



## **Making Time for Feedback**

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Teachers don't need to mark every mistake a student makes. Here are some smart ways to save time and give great feedback.

Ask any teacher what he or she needs more of, and it's a good bet that time will top the list. Anything that promises to recoup a little bit of our workday time is sure to be a best seller.

One overlooked time-saver is in how we use feedback. Teachers know that feedback is important for teaching and learning. Unfortunately, most secondary teachers have far too many students to make it realistic to provide individual, face-to-face feedback, so they rely on written feedback to do the heavy lifting. In an attempt to provide students with information about their performance regularly, they grade papers until the wee hours, writing carefully constructed comments in the margin.

Too often, this type of feedback transfers the responsibility for learning back to students, who have little understanding of what they need to do next. The students completed the assigned work in the best way they knew how, only to have their papers or projects returned with marks all over them. Unsure what to do with the feedback, some students ignore it and accept the grade. Others faithfully duplicate the teacher's edits, but fail to transfer this knowledge to their future work.

This cycle continues, frustrating both teachers and students. Teachers realize that the hours they put into grading aren't improving students' understanding, and they lament, "If only we had more time to figure out what students really know and then do something about it!"

### **Work Smarter—Not Harder**

Thankfully, there are ways to save time and ensure that feedback is effective. By taking the following guidelines into account, teachers can create more time for learning.

#### **1. Focus on errors rather than on mistakes.**

All of us make mistakes. If we're fortunate, we catch them ourselves (or someone else does), and we do our best to correct them. Typically, we make mistakes through lack of attention. But once

they're pointed out to us, we immediately recognize them and usually know the corrective action to take.

Our students do this as well. They make mistakes because of fatigue or inattention, and as a result, their performance suffers. However, they often possess the knowledge needed to avoid the mistake in the future simply by becoming more attentive.

It's easy for us to recognize mistakes when we're familiar with the student's previous work. A mistake strikes us as being uncharacteristic, usually because we've seen the student do similar work correctly in the past.

Mistakes can be huge, and we aren't minimizing them. NASA lost a \$125 million orbiter in 1999 because one engineering team used metric measures while another used English measures. That was a costly mistake, but the problem wasn't that the second team didn't know how to use the metric system. Had they caught the mistake in time, they would have known precisely how to correct it.

Errors, on the other hand, occur because of a lack of knowledge. Even when alerted, the learner isn't quite sure what to do to fix the problem. He or she lacks the skills or conceptual understanding to do anything differently when given another opportunity to try.

Correcting mistakes while failing to address errors can be a costly waste of instructional time. When teachers focus valuable time on correcting mistakes, they have little time to address errors. Correcting errors typically results in new understanding and improved performance; moreover, once teachers implement this practice, students rarely make those errors again.

Errors fall into four broad categories and, when analyzed, can provide us with the feedback we need to make our instruction more precise.

- *Factual errors* interfere with a student's ability to perform with accuracy. Life sciences teacher Kenya Jackson sees this with her students who have difficulty clarifying the differences and similarities between recessive and dominant traits. Students may not understand what constitutes a dominant trait, or they may incorrectly define certain terms.
- *Procedural errors* make it difficult to apply factual information. "When I teach how to use a Punnett square<sup>1</sup> to predict probability about genotype," noted Ms. Jackson, "students can tell me what dominant and recessive alleles are, but they can't calculate them in a meaningful way." Students may fail to divide the two alleles correctly for each parent or to follow the procedure for matching alleles.
- *Transformation errors* occur when students incorrectly apply information to a new situation. Ms. Jackson noted that the Punnett square procedure is only valid when the traits are independent of one another. "Although I use examples and nonexamples in my teaching [that is, showing students right and wrong ways to do something], some of them still overgeneralize the procedure and try to use it with polygenic traits, such as hair color," she said. "For some, they've learned a tool, and now they want to use it in every situation."

- *Misconception errors* can result from the teaching itself. "I have to stay on guard for this," Ms. Jackson said. "Because I teach them Punnett squares, many students hold this misconception that one gene is always responsible for one trait. These can be stubbornly held, so I have to teach directly with misconceptions in mind."

## 2. Identify patterns in student errors.

Teachers spend hours writing comments on student work in hopes of improving achievement. In most cases, the feedback is of good quality. Of course, there are examples of "feed-bad," in which students receive useless comments from a teacher. For our purposes, let's assume that the feedback teachers provide is appropriate.

When teachers return the work to their students, all their data are gone. They have to try to remember which students made which errors because students typically do one of two things when their work is returned. Some students discard the paper, never bothering to look at the feedback. Others are compliant and make the required changes, but nothing more. Either way, not much learning occurs.

Instead, teachers should look for patterns in student errors. They need to know which students made which kinds of errors. In doing so, they can target instruction or intervention on specific areas of student need rather than reteach an entire concept, lesson, or unit of study. Analyzing student performance in this way enables teachers to be much more precise in addressing errors and to organize data in such a way that they don't have to keep looking through student work to determine who needs additional help.

For example, world history teacher Angie Graham was on the lookout for specific errors in three different domains as her students collaboratively read a primary source document: skimming and scanning, sourcing, and drawing conclusions. She collected data as she listened to her students interact as well as when they submitted their notes and summaries of the article. She used a matrix, with the broad categories of errors she was looking for listed on one side of the paper in rows and her class periods listed across the top in columns. When students made an error, she added their initials in the corresponding square (see fig. 1).

**FIGURE 1. Rubric for Checking for Patterns in Student Errors**

Topic: Skills needed to read and understand a primary source document

Error	Period 1	Period 2	Period 3	Period 4	Period 5
Skimming and scanning to preview text	JC				
Sourcing (where information comes from,	JC, JT, DL, MM,	RT, VE, VD, CC		AA, MG, SC, PM, LG	DP, DE

author information, type of document, citations)

SL, ST,  
ND

Drawing conclusions

JC, JT,  
MM EC, SJ

AA, MG, BA, GL, PT, DO,  
DE, LR, SK, EM, TS, LG, DE,  
PM, DP, RT, HA, KJ, DE, MR,  
RC, DW, DL, KS, IP, SN, DC, AT  
MW, JG, KE, JV

*Note:* Each set of initials represents a student who made an error.

All but one of her students demonstrated mastery of skimming and scanning, which she was pleased to see, given the relatively small amount of time she had devoted to this skill. A fair number of students did not engage in sourcing, which is an important skill in a number of disciplines (Shanahan, Shanahan, & Misischia, 2011). Experts in science and history often examine sources of information to determine credibility and trustworthiness. Apprentices, including those in Ms. Graham's class, should learn to do the same. Knowing that she had modeled sourcing and that students had previous practice with it, she had expected fewer procedural errors from her students. Looking at the matrix, Ms. Graham knew that she would have to teach some of her students how to do this again.

Figure 1 shows that in terms of drawing conclusions, 4th period was having problems, with most students unable to use this skill correctly. Given the data, Ms. Graham knew she would have to reteach this concept to the whole class. She noted, "Before I started identifying and cataloging errors, if I had a lot of students make a specific error, I would probably reteach this concept to all my classes. There's no way I could have known that the issue was clustered in a specific period."

Ms. Graham wrote little on her students' papers, knowing she would address the errors directly with her students. This saved time in grading, which provided her with time to complete the error analyses. Moreover, her syllabus contained the following note to students and their parents explaining the process:

On most assignments, the teacher does not identify every error found in a student's work. Students receive feedback about the work and their performance on formative and summative assessments, but we do not mark every error that we notice. Instead, we conduct an error analysis and determine areas of instructional need. We look for a pattern of errors, not isolated or anomalous ones. From there, we design additional lessons for students, either whole class or small group, to address the errors that we find.

As she planned her next lesson, Ms. Graham had a clearer idea of what she would reteach, and to whom. She pointed out,

When I first started teaching, I had this notion that all my classes would be getting the same lesson on the same day. But at some point I realized that I teach students, not classes. I suppose I could delude myself and pretend they all needed exactly the same thing. But then only some of them are going to learn, right?

### **3. Distinguish between global and targeted errors—and teach accordingly.**

Teachers can save time if they target their instruction to identified student needs. Sometimes the majority of students in a class need to be retaught a specific concept or skill. These *global errors* require that teachers reteach the content to the whole class rather than provide feedback to individual students.

For example, English teacher Heather Carmichael noted that 80 percent of students in her second period class failed to provide supporting evidence for the claims they made in their essays. In her other classes, only three to five students made this error. The data showed that she needed to reteach this content to a targeted group of students in most of her classes—and to nearly all of her students in second period.

Ms. Carmichael also understood that simply repeating the lesson from the previous week wouldn't work. She had already taught this group of students to cite evidence in the same way she taught her other classes: through the use of arguments and evidence from the text. For some reason, in second period, it just didn't stick.

So she planned a new lesson. In introducing it, Ms. Carmichael said, "We have a gap in our learning." She then named the gap—students' failure to provide supporting evidence for the claims they made in their essays—and identified how the students could close that gap. For example, she modeled the use of sentence frames that required evidence from the text, such as "I reached this conclusion by ... " and "The evidence suggests ... " She composed a paragraph in front of her students using various sentence frames and then invited them to do the same after they collaboratively read a newspaper article.

There are also times in which the teacher identifies *targeted errors*. This requires that the teacher meet with small groups of students while the rest of the class engages in collaborative or independent learning. For example, Ms. Carmichael identified several students in each period who failed to appropriately cite their sources. Understanding that this would be seen as plagiarism in college, she knew she needed to address this issue specifically with these students.

There was no need to reteach this concept to the entire class. Had the teacher done so, some students would have been bored, some would have misbehaved, and everyone would have lost valuable learning time.

### **4. Use prompts and cues.**

Ms. Carmichael understood that simply telling the students who failed to cite their sources about this error would not resolve the issue. That would only result in her needing to reteach this material again and again. Instead, she used prompts and cues to guide her students' thinking (Fisher & Frey, 2010). When students learn how to think about their mistakes and errors, it not only saves time but also prevents students from developing learned helplessness, a condition in which students depend on adults for the "right" information.

Prompts are statements or questions that cause students to do cognitive or metacognitive work. For example, when looking at one student's essay, Ms. Carmichael said, "I see page numbers in parentheses." The author, Toby, interrupted, saying, "Oh, I gotta add quote marks, or they'll think I stole those words," which indicated that for him, this was a mistake, not an error. In reference to a second student's paper, Ms. Carmichael said, "I'm reading these words, and they sound pretty academic, not the same as the rest of the paper." Analisa shyly responded, "I guess I better think about the sources a little more and make sure they really are my words." Ms. Carmichael then added, "There are lots of ways to make sure you attribute sources correctly. Why don't we share some as a whole class so we all have lots of different ways?"

Alternatively, cues are shifts in the learners' attention. In shifting students' attention, the teacher assumes more responsibility than when providing a prompt. Teachers regularly use cues in their initial teaching and can use these same cues when they provide feedback.

For example, Ms. Carmichael used gestures and verbal emphasis to focus her students on different items in their papers. At one point, she paused on an awkward sentence and reread it so her students would hear the incorrect syntax. One student said, "That's not how you say it!" Another exclaimed, "Ouch! That needs to be fixed!" At another point, she referred students to a stylebook that showed them how to cite a webpage. Marco noted, "Oh, I left off the 'retrieved from' and didn't put the title in italics."

When teachers use prompts and cues with students to address specific errors, they will more easily close the learning gap, and their students will be less likely to make the same error again.

## **Time Well Spent**

Although responding to students' work is time-consuming, teachers invest the time because of the effect it can have on student learning. But they need to make good use of this time. They can do this by focusing on errors rather than mistakes, noticing patterns in errors, addressing targeted and global errors, and guiding learners to increased understanding.