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THE UNIVERSITY OF ARIZONA College of Medicine Tucson

OMSE Office of Medical Student Education

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Editor: Karen Spear Ellinwood, PhD, JD

Inside this issue:

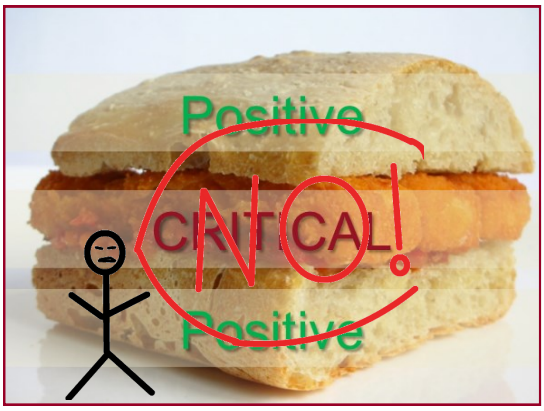
OMSE Office of Medical Student Education

TWT Teaching with Technology

Practice Tips: Feedback as a Conversation

An excerpt of a new CME iBook

Karen Spear Ellinwood, PhD, JD



Many have heard of or been told that the feedback sandwich is an appropriate approach to giving feedback. The model is based on the premise that the feedback recipient will be more receptive to critical feedback if the mentor reinforces successful performance before and after offering critical comments (Davies & Jacobs, 1985).

The rationale is that hearing good news before criticism encourages the recipient to *save face or avoid embarrassment.* Moreover, the reasoning goes, the recipient might be better able to maintain a receptive attitude while the mentor tells them what they did need to improve. The intent is to ensure the trainee will be able to operationalize the critical feedback.

Limitations Of The Model

The feedback sandwich is a model aimed at the "personal preservation" of both the mentor and trainee (Kogan, 2012). Researchers have explored whether positioning critical feedback between positive reinforcement results the recipient learning what or how to improve. Some have posited that burying the critique in the middle of something the trainee wants to hear may enable the trainee to avoid the criticism (Kogan et al. 2012). Surrounding the critique with positive reinforcement may draw the learner's attention away from the primary purpose of giving feedback - to improve knowledge or practices.

"Faculty and staff frequently used the feedback sandwich, a technique originally felt to be effective because negative information is sandwiched between positive items.38 However, some faculty participants in our study recognised the limitations of sandwiched feedback. The feedback sandwich may be a less effective technique because its primary purpose is to shield the trainee and teacher by balancing positive and negative feedback and thereby achieving personal preservation.9 Feedback has highly variable effects on performance.11" (Kogan, et al. 2012, 212).

Constructive feedback should not seek to protect or shield the trainee. The goal of constructive feedback is to help the trainee enhance performance. After studies indicated that the feedback sandwich model did not consistently result in improved performance, some recommended the sandwich be delivered open -faced. Leading with constructive correction (getting right to the point) and ending with positive feedback

(Continued on page 4)

Key Provisions

Article VI. Resident Instructional Development

Section 6.01 Orientation of residents.

Residents who teach medical students in preclinical or clinical years are expected to participate in instructional development training for a minimum of two hours at the start of their residencies.

Section 6.02 Ongoing resident instructional development.

For each subsequent year of residency, all residents are expected to complete a development session (in-person or online) focusing on teaching and assessment skills.

Source: UA CoM Faculty Instructional Development (FID) Policy

RAE ORIENTATION 2015

⇒ Date: 30 June 2015

⇒ Time: 1:00—2:30 pm

⇒ Place: Tucson Marriott University Park, 880 East Second Street, Tucson, AZ 85719

⇒ Maps and Transportation

⇒ Volunteer to facilitate!

CoM

Policy on Residents as Educators

The UA College of Medicine Graduate Medical Education Program welcomes a new class of interns on July 1, 2015. The day before interns start their residencies, the Office of Medical Student Education welcomes incoming interns to our esteemed body of educators who teach medical students in the undergraduate medical education program at the Tucson campus.

Many interns will not be teaching, or formally responsible to teach medical students in their first year of residency. Some are expected to teach. Still, others might be expected to help out as needed.

Many medical schools do not prepare their students to teach. Thus, when interns begin residency at an academic hospital, they might not be prepared to teach—no matter how prepared they might feel.

What do interns think about teaching?

In a study of incoming interns at the UA between 2012 and 2014, we discovered that about half of them had some kind of teaching experience, doing anything from tutoring to teaching at the college of university level. Despite that, half of those with teaching experience recognized the value of continuing educator development support.

Interns also identified personal attributes, overwhelmingly, as providing the key to good teaching or being a good teachers. Among the top 10 attributes were patience, approachability, kindness and humility. Also cited as important were communication skills, and then medical knowledge or teaching experience. While it is hard to "teach" humility, the interns identified an important aspect of teaching that we often miss—the demonstration of attitudes and behaviors of professionalism.

Karen Spear Ellinwood, PhD, JD Director
Faculty Instructional Development

RAE Orientation 2015 Focus!

This year, we will expand our discussion of what attributes are essential to engage in "good teaching" to include:

1) how can interns demonstrate professionalism in their interaction with students;
2) What strengths (skills or experience) can they contribute to teaching; and
3) What commitment will they make to contribute to *good teaching* at the UA College of Medicine.

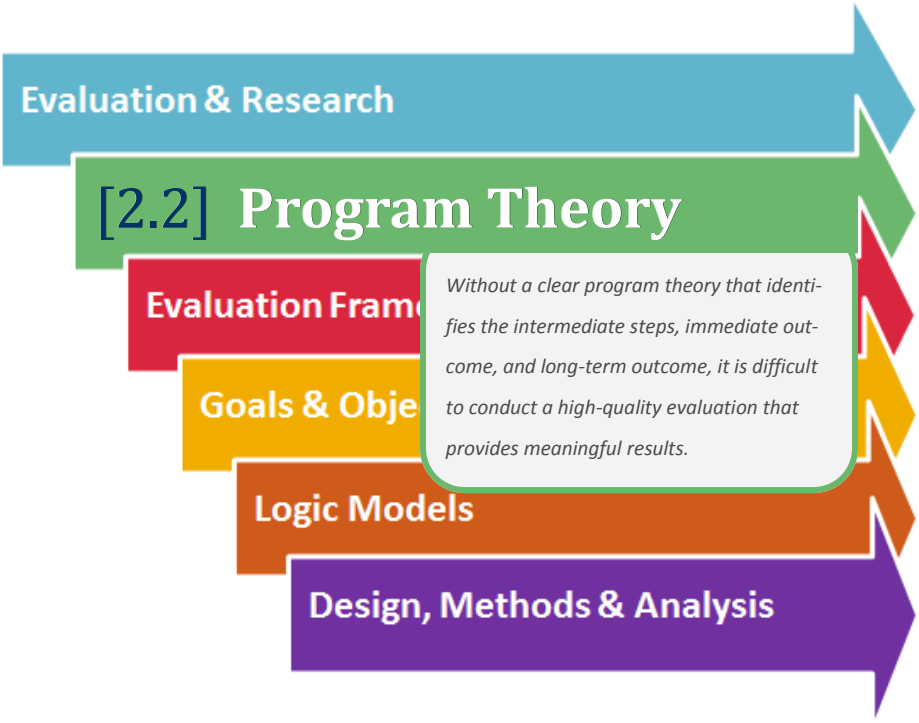
In addition, we will guide interns in learning a straightforward approach to teaching in clinical settings, called B-D-A. It's easy to remember and just as easy to apply.

➲ More about B-D-A

2015 Program cut in half!!

We agreed with interns and facilitators that the RAE Orientation in years past was too long. This year we will initiate a program that is no more than 1.5 hours.

Thank you for your feedback!



Bryna Koch, MPH

Director, Program Evaluation & Student Assessment

In the last Evaluation 24/7 we discussed the importance of program theory and evaluation. Program theory or model "presents a systematic way of understanding events of situations. It is a set of concepts, definitions and propositions that explain situations by illustrating the relationships between variables (Rimer & Glanz, 2005). Ideally before any program is implemented the program planning team used a program theory or model to understand how their program **should work** (the relationship between variables) and the anticipated outcome.

Program theory identifies what should happen right after program participation as the immediate step towards change. It also identifies the longer term outcome that reflects the goal of the program (Lipsey & Pollard, 1989). Without a clear program theory that identifies the intermediate steps, immediate outcome, and long-term outcome it is difficult to conduct a high-quality evaluation that provides meaningful results. It is especially difficult to conduct a summative or outcomes based evaluation without a clear identification of the intermediate steps, immediate outcome and long-term outcome. Programs without a clear theory can be evaluated, but an evaluator should proceed with caution and work carefully with program staff to uncover the assumptions about the way the program works and its intended goal. Building a logic model or a concept map for a program can be a useful process to understand and make clear the program assumptions.

This article will present information on theories and models relevant to the health field. The word model and theory are often used interchangeably and they are similar in that they are both used as a "systematic way of understanding events or situations (Rimer & Glanz, 2005)." A model "may draw on a number of theories to help understand a particular problem in a certain setting or context (Rimer & Glanz, 2005)." A theory is usually abstract and applicable to different situations or contexts.

Figure 1. Using Explanatory Theory and Change Theory to Plan and Evaluate Programs

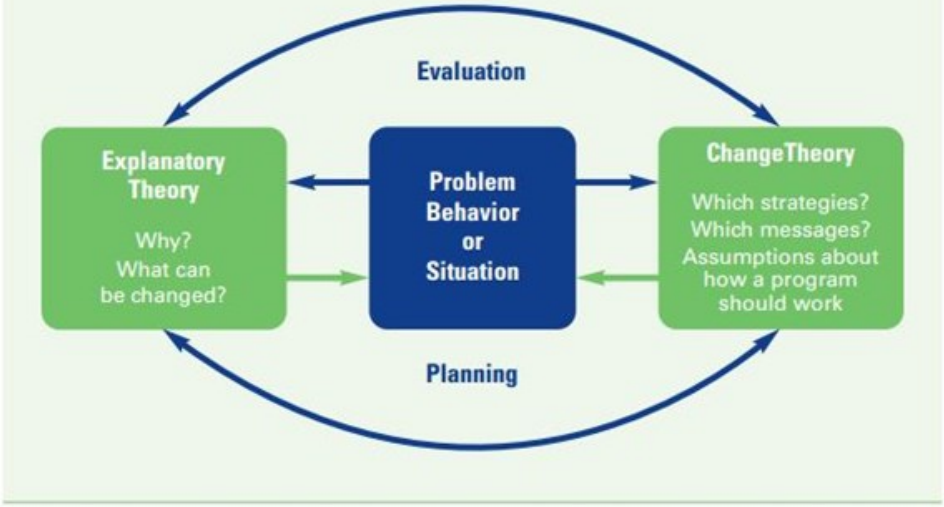


Figure 1 (left) excerpted from Rimer and Glanz (2005) describes the two types of theory and how they relate to evaluation and planning. Identifying the theory or model that is related to the intended goal of the program helps clarify the relationship between variables; it identifies the

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is one alternative.

Whatever feedback model you choose to use, there are several principles of feedback that define it as constructive and formative that will guide you toward promoting reflective practice. 2. These seven principles are gleaned from Nicol & McFarlane-Dick's review of research on feedback in a variety of educational settings, and are consistent with the reflective feedback conversation model suggested by Cantillon and Sargeant (2008).

What Defines Feedback as Constructive and Formative?

Nicol & McFarlane-Dick (2006) proposed seven principles of "good feedback practice" based upon a review of research on feedback in higher education settings. They concluded that "good feedback practice":

1. helps clarify what good performance is (goals, criteria, expected standards);

2. facilitates the development of self-assessment (reflection) in learning;

3. delivers high quality information to students about their learning;

4. encourages teacher and peer dialogue around learning;

5. encourages positive motivational beliefs and self-esteem;

6. provides opportunities to close the gap between current and desired performance;

7. provides information to teachers that can be used to help shape teaching.

(Nicol & McFarlane-Dick, p. 206).

Each of these may be applied or adapted to teaching and mentoring in clinical settings.

Principle #1 Constructive Feedback Helps Clarify Expectations For Good Performance

Nicol & McFarlane-Dick (2006) identified from their review of the literature on feedback other strategies that have proven to be effective to clarify criteria, standards and goals for learner performance. These include:

> "External feedback provides an opportunity to close a gap between current performance and the performance expected by the [mentor]" (Nicol & McFarlane-Dick, p. 213).

- Defining requirements to clarify performance level expectations and criteria for assessment or evaluation;
- Promoting more frequent discussion and reflection about criteria and standards before learners are expected to perform;
- Offering students practice with the assessment process and criteria by engaging them in peer assessment using the same defined criteria and standards that will be applied to their performance;
- Offering opportunities for learners to work with instructors to devise (interpret or negotiate) assessment criteria.

Each of the above strategies are aimed at promoting reflection and facilitating learners' engagement in behaviors that foster self-regulation.

Principle # 2. Constructive Feedback Facilitates Self-assessment Or Reflection In And On Learning And Practice

It is important to provide trainees or junior faculty with "opportunities to evaluate and provide feedback on each other's work" to promote self-assessment and reflection on practice," (Nicol & McFarlane-Dick, p. 208). It is common experience that evaluating how others perform reminds us of the key aspects of performance and how we ought to perform.

Learners who engage in reflection tend to make fewer errors and engage in more problem-solving behaviors than learners who respond impulsively (Zhang & Sternberg, 2005). Healthcare professions are turning to methods of instruction that promote reflection in learning process as a way to instill or cultivate a habit of reflection that will carry over to practice.

Engaging trainees or junior faculty in peer assessment, after instruction on how to conduct assessments, may assist trainees and junior faculty in identifying what they would like to improve about their own performance as well as reflection on the strengths they bring to clinical practice.

Principle #3 Constructive Feedback Is Actionable!

Nicol and McFarlane-Dick's review of research indicated that constructive feedback "delivers high quality information to students about their learning". They further defined this principle as by concluding that constructive feedback should enable the trainee to "take action to reduce the discrepancy between their intentions and the resulting effects" (Nicol & McFarlane-Dick, p. 208).

Thus, to be constructive - to be helpful to the learner - feedback must be actionable. This highlights the reflective feedback conversation model's emphasis on including a

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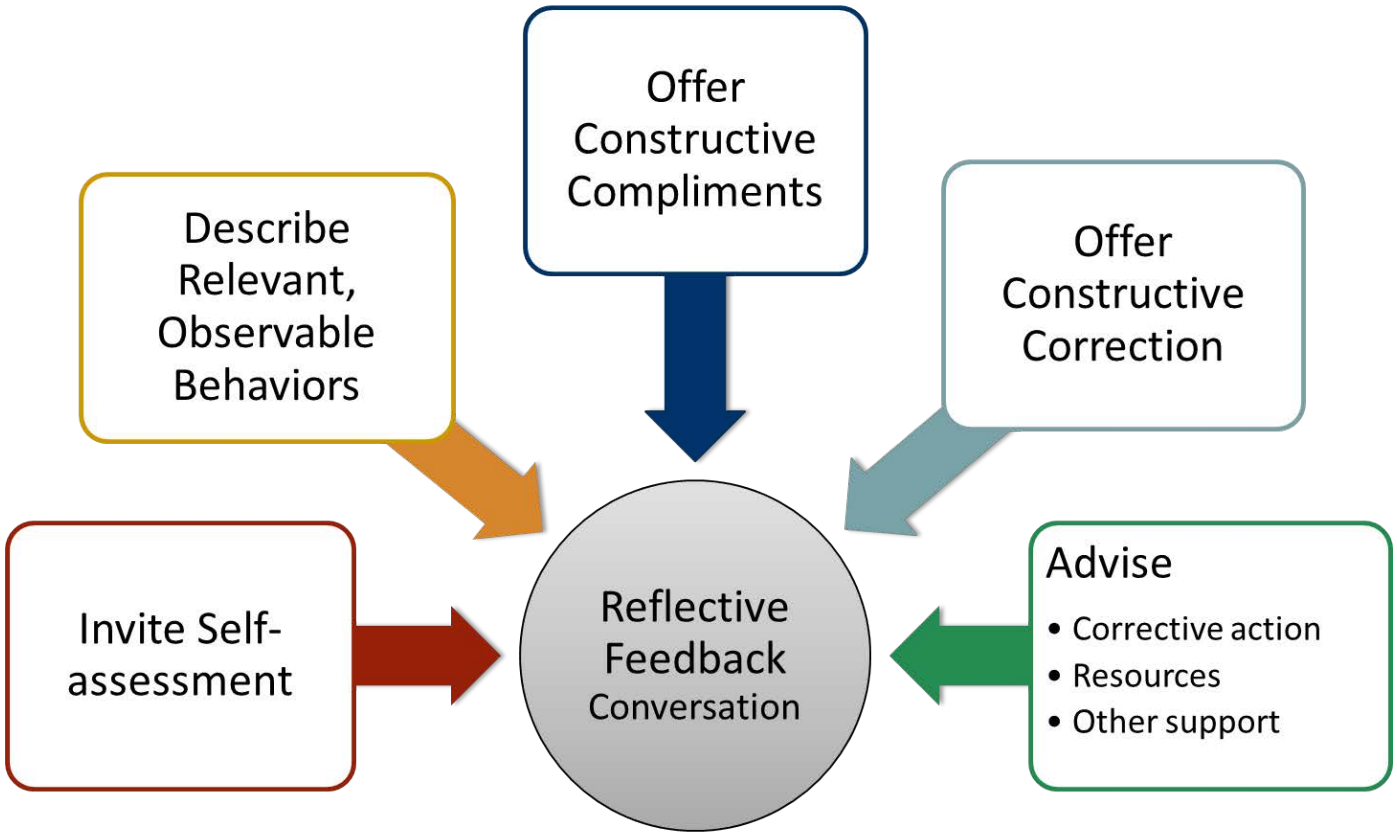

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description of specific, relevant observable behaviors. It is such a description that contextualizes the assessment of performance and makes it possible for the trainee to take action to improve performance. Without knowing the specific context or behaviors, no action can be taken.

Principle #4 Constructive Feedback Encourages Educator And Peer Dialogue About Learning

Constructive feedback conceptualizes "feedback more as dialogue rather than as information transmission" (Nicol & McFarlane-Dick, p. 210). Again, this principle emphasizes the importance of the reflective feedback conversation as a model for giving feedback. This principle means that mentors should treat feedback as a dialogue rather than as a prescriptive or prescriptive transmission or right and wrong.

To do so, it is important to prepare the trainee or junior faculty to engage as an active participant in a dialogue about performance and learning.

Principle #5. Constructive Feedback Encourages Positive Motivational Beliefs And Self-esteem

"Motivation and self-esteem play a very important role in learning and assessment" (Nicol & McFarlane-Dick, p. 211). How trainees or junior faculty perceive their roles and themselves in the context of clinical practice affects how they receive and interpret or act upon feedback (Nicol & McFarlane-Dick, p. 211; also, Dweck, 1999). Trainees who perceive themselves as having fixed traits or abilities will not be motivated to make changes for improvement. Those who believe that skills and knowledge are developed through deliberate learning and experience, will be motivated to make change. (*See also*, Zhang & Sternberg, 2005). Part of the role of giving feedback is to motivate the learner toward self-regulation, identifying skills or knowledge in need of improvement and seeking guidance from people and/or resources to make necessary changes in practice. Strategies that have been associated with "high levels of motivation and self-esteem" include formal assessments, making time to practice skills or apply knowledge with deliberate learning objectives in mind (Nicol & McFarlane-Dick. p. 212).

Principle # 6. Constructive Feedback "Provides Opportunities To Close The Gap Between Current And Desired Performance"

(Continued on page 7)

[1.4] Program Theory

variables that based on prior research are the most amenable to change; and helps to understand the essential contextual factors related to the program goal.

No matter the theory or model that is the best fit for a program an ecological perspective is essential. This is especially true in both the health and education fields. An ecological perspective asserts that in an individual's life there are multiple levels of influence from the individual level like genetics to the macro level of neighborhoods, culture, and social or economic policies (Rimer & Glanz, 2005). Fig-ure 5 (right) represents an ecological approach to un-derstanding health and disease distribution (Smedley & Syme, 2000).

The table below is adapted from Rimer and Glanz (2005), it is not exhaustive, but presents a starting point for further investigation. Reading the literature or speaking with experts in the field is al-ways recommended.

If you are planning or evaluating a program with any of the intended outcomes identified in the left-column reading and understanding the related theories and which one serves as the best map for your program will help to significantly inform the evaluation. */bk/*

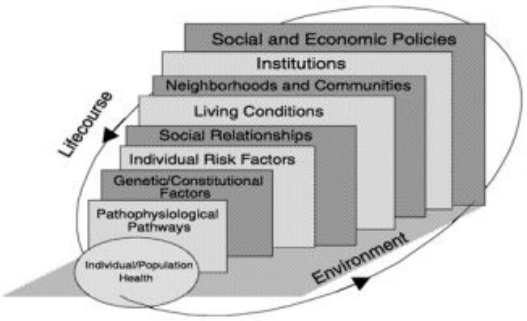

FIGURE 5 Multilevel approach to epidemiology.

Evaluation 24/7

References

Lipsey M W & Pollard J A. Driving toward theory in program evaluation: More models to choose from. *Evaluation and Program Planning*, 12, 317-328; 1989.

Rimer BK & Glanz K. *Theory at a glance: a guide for health promotion practice* (Second edition). NIH Publication No. 05-3896

CONTACT

Please contact Ms. Koch if you have questions about program evaluation or would like guidance for a project involving program evaluation.

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Intended Outcome	Level	Relevant Domains	Theories/Models
Behavior Change	Individual	Social Psychology Psychology Sociology Biology	Health Belief Model Stages of Change/Transtheoretical Model Theory of Planned Behavior Precaution Adoption Process Model
	Interpersonal	Social Psychology Psychology Sociology Education	Social Cognitive Theory/Social Learning Theory Social Development Theory Situated Learning
Changing Norms	Community	Sociology Anthropology Communications Education	Community Organization Diffusion of Innovations Communications Theory
Changing a System	Organizational/ Institutional	Psychology Sociology Anthropology Engineering Education	Organizational Learning Models Organizational Development Activity Theory Stage Theory

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"External feedback provides an opportunity to close a gap between current performance and the performance expected by the [mentor]" (Nicol & McFarlane-Dick, p. 213). Mentors, then, should respond to trainees' self-assessment and attempts to improve performance. Such responsive feedback encourages continued attempts to improve behavior and practice. Time is an important consideration for all clinical practitioners.

The reflective feedback conversation does not have to occur all at once in a single face-to-face conversation. It may continue as a dialogue over longer periods of time and utilize a variety of methods, including electronic means where appropriate to privacy concerns. Framing feedback as an ongoing conversation at the beginning of the mentor/trainee relationship is key to the success of ongoing feedback. In addition to modeling good behaviors and practice, mentors may introduce the suggested change in practice as incremental, and then identify times and means to facilitate a follow-up feedback conversation after initial attempts at instituting the changes.

The mentor should frame this as a continuing feedback conversation, asking the mentee to self-assess how the attempts to change practice are working or not and to be prepared to offer self-assessment at the next juncture in the conversation.

7. Constructive Feedback Provides Information To Educators That Can Be Used To Help Shape Teaching

"Assessors learn about the extent to which they [learners] have developed expertise and can tailor their teaching accordingly," (Yorke 2003, 482). More frequent monitoring and assessment of how mentees are putting suggested changes into practice enables the mentor to identify gaps in knowledge and/or application of knowledge and to deliberate whether and how to provide the guidance or experiences necessary to assist better performance. At times, there might be a communication gap between mentor and trainee. Checking in more frequently with trainees to follow-up on how they operationalizing feedback in practice, offers information to the mentor as to how to communicate feedback so that it becomes actionable.

> *Reflection is particularly important in medicine, in which evidence-based practice and client-centered care require the physician to analyze best evidence while considering his or her values and assumptions. It enables trainees to recognize their own assumptions and how those assumptions might impact the therapeutic relationship and their clinical decisions. Reflection also helps practitioners develop a questioning attitude and the skills needed to continually update their knowledge and skills, which is essential in today's rapidly changing global health care environment. The importance of the reflective process is further acknowledged by the Accreditation Council for Graduate Medical Education (ACGME) as underlying a number of the expected competencies is the development of reflective practitioners vis-a`-vis the values, beliefs, and goals of each patient.*
> - Plack & Greenberg (2005, 1546).

This checking-in, then, is aimed both at monitoring the trainee's learning as well as self monitoring the mentor's teaching and communication. Such assessments can be done formally as brief, narrative reflections by the learner as well as through peer review of performance (where each peer reviews the other), or by the mentor's direct observation of performance. Narrative reflections can be brief, such as limiting them by time (e.g., the one-minute paper is a well-recognized assessment method).

Such a narrative reflection may ask the mentee to address what they did differently to address prior feedback given and whether and how it worked better or not. It may also ask trainees to identify questions they have about expectations, procedures or other resources. Such follow-up reflections may also address what action the learner believes they should attempt next time to further develop the skills or knowledge needed for effective or improving clinical practice. The Reflective Feedback Conversation

1) incorporates the seven principles of what makes feedback constructive (helpful).

2) includes constructive complimentary and critical comments.

3) asks the mentor or educator to preface complimentary or critical comments by conveying specific examples of relevant observable behaviors.

4) aims to promote an ongoing conversation between the educator or mentor and trainee about trainee performance, and offer guidance for reflecting on past performance and improving future performance.

The Reflective Feedback Conversation

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incorporates the seven principles of what makes feedback constructive (helpful) (Nicol & McFarlane-Dick, 2006).

The concept of a "reflective feedback conversation" reframes feedback as a conversation between mentor and learner, eliminates the need for prioritizing the sequence of critical and positive feedback, and "places greater emphasis on the learner's own ability to recognise performance deficits and includes a discussion about how the learner plans to improve," (Cantillon & Sargeant 2008, 1294). The key to applying this model is reflection.

Reflection And Self-regulated Learning

Professional practice is a process of self-regulated, evidence-based decision making (Schön, 1983). Self-regulation involves assessment, planning, implementation, monitoring, and evaluation (see, Kaplan & Berman, 2010; Rager, 2006). These processes entail reflection on self and practice and are integral to the reflective feedback conversation model recommended here.

For example, the professional assesses what a particular situation requires of them, and whether their present abilities will meet those demands, or whether additional training or knowledge is necessary. During planning, the professional considers their assessment of self and situation, and identifies the funds of knowledge available in their community of practice (e.g., peers, mentors) to which they belong, and other relevant resources.

The professional also decides whether to take action, what action to take and how it should be taken. How the professional implements a plan of action represents their application of knowledge, skills and practices. Whereas *monitoring* the learning process involves metacognition, professional judgment or the ongoing assessment of the case, situation, self and skills, to ensure success.

At the completion of a given experience, the professional evaluates the outcome and how they achieved (or failed to achieve) it. The purpose of this post-case reflection is to improve future performance and approaches to performance.

While junior faculty and fellows are not new to medical practice, they are relatively new to independent medical practice. Your professional guidance should aim to assist them, then, in becoming more effective self-regulated learners, a skill set which is essential to lifelong learning and the practice of medicine.

The mentor's role is to scaffold the trainee's or junior faculty's self-regulated learning and practice such that, they:

1) (1) gradually transfer[] responsibility to the supervisee and
2) gradually remov[e] support. Both strategies concern customizing the learning experience to the capabilities of the particular supervisee. (Goodyear 2014, 91).

Scaffolding involves shifting one's pedagogy from direct instruction (telling the learner what they need to know and how to do it) to guiding the learning process. This means the educator periodically assesses performance and progress and adjusts how and to what extent they guide the trainee in clinical practice.

Engaging the learner in a dynamic and formative feedback process is a strategy for scaffolding self-regulated learning and practice (Goodyear, 2014). The *reflective feedback conversation* model, suggested by Cantillon and Sargeant (2008), is a systematic approach to scaffolding this self-regulated learning process. It entails the trainee's reflection in and on professional growth and practice by structuring feedback as a conversation involving the mentor's and trainee's collaborative evidence-based assessment of practice. The goal, then, of a reflective feedback conversation is to encourage the trainee's active participation and investment in their professional improvement.

Read more about the Reflective Feedback Conversation model in the new iBook / e-publication by Dr. Spear Ellinwood, part of the CME library of resources for UA College of Medicine faculty.

References

Cantillon P & Sargeant J. Giving Feedback in clinical settings. *British Medical Journal 337*:1292-94; Nov 2008.

Davies D & Jacobs A. Sandwiching complex interpersonal feedback. Small Group Behav 1985;16:387–96.

Dweck C.S. *Self-theories: Their role in motivation, personality, and development. Philadelphia: Psychology Press; 1999*.

Goodyear RK. Supervision As Pedagogy: Attending to Its Essential Instructional and Learning Processes, The Clinical Supervisor , 33:1 82 - 99 ; 2014. DOI :10.1080/07325223.2014.918914.

Hewson MG & Little ML. Giving Feedback in Medical Education. *Journal of General Internal Medicine, 13*: 111–116; 1998. [doi: 10.1046/j.1525-1497.1998.00027.x]

Kogan JR, Conforti LN, Bernabeo EC, Durning SJ, Hauer KE & Homboe ES. Faculty staff perceptions of feedback to resi-

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dents after direct observation of clinical skills. *Medical Education 46*:201–215 ; 2012 [doi:10.1111/j.1365-2923.2011.04137.x]

Kogan J. How to evaluate and give feedback. In, L.W. Roberts (ed.), *The Academic Medicine Handbook: A Guide to Achievement and Fulfillment for Academic Faculty*. Springer:New York, pp. 91-101; 2013.[doi10.1007/978-1-4614-5693-3_11].

Nicol DJ & Macfarlane-Dick D. Formative assessment and self-regulated learning: a model and seven principles of good feedback practice, Studies in Higher Education, 31:2, 199-218; 2006, Accessed at http://dx.doi.org/10.1080/03075070600572090.

Kaplan & Berman, Directed Attention as a Common Resource for Executive Functioning and Self-Regulation; Science **January 2010** vol. 5 no. 1 **43-57**.

Rager, K. B. Self-directed learning and prostate cancer: A thematic analysis of the experiences of twelve patients. *International Journal of Lifelong Education*, **25** (5), 447–461; 2006.

Schön D. The reflective practitioner: How professionals think in action. NY:Basic Books; 1983.

Zhang L & Sternberg RJ. A Threefold Model of Intellectual Styles. *Educational Psychology Review, 17(*1), March 2005.

Feedback Article References (continued)

THE UNIVERSITY OF ARIZONA | COLLEGE OF MEDICINE

OMSE Office of Medical Student Education

Faculty instructional development

Resources

Teaching Guides

- Structured Approach to Medical Problem-solving (Figure)
- Reflective Teaching Guide (preclinical or clinical settings)
- Feedback Essentials
- How to formulate Effective Questions Guide
- Socratic Inquiry
- Inquiry-based Teaching Strategies
- Encourage students to consider cognitive error

Teaching Guides Specific to Teaching in Clinical Settings

- Microskills Card
- RIME (Reporter-Interpreter-Manager-Educator) Framework
- Educational Strategies for applying B-D-A* and RIME frameworks combined

Sample B-D-A Sequence for a Patient Encounter

- **BEFORE the encounter**... Ask the student to identify the criteria for the suspected illness or condition. [Reporter]

- **DURING the encounter**... Ask the learner to observe for or seek information to confirm the presence or absence of these criteria. [Reporter]

- **AFTER the encounter**... Ask the learner to describe their observations and indicate whether this information helps them to differentiate from among possible diagnoses, what other information they might need to do so; did they find what they expected? [Reporter; Interpreter]

WGEA Posters & Presentations by UA CoM Faculty (San Diego, 2015)

Posters

- Adamas-Rappaport W. & Hall J. Introduction of a "Flipped Classroom" Format in a Musculoskeletal System Block.
- Ganchorre A.R., Yang A. & O'Brien C. (Chicago). Picture this: The utility of an audiovisual mnemonic study tool in an immunology and microbiology course
- Gordon H. & St. John P. *ThinkShare Leverages Diversity to Promote Problem Solving* . Poster.
- Koch B. & Ellis S. & Gura M. Does it Matter? Requiring Student Survey Feedback.
- Martin J., Neel T. & Delgadillo D. The Rural Health Professions Program: Feedback from Rural Preceptors and Medical Students.
- Pun S. Using a social work framework to facilitate learner capacity building.
- Siwik, V. & Zaragoza C. Student Affairs: Putting Theory into Practice.
- Spear-Ellinwood KC, Gura M, Ellis S, Koch B, Dutcher C, Bloom J, Gordon H & St. John P. *Medical Students' Reflections on Case-based Problem-solving: Tracking Progress and Exploring Connections between Metacognitive Engagement and Performance on Block Exams and Case-based Instruction scores*.
- Spear-Ellinwood KC, Pritchard TG & Martinez G. *Establishing Expectations for Teaching: Interns' Perspectives on Good Teaching, Whether They Think They Have What it Takes or Feel Prepare*.
- Spicer K. Capacity building: exploring faculty perspectives related to student success initiatives .
- Waer AL, Poskus D, Dutcher C, & Koch B. *The right stuff: how personality traits inform surgical subspecialty choice*.

Small Group Discussions

- Koch B., Spear-Ellinwood K., Bloom J., Gordon H., Dutcher C. & St. John P. Bridging Professionalism between the Pre-Clinical and

Clinical years.

- Moynahan K. & Smith S (UCSD). Starting or improving Learning Communities at your medical school.
- Moynahan K. & Smith S (UCSD). Teaching clinical skills and faculty development in Learning Communities.
- Spear-Ellinwood KC, & Pritchard TG**.** *Incorporating Dynamic Assessment in the Development of Targeted Residents as Educators Training*.

Workshops

- Koch B, Ellis S, Spear Ellinwood K, Bloom J, Gordon H, Dutcher C, St. John P. Collaborative Course Design—Breaking Down Disciplinary Boundaries.
- Niggemann E., Hartmark-Hill J., Michaelsen R., & Maurer J. Innovation in Case-Based Instruction: Use of a video module and immediate-response quizzing software (UA CoM-PHX).

Oral Abstracts

- Spear-Ellinwood KC A *Teaching Scholars Program to Develop and Sustain Faculty* Engagement *in Education Research. Oral Abstract*.

Medical Education Online

Volume 49, Issue 5, May 2015, [UA CoM Authors!]

Reflection is in the May Issue!

- Stella L Ng, Elizabeth A Kinsella, Farah Friesen and Brian Hodges. Reclaiming a theoretical orientation to reflection in medical education research: a critical narrative review (pages 461–475)
- Sylvia Heeneman, Andrea Oudkerk Pool, Lambert W T Schuwirth, Cees P M van der Vleuten and Erik W Driessen. The impact of programmatic assessment on student learning: theory versus practice (pages 487–498).
- Andrew Ross and Daisy Pillay. Portrait of a rural health graduate: exploring alternative learning spaces (pages 499–508).
- Martinez G. & Knox K. Mentor Match for physician-faculty: the search for Dr. Right.
- Teresa Rodriguez, Yi A Liu and Kiran Veerapen. The teacher–student partnership: exploring the giving and receiving of feedback (pages 536–537).
- Chan Choong Foong, Hamimah Hassan, Shuh Shing Lee and Jamuna Vadivelu. Using students' formative feedback to advocate reflective teaching (page 535).
- William Ventres. Becoming professional: one physician's *RRRRRRRRR*eflections on professionalism (page 544).
- Anja Görlitz, Ralf Schmidmaier and Claudia Kiessling. Feedforward interview: enhancing reflection for successful teachers (535–536).
- A peer-reviewed collection of short reports from around the world on innovative approaches to medical education (509-510).
- Aweke Y. Dubi, Deborah Becker and Ara Tekian . A workshop in feedback improves learning and changes the teaching culture (534-35).
- Emanuela Ferretti, Kristina Rohde, Gregory Moore and Thierry Daboval. The birth of scenario-oriented learning in ethics (517-518).
- Nicole N Woods and Maria Mylopoulos. On clinical reasoning research and applications: redefining expertise (543).
- Patricia Seymour and Maggie Watt . The Professional Competencies Toolkit: teaching reflection with flash cards (518).
- Eileen Hennrikus and Jason Ferderber. Medical students reintroduce basic science to residents (524–525).
- Aaron E George. Hold on one second: interrupting the intern year (451-453).

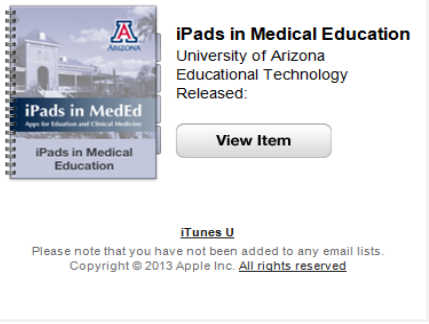
Teaching with Technology

iMedical Apps provides reviews of apps for use with smart phones and other devices. They categorize reviews by operating systems and devices, e.g., Androids, iPads and iPhones (see below).

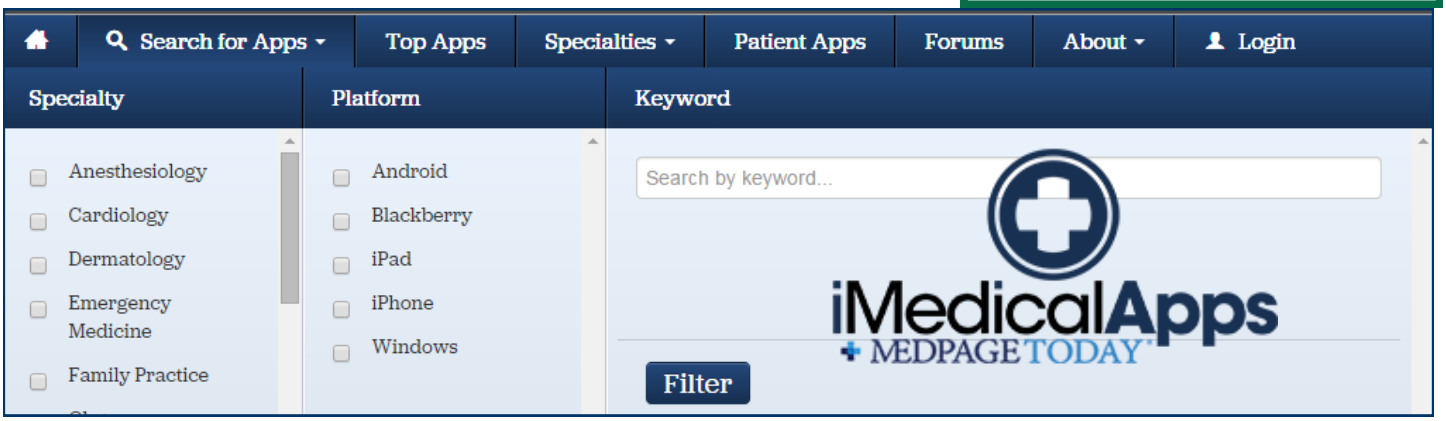
Each review offers a description of the app (its purpose and functionality), and links to videos or other information from manufacturers or other reviewers.

iMedical Apps also creates lists of the Top 10 or Top 20 apps by device, including additional "honorable mentions". For each list, iMedical Apps describes the criteria to explain how each app made it to the Top 10 or Top 20. This service can be helpful to basic and clinical sciences faculty as well as students in finding the right app for the task you want to perform or ask students to perform. You can also search for apps, filtering results by specialty, platform and adding keywords (see below).

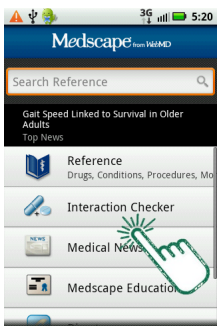
iPads in Medical Education



In December 2013, Mike Griffith, MS, now with the UA College of Education, and Kevin Moynahan, MD, presented *iPads in Medical Education*. You can view the seminar online at the FID website.



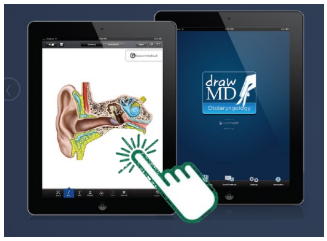
Apps for Androids & iPad & iPhone



For iPad: Apps

Including Patient Education apps such as...

- ⇒ *Draw MD series*
- ⇒ *Cancer.net*
- ⇒ *inMotion 3D*



For iPhones, apps including...

- ⇒ *Epocrates*
- ⇒ *Medscape*
- ⇒ *Medical calculators (QxMD, MedCalc, and MediMath)*
- ⇒ *Heart Decide, First Aid*
- ⇒ *3M Littmann Soundbuilder*

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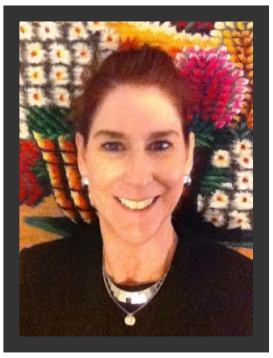

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