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Checking for Understanding

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Research shows that checking for understanding is perhaps one of the most important components of a teaching sequence. Most teachers provide instruction on a topic and follow up with some questions. On a good day, 4–5 students may volunteer and respond with the correct answers. The teacher then assumes that the majority of the class understands the concept and can handle a homework assignment. The teacher then moves on to the next topic.

The problem with this scenario is what the teacher concludes about the level of understanding within the class. Students who raise their hands are often more confident, verbal, or simply have better study habits. Many times, students who do not fully understand are reluctant to speak. Regardless, it is very difficult to informally assess the learning of an *entire* class based on the responses of only a *few*.

A variety of formative assessment strategies give teachers a better way to gauge the level of understanding within a class. For example, a teacher can ask students to answer several questions or do some problems displayed on a digital whiteboard. Then the teacher can collect students' work and quickly see who gets it, who needs more practice, and who has no clue.

Checking for understanding is *vital* to facilitate true learning. When students are still unclear, confused, or misunderstanding, and are then assigned independent practice via a homework assignment, there is a greater risk that they'll practice incorrect learning. Checking for student understanding can prevent this complication. Below are several strategies that instructors can use to check for student understanding, all of which have the added benefit of increasing student engagement.

Index cards. Have students prepare index cards of answer choices. For example, in a math lesson on using the correct operation to solve a problem, the teacher can read a problem and then students hold up the appropriate card associated with the correct operation.

Real-time student response applications. Students can use their smartphones, tablet devices, or computers to quickly answer prepared questions about the concept that's being taught. The chosen technology then collects and displays answers in real-time so that the instructor can analyze and assess student learning. There are many free versions of these applications, and some can be customized to look like games. Some recommendations include: Nearpod, Socrative, Padlet, Kahoot, and EduCreations.

Four corners. The teacher sets up answers to prompts in four corners of the room. This technique works well when the question requires students to make a judgment. For example, "Do you think

the character is an angry Scrooge or tender-hearted?" Students physically move to the corner with their chosen answer, but then must justify their response to fellow students in the class.

On the line. Similar to four corners, the instructor establishes an imaginary line that spans the room. The teacher makes a series of statements and students decide if they agree, disagree, or are neutral. Students then physically walk to the side of the room or point on the line according to their agreement or preference. For instance, a teacher could pose the question, "Which is more important in chemistry, a chemical reaction or a physical one?"

Admit/exit slips. At the beginning of a class session, ask students to write a sentence describing something they know about the topic about to be covered in class. They should write this on the "admit side" of the ticket. At the end of class, ask students to write down a summary of the topic or something about it they want clarified. They record this response on the "exit side" of the ticket. This gives the teacher an idea as to the prior knowledge students have on a topic, shows their level of understanding after the lesson, and provides insight into what needs to be retaught.

Jumbled summary. Write key words or phrases from an explanation or introduction in random order on the board. After the material has been presented in class, ask pairs of students to unscramble the terms and put them in a logical sequence as a knowledge check. This approach works well with math processes, a sequence of historical events, events in a piece of literature, or a series of observations/analysis in a scientific lab.

Art as a metaphor. The instructor provides a variety of artwork, photographs, images, or other symbolic representations. Students choose a visual image to compare to a specific concept. For instance, if a student chose a picture of a lighthouse, he or she might describe how it represents the teaching/learning process, or how the lighthouse operates like a human cell, a system, a historical concept, etc.

Strategies like these get everyone participating and that gives the teacher a much more accurate understanding about the learning that is or isn't taking place in the course.

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