


8 Quick Checks for Understanding

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Formative Assessment

Formative assessment is a proven technique for improving student learning, and the strategies shared here by Jay McTighe work both in the classroom and remotely.

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Using formative assessments designed to check for understanding and provide students with feedback and support is one of the most effective ways to improve and enhance student learning. Yet because of the need to cover large amounts of information and develop many skills, teachers may not take time checking to make sure students understand a concept or can effectively apply a skill, and, if they don't, figuring out ways to improve their learning.

Thankfully, there are practical, proven formative assessment techniques that teachers can use as a quick “pulse check” to gauge students’ understanding. The eight techniques here can be applied across grades and subject areas in virtual, hybrid, and in-person learning environments.

The results of these checks should not be graded since the purpose of formative assessment techniques is to obtain feedback to use in improving teaching and learning, not to evaluate learning. It's important that students understand the purposes of these techniques, that mistakes are OK—and even expected—and that they will not be graded on their responses.

1. Signal It

Ask students to display a designated hand signal to indicate their degree of confidence in their understanding of a concept, principle, or process. For example:

- **Thumbs up:** I understand _____ and can explain it in my own words.
- **Wave hand:** I'm not completely sure about _____ and doubt I could explain it.
- **Thumbs down:** I don't yet understand _____ and cannot explain it.

Self-assessment and self-reporting can be unreliable, so use a random calling technique to periodically select students with their thumbs up (e.g., pull names out of a bowl) and ask them to explain.

In virtual learning environments, students can signal on camera or post designated emojis to signal their understanding levels.

video

2. Choose It

Present students with a few binary-choice statements or questions containing an understanding or a common misconception and have them select a response (e.g., True or False, Agree or Disagree) and share it via a whiteboard, cell phone app, or hand signal (e.g., thumbs up or down). This efficient technique is particularly effective to use in checking students' prior knowledge or potential misconceptions before beginning new instruction.

Here are a couple of “choosing” formats with examples:

- True/False: When dropped from the same height, a bowling ball will land before a marble.
- Agree/Disagree: Is this an example of alliteration?

In virtual learning environments, students can use the chat box feature to record their choices, or respond to a poll.

3. Picture It

Visual representations, such as graphic organizers and concept maps, are widely used to enhance learning, and can also be used as formative assessments. Have students create a visual or symbolic representation (e.g., a graphic organizer, web, or concept map) of information and abstract concepts and then be prepared to explain their graphic. Picturing techniques are especially useful to see if students understand how various concepts or elements of a process are related.

Examples:

- Draw a visual web of factors affecting plant growth.
- Develop a concept map to illustrate how a bill becomes a law.
- Create a story map or sequence diagram showing the major events in the story.

In virtual learning environments, students can post their visuals on a Google slide or Pinterest board, or in Nearpod or Jamboard.

video

4. Troubleshoot It

One of the most efficient and effective quick checks for understanding involves troubleshooting. Present students with a common misconception or a frequent procedural error. See if they can:

1. Identify the flaw or error, and (even better)
2. Correct it.

Their responses will provide a quick check of the depth of their understanding.

Examples:

- Present a rough draft of writing and ask students to serve as an editor to mark compositional and grammatical errors.
- Have students review work on a multistep word problem to identify computational mistakes and reasoning errors, and correct them.
- In a photography class, show photos reflecting common compositional errors or flawed exposure or lighting, and have students recommend needed corrections using photo editing software.

5. Summarize It

Having students regularly summarize what they are learning is not only an effective means of helping them increase comprehension and retention of new material, it can also provide teachers with insight into whether students are really grasping important ideas.

Here are a few examples of this technique:

- Compose a tweet in 280 characters or less answering the question: What is the big idea that you have learned about _____?

- Record a one-minute podcast or vodcast using an app on a smartphone or tablet to summarize the key concepts from one or more lessons.
- Prepare a weekly letter to your teacher (or parents) summarizing something that you now understand as a result of your learning during the past week.

Khan Academy has helpful videos on summarizing nonfiction texts and fiction texts.

6. Apply It

Understanding is revealed when students can transfer their learning to new situations. Accordingly, one of the best checks for understanding is to see if students can apply material in a somewhat novel context. This technique includes asking students to find or create new and novel examples to illustrate a newly learned concept.

Here are some examples:

- Create a “real life” word problem to see if other students understand how to calculate surface area.
- Locate a news article or blog post that presents an example of the tension between individual rights and the common good.
- Find examples of symmetry somewhere in our school or on the playground.

7. Teach It

This is a more involved, but valuable, formative assessment technique. Ask students to teach a new concept or skill to someone else—a new student, a student who has just returned from absence, or a younger child. You’ll be able to gauge their degree of understanding as you review or observe their lesson. Here are two examples:

- Develop a five-minute lesson to teach a younger student about how supply and demand can affect the price of things. Use one or more specific examples that we have not discussed.
- Your friend has been absent and missed the last two lessons where you learned about community helpers. Draw a picture of at least five helpers in our community to help them understand the concept of a community helper.

In virtual learning environments, students can record a lesson using a laptop, tablet, or cell phone camera.

8. Analogize It

A more sophisticated technique invites students to develop an analogy or metaphor to illustrate a newly learned concept or skill. The effectiveness of their explanatory analogy or metaphor can give you insight into their understanding. However, be cautious when interpreting student responses to this technique—a student may very well understand a concept but be unable to generate an appropriate analogy. Asking students to explain their analogies will give you further insight into their understanding.

Here's a prompt for students: A _____ is like a _____ because _____.

Examples:

- A fraction is a part of a whole like a wheel is a part of a bicycle.
- Formative assessment is like tasting a meal while you're cooking because it provides feedback that a cook can use to make adjustments to improve the meal.

Students can also create visual analogies (combining techniques 3 and 8). In virtual learning environments, students can post their analogies and metaphors in a chat box or on a Google slide or Pinterest board.

Note: Several of these techniques (especially 1, 2, 5, and 8) can be naturally used in conjunction with another popular formative assessment technique—an exit card—given to students at the end of a class period or end of the school day.

While these techniques can provide valuable information about the effectiveness of teaching and the quality of students' learning, they're not ends in themselves. Instead, they should be seen as the first step in a "feedback cycle." The next step is to act on that feedback—reteaching something that many students failed to learn; correcting misconceptions that may be revealed; and/or providing scaffolded support to students who need it. Moreover, when students are given feedback, they must also be given opportunities to use it, such as revising their work, practicing the skill, or correcting errors. (Getting feedback without a chance to use it is like eating without digesting!) Then, the formative assessment cycle reboots as revisions can be assessed again, with progress noted and new learning goals set.