

Address Learning Loss:

Formative Assessment Tools Aid in Remote Learning

AUTHOR
Susan M. Brookhart
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Students who are involved in their own assessment are more active, engaged learners—exactly the qualities needed for students to be successful during distance learning.

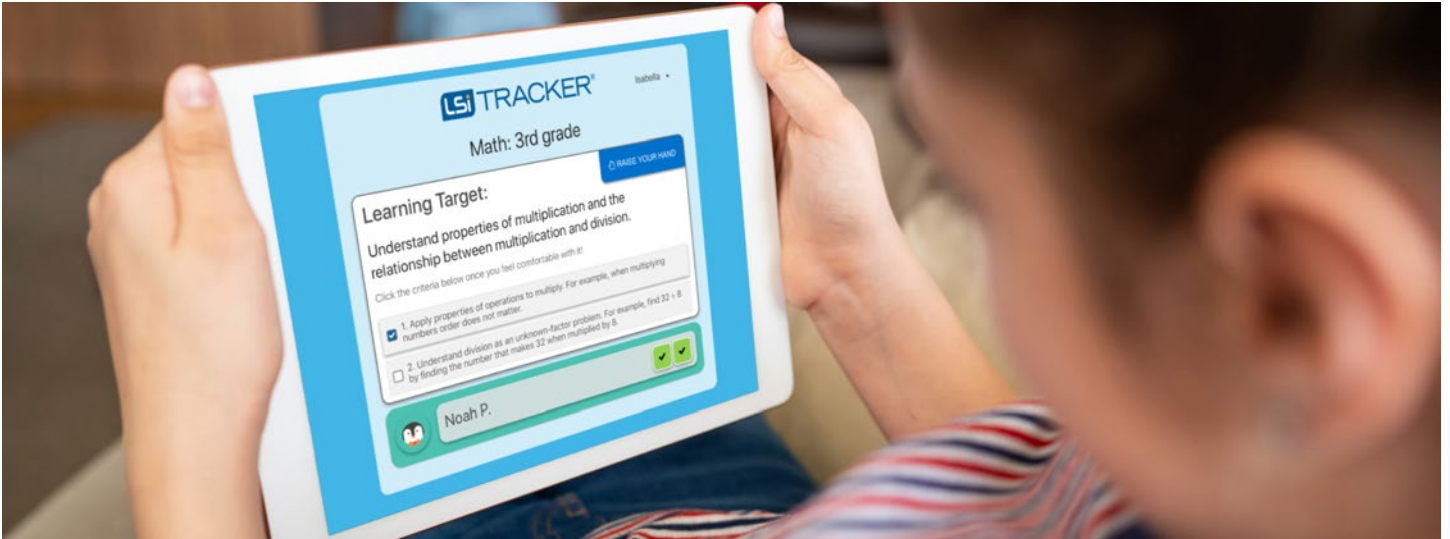


About The Author: **Susan Brookhart**

Susan M. Brookhart, PhD, is Professor Emerita in the Duquesne University School of Education and an independent educational consultant. She is author or co-author of 20 books and more than 80 articles and book chapters on classroom assessment, teacher professional development, and evaluation.

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What is classroom formative assessment?

Classroom formative assessment is students' and teachers' appraisal of progress toward learning goals that happens during the course of learning.

How does classroom formative assessment help teachers and students?

Classroom formative assessment practices help both teachers and students use evidence about student learning to take next steps.

Teachers use formative assessment information to:

- Affirm they should continue with planned instruction if the evidence shows students are ready
- Adjust instruction if needed

Students use formative assessment information to:

- Get insights into their progress toward learning goals
- Often, experience “aha” moments about the material under study
- Adjust approaches to their work or revise their work and review concepts on which they need extra work
- Seek assistance from peers to further their learning

It is especially important that educators understand how classroom formative assessment works so they can use it to [address COVID-19 learning gaps](#).

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What are the two key elements of assessments?

Any assessment includes both a process and tools. Both must be of high quality (Bennett, 2011).

In classroom formative assessment, the process for eliciting, interpreting, and using evidence is embedded in classroom lessons.

Tools can be designed to gather evidence with more and less formal methods and over a range of time periods.

For example, a teacher might interpret students' answers to an oral discussion question (the tool) to ascertain their level of understanding of a concept in the moment, during the discussion (the process). Or a teacher might design a brief ungraded quiz (the tool) to check for understanding after a series of two or three lessons (the process).

The research behind classroom formative assessment

What does it mean for students to be engaged in their own learning and assessment?

Engagement in learning means more than students being busy. And as distance learning continues in many districts throughout the

2020-21 school year, figuring out how to truly engage students in virtual learning is crucial.

Students who are engaged in their learning ask three questions: **Where am I going? Where am I now? Where to next?** (Hattie & Timperley, 2007).

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These questions are sometimes called the **formative learning cycle**. Educational psychologists call this process of using cognitive, affective, and behavioral strategies in pursuit of a personal learning goal the self-regulation of learning (Zimmerman & Schunk, 2011).

Students who approach their learning in this way may look like they are doing the same things as students who are merely complying with teachers' directions, but from a learning perspective the two are entirely different.

Student engagement in their own assessment is not a new idea (Stiggins & Chappuis, 2005). Calls for students to be more involved in their own assessment have been ongoing since at least the 1990s, stemming in part from advances in learning theory and in part from the standards movement that called for students to be able to apply their learning.

Classroom formative assessment is the place where student involvement in assessment can be the most direct and have the most impact because it is part of the learning process.

How does classroom formative assessment affect student learning? One strategy that magnifies results.

A recent review of 33 studies of formative assessment in K-12 education in the United States found a positive effect on learning.

The review found an effect size of **.29** (Lee et al., 2020), which means a student who scored at the 50th percentile in the control group would have been at the 61st percentile in the formative assessment group. This effect size is about the same as reported in previous reviews, as well (Kingston & Nash, 2011; Klute et al., 2017).

However—and according to Lee and colleagues the most important finding from the study—formative assessment interventions were most effective when they focused on **student-initiated self-assessment** (Lee et al., 2020).

The effect size for student-initiated self-assessment strategies specifically was **.61**, the equivalent of moving from the 50th percentile to the 73rd percentile.

When learners were active in their own assessment using self-assessment strategies, formative assessment was most effective. The authors went on to interpret their findings according to the principles you have already read in this blog – namely, that student-initiated self-assessment fits with what we know about how students learn.

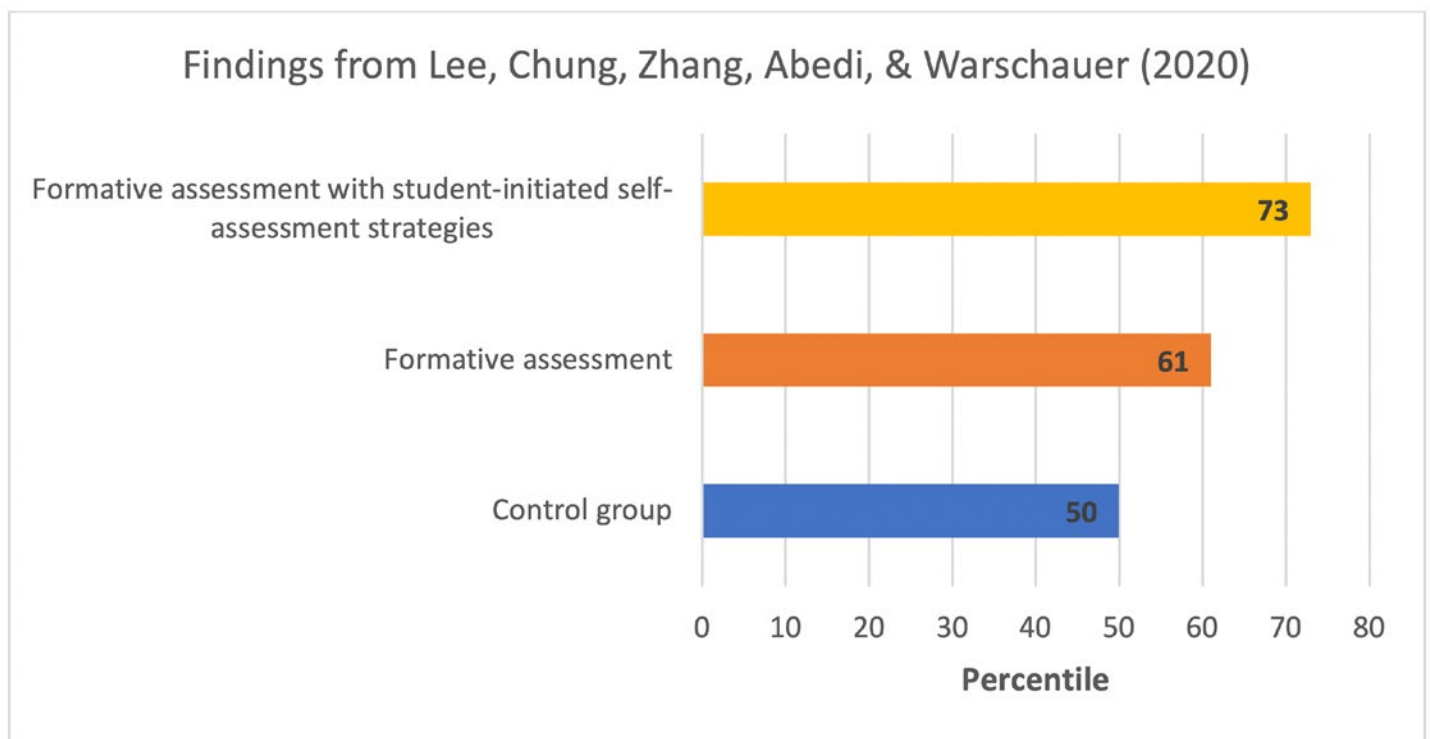


Figure 1. A review by Lee, Chung, Zhang, Abedi, & Warschauer (2020) found that a student who scored at the 50th percentile in the control group would have been at the 61st percentile in the formative assessment group, and at the 73rd percentile in the student-initiated self-assessment group.

Why is classroom formative assessment particularly important during distance learning?

Classroom formative assessment addresses several known problems with distance learning, especially when it incorporates student-initiated self-assessment.

1. It helps **avoid a “get-it-done” mentality** that remote learning can foster. The author knows one student who proudly told her parents she was finished with her daily assignments by 7:30 in the morning!
2. Classroom formative assessment **counters the lack of engagement** that can happen with too much computer time.
3. It helps address some issues of **equity and access** by providing information both students and teachers can use to personalize and differentiate learning.

for self-assessment and other types of feedback, it is easy for distance learning to turn into a sort of “check-box” approach where students perceive the goal is to “get done” a set of assignments, not necessarily to learn.

Classroom formative assessment practices address this problem directly. Learning goals and criteria should be shared and used in every learning activity, whether the learning is carried out via document, video, slide presentation, conference, or chat.

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How do you use classroom formative assessment to counteract remote learning issues?

1. Provide clear learning goals and criteria

Most online learning platforms are designed to emphasize what students are required to do, not what they are supposed to learn.

Without attention to providing students clear learning goals and criteria and opportunities

2. Promote student agency

Complaints students raise about remote learning include too much computer time, lack of interaction with peers, and too much homework (The Learning Network, 2020).

As we have seen, classroom formative assessment engages students in an intentional learning process and provides the means for self-assessment, thereby increasing

students' engagement, agency, and control over their own learning.

Increased levels of engagement in learning should help counteract those feelings of distance learning as boring computer time.

Classroom formative assessment engages students in an intentional learning process, thereby increasing students' engagement, agency, and control over their own learning.

3. Personalize and differentiate learning

Equity and access are known issues for distance learning (Anderson & Perrin, 2018). This makes differentiation and progress monitoring during remote learning particularly tough, but also particularly important.

Classroom formative assessment can provide teachers and students information they need to personalize and differentiate learning. In fact, remote learning may be a particularly good platform for differentiation because it offers many ways to differentiate learning not easily available in face-to-face learning.

For example, during distance learning teachers can offer differentiated feedback, repeated viewing of slides or videos, individual chats not in view of other students, and so on.

Distance learning offers some personalization options not as easily available in face-to-face classrooms. Teachers can offer differentiated feedback, repeated viewing of slides or videos, or individual chats not in view of other students.

LSI Student Evidence Tracker

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5 practical strategies for classroom formative assessment

Classroom formative assessment strategies include the following five core strategies, which will be explored in more depth in charts and examples below:

1. Clarifying learning goals and criteria for success
2. Feedback from teacher, self, and peers
3. Opportunities to use the feedback
4. Teacher and student questioning strategies
5. Students tracking their own progress

The learning and assessment principles behind these strategies are robust, no matter whether classroom learning is conducted face-to-face, at a distance, or via a hybrid model. The tools behind the strategies can be adapted for the mode of learning.

For example, for distance learning a face-to-face classroom discussion may be replaced with a discussion facilitated using an online conferencing app. That changes the way the discussion is conducted, but it doesn't change the fact that much evidence of learning can be gleaned from listening to students responding to each other's thinking.

The section below shows some common processes and tools used in face-to-face and distance learning for each of the five strategies. There are many others.

The hope is that the charts include enough ideas to get you started—for more details, check out one of these books: Chappuis, 2015; Moss & Brookhart, 2019; [William & Leahy, 2015](#).

Classroom formative assessment should be used to engage students in their learning no matter what the context or mode of instruction.

Classroom formative assessment should be used to engage students in their learning no matter whether it is conducted face-to-face, at a distance, or via a hybrid model.

Formative assessment tools for assessment during distance learning – using the 5 strategies

1. Clarifying learning goals and criteria for success

All formative assessment strategies are based on **clarifying learning goals and criteria for success**.

“Criteria” in this sense means the qualities or indicators students or teachers will use

Examples of Clarifying Learning Goals and Criteria for Success	
Process	Tools
Share learning targets	<ul style="list-style-type: none"> • Written statement on board or in document, slides, or app • Oral statement on video or online conference • Student learning journals • Modeling or demonstration in video or online conference • Use the language of the learning target during the lesson • KWL charts (“What I Know,” “What I Want to Know,” and “What I Learned”) • Review of sample student work
Share criteria for success	<ul style="list-style-type: none"> • Rubrics • Checklists • Review of sample student work
Co-create criteria for success	<ul style="list-style-type: none"> • Review of sample student work

to determine how students are progressing toward those learning goals. When students understand their learning goals and criteria and use them in self-assessment, both learning and motivation increase (McMillan & Hearn, 2008).

Students who know where they are going will more easily be able to engage in their own learning, monitoring and adjusting their thinking as they go. As we have seen, this kind of engagement is especially important during distance learning.

The chart above summarizes some common ways to clarify learning targets and criteria for success in the context of face-to-face and distance learning.

2. Feedback from teacher, self, and peers

Feedback from teacher, self, and peers is at the heart of the formative learning cycle. Computers can also be programmed to give feedback to students, although that does not substitute for feedback from persons (Graham et al., 2015).

Feedback helps students get a clearer picture of their learning goal, get a sense of how they are progressing, and get ideas on how they can continue to close the gap until the goal is attained.

Research suggests that for most learning goals, elaborated feedback that describes students’ work against goals and criteria, rather than simply scoring or grading it, is most effective for learning (Van der Klein et al., 2015).

Examples of Feedback from Teacher, Self, and Peers	
Process	Tools
Teacher feedback on student work	<ul style="list-style-type: none"> • Oral comments via video or online conference (based on criteria) • Written comments in/on document (based on criteria)
Student self-assessment	<ul style="list-style-type: none"> • Rubrics • Self-assessment forms or reflection sheets (on paper or online) • Exit or entrance tickets (on paper or online)
Peer feedback	<ul style="list-style-type: none"> • Rubrics • Peer feedback forms (on paper or online), e.g. “Two stars and a wish”

3. Opportunities to use the feedback

Feedback does not affect learning unless students have an opportunity to use it to improve their work or focus their studying. Providing students **opportunities to use feedback** can be seen as an example of the broader issues of opportunity to learn (Elliott & Bartlett, 2016) and equity.

The quality of student engagement with feedback is critical and can be maximized under three conditions (Jonsson & Panadero, 2018).

- First, students need to perceive that the feedback is useful to them.
- Second, students need to be not only given opportunities but also taught strategies for how to use their feedback.
- Third, feedback should be delivered without a grade.

Examples of Opportunities to Use Feedback	
Process	Tools
Revision and resubmission of work	<ul style="list-style-type: none"> • Depends on the nature of the work: document, video, online discussion, bulletin board software • Explanation form to describe what was changed and/or what was learned

Examples of Teacher and Student Questioning Strategies	
Process	Tools
Teacher strategic questioning	<ul style="list-style-type: none"> Planned questions, with more open questions than closed questions Use wait time Think-pair-share, elbow partners, etc. Respond to students' thinking rather than evaluating their correctness Respond to students' thinking with a further question
Student strategic questioning	<ul style="list-style-type: none"> Question starters, question strips, etc. Pre-discussion tools (e.g. SQ3R) Group formats that include Questioner roles (e.g. Reciprocal Teaching)
Peer feedback	<ul style="list-style-type: none"> Rubrics Peer feedback forms (on paper or online), e.g. "Two stars and a wish"

4. Teacher and student questioning strategies

Teacher and student questioning strategies produce windows into student thinking. As students answer questions and respond to the teacher and one another, they make their understanding visible.

This evidence of student thinking can then be interpreted as evidence of learning. Teacher pedagogical questioning is a key resource for teachers in finding out students' current understanding and deciding on next instructional moves (Heritage & Heritage, 2013).

Teacher questioning should go deeper than quizzing students with questions that have right/wrong answers. Classroom discourse, based on open questions that showcase student thinking, helps students learn to think and express themselves in a discipline

(Forman et al., 2017).

Student questioning helps students to process their thinking and offers evidence of understanding. In addition, student questioning facilitates social interaction, an important component of learning.

5. Students tracking their own progress

Students keeping track of their own progress is a longstanding strategy that engages students with learning targets and criteria, self-assessment (feedback), and opportunity to use feedback, as described above.

When students track their own progress, learning increases (Marzano, 2009/2010), and so does student involvement in their own assessment (Stiggins & Chappuis, 2005).

Examples of Students Tracking Their Own Progress	
Process	Tools
Students track their own progress	<ul style="list-style-type: none"> • Rubrics used with charts or graphs • Student Evidence Tracker (see below for more information)

Students keeping track of their own progress is one way to put students in charge of their own learning. This strategy has become commonplace enough that an internet search of the term turns up a myriad of research studies, affirmations by well-known scholars, and blogs and articles by classroom educators sharing the changes it has brought in their classroom (e.g., Pandolpho, 2018).

Student Evidence Tracker can be used in both distance and face-to-face learning. Investing time in using the tool now can not only help prevent COVID gaps from worsening, but it can also continue accelerating learning seamlessly as schools return to in-person instruction.

The comprehensive tool described below, Student Evidence Tracker, gives educators a structure for:

- Clarifying goals and criteria for success
- Students tracking their own progress
- Feedback from teacher, self, and peers

Teachers can supplement the Student Evidence Tracker tool by offering opportunities to use **the feedback** and by incorporating **teacher and student questioning strategies** into the lesson as well.

Student Evidence Tracker can be used in both distance and face-to-face learning. Investing time in using the tool now can not only help prevent COVID gaps from worsening, but it can also continue accelerating learning seamlessly as schools return to in-person instruction.

LSI Student Evidence Tracker

[View Demo](#)

Classroom formative assessment during distance learning using Student Evidence Tracker

What is Student Evidence Tracker and how does it work?

Student Evidence Tracker is an app-based tool that allows students to self-assess their progress on learning targets (goals). Teachers add the learning targets and criteria for each lesson, which the students can then view in the app while they are learning. The app works on a phone, tablet, or computer.

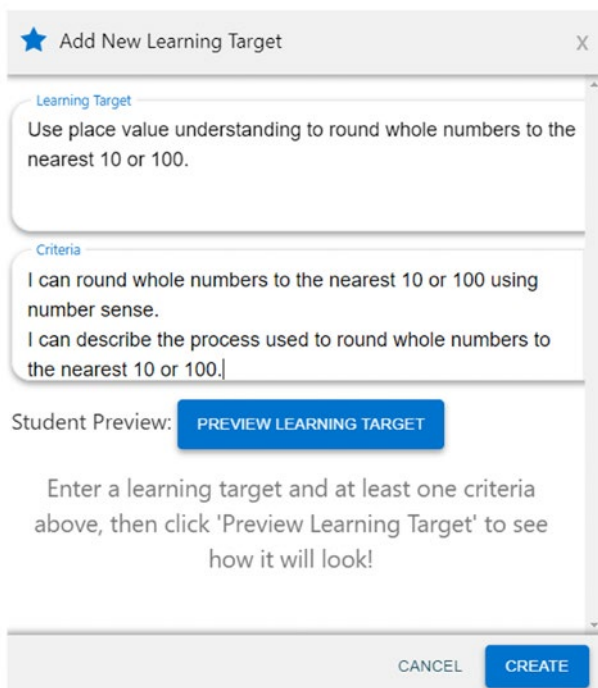


Figure 2. An example of a learning target and criteria a teacher has created in Student Evidence Tracker.

As students meet a criterion, they are able to check it off—essentially to say, “Yes, I know or can do this.”

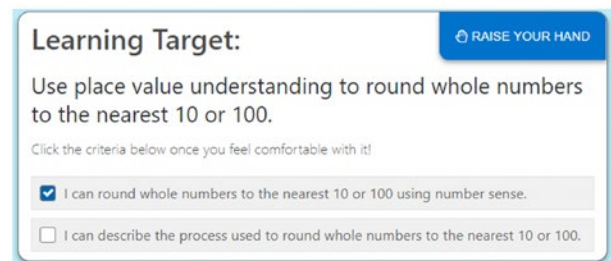


Figure 3. An example of what students see in Student Evidence Tracker – they can check off criterion as they work toward the lesson’s learning target. Students can also raise their hand to request assistance.

The app lets the teacher review students’ progress monitoring, both at the individual and group level. A teacher can question a student’s evaluation of their own progress, for example if they say they have met a criterion and the teacher does not agree.

Figure 4. An example of what the teacher sees in Student Evidence Tracker. The teacher can click the blue star symbol to accept a student's self-assessment of whether they achieved the lesson's learning target. Or, the teacher can click the red X symbol if there is not sufficient evidence, and the student can try again. The teacher can see which students are virtual and if students have raised their hands to request assistance.

Why is Student Evidence Tracker so effective?

Student Evidence Tracker is designed around best practices for classroom formative assessment. The tool:

1. Creates a structure for students' active self-monitoring
2. Is simple and easy for students and teachers to engage with
3. Allows teachers to verify student evidence of learning
4. Encourages frequent feedback conversations between teachers and students
5. Can be used in virtual, face-to-face, and hybrid learning environments

Since students do their own tracking in Student Evidence Tracker, it not only reduces the assessment burden on the teacher but also contributes to the active self-monitoring we have seen to be so pivotal to student agency.

As the name Student Evidence Tracker suggests, decisions about progress must be based on evidence, so when a decision is questioned the student and teacher can have a conversation about the students' work and the evidence of learning it presents.

Create active, engaged learners through classroom formative assessment strategies during distance learning

In summary, students who are involved in their own assessment are more active, engaged learners—exactly the qualities needed for students to be successful during distance learning. One particularly helpful strategy is to have students keep track of their own progress.

To do that, students need to understand their learning target and success criteria, receive and interpret feedback, and draw conclusions about their own understanding. Keeping track of their own learning offers students a way to be involved in their assessment during distance learning.

Students who are involved in their own assessment are more active, engaged learners—exactly the qualities needed for students to be successful during distance learning.

Resources

- [Student Evidence Tracker](#)
- Book: [Performance Assessment: Showing What Students Know and Can Do](#)
- [Book Studies focusing on Formative Assessment](#)

LSI Student Evidence Tracker

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