

Evaluating Medical Students

Connecting Feedback and Evaluation to
Maximize Learning

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Disclosure

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The New York Times

Wednesday, January 8, 2014 Today's Paper Personalize Your Weather

WORLD U.S. NEW YORK BUSINESS OPINION SPORTS SCIENCE ARTS FASHION & STYLE CROSSWORDS VIDEO All Sections

Emails Tie Top Christie Aide to Lane Closings, Despite Denials

By KATE ZERNIKE 37 minutes ago
A series of emails shows that a deputy chief of staff to Gov. Chris Christie of New Jersey gave a signal to close lanes on the George Washington Bridge, in what appeared to be political retribution.

Comments

Despite Fears Over Al Qaeda, Saudis Back Syrian Rebels

By ROBERT F. WORTH
The Saudis are bent on ousting Syria's president,



Ulf Hanassi/Getty Images

DANGER ZONE Mount Sinabung sent smoke over western Indonesia Wednesday. Local reports said tens of thousands of people had been displaced by the volcano's eruptions.

U.S. Criticizes Zero-Tolerance Policies in Schools

By MOTOHO RICH 43 minutes ago
The Obama administration on Wednesday recommended that public schools emphasize positive behavior.

What Happened to Transparency?

By THE EDITORIAL BOARD
The Obama administration should stop fighting legal advice.

- Gabrielle Giffords: Lessons of Phoenix
- Bittman: How for Cheerios?
- Edsall: Bridge, Compassion

MARKETS

S. & P. 500
1,836.74
-1.14
-0.06%

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The Opinion Pages

OP-ED CONTRIBUTORS



GOVERNMENT SURVEILLANCE

43%

Passed who should have failed.

Speer. Teaching and Learning in Medicine.2009. 1996-1997.



38%



Passed who should have failed.



Stakeholders



Stakeholders



Stakeholders



Stakeholders

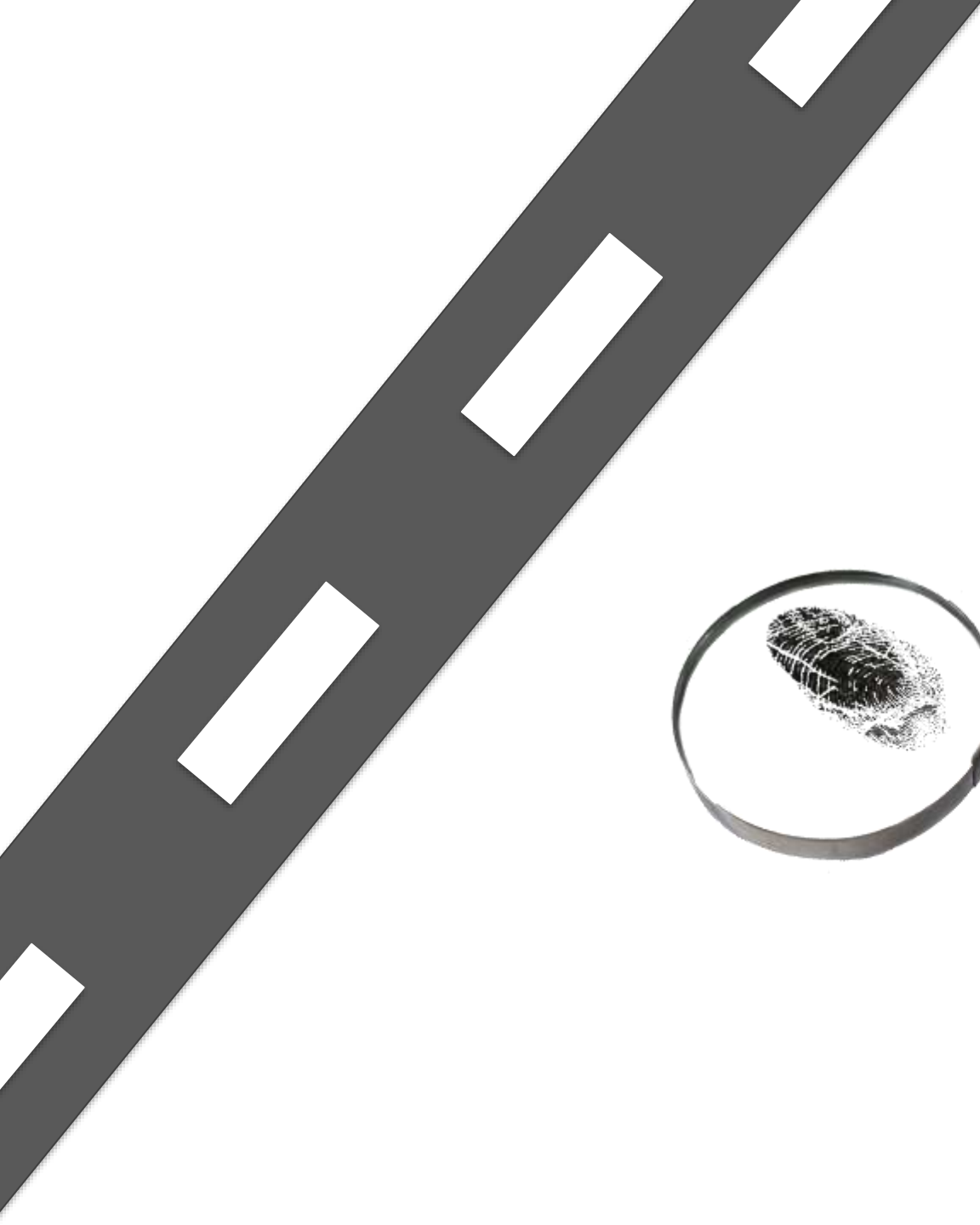


Stakeholders







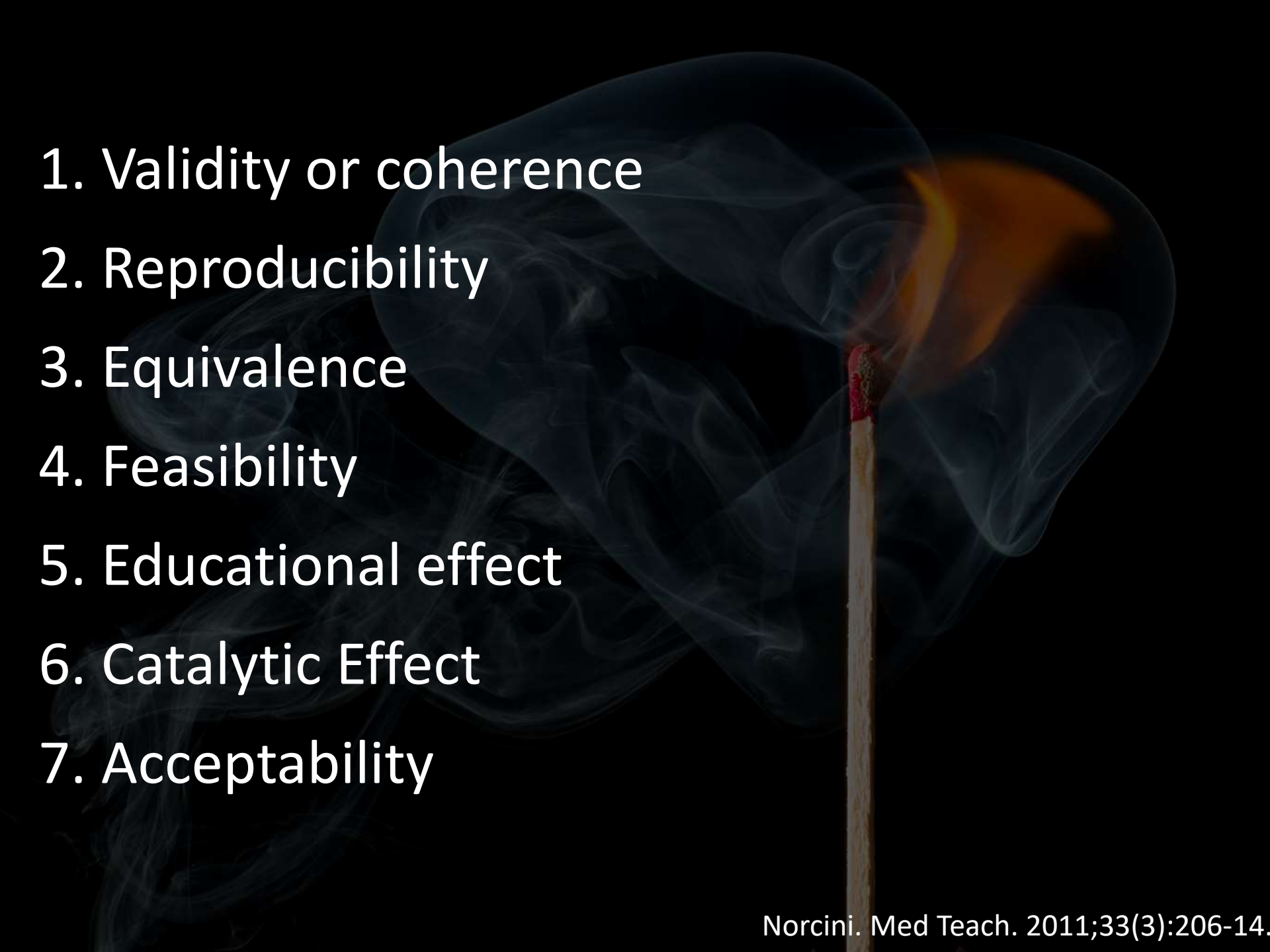




What is **Good** Assessment?



Criteria for good assessment: Consensus statement and
recommendations from the Ottawa 2010 Conference

- 
- A lit matchstick is shown against a black background. The matchstick is positioned vertically on the right side of the frame. The tip of the matchstick is lit, with a bright orange and yellow flame. A large, billowing plume of white smoke rises from the matchstick, filling the upper and middle portions of the frame. The smoke has a wispy, ethereal quality. On the left side of the frame, there is a list of seven items in white text.
1. Validity or coherence
 2. Reproducibility
 3. Equivalence
 4. Feasibility
 5. Educational effect
 6. Catalytic Effect
 7. Acceptability

What Makes an Honors Student?

Road Map



Challenges



Assessment Frameworks



Linking Feedback and Evaluation

Road Map



Challenges



Challenges

Tools- Evaluation Form

Users of the tools- Us

2 Challenges

(Question 19 of 29 - Mandatory)

OTHER EVALUATION COMPONENTS:

NA is acceptable for withdrawal and elective clerkships

Bioethical Component

Mini-CEX: physical exam skill or other clinical skill

Final Examination Grade

Overall Assessment

Based on the evaluations submitted on the student's performance, indicate where you feel the student's development is at this time. (Question 20 of 29 - Mandatory)

N/A or Withdrawal	Unacceptable	Needs Development	Meets or Exceeds Expectations
<input type="radio"/> 0	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3

Is there a concern about Clinical Performance? (Question 21 of 29 - Mandatory)

No Yes

Describe concern below on Clinical Performance. (Question 22 of 29)

Use the evaluation form as a guide



Orient your students to the form



Regularly map feedback to evaluation



Rater Cognition



Assessor as:

1. Trainable
2. Fallible
3. Meaningfully Idiosyncratic

Trainable

Assessor with training could provide the “correct response.”

Variable frame of reference



Assessors Clinical Skills



Fallible

Assessment relies on human judgment, which is imperfect.

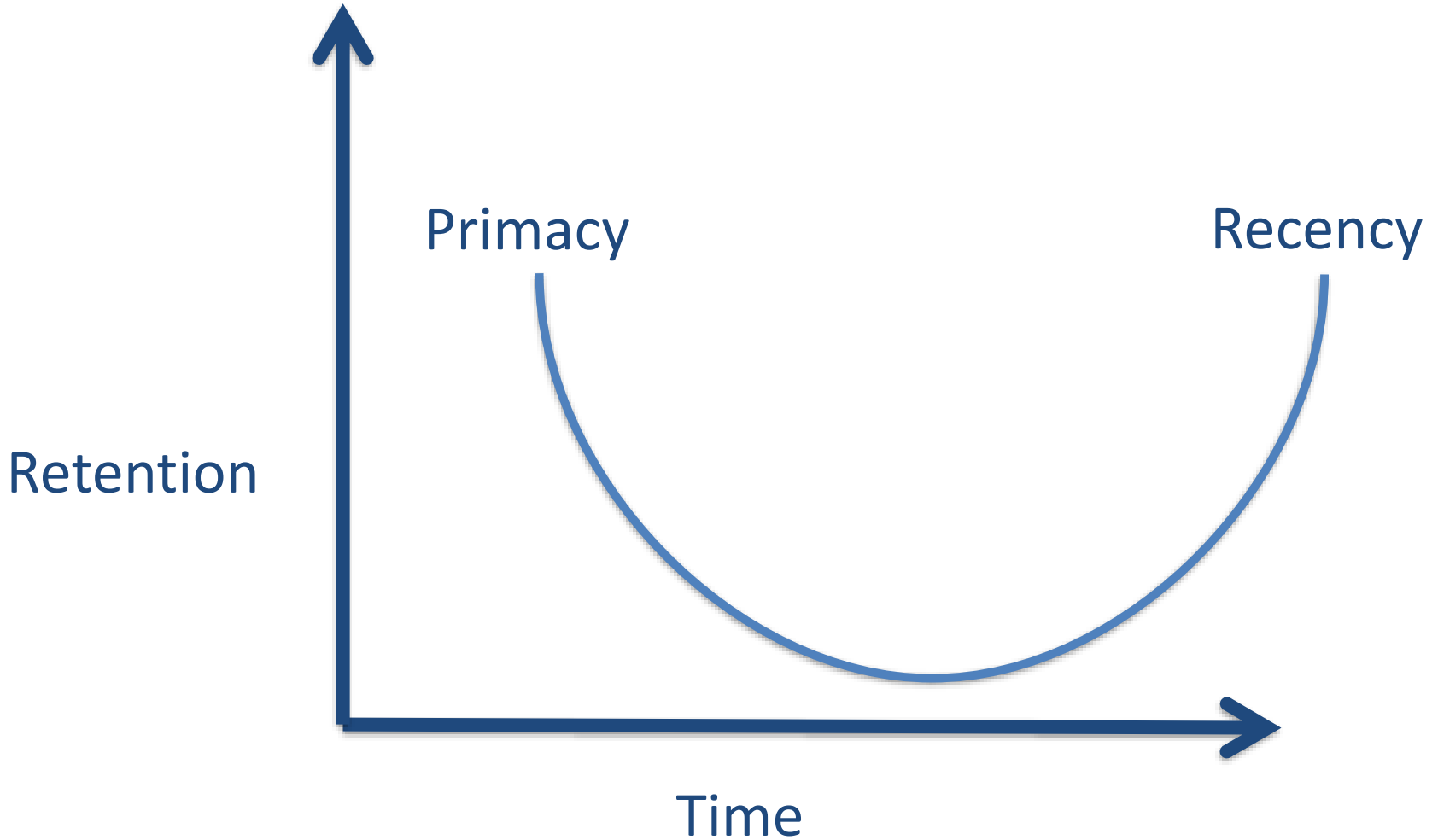
Hawk and Dove Effect





Halo Effect

Primacy and Recency Effect



Spillover Effect





Contrast Effect

Yeates, P. Medical Education. 2013

Conscious



- Emotions
- Time pressure
- Circadian rhythms
- Motivation
- Pre-existing prejudice
- Individual preferences



Bias

Attention



Memory

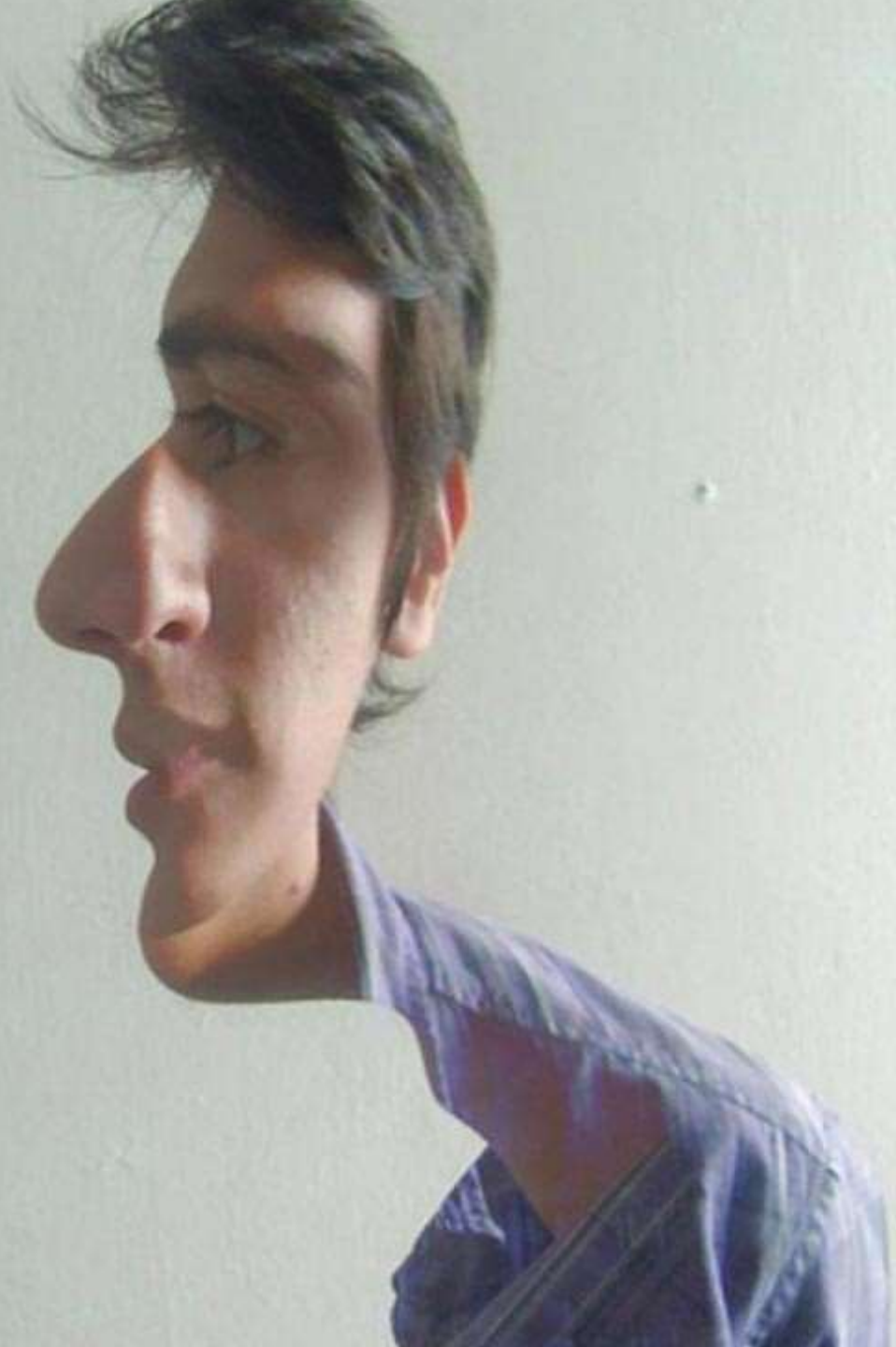
Assessment



Unconscious

Meaningfully Idiosyncratic

What if variability in our assessments are, at least in part, because of relevant and legitimate, albeit different, interpretations?



Meaningfully Idiosyncratic



1. Medical Interviewing Skills

1	2	3		4	5	6		7	8	9
UNSATISFACTORY				SATISFACTORY				SUPERIOR		

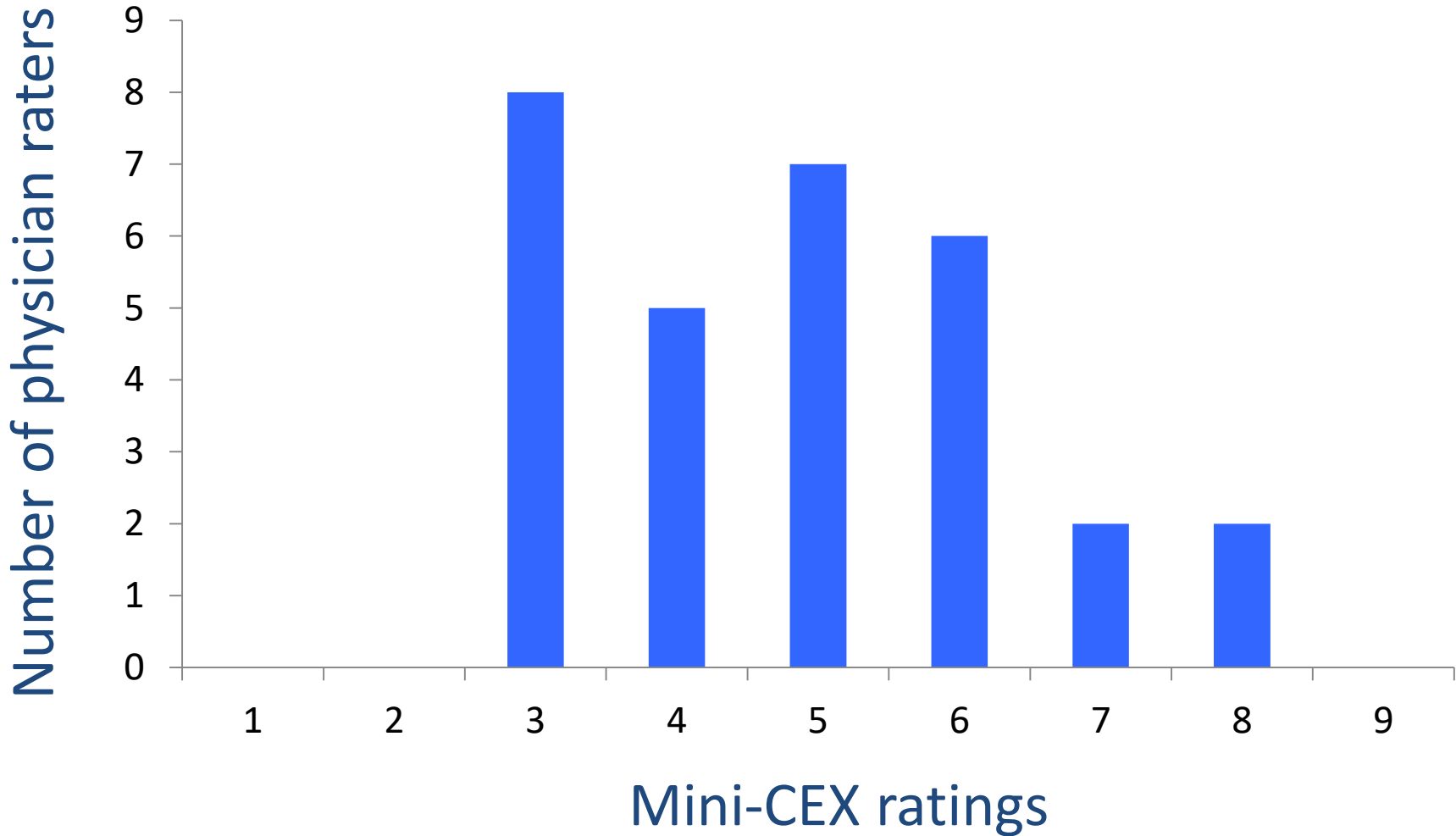
6. Organization/Efficiency

1	2	3		4	5	6		7	8	9
UNSATISFACTORY				SATISFACTORY				SUPERIOR		

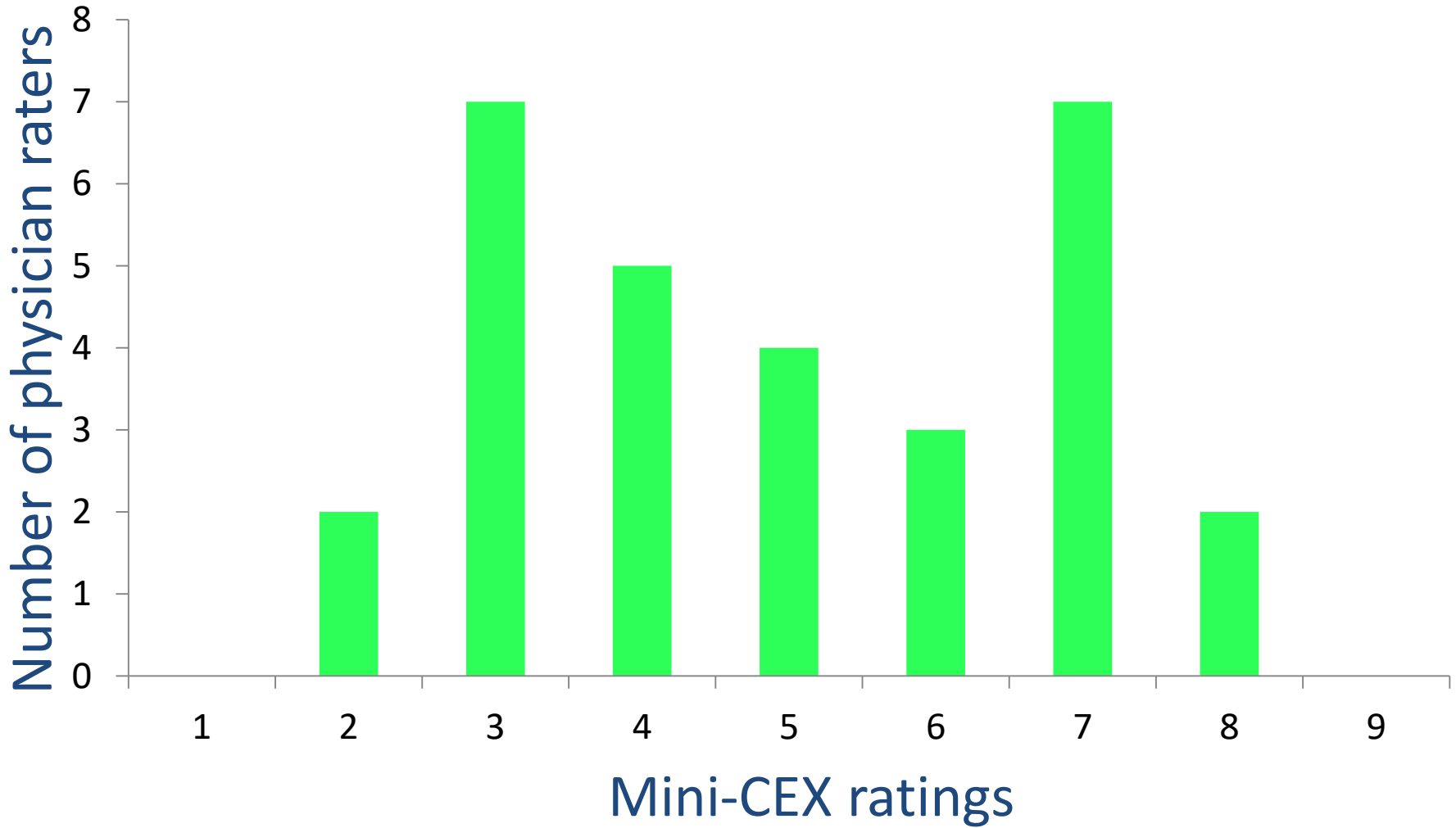
7. Overall Clinical Competence

1	2	3		4	5	6		7	8	9
UNSATISFACTORY				SATISFACTORY				SUPERIOR		

Interviewing Skills




Organizational Skills



Overall





Evaluation is Subjective but not Arbitrary

van der Vleuten et al, 1991
Regehr et al, 1998
Eva & Hodges, 2012



Take Home Points

1. Observation is key
2. Maintenance of clinical competence
3. Robust sample of tasks
4. Robust sample of assessors
5. Facilitated group discussions

Road Map



Assessment Frameworks

Miller's
Pyramid of
Clinical
Competence

Does

Shows
How

Knows How

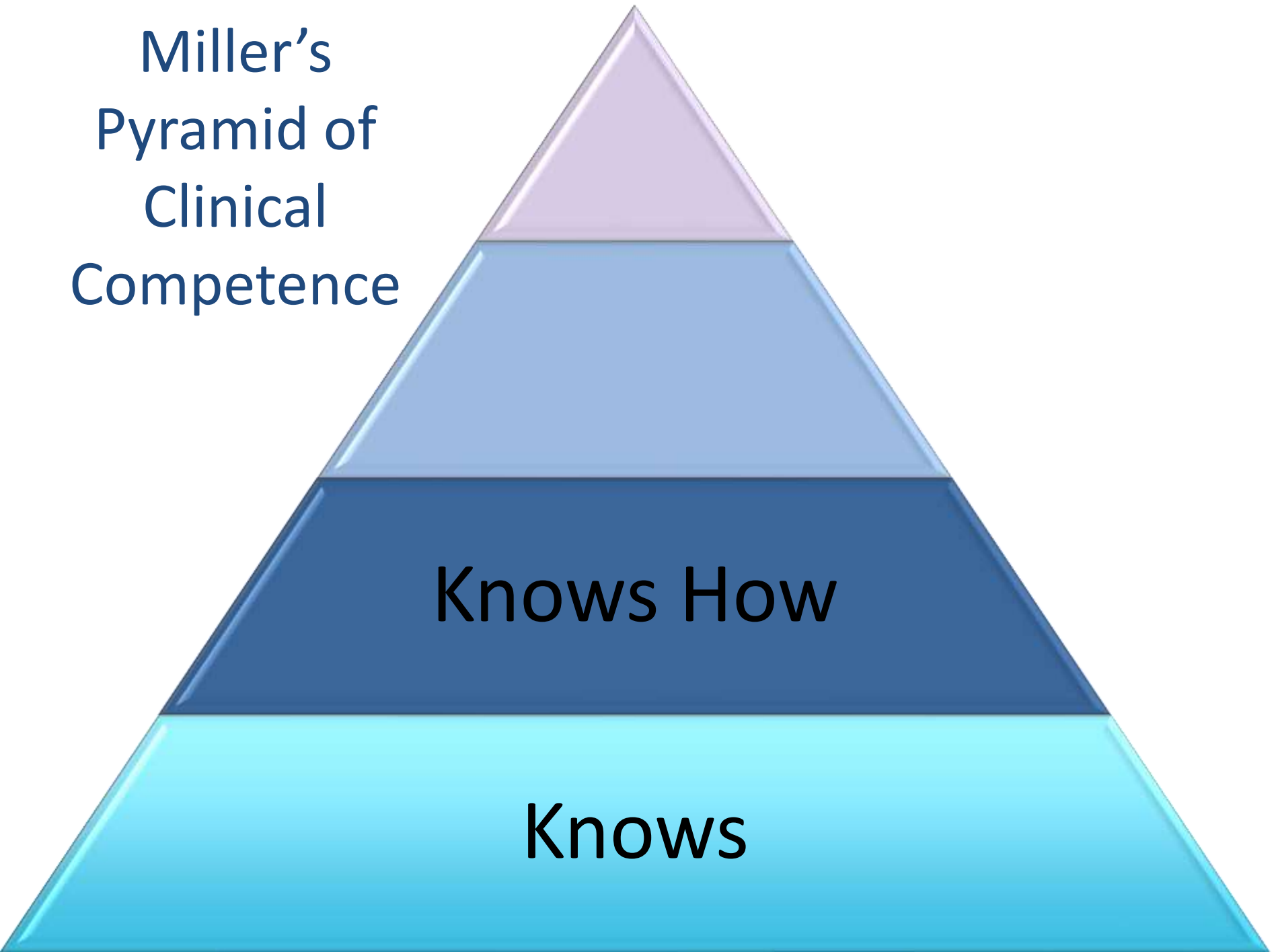
Knows

Miller's
Pyramid of
Clinical
Competence



Knows

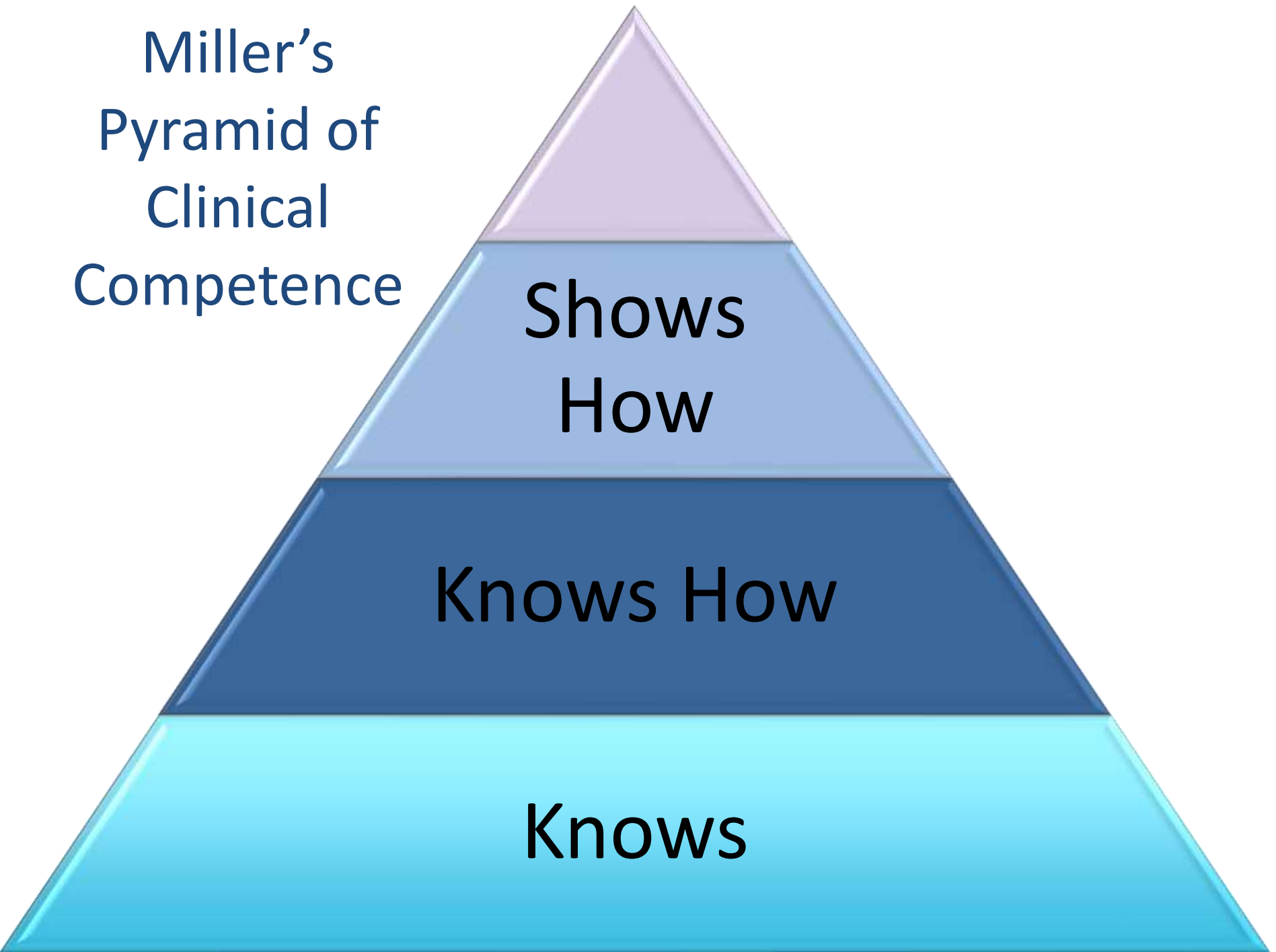
Miller's
Pyramid of
Clinical
Competence



Knows How

Knows

Miller's
Pyramid of
Clinical
Competence



Shows
How

Knows How

Knows

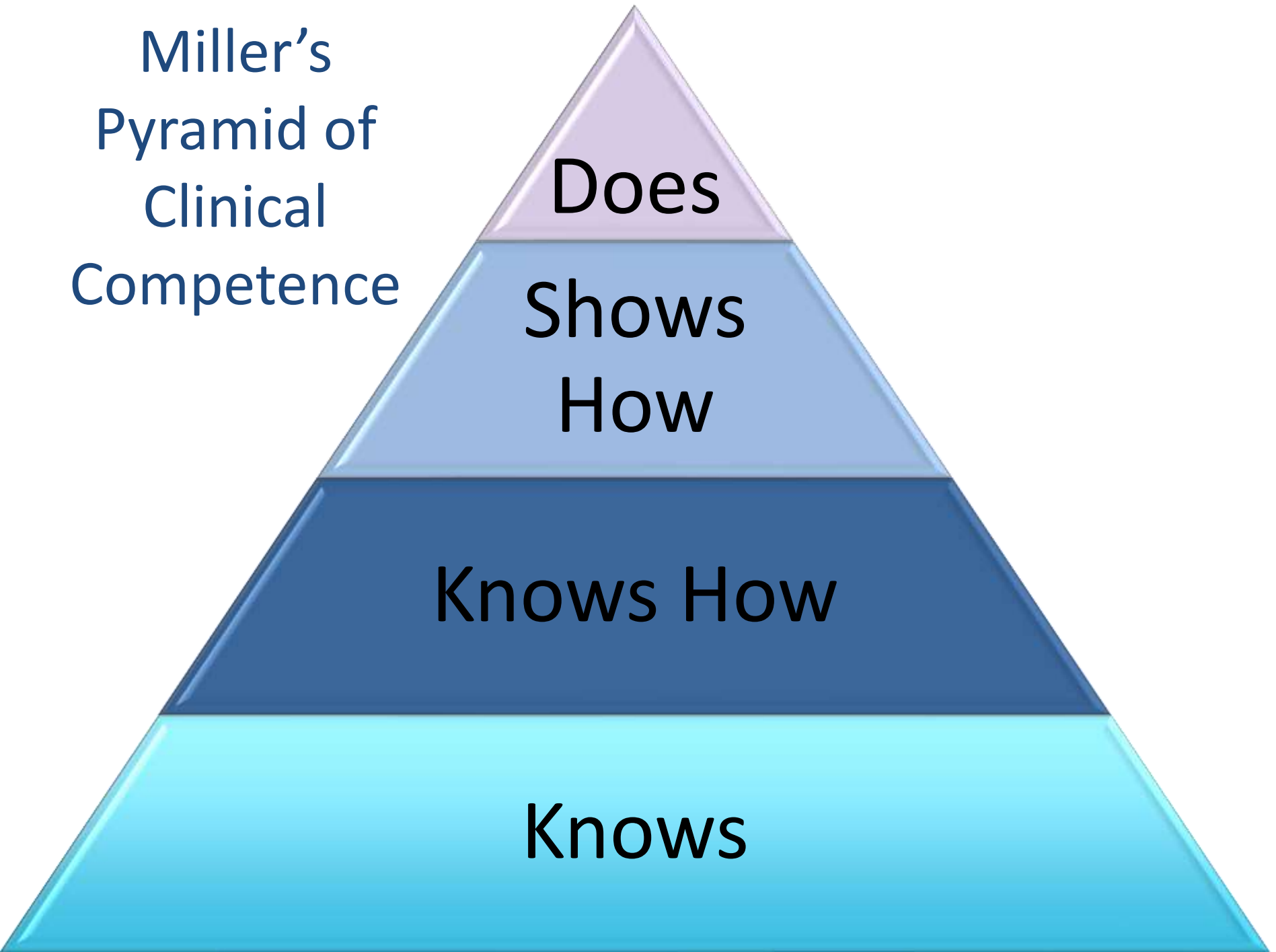
Miller's
Pyramid of
Clinical
Competence

Does

Shows
How

Knows How

Knows



A framework beyond, “A pleasure
to work with and read more.”

PRIME+

P	rofessional
R	eporter
I	nterpreter
M	anager
E	ducator
+	

P	Reliability, respect, responsibility, in dress and appearance
R	eporter
I	nterpreter
M	anager
E	ducator
+	

P	Reliability, respect, responsibility, in dress and appearance
R	Obtain info, report coherently in oral and written form
I	nterpreter
M	anager
E	ducator
+	

P	Reliability, respect, responsibility, in dress and appearance
R	Obtain info, report coherently in oral and written form
I	Synthesize the data, develop differential diagnosis
M	anager
E	ducator
+	

P	Reliability, respect, responsibility, in dress and appearance
R	Obtain info, report coherently in oral and written form
I	Synthesize the data, develop differential diagnosis
M	Manage diagnostic and therapeutic plans, manage one's own time
E	ducator
+	

P	Reliability, respect, responsibility, in dress and appearance
R	Obtain info, report coherently in oral and written form
I	Synthesize the data, develop differential diagnosis
M	Manage diagnostic and therapeutic plans, manage one's own time
E	Self-directed learning, responding to feedback, interprets the literature
+	

P	Reliability, respect, responsibility, in dress and appearance
R	Obtain info, report coherently in oral and written form
I	Synthesize the data, develop differential diagnosis
M	Manage diagnostic and therapeutic plans, manage one's own time
E	Self-directed learning, responding to feedback, interprets the literature
+	What to do next to improve and grow

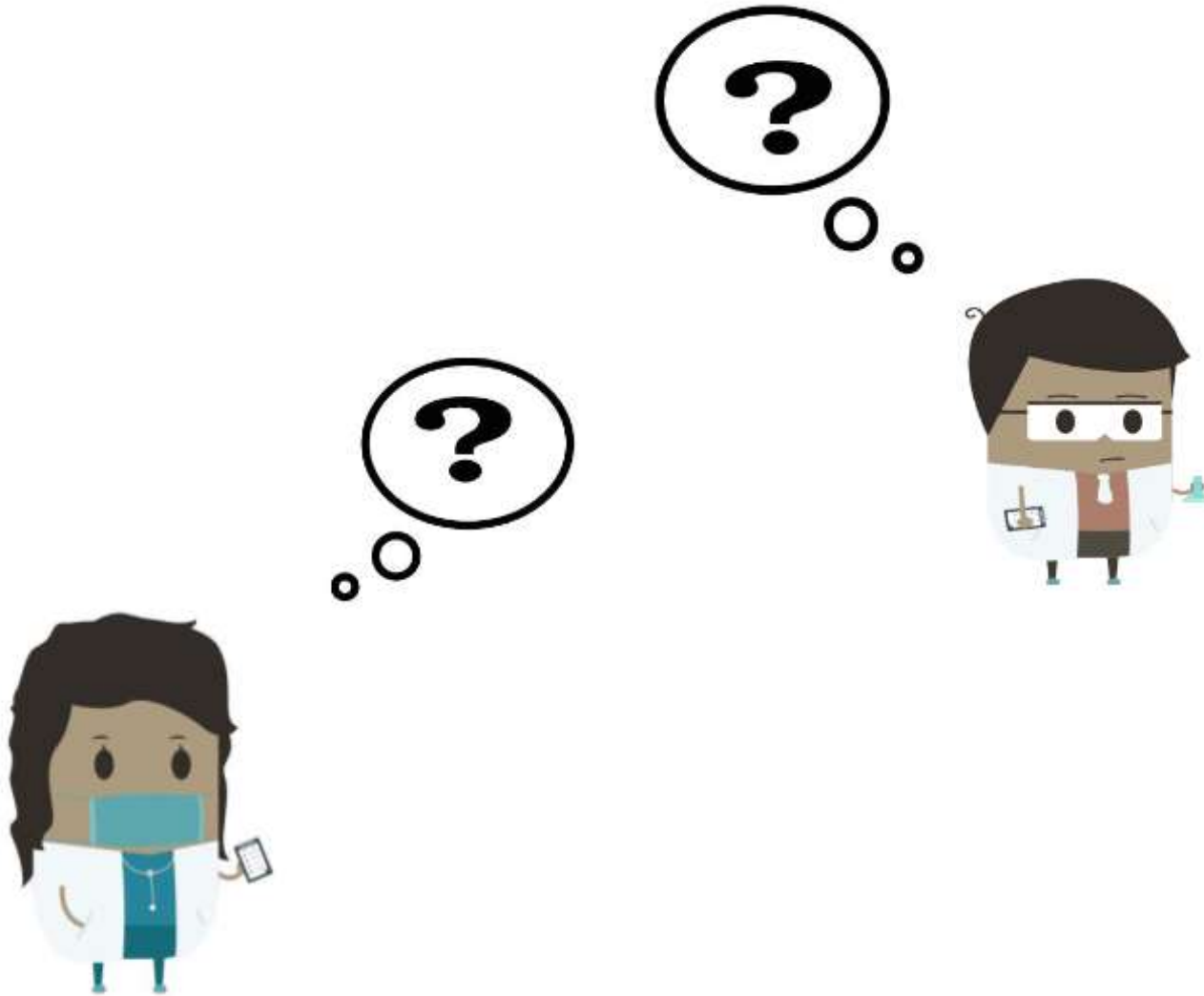
Jane was always on **time, reliable, and dependable** such that I always knew the information she provided was accurate. She was able to **report data** succinctly and gather complete histories while simultaneously maintaining excellent rapport with families. She **performed good differential** diagnoses, was able to interpret lab data, PFTs, etc, and to **independently find resources** to help her when she came across data she had not encountered previously. Jane could **synthesize good plans, and managed patients well**, always spending additional time to ensure family understanding of instructions. **She responded well to feedback** with appreciation and an upbeat attitude, worked diligently on fund of knowledge, and was able to **educate families and patients** well on various illnesses; always the professional, spending more time and effort whenever it was required by the situation.

Road Map



Linking Feedback and Evaluation





Gil et al. J Med Ed 1984

Boehler et al. Med Educ 2006

AAMC Medical Student Questionnaire: <https://www.aamc.org>

Liberman et al. Med Teach 2005

Road Map



Linking Feedback and Evaluation



Formative Feedback



Summative Feedback

Formative Feedback



Occurs *during* a course; aims to help students identify strengths/weaknesses, with coaching for improvement

Immediate

Specific

Behavior
Based

Suggests
Alternative

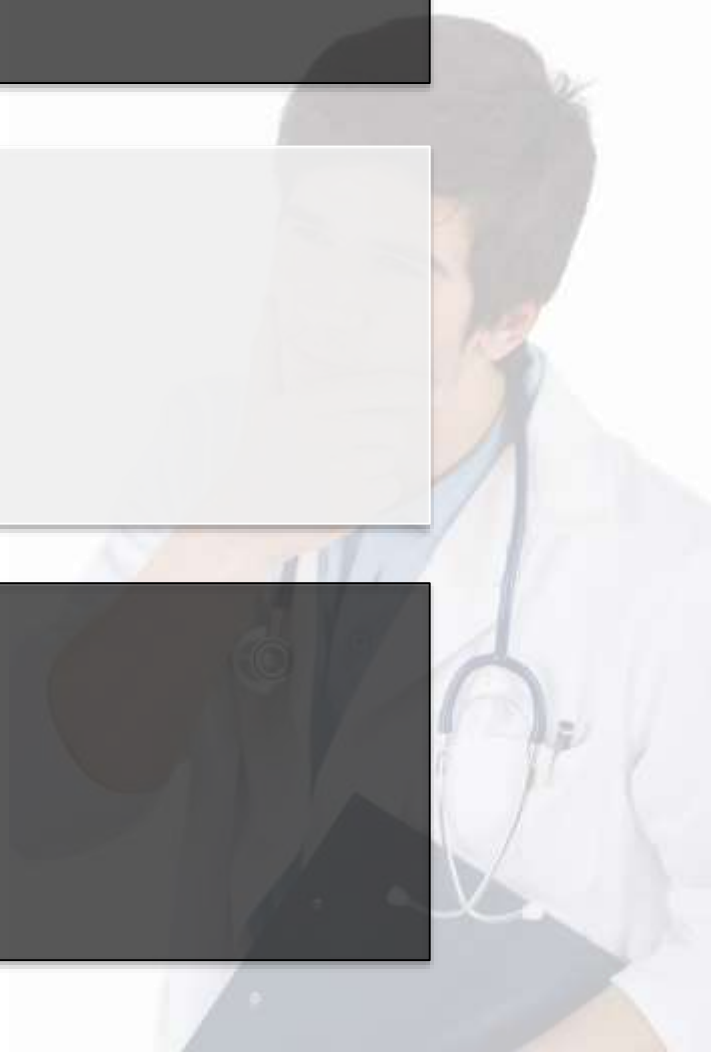




Ask

Tell

Ask



Summative Feedback

A group of soccer players in blue jerseys are huddled on a grass field. The players are seen from behind, with their jersey numbers visible: 6, 3, 2, 4, and another player on the right. They are in a crouched position, suggesting a team meeting or a break during a game. The background shows a clear blue sky with some clouds and a residential building in the distance.

Occurs *at the end* of a course (multiple observations), with comparisons to a standard or benchmark

R2, C2

R: Build the **Relationship**

R: Explore **Reactions** to and perceptions of report

C: Explore understanding of the **Content**

C: **Coach** for performance change

R: Relationships



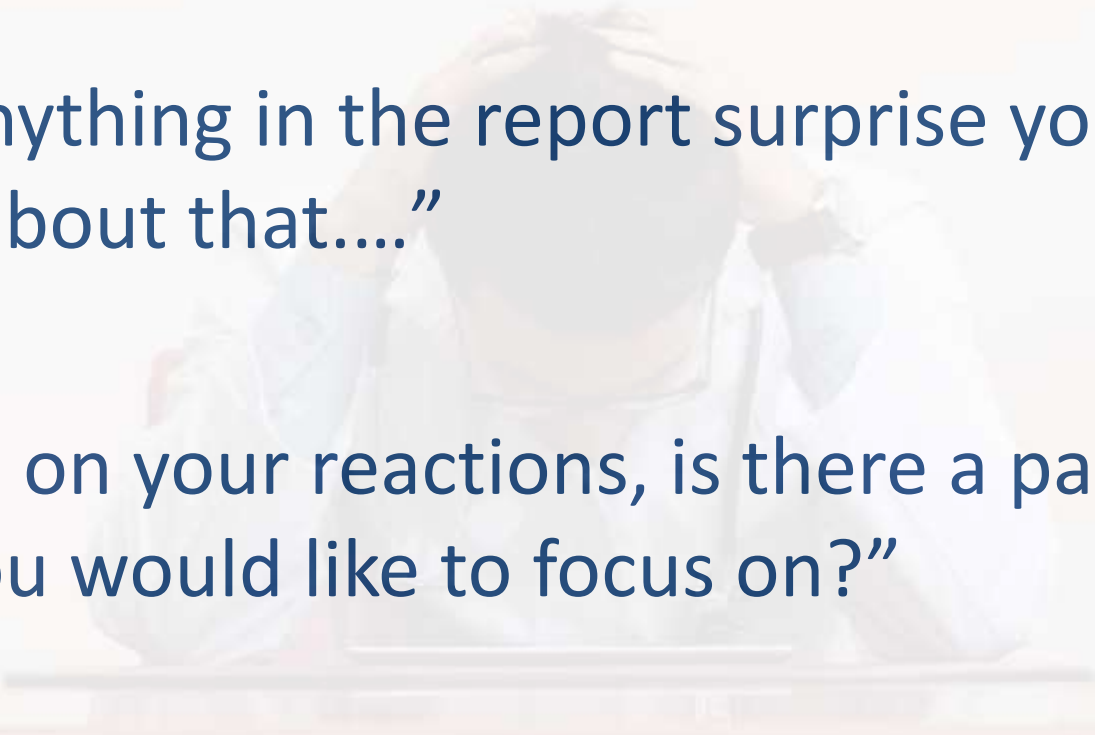
R: Relationships

- “Tell me about your experiences on this rotation”
 - “I’d like to hear about your practice (setting, patients, challenges, what you enjoy).”
 - “Would you like to hear more about the assessment process?”
- 

R: Reactions



R: Reactions

- “What were your initial reactions? Anything particularly striking?”
 - “Did anything in the report surprise you? Tell me more about that....”
 - “Based on your reactions, is there a particular part that you would like to focus on?”
- 

C: Content



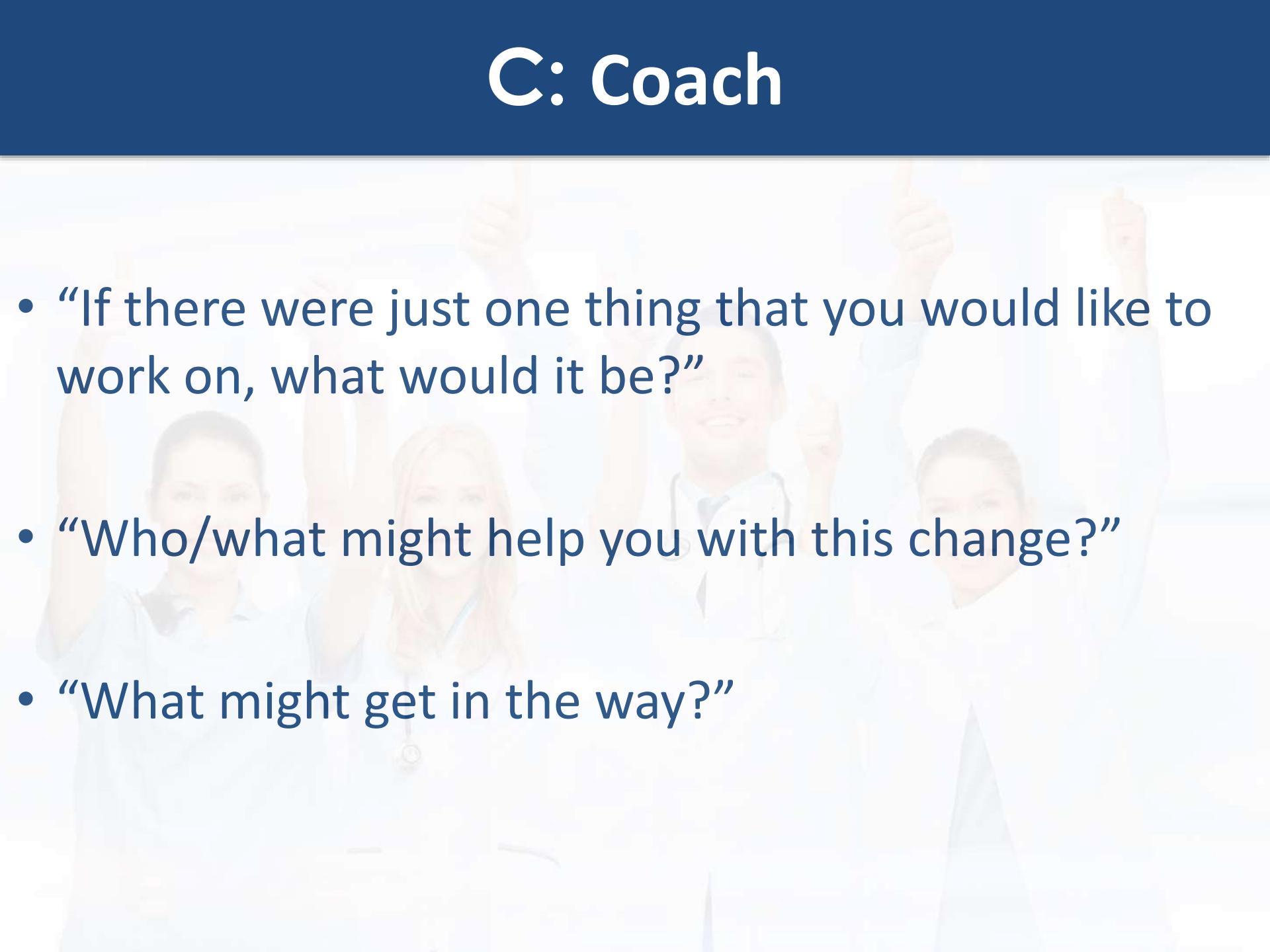
C: Content

- “Was there anything in the report that didn’t make sense to you?”
 - “Anything in section X that you’d like to explore further or comment on?”
 - “Do you recognize a pattern?”
- 

C: Coach



C: Coach

- “If there were just one thing that you would like to work on, what would it be?”
 - “Who/what might help you with this change?”
 - “What might get in the way?”
- 
- A group of five healthcare professionals, including nurses and doctors, are shown in a celebratory mood. They are wearing white lab coats and have their arms raised in the air, some holding up small white cards. The background is a bright, slightly blurred indoor setting, possibly a hospital hallway or a meeting room. The overall tone is positive and energetic.

R2, C2

R: Build the **Relationship**

R: Explore **Reactions** to and perceptions of report

C: Explore understanding of the **Content**

C: **Coach** for performance change

Thank You

