

Formative Assessment

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Agenda

1. What is “formative assessment”?
1. Why do/should educators use it?
2. How can we gather and make use of formative assessment in library workshops/sessions?
1. Application – integrating formative assessment into your plans



Types of Assessment

Diagnostic Assessment – Provides information to the instructor and student on students' strengths and weaknesses, e.g., reading & writing ability, skills, and PRIOR KNOWLEDGE.



Formative Assessment – Assessment **FOR** learning; provides instructor and student with information on how they are doing (am I on the right track?) and where they can improve. Also helps teacher determine next steps (do I need to reteach anything?). On-going/constant. Can be informal or formal.

Summative Assessment – Assessment **OF** learning. Occurs at the end of a unit and tells us if the teachers' and students' goals have been met.

Formative Assessment

Formative assessment is a **process** used by teachers and students during instruction that provides feedback to adjust ongoing teaching and learning to improve students' achievement of intended instructional outcomes. (FAST-SCASS, 2006)

Any type of assessment can be used in a formative way – it is the use of the assessment that matters.

(State Collaborative on Assessment and Student Standards (SCASS) + Formative Assessment for Students and Teachers = FAST-SCASS)

Formative Assessment

According to Popham (2008) and FAST SCASS (2006):

- Formative assessment is a *process*, not any particular test or tool.
- It is used by *both teachers and students*.
- Formative assessment takes place *during instruction*.
- It provides *assessment-based feedback* to teachers and students.
- The function of this feedback is to help teachers and students make *evidence-based adjustments* that will improve students' achievement of intended curricular aims.

Why use Formative Assessment?

- Provides “just in time” feedback for the instructor – allows instructor to make adjustments to instruction as instruction occurs – this isn’t about *next time*. It’s about *now*.
- Encourages student engagement in their learning – requires students to monitor their learning (metacognition) and make changes (if needed) in how they are trying to learn.
- Our lessons always need “massaging” – takes guess work out of the question, “why did/didn’t my lesson work”?
- According to Hattie & Timperley (2007) formative assessment is the most powerful moderator of student learning

What the research says

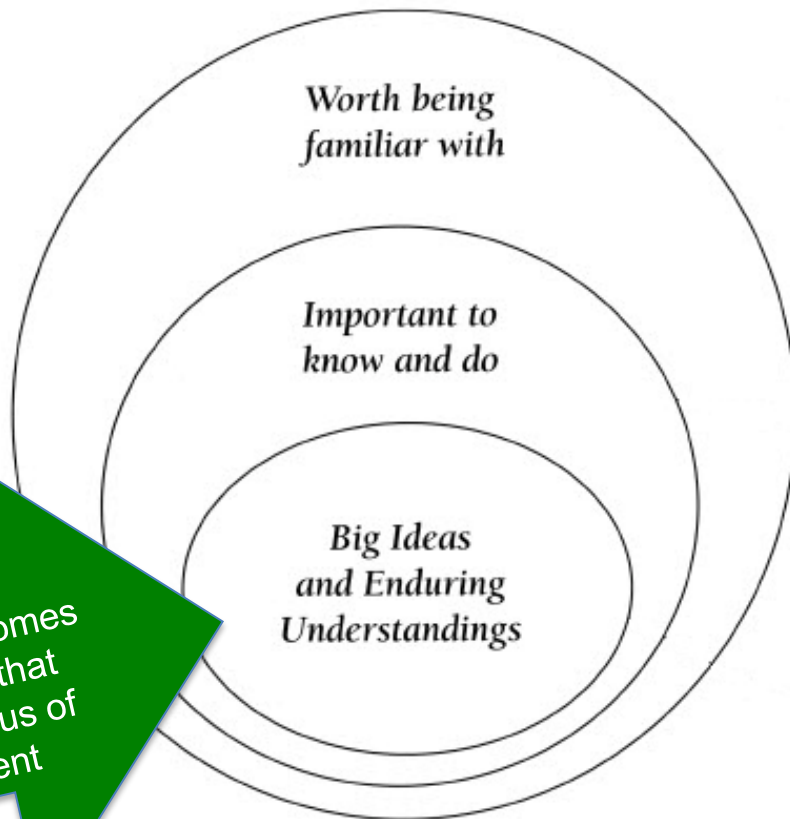
- Black & Wiliam's (1998) meta-analysis of research on "Assessment and Classroom Learning": "The research reported here shows conclusively that formative assessment does improve learning" (p. 49).
- Typical effect size: 0.4 to 0.7 (based on analysis of ~250 research reports)
- "An effect size gain of 0.7 in the recent international comparative studies in mathematics (Beaton et al. 1996) would have raised the score of a nation in the middle of the pack of 41 countries (e.g., the U.S.) to one of the top five."

(Black & Wiliam, 2010, p. 83)

Characteristics of high quality formative assessment

- Provides both teacher and student with **specific** information about student learning
- Does not include marks/grades
- Is varied and on-going
- Involves self-assessment by students – to be successful (and useful) learning goals need to be clear
- Feedback (or lesson adjustment) should help close the gap between where the student is and the learning targets
- Students have another chance to demonstrate their learning

How do we gather & use formative assessment?



Use Understanding By Design to determine priorities for assessment:

- Identify goals
- Develop clear and specific learning objectives/outcomes
- **Determine acceptable evidence of learning**
- Design effective learning activities

How do we gather & use formative assessment?

- Need to build time for formative assessment into our sessions
- Need a wide variety of strategies
- Asking questions is ok but only provides limited information (insufficient wait-time, students don't bother trying to answer, same few students answer repeatedly) – not getting full picture

Formative assessment can be gathered...

- formally or informally
- during observations or as you interact with students
- through open-ended or closed prompts or questions
- through oral responses, written or drawn responses
- during teacher- or student-initiated interactions
- during large group, small group, or individual lessons

Formative Assessment Strategies

- **Thumbs-up, thumbs-middle, thumbs-down** – good for a quick check to see if students are following along (web searches, processes, etc.)
- **Exit slips (ticket out the door)** – Good if you have students more than once. Students write a short answer to a question related to the learning goal and hand in their “exit slip” or “ticket” to you as they leave. Quickly sort through exit slips into 3 piles: they get it, sort of, not at all – you’ll know what to do next
- **Modified Exit Slips** –
 - Use a Twitter hashtag & a back channel tool to gather students’ input during lesson
 - Use a Google form to gather student input during lesson (anonymous)
- **Student checklists & rubrics**– Give students a checklist or rubric related to major learning goals and have them self-assess



Formative Assessment Strategies

- **Process reflections** – Students write reflections that describe the process they used to create artifacts/understandings that will influence the way they approach the task in the future
- **Observations & Conversations** – Listen carefully to how students are using terms and procedures
- **Concept maps** – individual, pairs, or whole class (on the board) – students “map” their thinking about the topic/lesson
- **Chalkboard/Doc splash** – Students respond on the board (in a Google doc?) at the same time to a prompt/question
- **Demonstrations** – Have students show what they know and/or where they are getting stuck



Formative Assessment Strategies

- **One sentence summaries** – Give students time to think about their response so that they can demonstrate depth of learning. Can be done digitally via Google docs.
- **Fist of Five** – Students show 1 finger if their understanding is unclear or weak, more fingers as they feel more confident about their understanding of the topic/lesson
- **Four corners** – Good to determine preferences, e.g., strongly agree, agree, disagree, strongly disagree. Students move to chosen corner based on a statement you read out. Have 1-2 students explain why they chose a particular corner. (Can label corners with whatever you want – could use corners to assign groups, for example).
- **Graffiti wall** – use chart paper or white board to invite students to write down (a) what they've learned or (b) questions they still have about a topic



Formative Assessment Strategies

- **Multiple Graffiti wall** – use chart paper or white board to invite students to write down (a) what they've learned or (b) questions they still have about various topics
- **Graphic organizers** – many, many types of graphic organizers (trees, charts, Venn Diagrams, etc.) – provide a visual representation of student learning
- **Individual white boards** – use these instead of paper-based tools – students can hold these up for a quick scan by the instructor (individual, pair, group)
- **Think, Pair, Share** – Give students a prompt and give students a minute to think individually about the topic, then pair with someone, then share their ideas. Can gather responses as a whole class as well.



Formative Assessment Strategies

- **Examples/non-examples** – good for conceptual learning. Ask students to generate examples and non-examples of the concept being taught. Can be done individually, in pairs, in small or large groups.
- **Placemat** – Give a group of students large piece of paper with a question/topic written in the middle. Student divide up the paper and write (at the same time) their ideas on the edges of the paper. Then students analyze their responses and come up with 2-3 main points, which are written in the middle of the placemat.
- **Response cards/Traffic Light cards** – Prepare enough cards for each student in advance. Cards can say “yes/no” or have different smiley faces on them, or can be “red, yellow, green.” As you ask questions or have students do tasks, have them hold up the card that reflects their learning/understanding.



Formative Assessment Strategies

- **KWL? chart** – Divide paper into 4 columns – What I KNOW, What I WANT TO KNOW, What I LEARNED, What I still WONDER about – can use this at beginning, middle, and end of lesson
- **Screen-grabs/photos** – Have students do a screen-grab or take a photo of their work and show it to you/insert it into a Google folder that you can see and/or display on the big screen
- **Partner quizzes** – Students quiz each other on the topic at hand. Provide sample questions (on board/screen) or have students generate questions
- **Draw it!**– Students draw a visual representation of what they've learned (good for processes, relationship between ideas/concepts, etc.)



How do we use formative assessment?

- Using formative feedback – need to learn to be responsive “on the fly”
- Ask three questions: What do you see?; What do you make of it?; What will you do about it? (NCTE, 2013)
- **Re-teach:** Don't just repeat what you already said. Need to explain ideas/process/concepts in new ways. Slow down. Check again for understanding.
- Provide new **examples:** You may not need to re-teach everything. Sometimes a few new examples can help. Can ask students for examples too.
- **Reduce:** You may need to reduce the amount you are teaching. Don't try to squeeze it all in, especially if students aren't getting it. Pressing on won't help.

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