Assessment, feedback and coaching for improvement in competency-based education

Department of Pathology Grand Rounds

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Objectives

1. Describe how competency-based medical education (CBME)and assessment require us to **rethink how we assess and give feedback.**
2. Assess the pros and cons of using the term **“coaching”** instead of “feedback” in CBME.
3. Explore a 4-stage **evidence-based model** for facilitating performance assessment feedback and coaching (R2C2).
4. **Critique** the model’s usefulness in your setting.

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Competency based education

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What is competency-based education?

Educational programs designed to ensure that students attain pre-specified levels of competence in a given field or training activity. Emphasis is on achievement of specified objectives

- **Traditional medical education is based on time & rotations**

- **Competency based education focuses on outcomes**

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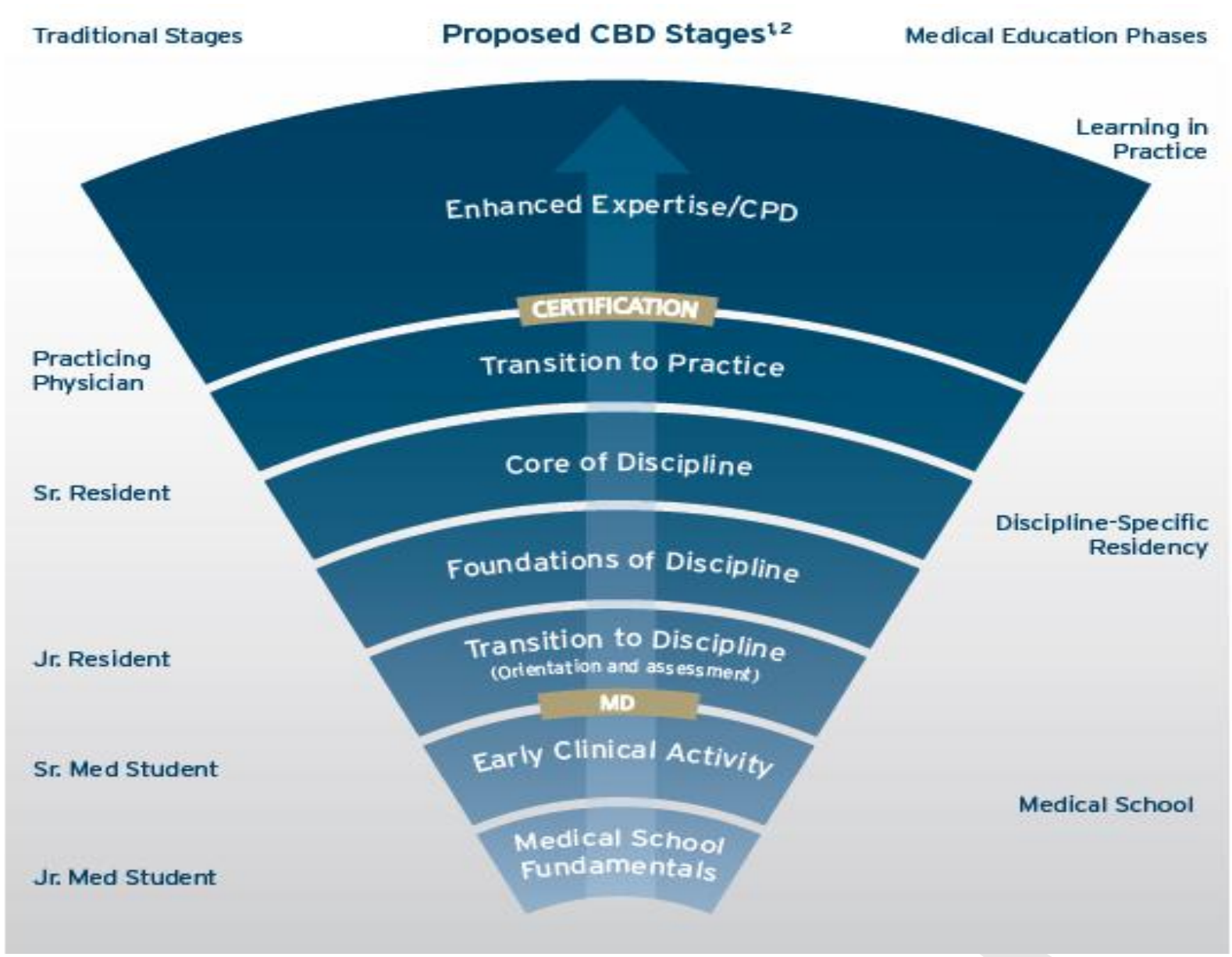
RCPSC Competence by Design



Dreyfus Model of Skill/ Competence Acquisition (1980, 2003)

Five levels of performance

1. **Novice:** Uses rules to determine actions
2. **Advanced beginner:** Develops strategies to deal with situational cues
3. **Competent:** Develops new rules & reasoning procedures to decide on a plan of action
4. **Proficient:** Recognizes patterns & reacts appropriately
5. **Expert:** Sees intuitively what needs to be achieved and how to do it

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Levels of increasing competence (with feedback, reflection and practice)

Figure 2. Spectrum of skills acquisition (Dreyfus & Dreyfus 1980).

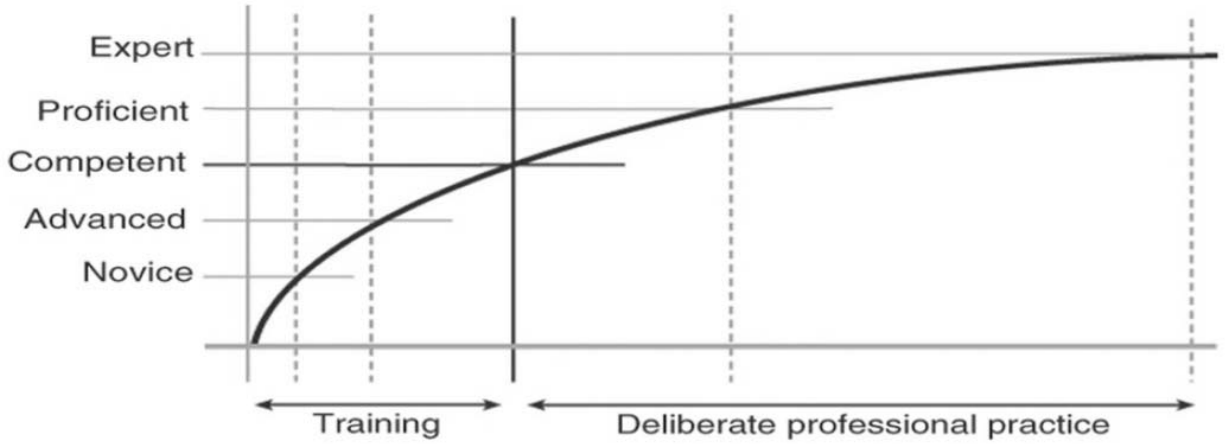

Figure 3. General curve of skills acquisition reproduced from ten Cate (2010).

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Competency Milestones

- Abilities expected of a resident at a defined stage of training

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Milestones in Internal Medicine (Green et al 2009)

ACGME Competency	Developmental Milestones Informing ACGME Competencies	Approximate Time Frame Trainee Should Achieve Stage (months)	General Evaluation Strategies
Clinical skills and reasoning ▪ Manage patients using clinical skills of interviewing and physical examination ▪ Demonstrate competence in the performance of procedures mandated by the ABIM ▪ Appropriately use laboratory and imaging techniques	**Historical data gathering**		Standardized patient Direct observation
	1. Acquire accurate and relevant history from the patient in an efficiently customized, prioritized, and hypothesis driven fashion	6	
	2. Seek and obtain appropriate, verified, and prioritized data from secondary sources (eg, family, records, pharmacy)	9	
	3. Obtain relevant historical subtleties that inform and prioritize both differential diagnoses and diagnostic plans, including sensitive, complicated, and detailed information that may not often be volunteered by the patient	18	
	4. Role model gathering subtle and reliable information from the patient for junior members of the health care team	30	
	Performing a physical examination		Standardized patient Direct observation Simulation
	1. Perform an accurate physical examination that is appropriately targeted to the patient's complaints and medical conditions. Identify pertinent abnormalities using common maneuvers	6	
	2. Accurately track important changes in the physical examination over time in the outpatient and inpatient settings	9	

Implications for Assessment in CBME

- Multifaceted assessment is essential
  - **Use various assessment methods**
- Assessment has to be:
  - **more continuous** and frequent
  - criterion-based and developmental
  - authentic, robust and work-based
  - And **include narrative**
- **Regular feedback** is essential
- **Direct observation** is essential

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Role of feedback and coaching in CBME

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Feedback and assessment in Pathology

What does it look like -

- For the medical expert role?
- For other CanMEDs roles?

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What is feedback?

- Specific information about the **comparison between** a trainee's observed performance and **a standard**, given with the intent **to improve the trainee's performance**" (van de Ridder, 2008)

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A personal philosophy of feedback

- A **reflective conversation** with peers/ learners with the goal of enabling them to
  - be competent,
  - improve, and
  - become the **very best** they can.

- Constructivist
- Developmental

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A basic conundrum related to receiving performance feedback

- What is it?

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Conundrum related to seeking and receiving feedback

- We (generally) want to do a good job
- But may be reluctant to ask for/ accept feedback…
- For fear it points out that we're not as good as we think we are (ie that it's different from our own self-assessment)

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Conundrum: Accepting disconfirming feedback

MSF research -

- NSPAR pilot and related research *(Sargeant et al 2003-2008)*
- How useful did they find the MSF feedback? What did they do with it?

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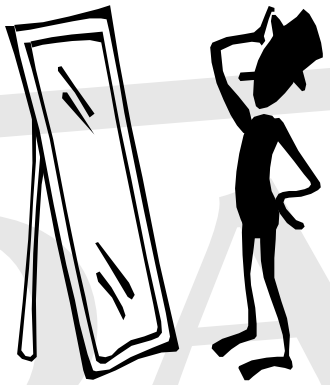
Most surprising early finding –

- Physicians agreement with their MSF scores was positively correlated to the score itself.
- What does this mean for giving, accepti and using feedba

Can we accurately self-assess?

- "in a majority of the relevant studies, physicians do not appear to accurately self-assess …" (Davis, et al. 2006)



- The worst accuracy in self-assessment is among those the least skilled and those who were the most confident (Davis 2006, Kruger and Dunning 2003, Lockyer 2008; Eva and Regehr 2008)

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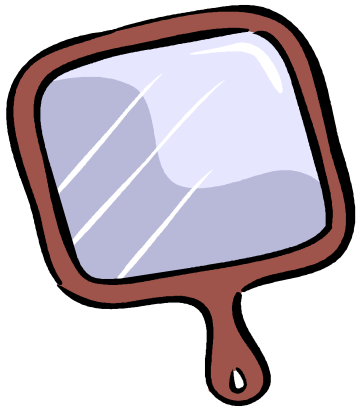
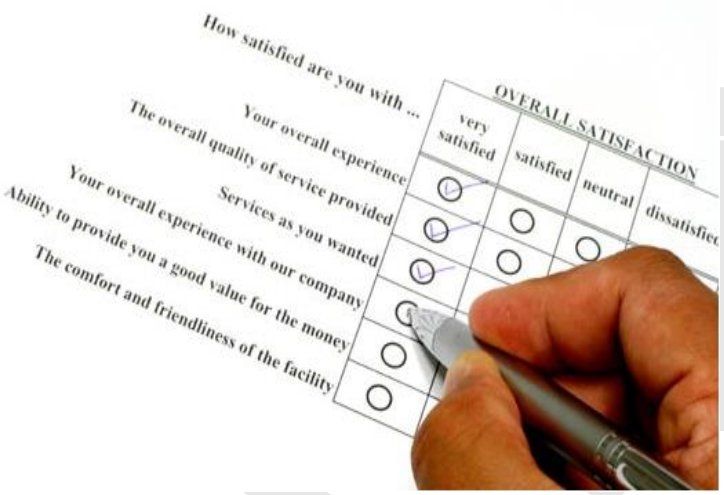
Conundrum: The interplay between self-assessment and feedback

- Asked physicians, residents, students in 5 countries, 8 different programs *(Sargeant et al 2010, 2011)*
- "How do you tell how you're doing?" , How do you self-assess your performance?"



- Their response -
- Need honest, accurate external feedback to tell you how you're doing, to accurately self-assess



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Inaccuracy of self-assessment and role of feedback: Kruger and Dunning 1999

- Seminal series of UG studies examining humor, logical reasoning, grammar, etc
  - **students in bottom quartile (12th quartile) thought they were in 62nd quartile.**

  - Mis-calibration was due to deficits in **meta cognitive skill** (knowing what "good" looks like, being able to distinguish between accuracy and error)
  - **Note -** Showing the right answer only **did not** improve scores significantly
  - **Facilitated feedback and discussion explaining the reason for the errors increased scores**

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Feedback is a balance -

What is coaching?

- What is coaching? How is it different from feedback?
- Your thoughts?

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Coaching (Heen, Stone 2014)

- Assessment/ evaluation/ feedback: ***tells you where you stand, how you measure up, what's expected of you***
  - It's intimidating, emotional
  - Often evokes fear

- Coaching: ***enables you to learn and improve and helps you play at a higher level***
  - It's learner-centered, outcome-oriented, supports success
  - It guides progression from one competency level to the next

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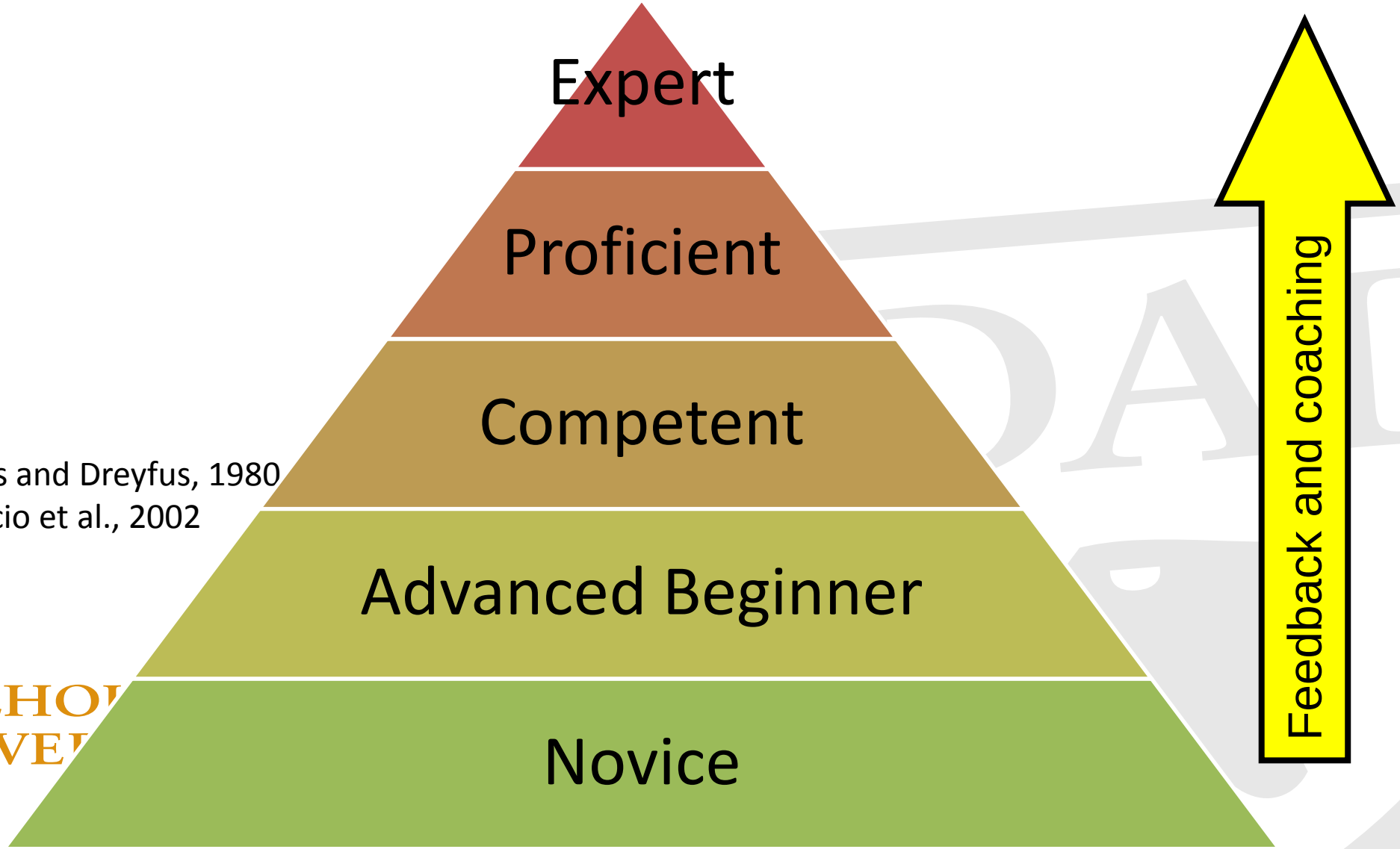
Novice to expert (levels of competence)



Dreyfus and Dreyfus, 1980
Carraccio et al., 2002

Research program: 4-stage evidence-based feedback model (R2C2)

- Purpose-
  - To develop and test a model of facilitated reflective feedback that will **enhance the learner's/ physician's ability to use the feedback and improve**

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Funding for research program

- Society for Academic CME, 2010-13

- Stemmler Foundation, National Board of Medical Examiners 2014-16

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Theory and evidence informing the model

1. Informed self-assessment
2. Person-centered approaches - humanism, motivational approaches
3. Cognitive domains influencing behaviour change

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1. Informed self-assessment

- “a set of processes through which individuals use external and internal data to generate an appraisal of their own performance”. (Sargeant et al, 2011)

- Central points:
  - **Automatic reaction - comparison of external feedback with own self- assessment**
  - Disconfirming data can lead to an emotional response, which can get in the way of using it
- **Central facilitation task:**
  - Enable interpretation, **assimilation**, use of data

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2. Person-centered approaches - humanism, motivational and coaching approaches (Rogers 1969)

- **Engage** the individual in
  - the feedback , its use and setting **own** goals for change

- Central facilitation task:
  - **Transition feedback** from
    - an **external force** (react to, NOT in control) to
    - an **internal force, an opportunity** for practice change (in control)

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3. Cognitive domains influencing change

(Cane 2012, Michie 2008)

- Factors influencing behaviour change -
  - **knowledge, skill**,
  - 12 others - beliefs about capabilities, goals, environment, social relationships, emotions, etc

- Central facilitation task:
  - engage in **setting goals** for change and addressing factors influencing the ability to change
  - look for the **opportunities**

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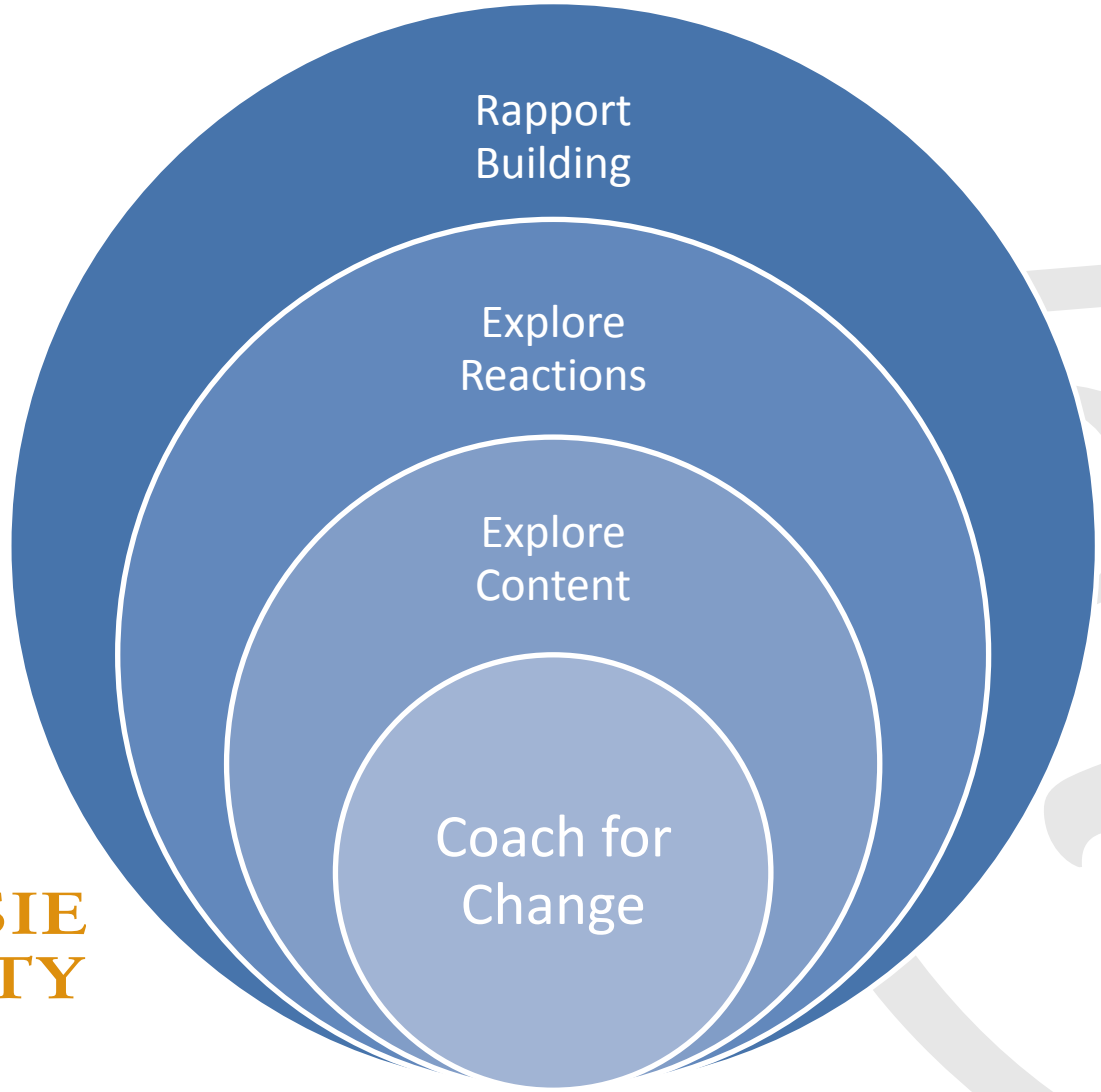
4 Stage Facilitated Feedback Model (R2C2)



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Stage 1. Build *rapport* and *relationships*

Goal: To engage the resident, build relationship, build respect and trust, understand their context:

- *"How has the rotation gone for you? Tell me about what you enjoyed, what challenged you."*
- *"Tell me about your assessment and feedback experiences. What's been helpful and what hasn't?"*
- *"How do you think you're doing? What are your strengths and opportunities to improve?"*
- *"What would you hope to get out of this session?"*

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Stage 2. *Explore reactions* to and *perceptions* of the data/ report

Goal: For resident to feel understood and that his/her views are heard and respected.

- *"What were your initial reactions? Anything particularly striking?"*
- *"Did anything in the report surprise you? tell me more about that..."*
- ***"How do these data compare with how you think you were doing? Any surprises?"***
- *"It's difficult to hear feedback that disconfirms how we see ourselves"*

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Stage 3. Explore *understanding of the content*

Goal: For the resident to be clear about what the assessment data mean for his/her practice and the **opportunities** identified for change and development.

- *"Was there anything in the report that didn't make sense to you?"*
- *"Anything you're unclear about?"*
- *"Let's go through section by section."*
- *"Anything that struck you **as something to focus on**?"*

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Stage 4. Coach for *performance change*

Goal: For the resident to engage in developing an achievable learning/change plan

- *"What 1-2 priorities for change/ learning does this feedback suggest?*
- *"What would be your goal?"*
- *"What actions will you have to take?"*
- *"What might help you with this change?"*
- *"What might get in the way?"*
- *"Do you think it's achievable?"*

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Feedback facilitation goal

External control
- external feedback
- lack of control
- threat
- emotion - "bad me"

Internal control
- my data to use
- my opportunity
- confidence
- "I'm in control"

Facilitator: listen, accept, motivate, **coach**

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Stage 4: Coach - Learning/change plan

Resident Learning/Change Plan*

First priority: Goal:

CHANGE	TIMELINE (1)	TIMELINE (2)	RESOURCES REQUIRED	CHALLENGES	IDENTIFIABLE RESULTS
Describe specific, observable changes that you intend to make as a result of receiving this feedback. Specifically identify what *you* will do.	When will you begin?	When do you think you will see results?	Identify the resources you will draw upon to make the change. Whom else will you involve in the work? What resources will you need? What learning will you undertake?	What will get in the way of you accomplishing change?	How will you know the results have been attained?

	Not at all	Slightly	Moderately	Extremely
How motivated are you to do the work for priority 1?				
How confident are you that you can do the work for priority 1?				
How challenging is the work required for priority 1?				

*Adapted from Wakefield J, Herbert CP, Maclure M, Dormuth C, Wright JM, Legare J, Brett-MacLean P, Premi J. Commitment to change statements can predict actual change in practice. Contin Educ Health Prof 2003;23:81-93

4. Critique use of the R2C2 model

- Critique use of the model in your setting
- Questions for consideration:
  - How does this model compare to the model you're currently using?
  - What are the benefits? the challenges?

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Summary ...

Our objectives:

- ***Your thoughts? Questions?***
- ***What might be some take home messages?***

Thank you!

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