

Feedback: Theory and Practice

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Feedback, defined

**“The annoying sound
caused by return signals
(in electronic devices)”**

Webster’s Dictionary, 2016.

The Point of Today is to Avoid that

- Jack Ende
- First to look critically at feedback in medical education
- “Information given to someone to improve future performance”

Ende J. *JAMA*. 1983; 250: 777

Feedback

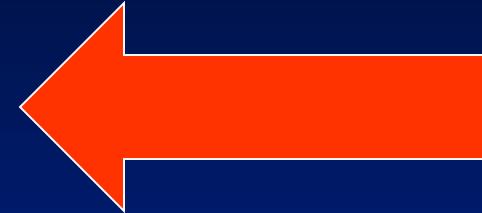
- We can all point to critiques that made us acknowledge a weakness
 - Some feedback made us better
- There is an art to giving feedback
 - Seldom discussed formally

1983



Types of Feedback

- **Formative**
 - Designed for improvement
 - Future
- **Summative**
 - Designed for evaluation
 - Past



Is Feedback Important?

- **Learners crave feedback**
 - “Never get enough”
 - Independent of age
- **Can actually lead to improvement**
- **Correlated with teacher ratings**

Torre DM. Acad Med. 2005; 80: 950.

But Physicians Are Special

- **Physicians have a limited ability to self-assess**
- **Worst accuracy correlated with**
 - Least skilled physicians
 - Most confident physicians

Davis DA. *JAMA*. 2006; 296: 1094.

**“Like ballet,
medical education
is best done
in front of a mirror”**

Ende J. *JAMA*. 1983; 250: 777

Theory

Architecture of Feedback

- Instruction is useful
 - Here's a gap in your knowledge
- Feedback depends heavily on the person providing it
 - There is a subjective component

The Theory of Truth

- Tell the truth, which the recipient is oblivious to
- “You have no idea your suit is so shabby”
- Once you point out the truth, the listener will adapt

The Theory of Learning

- The listener lacks a specific ability
- “You get distracted on rounds. Let me show you how to be ‘unavailable’ on Doc Halo.”
- The feedback provider will teach that skill

The Theory of Performance

- Good performance is universal, analyzable, and not dependent on the individual
- The thought that with appropriate feedback, we can all be stars
- (Probably just not true)

Learning Theory

- Negative feedback stimulates sympathetic nervous system
 - Fight or flight
 - (Both are bad)
- Positive feedback does not activate SNS

Positive Effect of Positive Feedback

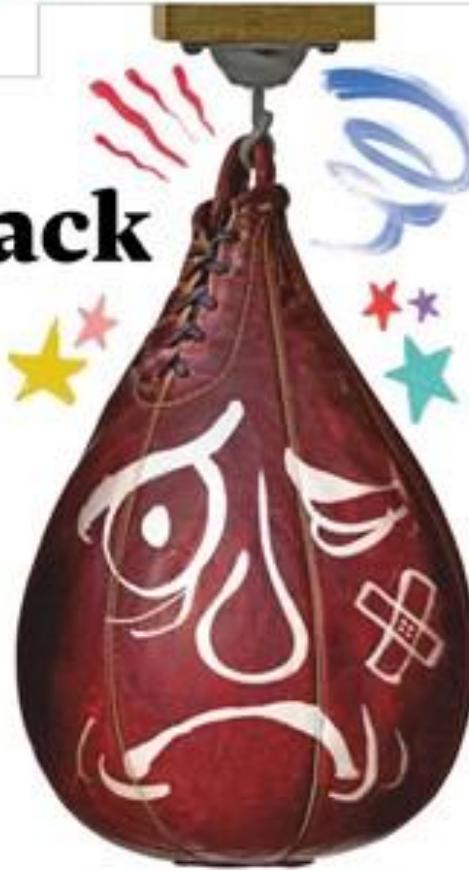
- Focus on reinforcing what is good
- Learning may rest on our grasp of what we're already doing well

Harvard Business Review

Why Feedback Fails

Criticizing people doesn't help them excel.
There's a better way.

92



140 Sell Direct or Through Amazon?
by THALES TEIXEIRA

135 Manage Your Mid-Career Crisis
by KIERAN BETHYA

40 The Future of Leadership Development
by MIRELA MOLDOVEANU and GAB NARAYANASWAMY



Feedback Can Hurt

- After given feedback in a controlled study,
1/3 people had deterioration in
performance
- Focus on correcting negative only

Kluger AN. *Psychol Bull.* 1996; 119: 251.

Even Good Can Be Bad?

- Vague praise also causes decreases performance
- Engenders “globally self-conscious state”
- Impairs automatic nature of effective skilled performance

Baumeister RF. *Basic Appl Soc Psych.* 1990; 11: 131.

Receiving Feedback Mindset

- Learner must realize that feedback is a gift
- Invite the other to give feedback
 - “One thing I can improve on”
 - Places burden on learner

Emotional State

• Improved learning happens in a positive emotional state		
• + Activation	Hope/pride	Effective
• + Deactivation	Relaxation/relief	+/-
• - Activation	Anger/shame	+/-
• - Deactivation	Boredom/despair	Ineffective

Pekrun. *Ed Psychol.* 2002; 37: 91.

Communication Theory

- P artnership
- E mpathy
- A pology for barriers
- R espect for learner values
- L egitimatization of feelings
- S upport for corrective efforts

*That's a lot to
think about!*

Methods of Delivering Feedback

- **The Sandwich**
 - +/-/+
- **Ask-Tell-Ask**
 - Self assessment, feedback, check understanding
- **Pendleton method**
 - + learner/+ teacher/- learner/- teacher

Is the 2:1 Sandwich Ratio Optimal?

- Perhaps more (or less) leads to the most improvement in performance
- 2:1 Undergraduates
- 5:1 Kindergarten students
- 5:1 Physicians

Learning Theory (I)

- **Behaviorism**
 - **Visible behavior**
 - **Modify by stimuli/incentives**
- **Cognitivism**
 - **Thought focused**
 - **Information processing**

Thurlings M. *Ed Res Rev.* 2013; 9: 1.

Learning Theory (II)

- **Social cultural theory**
 - Human intentions/possibilities
 - Learning is a social process
- **Meta cognitivism**
 - Learn to learn
- **Social constructionism**
 - Engagement in knowledge construction

Thurlings M. *Ed Res Rev.* 2013; 9: 1.

Effectiveness

- Most feedback techniques are considered effective from one model, but ineffective from the others
- Feedback processes are complex
- Many aspects of feedback interact with each other

Thurlings M. *Ed Res Rev.* 2013; 9: 1.

Trainee Perceptions

- **Quality of feedback is associated with:**
 - Frequency
 - Reviewing goals and objectives
 - Proficiency in handling conflict
 - Letting learner struggle a little

Boehler ML. *Med Ed.* 2006; 40: 746.

Perception and Reality

- Educators feel that they give frequent feedback
- Learners say that they receive inadequate feedback
- Perceptions changed when feedback was explicitly labeled

Adcroft A. *Higher Ed Res Dev.* 2011; 30: 405.

Our Relationship Status is... It's Complicated

- Effective conversations are bi-directional
- Issues of honesty and trust
- Most important variables
 - Educator expertise
 - Investment in the learning relationship

Practice

What Does Bad Feedback Look Like?



Thoughtless Feedback

“Needs to read more”

“A pleasure to have on service”

Training feedback form					
Your Name Here					
Training Title					
<small>Please rate your level of agreement with each of the following statements. 5 is the highest level of agreement.</small>					
Course	5	4	3	2	1
<input type="checkbox"/> Did the course content meet your expectations?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> How did you experience the speed or rate at which the training was presented?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Can you practically apply the course material to your daily work situations?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> How will the course affect your ability to perform your job from now on?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> How would you rate the focus and structure of the course?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Process of Training	5	4	3	2	1
<input type="checkbox"/> Training received was adequate for my position?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Instructional methods used during mentoring were effective?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Provided training materials were clearly and accurately written?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> I received all enough resources/materials?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Mentoring was provided in a timely manner?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Structure of Training	5	4	3	2	1
<input type="checkbox"/> The usefulness of the information received in training.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> The structure of the training session(s).	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> The pace of the training session(s).	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> The convenience of the training schedule.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> The usefulness of the training materials.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Was this training appropriate for your level of experience?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
About Trainer/Mentor	5	4	3	2	1
<input type="checkbox"/> How knowledgeable was the facilitator on the subject matter?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Did the facilitator explain the concepts clearly and in an understandable way?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> How did the facilitator handle questions that were asked?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> How would you rate their facilitation skills overall?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Food and Dining	5	4	3	2	1
The food and dining staff was courteous.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
The food quality was good.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sitting service was timely and efficient.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sitting service delivered the correct food order.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overall	5	4	3	2	1
How do you rate the training overall?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
“Needs to read more”					



"THAT'S NOT MY JOB"

DON'T BE THAT GUY....

© Break

makeameme.org

Written Feedback

PRIME format

- P rofessionalism punctuality
- R eporter oral presentation
- I nterpreter imaging, synthesis
- M anager efficiency
- E ducator learning, feedback

Pangaro L. *Acad Med.* 1999; 79: 1203.

Verbal Feedback: Don't be Dumb, be

- S pecific
- M easurable
- A ttainable
- R elevant
- T ime based

Doran GT. *Manage Dev.* 1981; 70: 35.

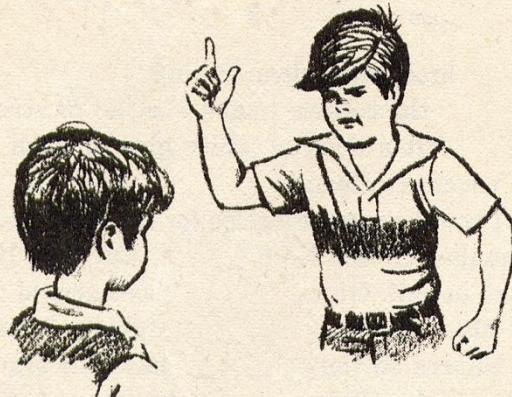
Good Feedback

- The most important aspect of feedback is to put some thought into it
- Actionable
- Relevant
- Personal

Actionable

- Behavior based
 - Not personality based

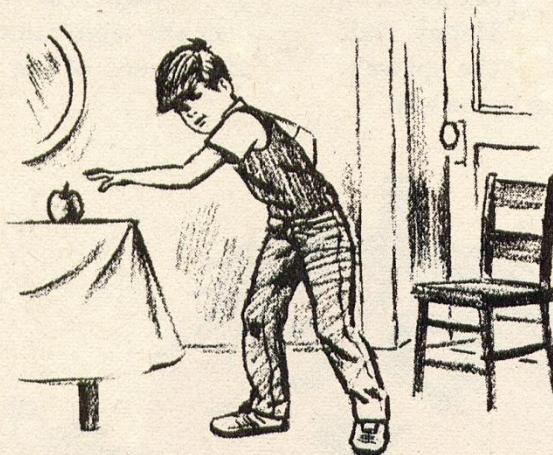
Goofus and Gallant



Goofus bosses his friends.



Gallant asks, "What do you want to do next?"



Goofus takes the last apple.



Gallant shares his orange.

Goofus and Gallant

- Goofus: “You’re lazy.”
 - Student: (exits to Deans office, sobbing)
-
- Gallant: “It’s important to be on time for rounds. They start at 7:30.”
 - Student: “Thank you. BTW, how do you nominate someone for a golden apple?”

Goofus and Gallant

- Goofus: “You’re totally disorganized”
- Intern: (Exits to chairs office, angry)
- Gallant: “You didn’t follow the standard SOAP format. Try it again tomorrow using what we use.”
- Intern: “You got it, boss.”

Make it Relevant

- **Specialty/Rotation specific**
 - This task
 - This rotation
- **Direct observation**
 - No carryovers from previous experience
 - Well, she did terribly with me at the VA

Goofus and Gallant

- Goofus: “You don’t know anything”
- Intern: Egad!
- Gallant: “This is the ID rotation, and you don’t know the difference between amoxicillin and azithromycin.”
- Intern: “I hear ya, chief.”

Make it Personal

- What is unique to that individual's performance?
- Common themes may apply, but make it as specific as possible

Goofus and Gallant

- Fellow: “How am I doing?”
- Goofus: “Keep doing what you’re doing.”
- Fellow: “How am I doing?”
- Gallant: “You really get to know your patients, but when you present you look at the floor, and we have to strain to hear you. I also like the way you ask great questions at the end of rounds.”

Feedback Sandwich



- Critical feedback is more effective when sandwiched between two positive comments
- This arrangement makes the listener less defensive and shows you appreciate some effort

Positive Feedback

- Always provide positive feedback
- “You did a good job with...”
- Can be hidden or difficult to recognize, but there’s always something
 - Form or style
 - Substance
 - Approach

Negative Feedback

- Important to correct mistakes
- “Next time try...”
- “Don’t forget to include the stuff that will kill you first...”
- Gentle correction is better than explosion (just like laxatives)

Logistics

Keep it Short

- Smaller points are more easily digested
- Focus on the main points
 - Requires you to prioritize

Location

Praise publicly,
Criticize privately

Timing

- Make the time
- There is a balance
 - Sooner is better
 - Immediate is not possible or desirable
 - Very negative comments should wait for a private conversation

Frequency

- More is better
- The hardest time is the first time
 - It gets easier with each session

Know Your Audience

- Age matters
- The younger the recipient, the more potent feedback can be
- A PGY-3 can take a hit that may devastate a MS-3

Effective Comments

- “When you do...”
- “I feel...”
- “I would like to see...”
- “What do you think?”

Sullivan A. Team Handbook. 2003.

Involving Others

- It is okay to ask others their opinions
 - Is it just me?
- Consider the effects
 - We live in a small town
 - You may create/reinforce a reputation

Be Prepared to Discuss

- **Make time for a conversation**
 - This is not Twitter
- **Be receptive to the learner's point of view**
 - Listen to the response

Summary

- Make the time to give feedback and label it
- Keep it actionable, relevant, & personal
- Keep it short
- Use a sandwich
- When appropriate, keep it private
- Be prepared for a conversation

Any Feedback?

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