

Feedback in Practice: Research for Teachers

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Tang Institute at Andover



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It's a common scenario, and it's a teacher's nightmare. Class is coming to an end, and you return assignments to your students. You've put real time into this undertaking: marking them up over coffee, foregoing an afternoon outside, working on evenings and the weekends. You are proud of the effort and care you have put into your work.

And, in the frantic moments before class ends, your students get their assignments back from you, quickly scan for their grade, and then stuff the assignment into their backpacks. Walking out of class, they turn either to their phones or to comparative conversations: "What did *you* get?" A few weeks later, on their next assignment, many of them make the same mistakes that you so laboriously corrected the first time around.

It doesn't have to be this way.

Giving feedback is one of the most important things we do as educators. It is a powerful way to support learning and nurture meaningful relationships with our students. Giving effective feedback is important and time intensive. Yet teachers rarely receive explicit, evidence-based guidance in how to do so.

This document was created to help fill that gap. We hope that it will support teachers—as well as those who mentor them—by synthesizing academic research around feedback into several principles, each of which has actionable steps. This document also contains several case studies to help teachers reflect on specific scenarios.

What are common challenges that emerge when giving feedback? There are specific, research-supported moves that teachers can make to ensure their feedback deeply impacts student learning. And, as teachers begin to understand and implement these principles, they can actually give *less* feedback and have students learn *more*.

HOW TO USE THIS DOCUMENT

DISCERN

...what is and what is not
feedback from a short
discussion of the research.
(pages 3–4)

LEARN

...about four principles of
effective feedback, each
with a toolbox of specific
practices.
(pages 5–9)

APPLY

...what you've learned to
specific case studies.
(pages 10–12)



WHAT IS FEEDBACK?

Feedback has different definitions in educational literature. In this document, we will work with the one put forward by Grant Wiggins, who wrote,

“Feedback is information about how we are doing that guides our efforts to reach a goal.”¹

Let’s unpack this definition. First, feedback exists in relation to a goal. A person knows what they are aiming for. Then, feedback provides that person with information about these efforts. It can come from others, oneself, or even the task itself. Finally, feedback looks to the future, not the past. It aims to improve subsequent efforts and not just correct work that has already been done.

The rest of this guide will synthesize the literature on feedback through the lens of this definition. For now, though, let’s also articulate what feedback is **not**. Feedback is not giving grades (summative evaluations); it is not advice (ideas about what should have been done); it is not praise (appreciative words).

NOT FEEDBACK

Evaluation



“B+. You still need to master exponent rules.”
(HS math teacher)

Advice



“Make sure your main idea paragraph relates to your topic.”
(3rd grade teacher)

Praise



“Wow! Your lab report is really nicely done.”
(MS science teacher)

FEEDBACK



You are confusing the two main exponent rules—when multiplying two bases you need to add the exponent, not multiply. Practice a few of these types of problems for the next homework assignment.



Your first sentence is about therapy dogs. But the rest of your paragraph talks about what dogs eat and where dogs sleep. Look at the examples of effective writing on our handout and then rewrite your paragraph.



You explained your results with good scientific nuance, your methods section is appropriately detailed, and your data presentation is just as polished as the sample lab reports.

Feedback that is delivered effectively will advance student learning in ways that even the most well-intentioned evaluation, advice, and praise simply cannot.

SOURCES: 1. WIGGINS 2012



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HOW TO GIVE EFFECTIVE FEEDBACK

FOUR BIG IDEAS

Below, we articulate four big ideas related to effective feedback based upon the research literature. For each principle, we first outline a misconception in red. These common misconceptions are often the basis of ineffective ways of giving feedback. We correct these misconceptions in blue with research-based approaches.

BIG IDEA 1

STUDENTS MUST ENGAGE WITH FEEDBACK IN ORDER TO LEARN FROM IT.



The more effort a teacher puts into feedback, the more students will learn.

Feedback leads to learning only through student engagement and reflection.



BIG IDEA 2

FEEDBACK DEPENDS ON A STUDENT'S IDENTITY AND THEIR RELATIONSHIP TO THEIR TEACHER.



Feedback is objective and experienced the same way by all students.

Non-cognitive factors like belonging, stereotype threat, and a growth mindset shape how feedback is received.



BIG IDEA 3

QUALITY FEEDBACK FOCUSES ON SPECIFIC INSTRUCTIONAL GOALS.



The more feedback a teacher gives to students, the more they learn.

Focused feedback on clearly articulated objectives supports learning.



BIG IDEA 4

FEEDBACK AND GRADING ARE DIFFERENT.



Grades are feedback.

Evaluative grades and formative feedback serve different purposes.



Our questions, then, are these: What does thoughtfully designed and delivered feedback look like? How might we as teachers design ways to give feedback to students that inspire learning—and that don't just end up at the bottom of a backpack?





BIG IDEA 1

STUDENTS MUST ENGAGE WITH FEEDBACK IN ORDER TO LEARN FROM IT

How does feedback actually help a student learn? Students learn from the feedback they receive only if they actively engage with it.² The effort a teacher puts into correcting or commenting on student work does not necessarily result in student learning. Dylan William articulates this idea well, saying, “Feedback should cause thinking” and “Feedback should be more work for the recipient than the donor.”³

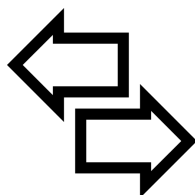
Thus, teachers need to dedicate instructional time for students to engage with feedback. Feedback should be actionable and include a task, however small.⁴ Merely telling a student what they did wrong will not help them understand how to do better. Teachers can ask students to read over and reflect on their feedback in preparation for the upcoming assignment: they can write about what they learned from the comments, what they did well, and what they will do differently next time.

Teachers should explicitly teach students how to seek out, receive, and act on feedback. Doing so will create a sustainable change; students will become feedback seekers.⁵ To help students do this, teachers may need to spend time detailing their approach to commenting on student work. Overcommunicating early on is preferable to a situation in which a student never deciphers a teacher’s approach and thus does not benefit from the time spent giving feedback.



THINK

Good feedback makes students think. Offer feedback phrased as questions or (solvable) hints instead of direct corrections.



ENGAGE

Build in time for students to process and respond to feedback. Make responding to feedback a follow-up assignment to major learning activities.



MODEL

Provide direct instruction and feedback routines to students to help them reflect on and learn from feedback.



Remember: Students don’t learn from a teacher’s feedback alone; they learn from thinking intentionally about that feedback. Design feedback—and a process of reflection on that feedback—that prioritizes this engagement.

SOURCES: 2. WIGGINS 2012; 3. WILLIAM 2011; 4. CHAPPUIS & CHAPPUIS 2007; 5. BROOKHART 2017



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BIG IDEA 2

IDENTITY AND RELATIONSHIPS MATTER IN FEEDBACK

Constructive feedback can be difficult to hear, even from people we trust. For all students, and especially those who experience racism, sexism, and other oppressions—as well as their attendant stereotype threats—it’s especially important to have teachers who first cultivate trusting relationships before giving feedback. When feedback is given skillfully, a teacher recognizes the impact of their identity and power in feedback exchanges. It’s also important for teachers to be aware of and work to counter their biases, whether explicit or implicit.⁶

When giving feedback to students, teachers need to communicate both high expectations and supportive language.⁷ The absence of high expectations prevents students from being sufficiently challenged; the lack of supportive language might prevent students from being able to hear it. Zaretta Hammond’s language of a “warm demander” is an ideal that teachers can aim for in their relationships with students.⁸ A warm demander doesn’t overpraise mediocre work, but holds high standards for all students and supports them while they progress toward them.

A growth mindset can also help students respond positively to feedback and understand it as directed at their performance, not their identity.⁹ Reminding students that mistakes are a vital part of the learning process can help them avoid confusing feedback that aims to support their learning and critiques of themselves as individuals.¹⁰



EXAMINE

Engage in ongoing reflection about your own identity and where your identity locates you in relation to their students.



SUPPORT

Be a warm demander. With the foundation of a supportive relationship, convey high expectations and the belief that students can reach these expectations. Don’t withhold criticism or overpraise mediocre work.



GROWTH

Help students cultivate a growth mindset. A growth mindset helps students see feedback as directed at their performance, not their identity.



Remember: Feedback is highly relational. The way a student receives and interprets feedback depends in part on their identity and their trust in their teacher.

SOURCES: 6. MINOR 2020; 7. YEAGER 2014; 8. HAMMOND 2014; 9. STONE AND HEEN 2015; 10. BROOKHART 2017



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BIG IDEA 3

GIVE FOCUSED FEEDBACK ON SPECIFIC INSTRUCTIONAL GOALS

More feedback is not necessarily more effective in causing student learning. You might admire the colleague who somehow finds the time to leave a page of general, narrative feedback for each student's assignment. However, too much general, undirected feedback can overwhelm students, especially if they are not given time to process it or a clear method for prioritizing it.¹¹

Instead, feedback should be given in relation to larger goals that have been communicated to students.¹² Effective feedback focuses on clearly articulated goals, as opposed to general or nonspecific ones.¹³ Think back to Wiggins's definition: if students do not understand where they are aiming, they will not be able to make sense of the feedback they receive on their performance.

Finally, focus feedback on changing the learner, not their performance on an already-completed assignment.¹⁴ As Dylan Wiliam says, "the best feedback provides information not just about current performance, but also about how to improve future performance."¹⁵ How might our feedback help students cultivate habits of thinking that help them think differently on future tasks?



COMMUNICATE

Be transparent with students about the goals and objectives of the assignment—and the course. As a class, study sample student work and co-develop future goals with students based on current work.



FOCUS

Give feedback on a few targeted areas, instead of commenting on everything you possibly could. Connect feedback to rubrics or exemplary work.



CHANGE THE LEARNER

Feedback should change the way students think and engage with future material, instead of just fixing mistakes on past work.



Remember: Identify a few goals for an assignment and communicate those priorities. Too much feedback can overwhelm students, leaving them without a clear sense of what to prioritize.

SOURCES: 11. HATTIE AND TIMPERLEY 2007; 12. WIGGINS 2012; 13. HATTIE AND TIMPERLEY 2007; 14. WILLIAM 2016; 15. IBID



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BIG IDEA 4

TEACHERS SHOULD SEPARATE FEEDBACK FROM GRADING

Almost all teachers must give grades—whatever their ultimate feelings about them. However, merely providing a grade on an assignment does not provide students with feedback they can use for reflecting on their learning.¹⁶ Teachers can encourage students to focus more on the feedback they receive by spending time explaining the difference between feedback and grades, and then showing the ways in which students can improve by attending carefully to a teacher’s feedback.

However, even if teachers spend time making this conceptual distinction, students may not meaningfully change their behavior. One way to encourage more reflection on feedback is to pause with purpose: intentionally build in space between the time when students get feedback and when students receive their grade.¹⁷ Use this time to ask students to reflect on and respond to the feedback they have received.

Teachers can support students by helping them develop clear mental models of excellent work and providing effective feedback that helps move students closer to that ideal.¹⁸ However, our ultimate goal as educators should be student autonomy and independence—not our students getting really good at doing what we tell them to do. A well-designed feedback system can help students learn to give feedback to each other and, just as important, learn to independently assess the quality of their own work and make the necessary changes themselves.



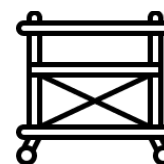
DIFFERENTIATE

Explain to students the similarities and differences between grading and feedback. Show them how reflecting on and incorporating feedback helps them learn and improve in ways that grades alone do not.



PAUSE

Each time you return an assessment to students, pause. Give them time to reflect on the feedback before giving them their grade.



SCAFFOLD

Explain feedback techniques to students and give them the opportunity to practice giving feedback to each other—and to themselves.



Remember: Students learn from engaging with a teacher’s feedback, not from a summative grade.

SOURCES: 16. GUSKEY 2019; 17. KUEPPER-TETZEL AND GARDNER 2021; 18. BUTLER AND MORDECAI 1986



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A SUMMARY OF BIG IDEAS

BIG IDEA 1

STUDENTS MUST ENGAGE WITH FEEDBACK IN ORDER TO LEARN FROM IT



THINK Good feedback makes students think.



ENGAGE Build in time for your students to process and respond to feedback.



MODEL Show your students how they should react and respond to feedback.

BIG IDEA 2

IDENTITY AND RELATIONSHIPS MATTER IN FEEDBACK



EXAMINE Engage in ongoing reflection and self-examination.



SUPPORT Be a warm demander; convey high expectations and believe students can achieve them.



GROWTH Help students cultivate a growth mindset.

BIG IDEA 3

GIVE FOCUSED FEEDBACK ON SPECIFIC INSTRUCTIONAL GOALS



COMMUNICATE Be transparent about goals and objectives.



FOCUS Give feedback on a select few areas.



CHANGE THE LEARNER

Feedback should change the way a student thinks and engages with future material.

BIG IDEA 4

TEACHERS SHOULD SEPARATE FEEDBACK FROM GRADING



DIFFERENTIATE Explain the similarities and differences between feedback and grades.



PAUSE Give students time to review and reflect on your feedback.



SCAFFOLD Explain feedback techniques and give students opportunities to practice.





CASE STUDIES

As you use these case studies, think back to the four big ideas of this document. Which are most relevant, and why? Each case study also has specific focusing questions that pertain to it. As you reflect on these case studies, think also about questions of identity, social location, and power dynamics. You might also reflect on how these scenarios change if you do—or do not—share identities with the people involved.

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CASE STUDY 1

Two good friends are in your class. One student received an 83 on the last paper, and the other received an 86. The papers were fine, but they both had errors in them, grammatical and structural. One friend approaches you and asks why he got a lower grade than his friend. He read the other paper and thought that his paper was at least as good. You try to redirect the conversation to help them improve their writing, but they are too hung up on this issue and won't drop it. More than once, they claim that they don't know what you want on your assignments. You find this framing frustrating, especially because you consistently leave detailed feedback on their papers. Furthermore, in this paper, they made many of the same mistakes they made in previous essays—mistakes you spent a good amount of time correcting. You remind them (yet again) of the general way you grade papers, but they still seem frustrated and can't even engage with your corrections. They also seem to be implying that you just like their friend better.

What can you say to this student in the moment? What can you say to them longer-term? What, if anything, might you change about your feedback system going forward?

CASE STUDY 2

It's November and you have just received the third assessment of the term from your students. You've done your best to give effective feedback, but you are beginning to see some worrisome patterns. On one hand, several of your highest-performing students regularly come to your office to discuss their work, both before it is due and after they get feedback. It's clear that they are keen to do well academically, and some even show an intellectual engagement in the material that goes beyond grades. They participate often in class and do much of the work of supporting class discussions. At the same time, as you read this third set of assessments, you realize that some of your less academically prepared students are making the same mistakes again and again. In fact, you find yourself writing almost the same comments verbatim that you did at the beginning of the year, and you wonder why they aren't getting it. Even more concerning, despite your regular admonitions to the class about the importance of visiting you in your office, none of these students have done so. You start to wonder if they just don't care as much as the other students.

What are some possible factors that could be causing these different experiences? What specific adjustments can you make, both in classroom practice and in individual interactions with students?



CASE STUDIES

CASE STUDY 3

You are mentoring an enthusiastic new middle school teacher in their first semester of teaching. They look exhausted on Monday morning and tell you that they spent all weekend writing detailed comments on student work, sacrificing their Saturday night and spending much of the day on Sunday doing the same. For them, their ability to connect with students is a real point of pride, and they explain to you how important it felt to address everything in the student essays. In an effort to begin a conversation, you ask them to show you a sample essay. It is covered in red, with comments everywhere. Seemingly every matter has been touched upon, and your mentee has also scribbled lengthy, personalized notes to each student. As you look over the essay, your mentee chugs a Red Bull and asks you for a copy of your notes for the day's lesson. You observe that their comments are rather in-depth, and they reply, "How else will they know I care?"

How would you approach a conversation with your mentee to honor the work they have done? What would you say to help them learn and grow as an effective teacher?

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CASE STUDY 4

Your colleague is a demanding, high-energy teacher with an acerbic sense of humor. Most students seem to love their classes, although a smaller group of students tend to consistently struggle as well. An advisee of yours tells you that they are very frustrated with what your colleague wrote on their last test, which they were very proud of and earned their highest grade of the year. The comment says, "Well, finally! Welcome to the party!" Your advisee is confused about what your colleague means by this remarks. When you encourage your advisee to speak with their teacher about it, they confide that they are too nervous to approach them, and, in fact, they are always too nervous to talk to their teacher. They have wanted to get help before, but have never felt comfortable because they didn't know what their teacher might say about their mistakes. You approach your colleague to ask about the comment on your advisee's test, and they say "Oh that? Their latest test was great! I was praising them! I write things like that on all of my students' tests. They love it."

What questions would you ask your colleague to help them see what's happening in this situation? What would you tell your advisee to help them get the most out of this discouraging situation?



CASE STUDIES

CASE STUDY 5

You are introducing a new math unit to your 2nd grade students. During your hour-long math block, you plan to introduce students to an involved, four-part process for subtraction, asking them to use various blocks and other physical manipulatives. You are a bit nervous, because you are being observed for the first time by an administrator and you spent almost the entire first 20 minutes talking at some length. You then tell the students to try out the problems on the worksheets in front of them. When you begin to walk around the room, you notice that most of your students seem distracted and not on task: they are building towers with blocks or talking to their neighbors. Others are on task but do not seem to be progressing. A handful of students seem to have already known this material and work through it quickly. The next day, you sit down with your administrator, who opens the conversation by asking for your impressions of the lesson.

What reflections can you offer to your administrator? How could you have structured this lesson to give feedback to students more effectively? What feedback would be helpful from your colleague?

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CASE STUDY 6

A quiet student is struggling in your class. From your perspective, they don't seem to want to do anything about it: they are missing homework and never come for help. You notice that when you try to give them feedback on anything, they reject it. You ask them to stay and talk after class one day, and they explain that they feel like they only get things wrong. They don't see the point in trying. They say that they are bad at your class and have always been bad at your class. When you hear this, you start to think about all their missing assignments: of course they're bad at it, they don't do any of the work! You try to delicately mention their missing work to show them that there is so much more they could be doing, at which point they explode, saying that you don't see the work that they are doing and are out to get them by giving him 0's all the time. They also say that you ignore them in class and only talk with others about the work they are doing. They storm off.

How might you better understand what this student is feeling? What do you do to support them? What might you change about your own approach going forward?



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SHARE YOUR FEEDBACK!

We'd love to hear from educators and other school-based professionals who have used this resource. Please reach out and share your thoughts, use cases, and ideas on ways to improve this document and make it more accessible.

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