



What are the key components of formative assessment?

+Formative Assessment Strategies

Teacher as Coach: Formative Assessment Strategies

There are several key components of formative assessment, all of which are important for formative assessment to be truly effective.

Help your students understand the learning goals

Communicating the learning goal and success criteria to students is essential. Often students know the learning goal but have no idea as to what criteria the teacher will use to determine if the students have achieved to learning goal. Students must know both.

- One strategy for communicating both the learning intention and the success criteria is to use exemplars. These demonstrate to students what success looks like and what the goal could be for their own learning.

What are the qualities of a "Great Strategy"?

It is reliable.

- *It works every time.*

It is efficient.

- *I can find the answer quickly.*

I understand it.

- *It makes sense to me.*

- Teachers and students could work together to create a list of the qualities of a good strategy or good problem solving communication. Students are encouraged to refer back to the list often.

Plan discussions and activities that will give you on-going evidence about your students' learning

For the grade 3 outcome: "Describe and apply mental mathematics strategies for adding two 2-digit numerals" the following strategies may provide information about student understanding:

- Use all response boards / mini whiteboards: Provide questions to students in which they have to add two 2-digit numerals. Eg. $27 + 24 = ?$ Students are to record the answer on their all response boards and when called upon to "show your answers" hold up the boards so the teacher can see the responses. Have students turn to a partner and share their strategy and then ask one or two students to share with the class how they arrived at their answer. Pose the question, "Did anyone do it another way?" Repeat. Make note of which students are able to get the correct sum by doing mental math, which students can explain their thinking, and which students struggle to find the answer mentally. Use this information to inform next steps in instruction. Note: you are assessing both the skill of adding and the process of communication.
- The biggest idea: At the end of a lesson ask students to describe the most important ideas that they took away from the day's lesson. "Today we learned how to use or estimation skills to predict what the answer to our addition question might be. What ideas in today's lesson helped you to understand how to estimate?"
- You could add one more question, "What do you still wonder about in terms of estimating your answers?"
- Hinge Questions: Hinge questions are questions that are used during the lesson to check for understanding of key ideas. They are called hinge questions because the lesson hinges on this point. If students don't understand the big idea, you must go back; if students understand it, you move forward. Hinge questions are diagnostic and should focus on key ideas and common misconceptions.

A possible hinge questions for this outcome might be:

- In the numeral 55, do the two 5's have the same value ? (Students must recognize that the value of each digit depends on its place value.)
- Write the number that can be represented with 4 tens and 13 ones. (students can describe a given numeral in at least two different ways)
- Multiple choice questions often form good hinge questions especially when the incorrect responses reflect common errors students may make.

Note : the achievement indicators may help you identify topics for hinge questions.

Provide opportunities for practice and feedback

The power of effective feedback is well documented. (Ruth Butler, 1988; Elawar and Corno, 1985; Dweck, 2006). Hattie tells us when he completed the first synthesis of all possible influences on achievement; it soon became clear that feedback was among the most powerful influences on achievement (Hattie, 1992). However, not all feedback has the power to move learning forward. Feedback that focuses on what was deficient in the work does not inspire students, in general, to work harder to improve their performance. Feedback that focused on the learning goals indicates what the students did well, what they need to work on and what the next steps are for them to be successful can have a significant positive impact on student learning. It is important that students receive the feedback while the learning is still happening, and that the teacher gives them time to use the feedback to make adjustments.

The following strategy is useful in providing feedback to students that tells them what they are doing well and what they need to do next to move towards their learning goal:

- Three questions: As the teacher reviews a students' work and sees something they would like the student to consider, they put a number in a circle at that point in the assignment. Underneath the work, the teacher writes a question related to this point in the work and leaves space for the student to respond. Repeat two more times. This technique ensures the student reads the question posed by the teacher and then responds to the question. "The important feature of this technique is that no matter how bad or good your work was, everyone has the same amount of work to do" as a result of getting feedback from the teacher. (Wiliam, 2011, pg. 129)

Create ways for students to support one another

It is important for the teacher to recognize that he/she is not the only source of "teaching" and "feedback" in the classroom. There is ample evidence to show that collaborative and cooperative learning can have a profound effect on student learning. Furthermore, the effect of peer tutoring can be almost as strong as one-to-one instruction from a teacher (Schacter, 2000). There are many possibilities for involving students as resources for one another, including collaborative work, peer feedback conversations, and comparing answers on practice exercises.

When students assess their peers' work against criteria of success they not only learn how to analyze the work of others but they internalize the criteria and reflect upon how it applies to their own work.

It is vital that teachers model the process of peer feedback before engaging students in providing feedback on the work of others. The first step is to ensure that students are clear on the criteria for success. Exemplars are very useful in helping students understand this criteria. The teacher should model the process of giving feedback using exemplars created by students outside the class before students are given the opportunity to give feedback on a peers work.

Before students are able to provide feedback to peers they must first clearly understand the qualities of good work/criteria for success. Exemplars and rubrics designed by the class help to do this. The following strategies can be used to develop student's skills in providing clear, concise and useful feedback to their peers:

- Two Stars and a Wish: a student reviews the work of a partner and provides feedback, connected to established criteria, that includes two things the student did well and one thing they "wish" their partner had done/included in their work.
- Row Game: Students are given a sheet of questions that have been arranged in two columns. Student A completes the first column of questions while Student B completes the second column. When both students are finished, they compare answers. Although the questions are different, the answers to the questions in each row are the same. When students have different answers they discuss the questions to determine which answer is correct. This helps students identify mistakes in their own work and provides opportunities to clarify understandings.

Example:

What is the answer? How do you know?

Student A	Student B
$38 + 17 = ?$	$24 + 31 = ?$
$25 + 66 = ?$	$79 + 12 = ?$
$54 + 19 = ?$	$41 + 32 = ?$
$38 + 28 = ?$	$5 + 58 = ?$

Students, in addition to explaining how they got their answers, can tell they have the correct solutions if their answers match. And if you look at the questions a little closer, you may notice that the ones on the right tend to be a little more straightforward to answer, meaning that the activity can easily be differentiated for students at different levels.

- See Three Before Me: This strategy is particularly useful when you are working with a student(s) and another student needs help. It reinforces the idea that there is more than one "teacher" in the room and peers can be useful sources of help. Teachers ask students to see three of their peers for help before they ask the teacher for help. Again, the effect of peer tutoring can be almost as strong as one-to-one instruction from a teacher so we should provide opportunities for this to happen.

Encourage students to become owners of their own learning

Getting students more involved in goal setting, monitoring their own work and self-assessment can produce extraordinary improvements in achievement. (Loche and Latham, 1990, p.23) Feedback is most powerful when it is from the student to the teacher and focuses on what the student knows, where they make errors, what their misconceptions are and when they are not engaged. (Hattie, 2009, p.173).

Our goal is to have students who can critically reflect on their own work and identify what to do next to move their learning forward. This is a complex skill, and students need extensive modelling, time to practice, and feedback on how they're doing with their reflections and goal setting. Like feedback, self-reflection will have the greatest impact if it takes place during the learning rather than at the end, and if students are given opportunities to take action based on their reflections.

The following strategies may be useful in activating students as owners of their own learning:

- Posing questions: One hour students spend devising questions about what they have been learning with correct solutions is more effective than one hour spent completing practice tests (Foos et al., 1994) (Leahy and Wiliam, 2015, p. 86). When students create questions about what they have been learning, they reveal what they think they have been learning. This process is a good opportunity for students to reflect on their own learning and for the teacher to gain insights into their understanding.
- I used to think but now I know: Student compare what their understanding was at the beginning of the lesson/unit with what they now know. This helps students focus on how their understanding changed as a result of their learning experiences. When students share their response with the teacher, he/she gains insights to student learning.

The value of self-assessment is students have a better idea of where they are at, where they are going and what it will look like when they get there in terms of their own learning.

