# HOW TO GIVE
# Effective Feedback
# TO YOUR STUDENTS

Susan M. Brookhart

Association for Supervision and Curriculum Development
Alexandria, Virginia USA

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# Feedback: An Overview

Feedback says to a student, "Somebody cared enough about my work to read it and think about it!" Most teachers want to be that "somebody." Feedback matches specific descriptions and suggestions with a particular student's work. It is just-in-time, just-for-me information delivered when and where it can do the most good.

This book is intended to help teachers provide such feedback to students. The focus is on feedback that comes from a teacher to a student and is based on student work. In the context of the book, the term *feedback* means "teacher feedback on student schoolwork." Important as they are, responses to student behavior are not considered here.

## Feedback as Part of Formative Assessment

Feedback is an important component of the formative assessment process. Formative assessment gives information to teachers *and students* about how students are doing relative to classroom learning goals. From the student's point of view, the formative assessment "script" reads like this: "What knowledge or skills do I aim to develop? How close am I now? What do I need to do next?" Giving good feedback is one of the skills teachers need to master as

part of good formative assessment. Other formative assessment skills include having clear learning targets, crafting clear lessons and assignments that communicate those targets to students, and—usually after giving good feedback—helping students learn how to formulate new goals for themselves and action plans that will lead to achievement of those goals.

Feedback can be very powerful if done well. The power of formative feedback lies in its double-barreled approach, addressing both cognitive and motivational factors at the same time. Good feedback gives students information they need so they can understand where they are in their learning and what to do next—the cognitive factor. Once they feel they understand what to do and why, most students develop a feeling that they have control over their own learning—the motivational factor.

Good feedback contains information that a student can use, which means that the student has to be able to hear and understand it. Students can't hear something that's beyond their comprehension; nor can they hear something if they are not listening or are feeling like it would be useless to listen. Because students' feelings of control and self-efficacy are involved, even well-intentioned feedback can be very destructive. ("See? I knew I was stupid!") The research on feedback shows its Jekyll-and-Hyde character. Not all studies about feedback show positive effects. The nature of the feedback and the context in which it is given matter a great deal.

Good feedback should be part of a classroom assessment environment in which students see constructive criticism as a good thing and understand that learning cannot occur without practice. If part of the classroom culture is to always "get things right," then if something needs improvement, it's "wrong." If, instead, the classroom culture values finding and using suggestions for improvement, students will be able to use feedback, plan and execute steps for improvement, and in the long run reach further than they could if they were stuck with assignments on which they could already get an *A* without any new learning. It is not fair to students to present them with feedback and no opportunities to use it. It is not fair to students to present them with what seems like constructive criticism and then use it against them in a grade or final evaluation.

## What the Research Shows

The first studies and theories about feedback are almost 100 years old and arose out of the psychological perspective called *behaviorism* (Thorndike, 1913). Positive feedback was considered "positive reinforcement," and negative feedback was considered "punishment." Both reinforcement and punishment affect learning; thus, feedback was theorized to be effective. The problem with this theory is that not all feedback actually is effective.

More recently, scholars have tried to tease out, from a large body of research on feedback that has accumulated over the intervening 100 years, what makes some feedback effective and some ineffective (Bangert-Drowns, Kulik, Kulik, & Morgan, 1991; Butler & Winne, 1995; Hattie & Timperley, 2007; Kluger & DeNisi, 1996). Other researchers have concentrated on describing the characteristics of effective feedback (Johnston, 2004; Tunstall & Gipps, 1996).

Educational theorists no longer explain learning with behaviorist theories about stimulus-response connections. More recent studies recognize the role of the student in the feedback process. They study the kind of feedback given and the context in which it was presented. What we now realize is that the message sent is filtered through the student's perception (influenced by prior knowledge, experiences, and motivation) as it becomes the message received. The student's job is to make meaning from schoolwork, not to respond to stimuli.

Making meaning requires using and controlling one's own thought processes. This is called *self-regulation.* Butler and Winne's (1995) research review showed that both external feedback (such as teacher feedback) and internal feedback (such as student self-evaluation) affect student knowledge and beliefs. Together they help students with self-regulation: deciding on their next learning goals, devising tactics and strategies to reach them, and producing work. An important point here is that teacher feedback is not teacher regulation. Teachers can't "make" students focus on or learn something. Teacher feedback is input that, together with students' own internal input, will help the students decide where they are in regard to the learning goals they need or want to meet and what they will tackle next.

Kluger and DeNisi (1996) did a meta-analysis (a quantitative summary of results) of studies of feedback. Their overall finding was that the average effect of feedback intervention on performance was .41. This means that across all the studies, groups receiving feedback on average outperformed their respective control groups by .41 standard deviations—the equivalent of moving from the 50th to the 66th percentile on a standardized test. However, more than 38 percent of the effect sizes from the various studies that went into this .41 average were negative—that is, showed that control groups outperformed feedback groups. The effects of feedback depend on the nature of the feedback.

Hattie and Timperley (2007) reviewed these and other works to synthesize a model of feedback that focuses on its meaning. Their review used the lens of formative assessment questions (Where am I going? How am I going? Where to next?), which they call "feedback questions." Thus, they recognized the importance of feedback in the formative process. Feedback can be the information that drives the process, or it can be a stumbling block that derails the process.

Hattie and Timperley (2007) propose a model of feedback that distinguishes four levels: (1) feedback about the task (such as feedback about whether answers were right or wrong or directions to get more information), (2) feedback about the processing of the task (such as feedback about strategies used or strategies that could be used), (3) feedback about self-regulation (such as feedback about student self-evaluation or self-confidence), and (4) feedback about the student as a person (such as pronouncements that a student is "good" or "smart"). The level at which the feedback is focused influences its effectiveness. Feedback about the qualities of the work and feedback about the process or strategies used to do the work are most helpful. Feedback that draws students' attention to their self-regulation strategies or their abilities as learners can be effective if students hear it in a way that makes them realize they will get the results they want if they expend effort and attention. Personal comments ("Good girl!") do not draw students' attention to their learning.

## Feedback Strategies and Content

Taken together, these three major reviews have much to say about how you, the teacher, can give good feedback. Figure 1.1 summarizes the strategic

**Figure 1.1 Feedback Strategies**

| Feedback Strategies Can Vary In . . . | In These Ways . . . | Recommendations for Good Feedback |
|---|---|---|
| Timing | • When given<br>• How often | • Provide immediate feedback for knowledge of facts (right/wrong).<br>• Delay feedback slightly for more comprehensive reviews of student thinking and processing.<br>• Never delay feedback beyond when it would make a difference to students.<br>• Provide feedback as often as is practical, for all major assignments. |
| Amount | • How many points made<br>• How much about each point | • Prioritize—pick the most important points.<br>• Choose points that relate to major learning goals.<br>• Consider the student's developmental level. |
| Mode | • Oral<br>• Written<br>• Visual/demonstration | • Select the best mode for the message. Would a comment in passing the student's desk suffice? Is a conference needed?<br>• Interactive feedback (talking with the student) is best when possible.<br>• Give written feedback on written work or on assignment cover sheets.<br>• Use demonstration if "how to do something" is an issue or if the student needs an example. |
| Audience | • Individual<br>• Group/class | • Individual feedback says, "The teacher values my learning."<br>• Group/class feedback works if most of the class missed the same concept on an assignment, which presents an opportunity for reteaching. |

choices for feedback and makes recommendations for each based on the research. Notice that the suggestions depend on context: the characteristics of your students, the assignment, and the classroom atmosphere. There is no magic bullet that will be just the right thing for all students, all the time.

While you are deciding on a feedback strategy, you are also, of course, deciding *what* it is that you want to say to the student. Figure 1.2 summarizes

**Figure 1.2 Feedback Content**

| Feedback Content Can Vary In . . . | In These Ways . . . | Recommendations for Good Feedback |
|---|---|---|
| Focus | • On the work itself<br>• On the process the student used to do the work<br>• On the student's self-regulation<br>• On the student personally | • When possible, describe both the work and the process—and their relationship.<br>• Comment on the student's self-regulation if the comment will foster self-efficacy.<br>• Avoid personal comments. |
| Comparison | • To criteria for good work (criterion-referenced)<br>• To other students (norm-referenced)<br>• To student's own past performance (self-referenced) | • Use criterion-referenced feedback for giving information about the work itself.<br>• Use norm-referenced feedback for giving information about student processes or effort.<br>• Use self-referenced feedback for unsuccessful learners who need to see the progress they are making, not how far they are from the goal. |
| Function | • Description<br>• Evaluation/judgment | • Describe.<br>• Don't judge. |
| Valence | • Positive<br>• Negative | • Use positive comments that describe *what* is well done.<br>• Accompany negative descriptions of the work with positive suggestions for improvement. |
| Clarity | • Clear to the student<br>• Unclear | • Use vocabulary and concepts the student will understand.<br>• Tailor the amount and content of feedback to the student's developmental level. |
| Specificity | • Nitpicky<br>• Just right<br>• Overly general | • Tailor the degree of specificity to the student and the task.<br>• Make feedback specific enough so that students know what to do but not so specific that it's done for them.<br>• Identify errors or types of errors, but avoid correcting every one (e.g., copyediting or supplying right answers), which doesn't leave students anything to do. |

(*continued*)

Figure 1.2 Feedback Content (*Continued*)

| Feedback Content Can Vary In . . . | In These Ways . . . | Recommendations for Good Feedback |
|---|---|---|
| Tone | • Implications<br>• What the student will "hear" | • Choose words that communicate respect for the student and the work.<br>• Choose words that position the student as the agent.<br>• Choose words that cause students to think or wonder. |

the kinds of choices you have about the content of your feedback and makes recommendations based on the research.

These aspects of feedback strategies and content are described further in Chapters 2 and 3, which also provide examples of what they mean. For now, the important point is that the characteristics listed in Figures 1.1 and 1.2 are aspects of feedback that research has identified as important. Further, these aspects are things you can control as you give feedback to different students for different purposes.

## Feedback and Grading

Several studies, going back 50 years, have investigated the effects of grades versus comments on student performance. Page (1958) is the classic of this type of study. Page found that student achievement was higher for a group receiving prespecified comments instead of letter grades and higher still for students receiving free comments (written by the teacher). Writing comments was more effective for learning than giving grades. Other researchers replicated Page's study many times over the years, with an interesting result: sometimes these results were replicated, and sometimes they weren't (Stewart & White, 1976). More recent research has identified the problem: in these early studies about comments, the "feedback" was evaluative or judgmental, not descriptive. Page himself described the prespecified comments as words that were "thought to be 'encouraging' " (1958, p. 180). Evaluative feedback is not always helpful.

The nature of "comment studies" changed as the literature on motivation began to point to the importance of the functional significance of feedback:

how does the student *experience* the comment—as information or as judgment? Butler and Nisan (1986) investigated the effects of grades (evaluative), comments (descriptive), or no feedback on both learning and motivation. They used two different tasks, one quantitative task and one divergent-thinking task. Students who received descriptive comments as feedback on their first session's work performed better on both tasks in the final session and reported more motivation for them. Students who received evaluative grades as feedback on their first session's work performed well on the quantitative task in the final session but poorly on the divergent-thinking task and were less motivated. The group that received no feedback performed poorly on both tasks in the final session and also were less motivated.

The reason this study is of particular interest here is that Butler and Nisan's experiment illustrates several of the aspects of feedback discussed in this book. First, the comments that were successful were about the task. Second, they were descriptive. Third, they affected both performance and motivation, thus demonstrating what I call the "double-barreled" effect of formative feedback. And fourth, they fostered interest in the task for its own sake, an orientation found in successful, self-regulated learners. Butler and Nisan's work affirms an observation that many classroom teachers have made about their students: if a paper is returned with both a grade and a comment, many students will pay attention to the grade and ignore the comment. The grade "trumps" the comment; the student will read a comment that the teacher intended to be descriptive as an explanation of the grade. Descriptive comments have the best chance of being *read* as descriptive if they are not accompanied by a grade.

## Looking Ahead

This chapter has outlined feedback strategies and characteristics of feedback content that research has found to affect student learning, motivation, or both. Chapter 2 gives examples that will help you choose effective feedback strategies. Chapters 3 and 4 are about how to fashion your message so that it communicates what you intend in a helpful manner. Chapter 5 is about helping students use feedback. Using feedback is a skill that can be taught, and it doesn't come naturally to all students.

These principles about feedback strategies and content apply to both simple and complex assignments and to all subjects and grade levels. Different subjects emphasize different kinds of assignments, so the opportunities and needs for feedback do differ by subject. Chapter 6 contains some content-specific examples of good feedback. Chapter 7 then offers some suggestions on how to tailor feedback to the needs of different students.