, and what evidence they have to uphold their definition or their revised definition. Instruct your participants to add a comment to their initial response with their revised definition.

Display **slide 47**, share the instructional strategy Affinity Process with your participants, and have them discuss their current understanding of assessment. Together they should create a group definition of assessment that includes key characteristics of diagnostic, formative, and summative assessment.

Display **slide 48** and have each group combine with another group. Together they should consolidate their two definitions into one comprehensive definition of assessment. Call on groups to share out their definitions with the whole group.

Display **slide 49** and review all of the definitions as a group and come to a consensus on a final group definition of assessment.

Display **slide 50** and bring your participants' attention back to their Note Catcher. Provide them time to reflect on the assessment strategies that they have participated in up to this point and answer the question: *How was it used and how can I use it?*

Evaluate

Display **slide 51** have your participants complete the TREK evaluation for the day, and say: *Now that we have established where assessment fits into an effective learning environment, our next three sessions will explore in-depth the definition, characteristics, and uses of formative assessment.*

Research Rationale

Analyzing the current skill level of students in a classroom at any given time and determining the best course of action for ensuring they all meet the target learning goals can be a challenge even for seasoned teachers. The idea of using formative assessment to meet the individual needs of students is not a new topic. In fact, researchers as far back as Benjamin Bloom have shown that one-to-one tutoring is the most effective form of instruction because of the tutor's ability to pinpoint misconceptions and provide immediate feedback and correctives (William, 2011). Despite continued research backing up the claims that formative assessment can enhance student success, teachers may continue to struggle in their efforts to use the full array of formative assessment practices available. The question then becomes: what can teachers do to effectively improve and enhance their use of formative assessment in the classroom environment?

Resources

- Black, P., & William, D. (1998). Inside the Black Box: Raising Standards through Classroom Assessment. *Phi Delta Kappan*, 139-48.
- Cauley, K., & McMillan, J. (2010). Formative Assessment Techniques to Support Student Motivation and Achievement. *The Clearing House, 83*(1), 1–6. http://www.jstor.org/stable/20697885
- Center for Innovative Teaching and Learning. (n.d.). *Summative and Formative Assessment*. https://citl.indiana.edu/teaching-resources/assessing-student-learning/summative-formative/index.html
- *Diagnostic and Formative Assessment*. (2021, March 26). Science Education Resource Center at Carlton College (SERC). https://serc.carleton.edu/introgeo/assessment/formative.html
- Keeley, P. (2016). *Science formative assessment: 75 practical strategies for linking assessment, instruction, and learning* (Vol. 1). Thousand Oaks, CA: Corwin.
- K20 Center. (n.d.). Affinity process. Strategies. https://learn.k20center.ou.edu/strategy/87
- K20 Center. (n.d.). Jigsaw. Strategies. https://learn.k20center.ou.edu/strategy/179
- K20 Center. (n.d.). Stand up, sit down. Strategies. https://learn.k20center.ou.edu/strategy/1771
- K20 Center. (n.d.). Three sticky notes. Strategies. https://learn.k20center.ou.edu/strategy/153
- K20 Center. (n.d.). True for who?. Strategies. https://learn.k20center.ou.edu/strategy/1586
- K20 Center. (n.d.). Why-lighting. Strategies. https://learn.k20center.ou.edu/strategy/128
- Lane, A. J. (2017, March 8). *Formative and Summative Assessment - Faculty Development*. SlideShare. https://www.slideshare.net/slideshow/formative-and-summative-assessment-faculty-development/72962232
- National Research Council. (2000). *How People Learn: Brain, Mind, Experience, and School: Expanded Edition*. Washington, DC: The National Academies Press. https://doi.org/10.17226/9853
- Pear Assessment Team. (2024, January 15). A Guide to Types of Assessment: Diagnostic, Formative, Interim, and Summative. Pear Deck Learning. https://www.peardeck.com/blog/a-guide-to-types-of-assessment-diagnostic-formative-interim-and-summative
- Summative assessment definition. (2013, August 29). The Glossary of Education Reform. https://www.edglossary.org/summative-assessment/
- William, D. (2011). What Is Assessment for Learning? *Studies in Educational Evaluation, 37*(1), 3–14. doi:https://doi.org/10.1016/j.stueduc.2011.03.001
- Wisconsin-Madison, U. (n.d.). Diagnostic assessments: Assess prior knowledge. https://courses.dcs.wisc.edu/design-teaching/PlanDesign_Fall2016/2-Online-Course-Design/3_Learning-Assessments/5_assessment_diagnostic.html
- Yale Center for Teaching and Learning. (n.d.). Formative and Summative Assessments | Poorvu Center for Teaching and Learning. https://poorvucenter.yale.edu/Formative-Summative-Assessments