

When Students Track Their Progress

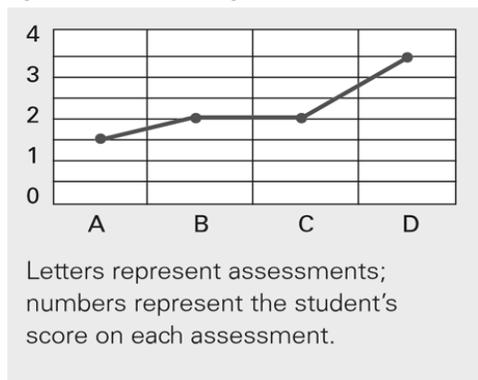
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The strategy of tracking student progress on specific learning goals is well supported. For example, Fuchs and Fuchs¹ found that providing teachers with graphic displays of students' scores on formative assessments was associated with a 26 percentile point gain in achievement. Unfortunately, this strategy has not received the attention it deserves.

When students track their own progress on assessments using graphic displays, the gains are even higher. Over my many years of working with teachers, I have had the opportunity to examine the effects of such an approach. In 14 different studies, teachers had students in one class track their progress on assessments; in a second class, these teachers taught the same content for the same length of time without having students track their progress (see www.marzanoresearch.com/research/strategy20_trackingprogress.aspx). On average, the practice of having students track their own progress was associated with a 32 percentile point gain in their achievement.

In the studies, students recorded their scores on a chart after taking each assessment. Figure 1 shows how a student tracked her progress on the topic of habitats using her scores on four different assessments. Using a rubric with a rating scale of 0 to 4 to score the assessments, this student began with a score of 1.5 on the first assessment and ended with a score of 3.5 on the fourth assessment.

Figure 1. Student Progress Chart



This approach provides two kinds of information for students and teachers. First, the rubric provides a description of the levels of performance that the teacher expects of the students. Second, the graph provides a representation of each student's progression of learning. The combination of these two types of information produces the powerful effect.

What Produces the Best Results?

Given the expected 32 percentile point gain, one might assume that this strategy is a sure thing in terms of enhancing student achievement. As is often the case, however, the details of the studies clarify the circumstances under which the strategy produces strong, as opposed to mediocre, results.

- **Address a single goal in all the assessments.** To track student progress in the manner depicted in Figure 1, all assessments must address the same learning goal. For example, assume that a teacher has two learning goals that relate to the topic of habitats. One learning goal might be, "The student will understand that habitats provide plants and animals with the things they need to survive." A second learning goal for this same topic might be, "The student will understand how a local habitat of his or her choice supports specific local animals." The assessments should clearly differentiate between these two goals. One assessment can address both goals, but only if the teacher assigns two scores to the assessment—one for each learning goal.
- **Use rubrics instead of points.** Across the 14 studies, teachers obtained the best results when they scored assessments using a rubric instead of points. Teachers typically assign a certain number of points to each answer on a test and then convert the total points to a percentage score. When teachers use this approach, they tend to change the type and difficulty of items from test to test, even when those tests measure the same topic. The first test might include all easy items, but the second test might include all difficult items. Consequently, a student might receive fewer points on the second test

even though he now knows more than he did when he took the first test. A graph of his test scores would make it look as though he had decreased in knowledge when he had actually gained in knowledge. In fact, in the two studies that did *not* show positive effects for students tracking their own progress, the teachers used points instead of rubric scores.

A rubric I have found useful involves five values, 0 through 4, with the score of 3 meaning the learner has mastered the content that is the target of instruction—the specific learning goal that the teacher wishes to assess and track. The teacher would state the learning goal in a form that describes what he or she expects students to do to demonstrate their understanding: "Students will explain and illustrate how habitats provide plants and animals with the things they need to survive."

A score of 4 indicates that students have mastered score 3 content and can also use that content to make inferences. For example, to earn a score of 4 on the habitat learning goal, students might be required to explain what would happen if the number of animals that the habitat typically supported increased dramatically over a short period of time. A score of 2 indicates that students know simple details and processes that relate to the learning goal (score 3 content) but not the more complex information and processes that the learning goal involves. In this case, a score of 2 might indicate that students recognize some basic facts and terminology associated with habitats even though they cannot explain and illustrate how habitats provide plants and animals with the things they need to survive. A score of 1 indicates that students cannot produce any of the content on their own but can do so with some help from the teacher. Finally, a score of 0 indicates that even with help, students cannot produce any of the content.

- **Use different types of assessments.** The paper-and-pencil test is only one of many options that teachers can use with rubrics. Other types of assessments include demonstrations, probing discussions, unobtrusive observations, and student-generated assessments.

A well-constructed rubric allows for a relatively accurate measure of a student's level of understanding through both a demonstration, in which students demonstrate their skill at a procedure or their understanding of information, and a probing discussion, in which the teacher asks individual students to explain their understanding.

Unobtrusive observations involve a teacher observing a student demonstrating a procedure without the student being aware of the observation. For example, a physical education teacher might observe a student demonstrating the overhand throw on the playground. If the teacher has designed an appropriate rubric for this process, he or she can assign a score to the student without interrupting the student's play.

Finally, student-generated assessments are those that students have designed to demonstrate that they have met the requirements of a specific score on a rubric. For example, to show that she has attained score 3 status, a mathematics student might decide to explain how to solve a specific type of problem and demonstrate her explanation using selected problems from the end of a chapter in the textbook.

Benefits for All

When it comes to using classroom assessment to enhance student achievement, having students track their progress using rubrics is a hidden gem. This strategy involves multiple types of assessments, increases interactions between teachers and students, and provides students with clear guidance on how to enhance their learning.

Endnote

- ¹ Fuchs, L. S., & Fuchs, D. (1986). Effects of systematic formative evaluation: A metaanalysis. *Exceptional Children*, 53(3), 199–208.

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