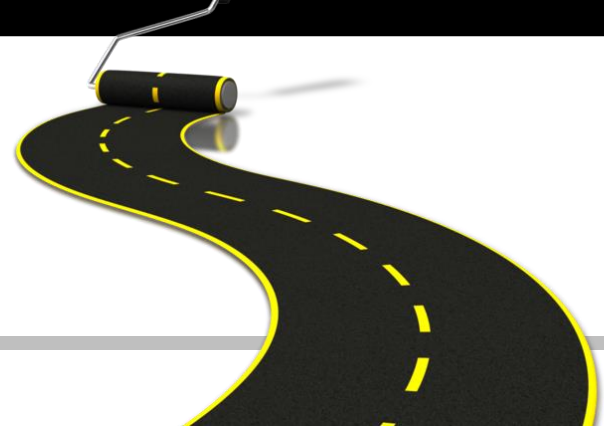


Moving from Message to Action: The role of the learner in feedback

Karen Cornell DVM, PhD, DACVS
Associate Dean for Academic Affairs
College of Veterinary Medicine
University of Georgia

Roadmap



- History and definition of feedback
- Role of the receiver
- Role of the message
- Role of the external forces
- Redefining feedback and moving forward
- I am not here to tell you the words to use to provide feedback. That is the easy part.
- I am here to share with you data about factors critical to successful feedback in addition to the “message” itself.



Feedback

- **1860's Industrial Revolution**
 - Feedback used to describe the way outputs of energy, momentum, or signals are returned to the point of origin in an mechanical system
- **1909 the coupling and loops between components in an electronic circuit**
- **“information alone is not feedback unless translated into action” Scriven (1967) and Ramaprasad (1983)**





*“Feedback is about providing information ...
with the intention of narrowing the gap
between **actual** and **desired** performance.”*

(Cantillon & Sargeant, 2008;
Crommelnick & Anseel, 2013)



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Feedback is ...

*“... the process of
making a connection
to share information about
observed strengths, perceived **gaps**,
blind spots, and/or the **impact** of
one’s **behavior** on others”*



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Feedback in medical education

1892 Johns Hopkins School of Medicine

- Required that all medical students must have earned a bachelor's degree
- Medical degree would require a four-year course of study
- First class of 18 students were presented with a cadaver, a scalpel and the instructor, Dr. Mall, left
 - No lectures, no text, no instruction

“Students didn’t simply dislike Mall, they detested him”

Genius on the Edge: The Bizarre Double Life of Dr. William Stewart Halsted. Imber G. Kaplan Publishing 2011

Areas for Feedback in Medical Education



- **Clinical competence**
Physical examinations, history taking, diagnostic and therapeutic plans, notes or discharge summaries
- **Communication competence**
Patient/Client interactions; case presentation, team interactions
- **Professional competence**
Punctuality, time management, coping with responsibility, organizational skills, showing interest in learning



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Feedback Assumptions

- All feedback is good feedback
- More feedback is better
- One-way flow of information
- Feedback is complete when information is delivered
- One model of feedback for all learners and situations



Does feedback have an impact?

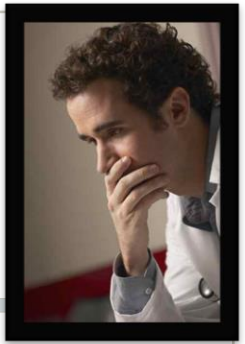
- **Factors that influence student achievement**
 - 1.** Direct instruction
 - 2.** Reciprocal teaching
 - 3.** Feedback
 - 4.** Student's prior cognitive ability
- **Effect size varies**
 - **Greatest effect - associated with feedback about a task and how to do it more effectively**

Hattie 1999



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Feedback in the Learning Environment



With Feedback

- Individuals have increased
 - Confidence and motivation
 - Interpersonal skills
 - Learner satisfaction
 - Clinical performance
 - Accuracy of self-assessment
 - Patient/client satisfaction

(Crommelineck & Anseel, 2013; Malloy & Boud 2013; Thomas & Arnold 2011; Davis et al 2006; Clynes & Raftery, 2008)

Without Feedback

- Individuals may
 - **Overestimate** their abilities
 - Lack reinforcement of effective performance
 - Fail to correct poor performance
 - Receive a false **“positive”** impression

(Davis et al 2006; Ende 1995; Laidlaw 2004;; Waitzkin 1985; Spickard, 2008; Cantillon, 2008)

“Lack of feedback is one of the most serious deficiencies in medical education practice.”

Some feedback has no effect on learning or performance

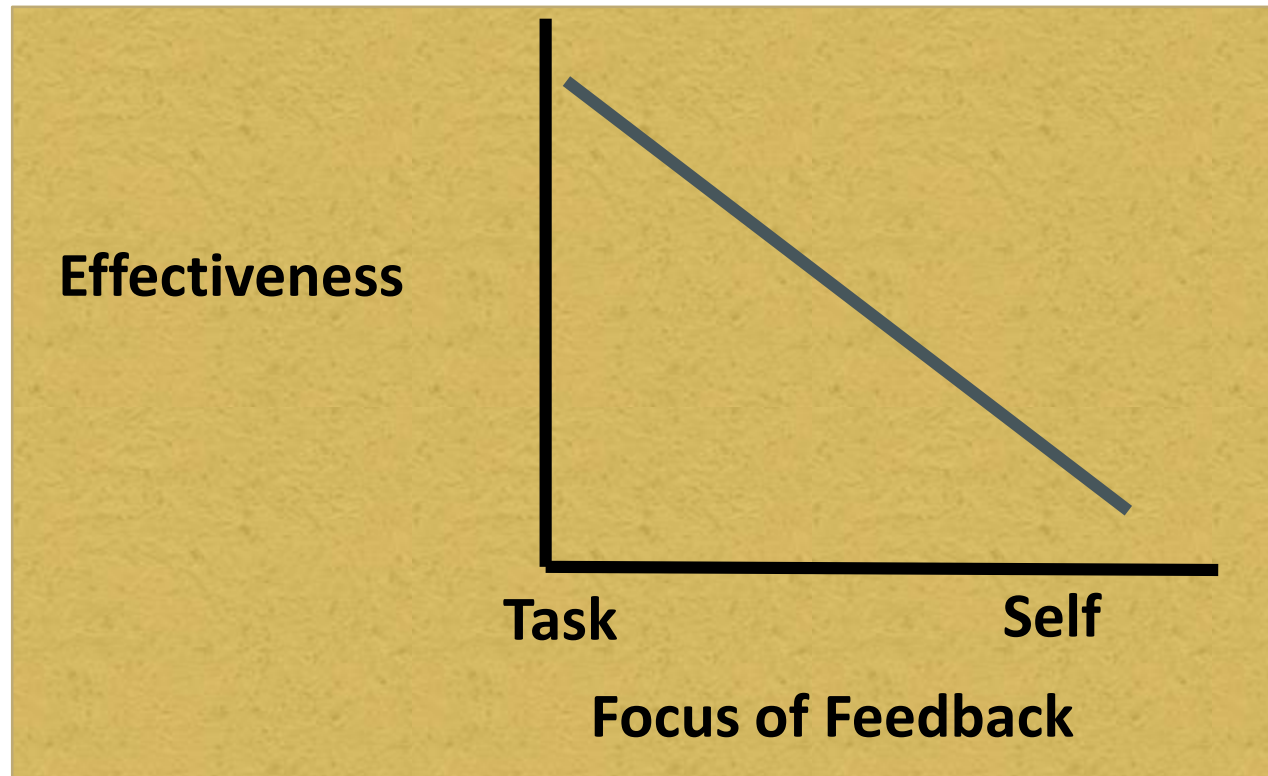
When students receive overly critical appraisals of their work, it can have a negative impact on learning

Kluger, A. N. and DeNisi, 1996;
Hattie and Timperley, 2007

The Effects of Feedback Interventions on Performance: A Historical Review, a Meta-Analysis, and a Preliminary Feedback Intervention Theory

Avraham N. Kluger
The Hebrew University of Jerusalem

Angelo DeNisi
Rutgers University



Feedback – a gift?



Information/observation



Provided to the learner



Feedback message delivered = Success

Essential components of feedback

- Information on the goal of the performance
- Information on the executed performance
- Strategies to address the gap between task goal and task performance



What to put in the box?

Sadler DR. 1989 Instructional Science 18:119-144



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Effective feedback answers three questions

Where am I going? (goals) Feed up

How am I going? Feed back

Where to next? Feed forward

Hattie and Timperley 2007

Task level

How to tie the knot

Process level

Decision making in choice of suture pattern

Self-regulation level

Making the choice between the acceptable choices

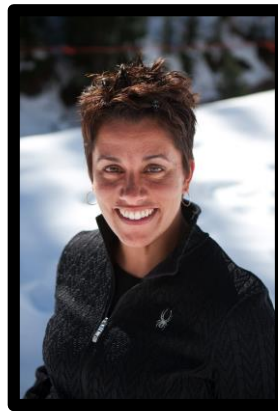
Self level

Nice job!



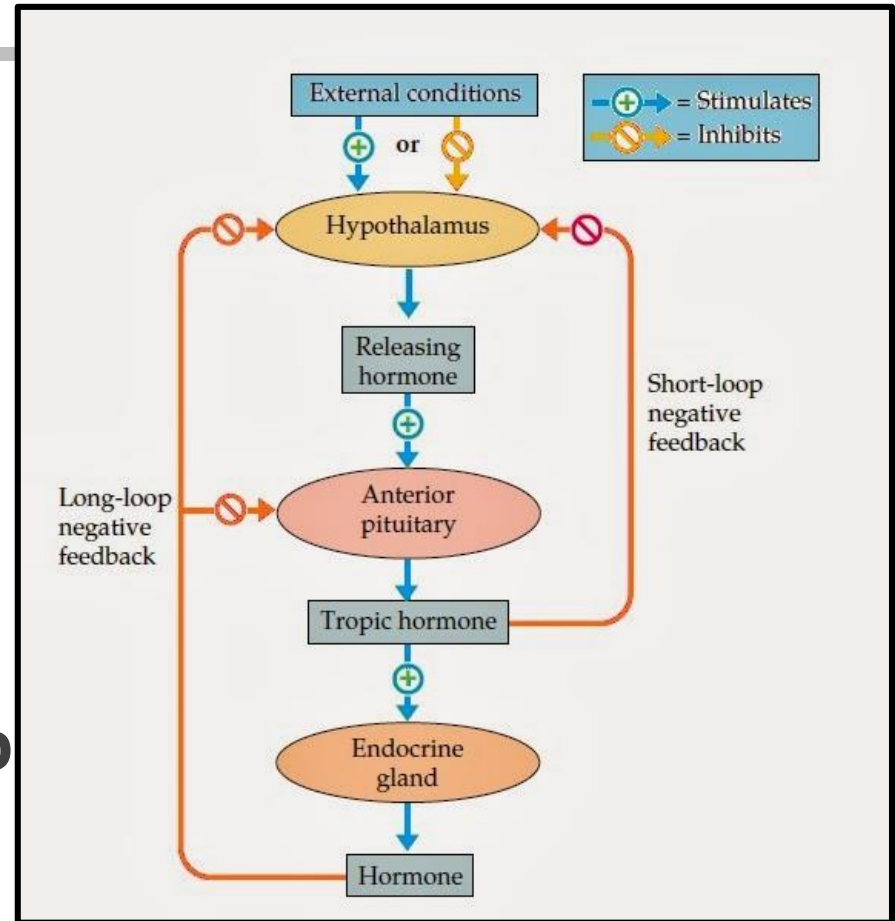
The Role of the Recipient

(Deciding what to put in the box AND how to wrap it)



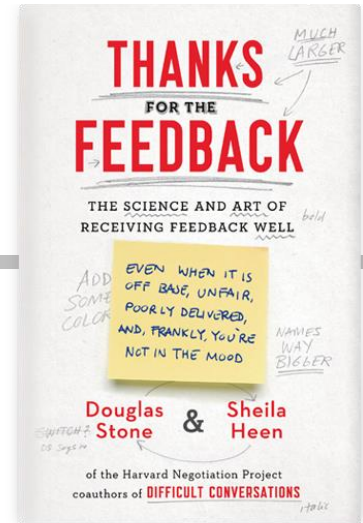
Role of the learner

- **Learner**
 - Thoughts
 - Experience
 - Not a machine or endocrine organ responding to a stimulus or hormone
- Learner must be able to “hear”, decode and utilize the information



Consideration of learner's desired feedback

- **Appreciation**
 - Motivation and encouragement
- **Coaching**
 - Observations on performance with goal of providing strategies for moving closer to desired performance
- **Evaluation**
 - Identifies location relative to standards or performance of others
 - Aligns expectations
 - Informs decision making



Stone and Heen, 2014



delivering feedback

State of the science in health professional education: effective feedback

Julian G Archer

BACKGROUND Effective feedback may be defined as feedback in which information about previous performance is used to promote positive and desirable development. This can be challenging as educators must acknowledge the psychosocial needs of the recipient while ensuring that feedback is both honest and accurate. Current feedback models remain reductionist in their approach. They are embedded in the hierarchical, diagnostic endeavours of the health professions. Even when it acknowledges the importance of two-way interactions, feedback often remains an educator-driven, one-way process.

LESSONS FROM THE LITERATURE An understanding of the various types of feedback and an ability to actively seek an appropriate approach may support feedback effectiveness. Facilitative rather than directive feedback enhances learning for high achievers. High-achieving recipients undertaking complex tasks may benefit from delayed feedback. It is hypothesised that such learners are supported by reducing interruptions during the task. If we accept that medical students and doctors are

high achievers, we can draw on some guiding principles from a complex and rarely conclusive literature. Feedback should focus on the task rather than the individual and should be specific. It should be directly linked to personal goals. Self-assessment as a means to identify personal learning requirements has no theoretical basis. Motivated recipients benefit from challenging facilitated feedback from external sources.

A NEW MODEL To achieve truly effective feedback, the health professions must nurture recipient reflection-in-action. This builds on self-monitoring informed by external feedback. An integrated approach must be developed to support a feedback culture. Early training and experience such as peer feedback may over time support the required cultural change. Opportunities to provide feedback must not be missed, including those to impart potentially powerful feedback from high-stakes assessments. Feedback must be conceptualised as a supported sequential process rather than a series of unrelated events. Only this sustained approach will maximise any effect.

Medical Education 2010; 44: 101–108
doi:10.1111/j.1365-2929.2009.03460.x

“Educators must acknowledge the psychosocial *needs of the recipient* while ensuring that feedback is both honest and accurate”

Archer 2010



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Feedback, the various tasks of the doctor, and the feedforward alternative

Avraham N Kluger¹ & Dina Van Dijk²

OBJECTIVES This study aims to alert users of feedback to its dangers, explain some of its complexities and offer the feedforward alternative.

METHODS We review the damage that feedback may cause to both motivation and performance. We provide an initial solution to the puzzle of the feedback sign (positive versus negative) using the concepts of promotion focus and prevention focus. We discuss additional open questions pertaining to feedback sign and consider implications for health care systems.

RESULTS Feedback that threatens the self is likely to debilitate recipients and, on average,

positive and negative feedback are similar in their effects on performance. Positive feedback contributes to motivation and performance under promotion focus, but the same is true for negative feedback under prevention focus. We offer an alternative to feedback – the feedforward interview – and describe a brief protocol and suggestions on how it might be used in medical education.

CONCLUSIONS Feedback is a double-edged sword; its effective application includes careful consideration of regulatory focus and of threats to the self. Feedforward may be a good substitute for feedback in many settings.

On average, positive and negative feedback are similar in their effects on performance

Feedback that *threatens self* is likely to debilitate recipients



Factors influencing responsiveness to feedback: on the interplay between fear, confidence, and reasoning processes

Eva et al. 2012

- Self-perception and external feedback interact to influence professional development
- Factors that influence interpretation and uptake of feedback
 - Confidence
 - Experience
 - Fear of not appearing knowledgeable
- Responses indicated a paradox:
individuals need to achieve a level of comfort, experience,
and confidence prior to being prepared to ask for or receive
corrective feedback



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Impact of learner focus

- **Prevention focus**
 - Regulates avoidance of pain or punishment
 - Things we do because “we have to”
- **Promotion focus**
 - Regulates the achievement of pleasure or reward
 - Things we do because “we want to”

Kluger and Dijk 2010



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Impact of learner focus

- Study findings

- Prevention focus

- Negative feedback causes  in performance
 - Positive feedback causes  in performance

- Promotion focus

- *Positive* feedback causes  in performance
 - *Negative* feedback causes  in performance

Kluger and Dijk 2010



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Feedback, the various tasks of the doctor, and the feedforward alternative

Medical Education 2010;44:1166-1174

Avraham N Kluger¹ & Dina Van Dijk²

“to determine which type of feedback is appropriate, we need to know not only which regulatory focus is salient, but also which aspect of motivation is stronger in each situation”

- Emphasis in medicine
 - avoid error, manage risk, minimize losses
 - prevention focus
 - avoid malpractice rather than improve patient health



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Learner perception of feedback

- “I consider it important to get feedback on my work”
96% positive responses
- “I think I receive enough feedback”
58.8% positive responses
- “I know where to get more feedback from if I need it”
35.8% positive responses



Maturation differences in undergraduate medical students' perceptions about feedback

Deborah Murdoch-Eaton¹ & Joan Sargeant²

Medical Education 2012; 46: 711–721



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Why don't they just ask?

Feedback seeking

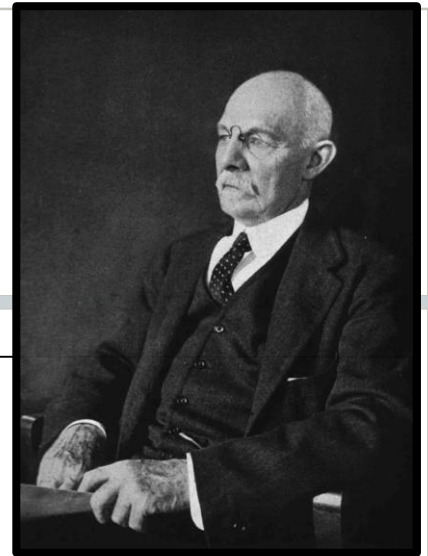
“The conscious devotion of effort towards determining the correctness and adequacy of one’s behaviors for attaining valued goals.”

Ashford SJ, 1986



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Key aspects of feedback-seeking



- Method

- Inquiry

- Direct ask for information

- Monitoring

- In-depth observation of the situation and other people's behavior in order to collect information about one's own performance

- Frequency

- Timing

- Characteristics of the “target”

- Greater expertise

- Greater accessibility

- Topic

Feedback seeking

- **Motives**

- Performance improvement
- Ego bolstering
- Image Building



- Personal characteristics
- Situational circumstances
- Perceived benefits and costs



Encouraging residents to seek feedback

DIANNE DELVA¹, JOAN SARGEANT², STEPHEN MILLER^{2,3}, JOANNA HOLLAND⁴,
PEGGY ALEXIADIS BROWN⁵, CONSTANCE LEBLANC^{2,4,6}, KATHRYN LIGHTFOOT⁶ & KAREN MANN²

Medical Teacher 2013

- **Culture**
 - Faculty and residents agree that culture normalizing feedback would open residents to seek feedback
 - Faculty feel residents expected to take responsibility for seeking feedback
- **Residents**
 - Lack of quality
 - Lack of observation
 - Infrequent feedback
- **Relationship**
- **Emotional response**

Discourage feedback-seeking



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*Lack of
observation
time*

*Poor quality
of feedback*

*Perceived
only as
service
providers*

*Comfort
Supportive vs
intimidating*

*Time on
rotation*

*Fear of
receiving bad
feedback and
“shining light”*

*Time
required
to provide
feedback*

*Resident
responsibility to
seek feedback*

*No insight
regarding
behaviors that
encourage
feedback-
seeking*

*Concerned
with
defensive
reactions*

feedback seeking

Clarifying students' feedback-seeking behaviour in clinical clerkships

Harold G J Bok,¹ Pim W Teunissen,^{2,3} Annemarie Spruijt,¹ Joanne P I Fokkema,⁴ Peter van Beukelen,¹ Debbie A D C Jaarsma⁵ & Cees P M van der Vleuten²

- Feedback seeking related to personal and interpersonal factors
 - Intentions and characteristics of the feedback provider
 - Good communicators
 - Provide feedback on observed learner performance
 - Relationship between the feedback seeker and the provider
 - Longer history of working together
 - Image and ego
 - More likely to seek feedback when it might have positive effect on image and ego



**Information/observati
on**

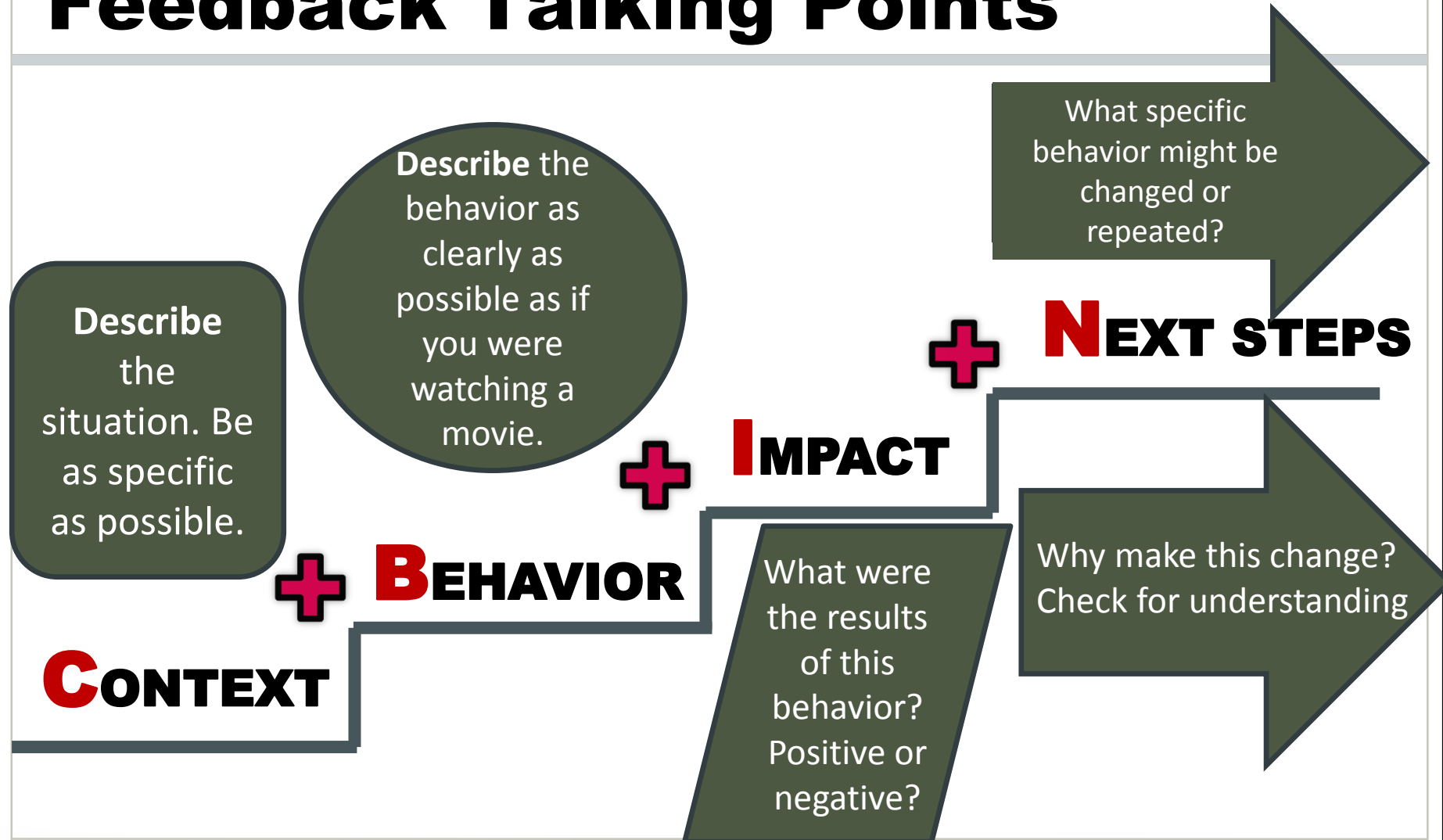
**Provided to the
learner**



CONTEXT **+** **B**EHAVIOR **+** **I**MPACT **+** **N**EXT STEPS

C-BIN

Feedback Talking Points



C-BIN: Feedback to Reinforce Behavior

CONTEXT + BEHAVIOR + IMPACT + NEXT STEPS

“Early this morning, I listened to you gather a history from Mrs. Smith regarding her cat Bob..

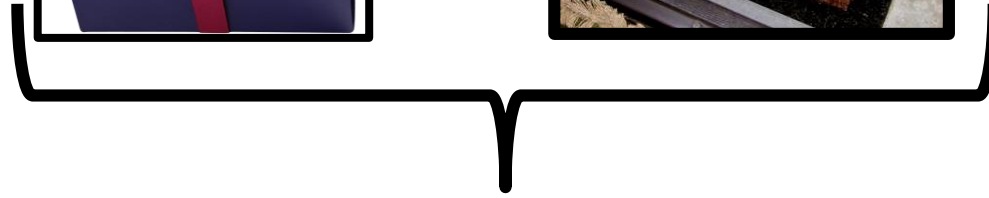
I noted that you listened carefully to her tell you that she was worried about him and his reported vomiting. You spoke with a calm voice and...

I heard the client tell you that she appreciated you listening to her and your support. Your capacity to listen to clients and show empathy, even when you’re busy, is impressive.

I really appreciate that you did that. It shows your commitment to our practice philosophy of compassionate care. I would like you to discuss this interaction in case rounds today so that others gain from your experience”

Only 50% of feedback encounters in a medical education study included strategies for how the learner could improve

Fernando N. 2008 Medical Education 42:89-95



CONTEXT **+** **B**EHAVIOR **+** **I**MPACT **+** **N**EXT STEPS

Feedback message delivered

≠

success?

The Role of Culture and Relationship to the Individual Giving the Gift



Making sense of feedback experiences: a multi-school study of medical students' narratives

Lynn M Urquhart, Charlotte E Rees & Jean S Ker

Medical Education 2014; 48: 189-203

- Medical students describe feedback as:
 - Happening “to” them rather than “with” them



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Beyond individualism: professional culture and its influence on feedback

Medical Education 2013; 47: 585–594

Christopher Watling,¹ Erik Driessen,² Cees P M van der Vleuten,² Meredith Vanstone³ & Lorelei Lingard⁴

Study of how feedback is handled within different professional cultures and how the characteristics and values of a profession shape learners' responses to feedback.

- **Music**
Taught by the same teacher for many years
- **Teaching**
Time limited intense practicum experiences
- **Medical education**
Multiple expert preceptors for short periods of time
- **Context for learning influences how feedback was handled**
- **Credibility and constructiveness**
 - Essential for feedback to be perceived as meaningful
 - Incorporation of an action plan



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Lack of
observation
time

Poor quality
of feedback

Perceived
only as
service
providers

Comfort
Supportive
vs
intimidating

Time
required
to provide
feedback

Time on
rotation

Fear of
receiving bad
feedback and
“shining
light”

Resident
responsibility
to seek
feedback

No insight
regarding
behaviors that
encourage
feedback-
seeking

Concerned
with
defensive
reactions

*If one hopes to convey feedback that is perceived as **credible** an effort must be made to tailor feedback in a manner that will be **interpretable and palatable** through the lens of the recipient's perceptions.*

*Feedback appears most likely to be perceived as worthy of attention and action when delivered from a **clear position of beneficence** that allows the learner to maintain their self-concept.*

Feedback in Higher and Professional Education:
Understanding it and Doing it Well
Boud & Molloy 2013

*When, how, and by whom feedback is delivered matters ...
and it is not received in a vacuum*

*How feedback is **received** is as important as
how it is **delivered***

receiver's view of:



world of practice
feedback provider
his/her own abilities
fears, motivations, expectations



Follow through Putting the gift to work



“The process of feedback might be prompted by what teachers say or write, but the process is not concluded until action by students occurs.”

Feedback in Higher and Professional Education:
Understanding it and Doing it Well
Boud & Molloy 2013



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“Learners must have an **active** role in feedback.

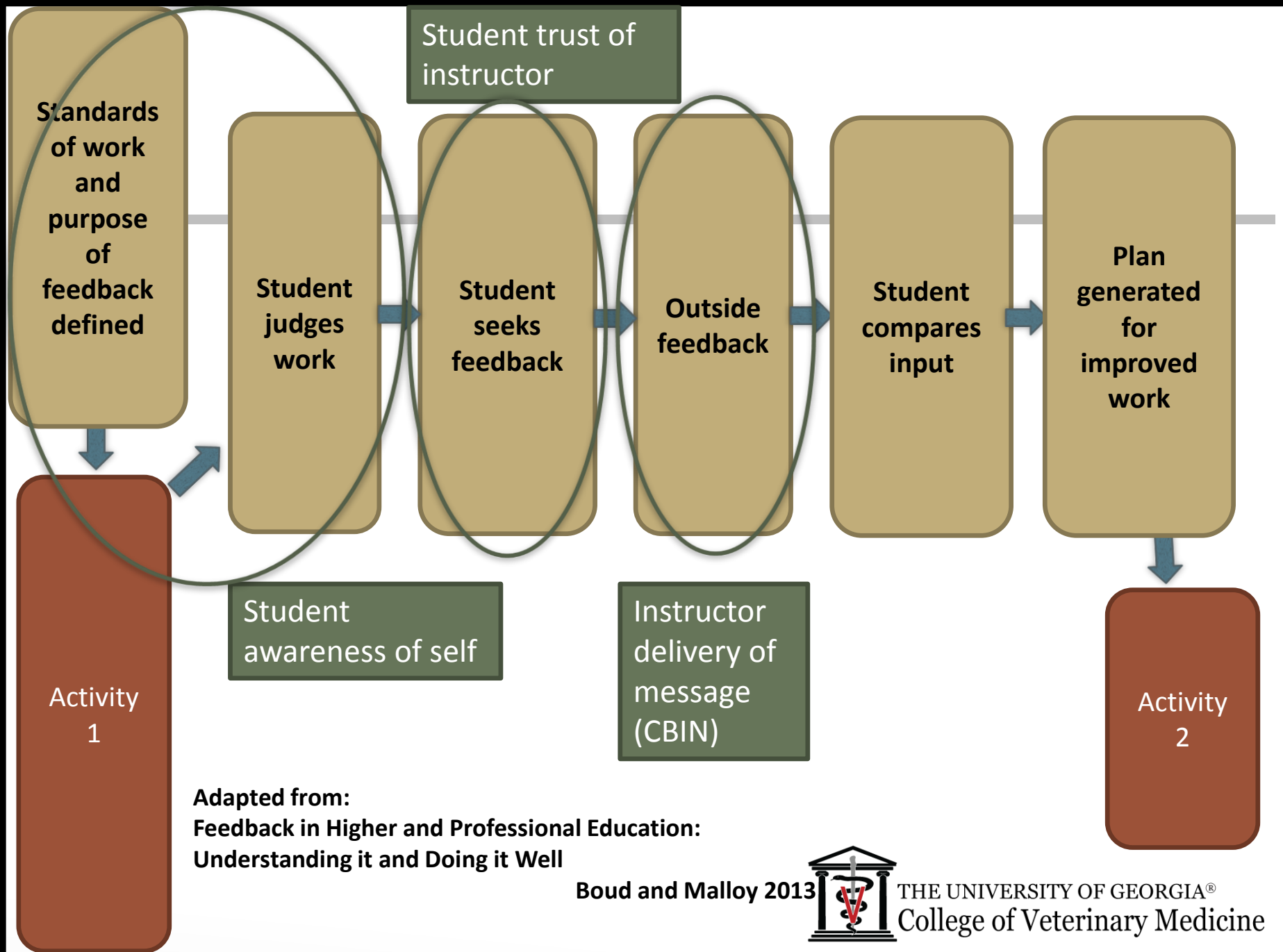
If they are passive recipients of inputs from others, feedback for learning is not occurring.

It is only the learner who can ultimately act to change what they do.

Students must therefore develop the skills of engagement, including **seeking feedback**, **self-evaluating**, and making sense of internal and external judgments, at the earliest stage.”

Feedback in Higher and Professional Education:
Understanding it and doing it well

David Boud and Elizabeth Molloy 2013



Reflective knowledge building

- A process of evaluation and knowledge building
 - Students given the opportunity to:
 - Reflect on and evaluate their own work in relation to feedback input from others or from self-review
 - Use the results of the evaluative processes to build better understanding
- Development of a skilled, self-aware learner

Roscoe and Chi 2008

Boud and Malloy 2013



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Feedback is a process

- Role of the learners
 - Seek information about their work

Feedback contributes to the development of self-aware, feedback-seeking, lifelong learners

- Role of the educator
 - Create a culture that values time and space for feedback
 - Build relationships with learners over time
 - Deliver the message effectively



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*Feedback contributes to the
development of self-aware,
feedback-seeking, lifelong learners*



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Questions?



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