

EXCERPT #5

Brookhart, S. (2008). *How to Give Effective Feedback to Your Students*: Assn for Supervision & Curriculum.

Chapter 1. Feedback: An Overview: 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.