Giving and Receiving Effective Feedback

A Review Article and How-To Guide

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• Context.—Feedback is the delivery of information based on direct observation that is meant to improve performance. Learning is at the heart of feedback, and as such, feedback is a required competency in pathology resident education. In the laboratory setting, the ability of laboratory professionals in all practice settings and experience levels to give and receive feedback is crucial to workflow and ultimately patient care.

Objective.—To summarize the importance of feedback, strategies for optimizing feedback exchange, and overcoming barriers to giving and receiving feedback.

Data Sources.—Peer-reviewed original articles, review articles, medical education literature, and published books on feedback and communication were reviewed to explore ideal methods of giving and receiving feedback and to identify common barriers to feedback exchange.

Conclusions.—Medical education literature emphasizes techniques for giving feedback and describes barriers often encountered to feedback exchange in medical practice. Effective feedback requires that the giver, receiver, and environment be carefully considered. Likewise, each of these factors can impose barriers to feedback exchange. Various methods for giving feedback have been described. All feedback should address a specific behavior, be nonevaluative in nature, and be followed by confirmation of understanding and an action plan. Few articles describe the importance of receiving feedback. Receiving feedback can be difficult, but it is enhanced by learning to listen and making conscious decisions regarding implementing the messages heard. Giving and receiving feedback become easier with practice.


IMPORTANT OF FEEDBACK

Feedback is personalized information based on direct observation crafted and delivered so receivers can use the information to achieve their best potential. In the medical setting, feedback (or lack thereof) extends beyond self-improvement and ultimately impacts patient care. The ability to give and receive feedback is key for trainees, as an integral component of the professionalism competency. Feedback informs every human interaction we have in our professional and personal lives. This is true of all comers to pathology, including laboratory professionals, administrative assistants, medical students, allied health students, residents, and fellows, and is true for pathologists in all practice settings and at all experience levels.

Learning is at the heart of feedback, and feedback in medical education is important. Failure to provide feedback could be dire because “…mistakes go uncorrected, good performance is not reinforced, and clinical competence is achieved empirically or not at all.”

The Accreditation Council for Graduate Medical Education (ACGME) requires that pathology residents receive formative feedback. Specifically, the ACGME mandates that residency programs provide residents with semiannual performance evaluation, including feedback, and that residents develop skills to incorporate formative feedback into their daily practice. In addition, Clinical Competency Committees at least biannually evaluate residents’ ability to give and receive effective feedback (Figure 1).

Regardless of job title and experience, we are all simultaneously educators and learners, both giving and receiving feedback on a daily basis. Thus, competence in giving and receiving feedback is crucial to the delivery and maintenance of excellent patient care.

WHAT IS FEEDBACK?

Webster’s dictionary defines feedback as: something returned to a machine or system, an annoying sound caused by returned signals to an electronic sound system, or information given to someone to improve performance.

The word feedback was first coined in the 1860s during the Industrial Revolution, used to describe information that was returned to machines or processes, but it was not until World War II that the term feedback was applied to interpersonal landscapes. Since then, feedback has gained much traction, especially in business. Corporations pour billions of dollars into training human resources officers and other managerial workers how to give effective feedback. Feedback did not gain popularity in medical education until the 1980s.
In 1983, Jack Ende published a groundbreaking article on feedback in clinical medical education and is credited with first describing feedback as it pertains to medical education. He posited that feedback is descriptive information regarding a learner’s performance in a given activity—information that is intended to guide future performance. Others have offered alternative definitions and refinements. The early definitions of feedback were based on a unilateral exchange of information, often minimizing the learner’s role in the exchange.

Effective conversations are bidirectional, and feedback sessions should be no different. Telio et al7 suggested an alternative bidirectional feedback framework centered around the formation of an educational alliance between learner and educator. This concept emphasizes the bidirectional nature of feedback between giver and receiver and mirrors the therapeutic alliance used in psychotherapy. The feedback process is transformed from that of unidirectional information delivery to one of a dialogue occurring within a committed learning relationship that is used to create shared understanding of goals, performance, and standards, and a mutually agreed-upon action plan. Learner and educator work together to reach goals and collectively create opportunities to use feedback in practice. An enduring relationship built on the foundation of honesty and trust is necessary to facilitate the educational alliance. More recently, Bing-You et al8 compared optimal feedback exchange to the tango. They used this metaphor to illustrate the dynamic partnership between learner and teacher based on listening, trust, and awareness of the other person’s emotional state and surroundings to facilitate effective communication.

Feedback can positively impact physician clinical performance. Not all feedback is effective, however. Feedback can have a negative impact. Characteristics of effective feedback can be related to the interpersonal relationship between learner and educator. The learner’s perception of the educator’s clinical expertise and emotional investment in the learning relationship determines the effectiveness of the feedback. Learners evaluate a supervisor’s commitment to the learning process from the very beginning of the interaction, assessing whether the supervisor cares about them, what the supervisor thinks about them, if the supervisor cares about the learner’s goals, and whether the supervisor has the learner’s best interests at heart. Thus, nurturing the interpersonal relationship is crucial to effective feedback. The structure of a pathology residency curriculum, however, may present challenges to forging educational alliances, especially in the setting of subspecialty rotations, where interactions between learner and educator are limited. To address these challenges, residency programs could include longitudinal experiences that foster building of enduring relationships between faculty and residents. For example, mentoring programs, regularly scheduled small group lunches, and longitudinal apprenticeship experiences can provide opportunities for the development of trusting relationships.

**FEEDBACK VERSUS EVALUATION**

Feedback is a formative assessment and should be distinguished from evaluation, which is summative. Feedback is an informal assessment tool that provides timely, descriptive information regarding direct observations of the learner in the learning environment. Direct observation is always a prerequisite for feedback, providing the observer with specific data for feedback analysis.

Feedback is descriptive, constructive, and nonjudgmental. Word choice should be deliberate, composed primarily of nouns and verbs—for example, “the smears were thick, and tissue fragments were not adequately visualized on microscopic examination” in lieu of “these smears are terrible.” By using specific language and avoiding judgment, the tone of the message remains nonthreatening and provides an opportunity for dialog, establishing a positive interpersonal environment, which in turn fosters learning.

Feedback is frequently provided either during a learning opportunity or immediately following completion of the activity, and in doing so provides an opportunity for future improvement prior to a formal summative evaluation. When feedback is effective, evaluations are never a surprise.

Evaluation is a summative assessment that is a cumulative performance report. Unlike feedback, evaluation is a high-stakes assessment that judges past performances. It can be used as a final assessment, such as at the end of a clinical rotation. Evaluations are formal assessments that become part of the learner’s official record. Evaluation allows for learners to be compared against a standard to ensure that the competencies are attained. Language used in evaluation...
Giving and Receiving Effective Feedback

GIVING EFFECTIVE FEEDBACK

Giving feedback is a skill that we all practice numerous times, often on a daily basis and possibly without awareness. As mentioned above, feedback conversations should be labeled as such. Explicitly labeling a feedback conversation primes both the giver and receiver and emphasizes the underlying feedback goal of the conversation.

Effective feedback requires that the giver, receiver, and environment be carefully considered. Ensuring that a committed and caring interpersonal relationship has been established is of paramount importance for effective feedback.18,19

To provide effective feedback and to maximize learning, the receiver should be engaged at the beginning of the learning experience, such as at the beginning of a rotation, prior to performing a procedure, prior to sign-out, etc. Learners should be asked to suggest learning goals for the learning experience. Educators should assist the learners to ensure that learning goals are SMART: specific, measurable, attainable, relevant, and time-bound.20 Mutually agreed-upon learning goals can then be used to guide the educational experience and to focus the feedback. Omitting this step can be detrimental to the learning process.

Effective educators understand that feedback is not a unidirectional conversation. Feedback requires that the learner not only welcome feedback, but also be an active participant in the discussion. In general, feedback should be provided only when the learner welcomes it. When engaging the learner, he or she should be asked to self-assess his or her performance. Learner self-assessment provides information regarding the learner’s insight and understanding of his or her ability and can be used to guide the specifics of the feedback discussion, taking cues from the learner and using his or her own words when applicable. Physicians, however, have a limited ability to correctly self-assess their competence,21,22 which is why external feedback is so critical. Inclusion of self-assessment in the feedback process could improve self-assessment ability.

Feedback should be descriptive and based on direct observations. To be effective, observed learner behaviors are compared against an established level of competency. The teacher and learner should have a shared understanding of the performance standard. This does not have to be in the form of explicitly written goals and objectives, but it certainly could include goals and objectives. Pathologists are masters of observation and description, having carefully honed skills for describing objective laboratory findings both in anatomic and clinical pathology laboratories; these skills are useful for giving feedback.

Carefully crafted comments are critical to effective feedback. Feedback is constructive, descriptive, and non-judgmental, and can be distinguished from evaluation by the parts of speech emphasized in comments provided to the learner. Ende states, “Evaluation is expressed as normative statements, peppered with adverbs and adjectives; feedback is neutral, composed of verbs and nouns.”23 Caution must be taken to avoid language attributing feedback to the recipient rather than to the directly observed behavior. Feedback based on personality traits should be avoided unless an observable behavior relating to personality can be described. Similarly, subjective data are sometimes appropriate when personal reactions or opinions are clearly stated and labeled using “I” statements. For example, “when you contradicted my diagnosis publicly during the tumor board, I felt humiliated; next time, can you please share your opinion with me privately?”

Avoid the perils of praise (for example, “great job” or “keep up the good work”). Statements such as these imply that the person rather than his or her work is being evaluated. When feedback of this nature is given in a group setting with other learners, the praised learner may feel embarrassed and ultimately withdraw. This type of feedback also has an addictive quality where learners come to expect it and feel let down or even discouraged without it.

Receiving feedback can be a difficult task, depending on the message. Givers should modulate the quantity of feedback delivered. Too many items of feedback may overwhelm the receiver. Prioritize feedback based on importance and omit feedback of lesser priority as needed. It is difficult to know how much feedback to deliver. This determination is contextual and requires the use of emotional intelligence.

Sometimes the intended feedback message is not received. Before the feedback session ends, verify that the message has been accurately received. Have the receiver paraphrase the message, and invite discussion and questions to clarify the feedback and to reach a shared understanding.

FEEDBACK METHODS

Numerous feedback methods have been described, and each one has advantages and disadvantages (Figure 2). Elements of effective feedback should ideally include: establishing a respectful interpersonal climate, selection of an appropriate location, establishing mutually agreed-upon learning goals, eliciting learner self-reflection and self-assessment, describing observed behaviors, and offering suggestions for improvement.23,24 Regardless of the method used, feedback should follow the aforementioned guidelines (Figure 3).

Perhaps the most commonly recognized feedback method is the feedback sandwich. This technique, first described by LeBaron and Jernick25 in 2000, sandwiches negative feedback between positive feedback such that the first and last comments are positive. This structured feedback method is fast, is relatively easy, and may be a useful starting point for someone learning to give feedback.
Although the feedback sandwich may make receiving negative feedback more palatable for some learners, the prescribed format can often seem rigid or contrived both for the learner and the person providing feedback. The receiver may not hear the positive feedback because he or she is anxiously anticipating the arrival of the wolf in sheep’s clothing—specifically, the negative feedback to come. Conversely, the negative feedback message may be diluted by the positives, altering perception but not performance. The positive feedback can be unintentionally negated when it is followed by the conjunction “but.” For example, “your demeanor remained calm when the patient became increasingly nervous and agitated, but you failed to wash your hands prior to palpating the patient’s neck mass.” Instead, the word “and” could be used to connect feedback.

The feedback sandwich is a unidirectional technique that fails to effectively start a feedback conversation; it also does not allow for assessment of the learner’s understanding of the feedback received or for the development of a learning plan. Ask-Tell-Ask is a simple and effective alternative to the feedback sandwich. This bidirectional feedback construct creates a feedback conversation. The first ask allows for learner self-assessment. Then, the giver tells the receiver what he or she observed, addressing concerns and providing insight into what went well and what could be improved. The second ask checks for understanding and allows giver and receiver to develop an improvement plan. This method is easy to teach and has been used in a pathology residency program.

Pendleton rules are another way to begin a feedback dialog between learner and supervisor, to elicit positives and negatives, and to provide the learner with an opportunity for self-assessment. In the Pendleton method, the learner is asked to begin with a self-assessment of what went well. The supervisor then contributes additional specifics as appropriate. The discussion is then turned to areas of improvement, beginning with a learner self-assessment followed by the supervisor’s contributing comments. Like the feedback sandwich method, the Pendleton method is structured, separating the positives from the negatives. Adhering to the structure can be difficult and contrived, constraining the natural flow of conversation and the comingling of positives and negatives. Although the inherent structure does ensure that both positives and negatives are covered, the fact that the negatives are discussed second can be anxiety-provoking for some learners. Pendleton rules can be modified to ask the learner how he or she thinks he or she did, with the supervisor following the learner’s cues. Frequently the learner comingles positives and negatives, allowing for a more natural feedback dialog.

The 5-step microskills model (also known as the 1-minute preceptor) is a useful teaching technique that incorporates feedback and is well suited to both anatomic and clinical pathology. The 1-minute preceptor technique is widely used for improving teaching skills and can be readily learned.

### Table: Methods for Giving Feedback

<table>
<thead>
<tr>
<th>Method</th>
<th>Feedback Sandwich</th>
<th>Ask - Tell - Ask</th>
<th>Pendleton Method</th>
<th>One-Minute Preceptor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Overview</strong></td>
<td>Positive feedback given before and after negative feedback.</td>
<td>Ask 1: Learner self assessment. Tell: External feedback. Ask 2: Check understanding and develop improvement plan.</td>
<td>Learner then teacher describe what went well followed by areas to be improved, sequentially.</td>
<td>Teaching technique whereby learner commits to conclusion (diagnosis) and supervisor elicits learner’s thought process while teaching general rules.</td>
</tr>
<tr>
<td><strong>Example</strong></td>
<td>Teacher: The diagnosis was right and the wrong cancer template was completed. The correct stains to confirm the diagnosis were used.</td>
<td>Teacher: How was the transfection reaction work-up? Learner: I was so focused on the technical work-up, I forgot to ask if the transfection was stopped. Teacher: Correct, first you should always ask if the transfection was stopped. Otherwise, you performed the key steps in working up a transfection reaction. What’s your plan for the next reaction work-up?</td>
<td>Teacher: What went well? Learner: I got adequate material from my fine needle aspiration (FNA) biopsy. Teacher: You did; you successfully made both air-dried and fixed smears. Teacher: What needs to be improved? Learner: I forgot a few things while consentling the patient. Teacher: Yes, don’t forget to check if the patient is on anticoagulants and to warn them of the risk of bleeding.</td>
<td>Learner: The diagnosis is papillary thyroid carcinoma. Teacher: You are correct; which cytological features helped you make the diagnosis? Learner: Nuclear grooves. Teacher: Yes, as well as nuclear membrane irregularities and inclusions. Scant background colloid is another helpful feature on this smear.</td>
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</tbody>
</table>

![Figure 2. Overview of methods for giving feedback.](image)

![Figure 3. High-yield feedback tips.](image)
This technique uses dialog between the learner and the supervisor in the learning environment. The learner is asked to give a commitment: for example, asking a learner to provide a diagnostic interpretation of a cervical biopsy during sign-out. Then, the supervisor probes for supporting evidence and teaches general rules. “Why did you call this biopsy high-grade squamous intraepithelial lesion/cervical intraepithelial neoplasia grade 3 (HSIL/CIN3)?” The learner provides supporting evidence and explains the reasoning behind the commitment. General rules are “pearls” or key “take-home” points. This is followed by feedback. The supervisor should provide constructive feedback, reinforcing what was done well. Finally, corrective feedback is provided. The provider should explain why the learner was correct or incorrect.

Regardless of the method used, feedback should address specific behaviors and be nonevaluative in nature, providing an opportunity for improvement before high-stakes evaluations are completed.

### RECEIVING FEEDBACK

Few articles describe receiving feedback, yet the art of receiving feedback is very important. Good feedback receivers learn to hear the message and to make conscious decisions on how to use (or not use) the information received. Receiving feedback can be difficult, especially in a learning environment. Receptive feedback provides supporting evidence and explains the reasoning behind the feedback. General rules are “pearls” or key “take-home” points. This is followed by feedback. The provider should provide constructive feedback, reinforcing what was done well. Finally, corrective feedback is provided. The provider should explain why the learner was correct or incorrect.

Regardless of the method used, feedback should address specific behaviors and be nonevaluative in nature, providing an opportunity for improvement before high-stakes evaluations are completed.

**Table 1. Barriers to Effective Feedback**

<table>
<thead>
<tr>
<th>Source</th>
<th>Barriers to Feedback</th>
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<tbody>
<tr>
<td>Environment</td>
<td>Time</td>
</tr>
<tr>
<td></td>
<td>Isolated incident (lack of established relationship)</td>
</tr>
<tr>
<td></td>
<td>Lack of privacy</td>
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<tr>
<td>Giver</td>
<td>Fear of emotional reaction</td>
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<tr>
<td></td>
<td>Unknown expectations (staff)</td>
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<tr>
<td></td>
<td>Uncertain of feedback utility</td>
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<tr>
<td></td>
<td>Lack of (feedback) training</td>
</tr>
<tr>
<td></td>
<td>“Likable” staff</td>
</tr>
<tr>
<td>Receiver</td>
<td>Unknown expectations (learner)</td>
</tr>
<tr>
<td></td>
<td>Early in training</td>
</tr>
<tr>
<td></td>
<td>“Likable” learner</td>
</tr>
<tr>
<td></td>
<td>Overconfidence or lack of confidence</td>
</tr>
</tbody>
</table>

Feedback messages should be considered carefully. Mentors may be able to help in the decision process on what to do with feedback. Self-reflection can also be helpful. The feedback message should always be considered in the context of humility. Knowledge that no one is perfect, that everyone needs help and feedback, and that everyone can make changes in performance can be a useful way to consider feedback.

Feedback provides a learning opportunity about the self. The feedback message is information that may or may not have been known prior to the learning experience. Some feedback provides a glimpse of the blind spot in the Johari window, which is information known to others but not to the self.

When receiving feedback, there are a few simple steps that can be followed to maximize the learning experience (Figure 3). Active participation in the feedback receiving process is crucial.

1. Listen. Too often the first impulse is to interrupt in a defensive attempt to negate the feedback message. Allowing the giver to provide feedback is important. Defensive responses will likely diminish the amount and quality of the information received.
2. Express gratitude. Giving feedback can be difficult and uncomfortable. Barriers to giving feedback, such as perception of insufficient time, lack of direct observation, lack of training, lack of goals/objectives, and fear of the learner’s response, are difficult to overcome. That someone has surmounted these feedback barriers to deliver a message shows that he or she cares about you and your patient care.
3. Clarify feedback given through self-reflection and open communication with the person who gave the feedback. Internal feedback skills translate to improvements in clinical performance and professional success. The ability to reflect on feedback received internally, as well as to confirm understanding of the feedback and how to integrate it into modifying one’s learning/action plan with the person giving feedback, is crucial to realizing the full benefit of feedback.

Occasionally the feedback received is all positive. When feedback is unbalanced, invite the giver to provide “just one thing” to improve. This invitation mentally prepares the receiver to receive feedback on an area for improvement. Further, “just one thing” signals permission to the feedback giver to provide constructive feedback.

Seek feedback frequently. Receiving feedback on a regular basis improves receipt practices and strengthens the alliance between the feedback giver and receiver. Further, increased exposure to receiving feedback equips the recipient to identify other additional sources of feedback and

### Table 2. Types of Feedback

<table>
<thead>
<tr>
<th>Feedback Type</th>
<th>Brief</th>
<th>Formal</th>
<th>Major</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>&lt;5 min</td>
<td>5–20 min</td>
<td>15–30 min</td>
</tr>
<tr>
<td>Audience</td>
<td>Group, individual</td>
<td>Group, individual</td>
<td>Individual/ private</td>
</tr>
<tr>
<td>When</td>
<td>During/ after task</td>
<td>Following observations</td>
<td>Rotation midpoint</td>
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</tbody>
</table>

*a Data derived from Branch and Paranjape.*
to continuously improve performance in a low-stakes setting to high-stakes assessment.

Develop a postfeedback plan. Use the feedback information to guide learning and to make changes in daily practice. Reflect on how the interventions are useful or not.

### OVERCOMING BARRIERS TO EFFECTIVE FEEDBACK

Barriers to effective feedback can be attributed to the environment, giver, and receiver (Table 1). Likewise, solutions to overcoming barriers to feedback can be considered as such and collectively promote a feedback culture.

Environmental considerations include not only the physical space but also the interpersonal space. The tone and the seriousness of the message should be considered when determining where and when the feedback exchange occurs. For example, negative feedback should usually be delivered in a one-on-one setting and not in an elevator. Insufficient time and lack of direct observation are often cited as barriers to feedback and can even have a negative impact on the learner. These may be overcome by planning ahead so that learning encounters take place under supervision by the teacher who is expecting to give feedback, so that the teacher can prepare specific feedback accordingly. Feedback need not be a lengthy discussion and can be effectively delivered in a few minutes (Table 2).

Barriers to feedback contributed by both the giver and the receiver can be overcome by setting clear goals and objectives related to performance (in the context of a preestablished shared learning plan) in addition to receiving objectives related to performance (in the context of a receiver can be overcome by setting clear goals and feedback, so that the teacher can prepare specific feedback under supervision by the teacher who is expecting to give feedback: an integrative review and analysis of the content of the teacher-to-learner feedback exchange (published online ahead of print October 3, 2017). Acad Med. 2015;90(5):609–614.


### REFERENCES


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