Assessment of Learning: Determining Competence

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Disclosure

I have authored chapters in UpToDate, but none on the topic being presented today.

Thanks

William Iobst, MD; ABIM

Grace Huang, MD; BIDMC

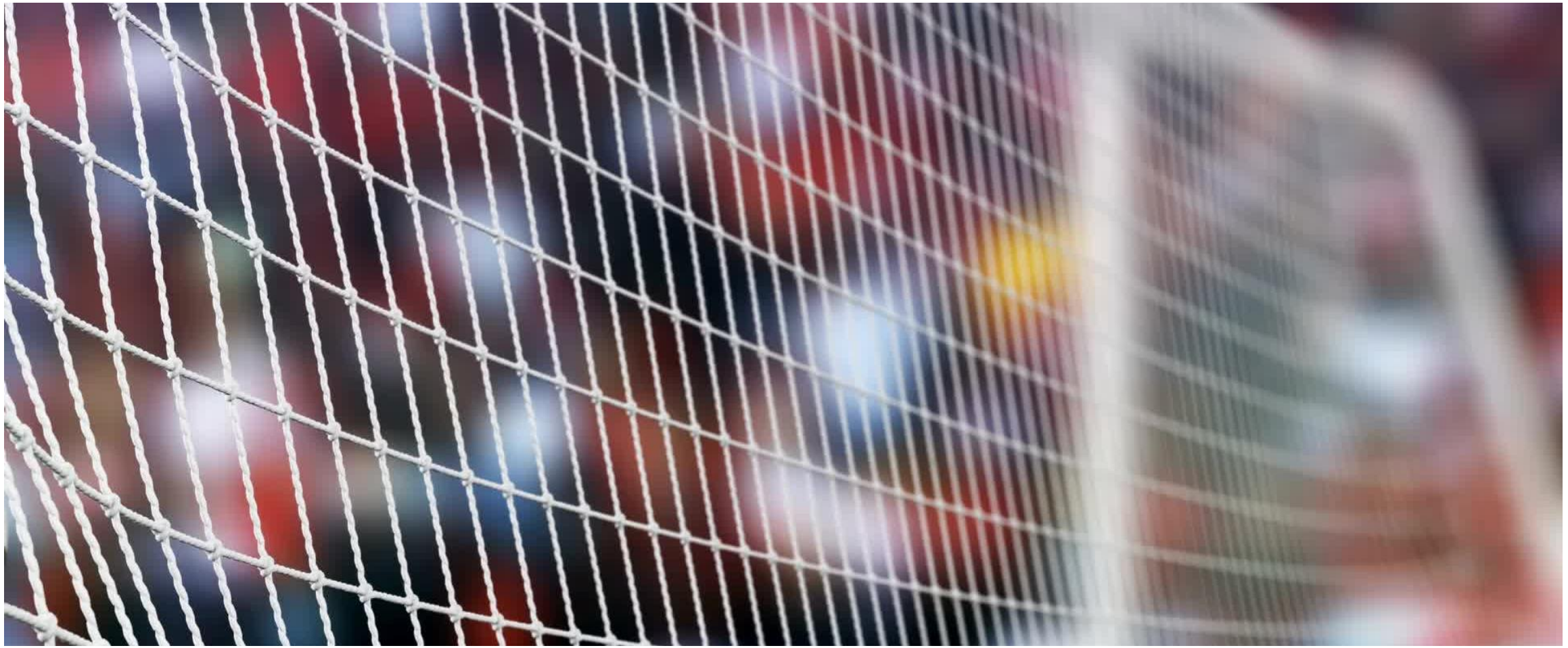
Charles Hatem, MD; Mt. Auburn Hospital

Eric Holmboe, MD; ACGME

Lori Newman, MEd; BCH

Eileen Reynolds, MD; BIDMC

Is this player competent at his sport?



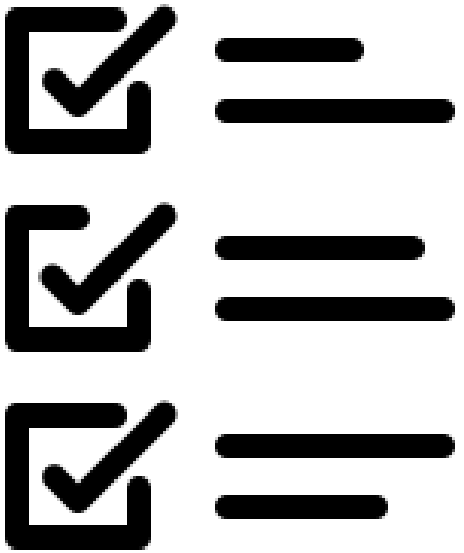
- Is this player competent at his sport?

- What does it require to be a competent soccer player?

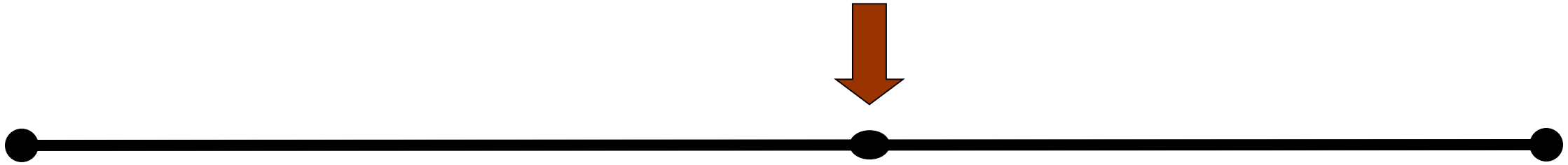
- From this one video can we say he is competent?

Goals

- To discuss competency-based medical education
- To review approaches to assessment of competency domains:
  - Frameworks of assessment
  - Assessment tools
  - Evaluation standards



Where would you place a “competent” individual on this scale?



Novice or Absence of skill

Adequate or Just enough skill to get by

Master or Exceptional skill

To be competent is to possess the required skills in all domains within a certain context at a defined stage of education or practice

Competent vs. Competence

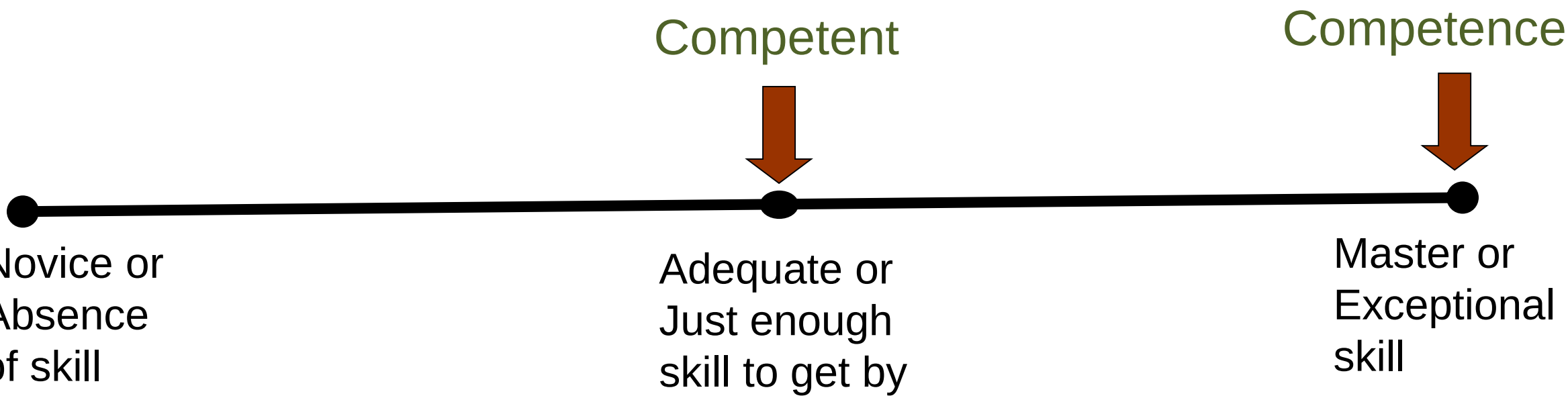
Competence is not an achievement, but rather a habit of lifelong learning.

Epstein, NEJM 2002

"…it would take me one year to teach a trainee how to do an operation, five years to teach them when to do the operation, but a lifetime to teach them when not to do an operation."

Lord Rodney Smith, President Royal College of Surgeons of England

Competent vs. Competence



In education, what is assessment?

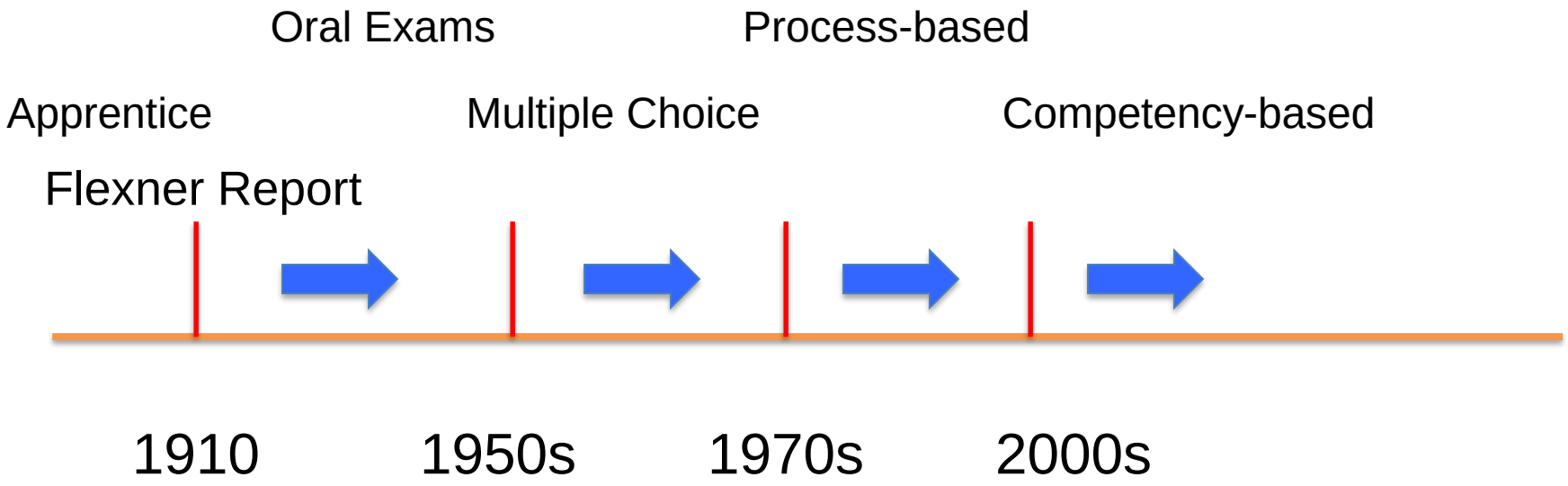
- Evidence-gathering process used to measure knowledge, skills, attitudes and competence.
- Used to provide feedback, summarize achievement, make decisions, and communicate degree to which a learner meets pre-established standards.

Formative Assessment

Summative Assessment

How do we assess competence?

Evolution of Assessment of Competence In Medicine



Process vs. Competency-based Education Programs

Weinberger; Annals, 2010

Variable	Process-based	Competency-based
Educational Goal	Acquisition of Knowledge	Application of knowledge
Responsible for Education	Teacher	Learner
Responsible for content	Teacher	Student and teacher
Timing of assessment	Summative	Emphasis on Formative
Assessment tool	Indirect, proxy assessment	Direct observation of authentic task
Evaluation standard	Normative-referenced	Criterion-referenced
Program completion	Fixed time	Variable time

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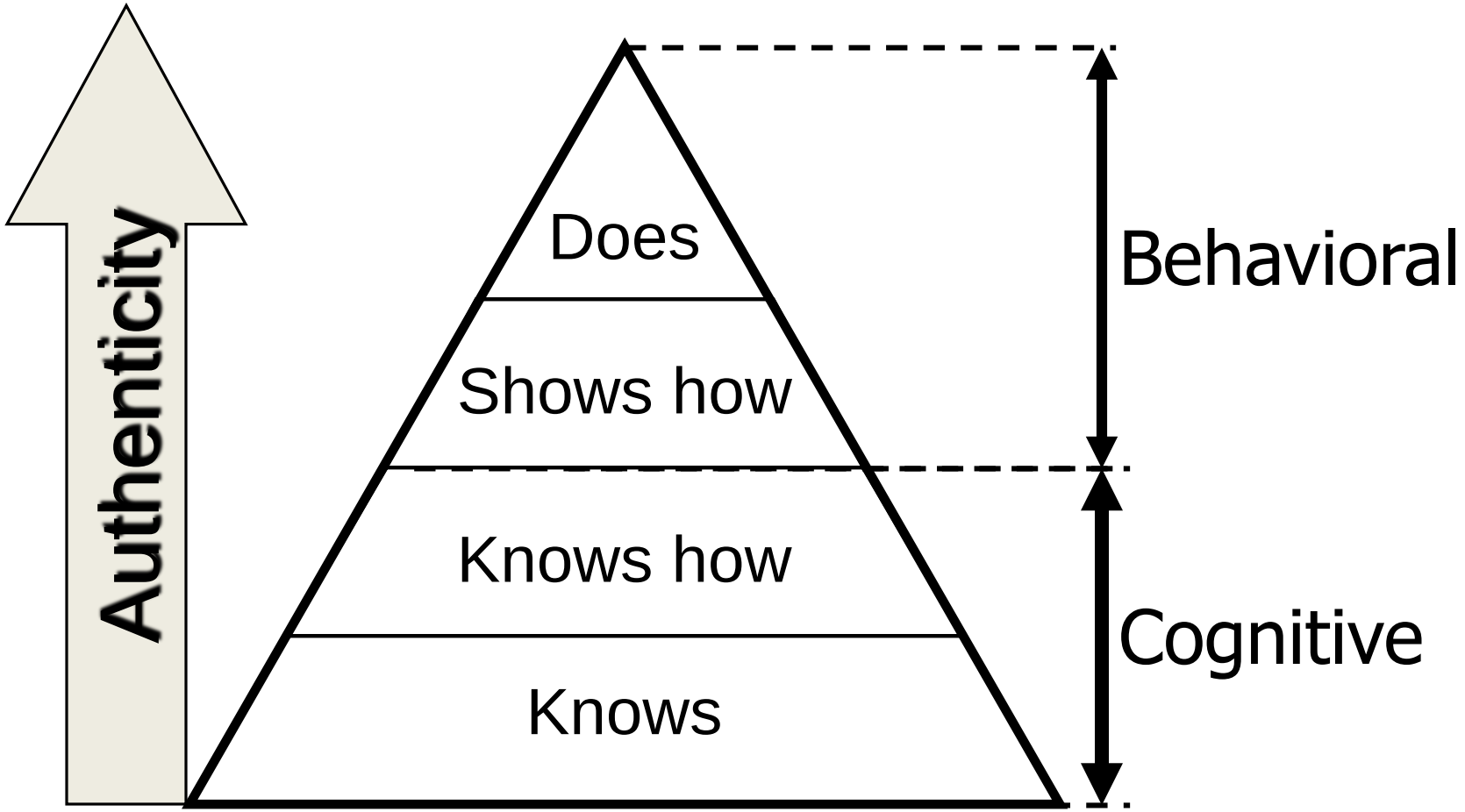
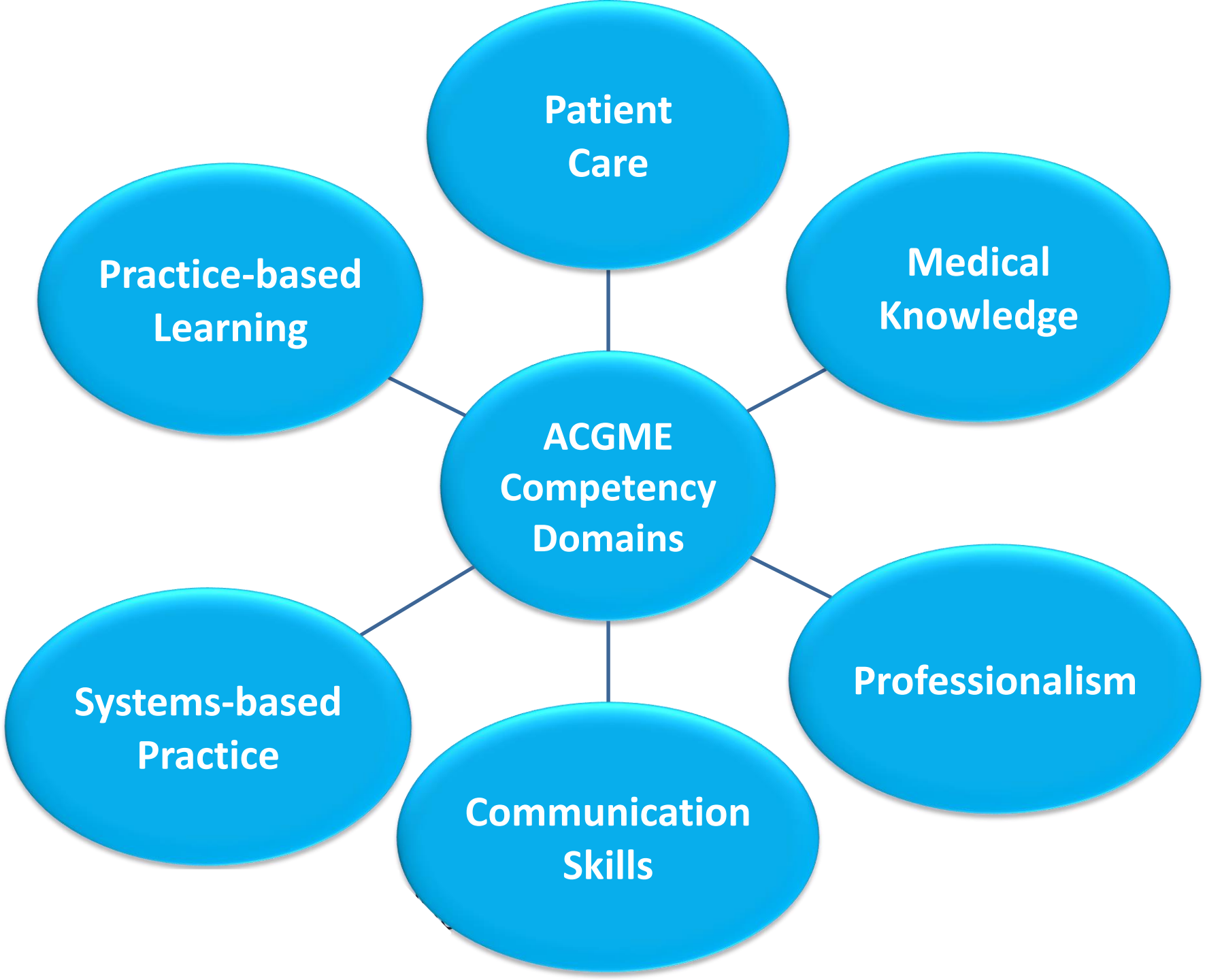
Miller's Pyramid: Assessment of Clinical Competence



Miller, Acad Med 1990


Patient Care
Practice-based Learning
Medical Knowledge
ACGME Competency Domains
Systems-based Practice
Professionalism
Communication Skills

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Weinberger; Annals, 2010

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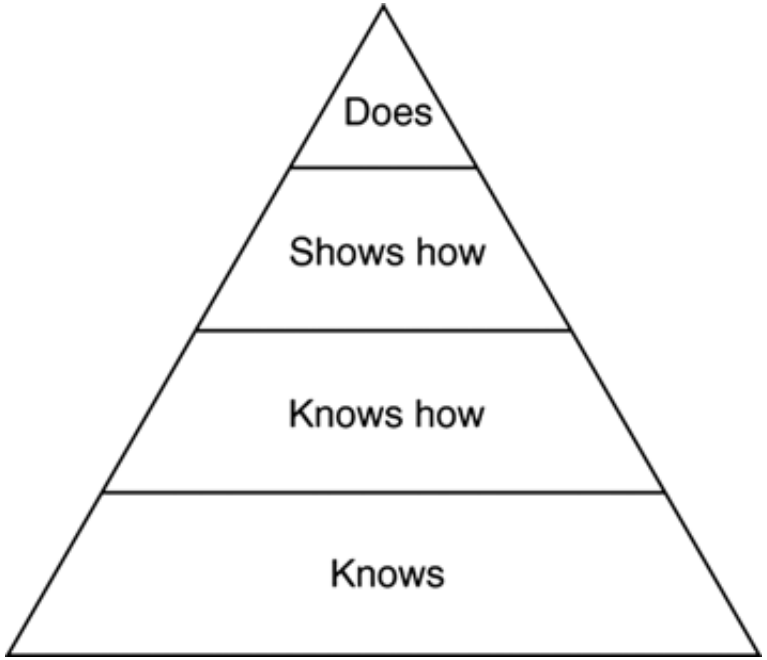
Normative vs. Criterion Referenced Assessment

How do we get to the top of the pyramid?

- **Measurement of knowledge or of knowing how does not fully predict performance**



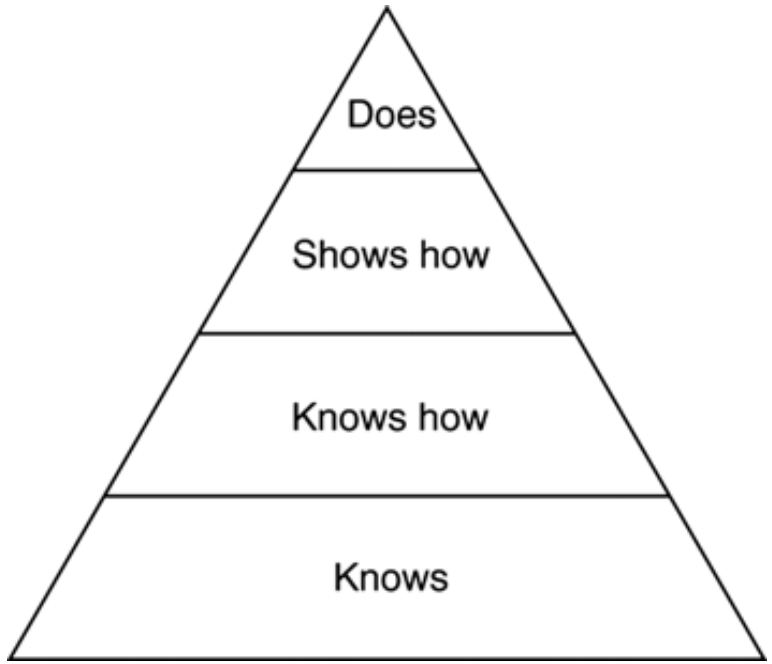
"…measurement of the infrastructure (i.e. Knows, Knows how) cannot be assumed to predict fully and with confidence the achievement of the more complex goals."

Miller, Acad Med 1990

How do we get to the top of the pyramid?

- Measurement of knowledge or of knowing how does not fully predict performance

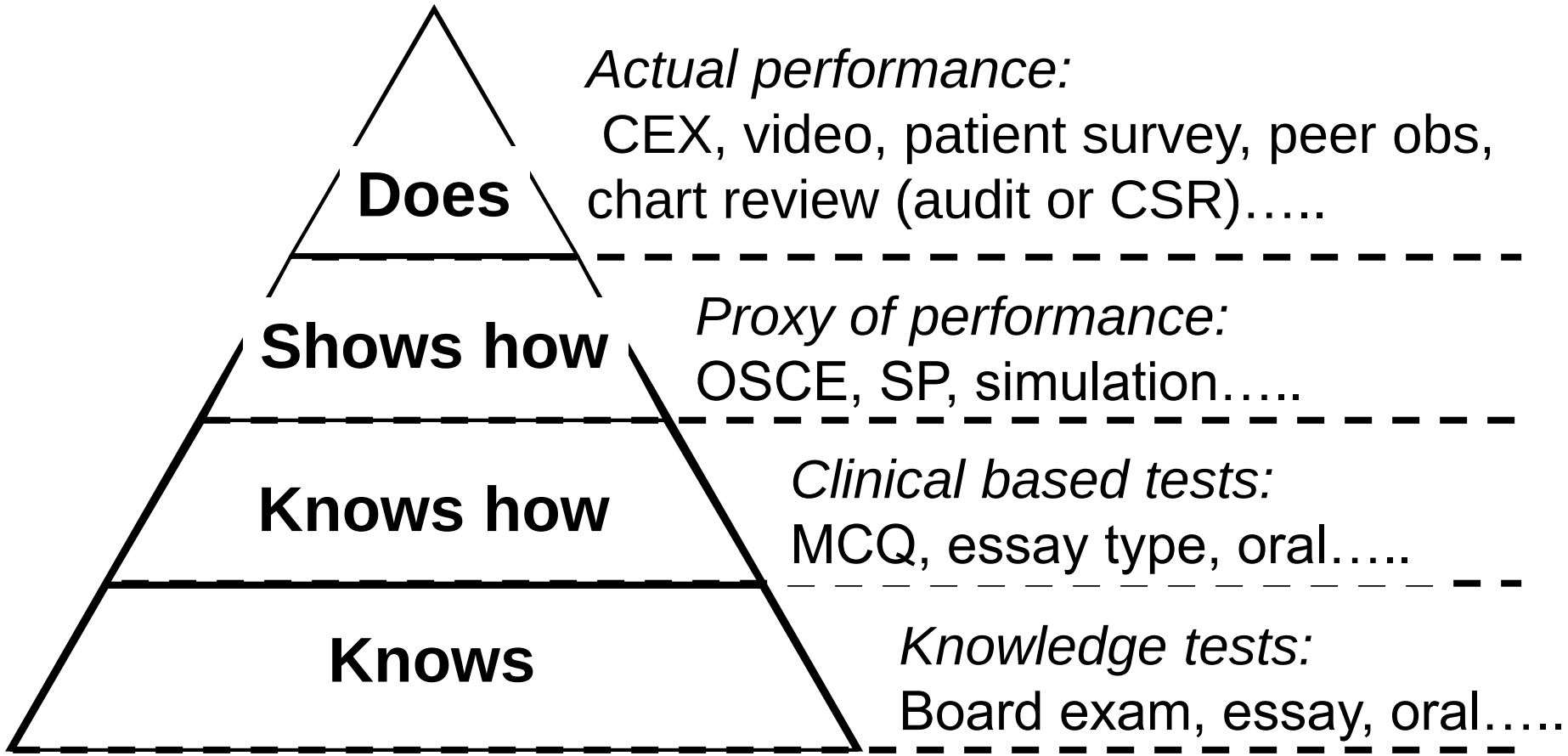
- **Direct observation is a requirement**



How do we get to the top of the pyramid?

- Measurement of knowledge or of knowing how does not fully predict performance
- Direct observation is a requirement
- **Use assessment tools appropriate for goal**

Use appropriate assessment tools



Cognitive

Behavioral

	Knowledge	**Skills**	**Attitudes**
The performance of a 3rd year medical student on her medicine clerkship			
The quality of care provided by an attending physician			

Cognitive

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Behavioral

	Knowledge	**Skills**	**Attitudes**
The performance of a 3rd year medical student on her medicine clerkship	Board Exam Shelf Exam Case-related questions Bedside Rounds Chart Reviews		
The quality of care provided by an attending physician			

Cognitive

Behavioral

	Knowledge	**Skills**	**Attitudes**
The performance of a 3rd year medical student on her medicine clerkship	Board Exam Shelf Exam Case-related questions Bedside Rounds Chart Reviews	OSCE Simulation Standardized Patient CEX	OSCE Standardized Patient Bedside Rounds Patient Survey Peer Evaluation
The quality of care provided by an attending physician			

Be sure to use a valid assessment tool

How do we get to the top of the pyramid?

- Measurement of knowledge or of knowing how does not fully predict performance
- Direct observation is a requirement
- Use assessment tools appropriate for goal
- **Multiple assessments over time**

"…no single assessment method can provide all the data required for judgment of anything so complex as the delivery of professional services by a successful physician."

Miller, Acad Med 1990

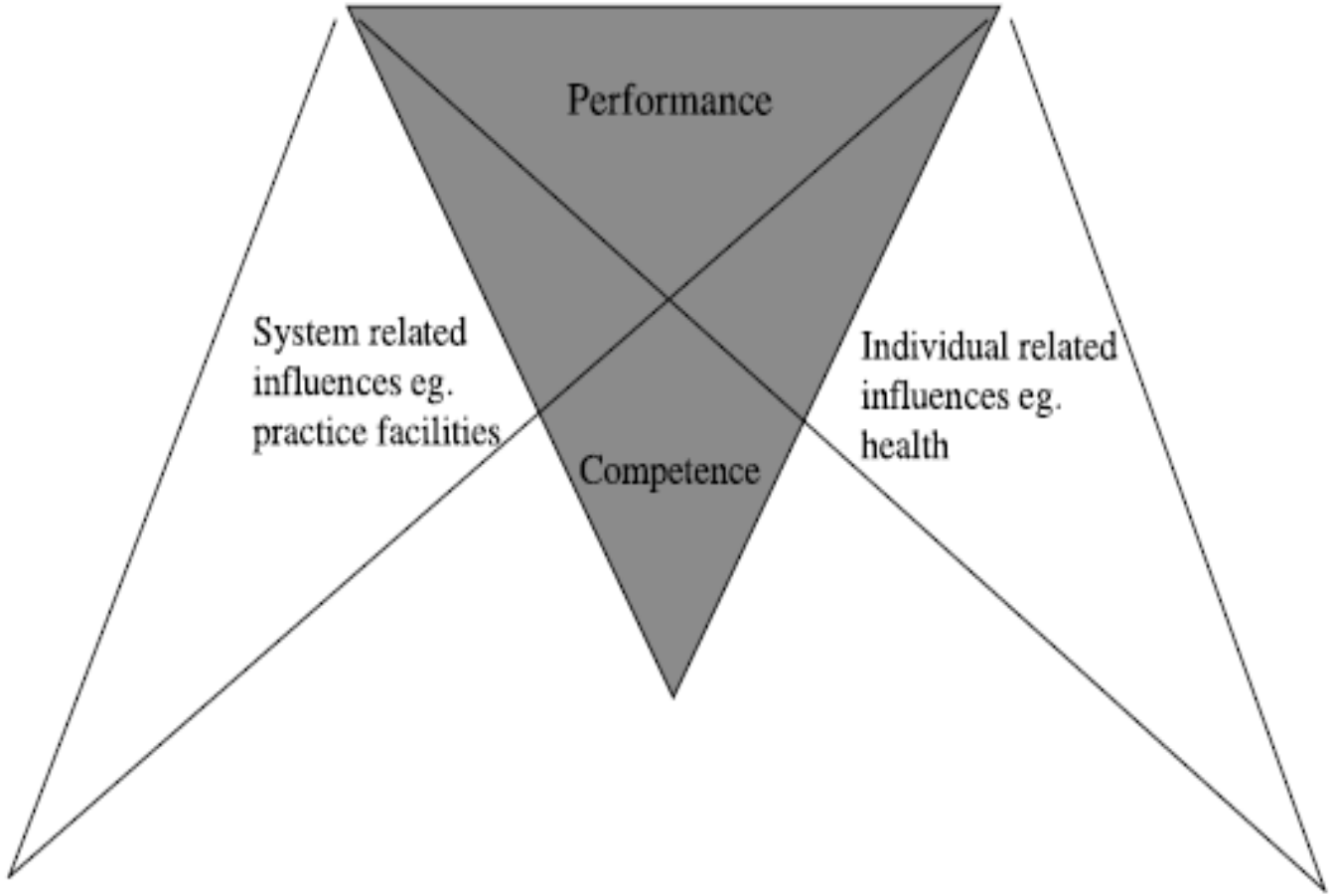
high validity/
low reliability

low validity/
high reliability

low validity/
low reliability

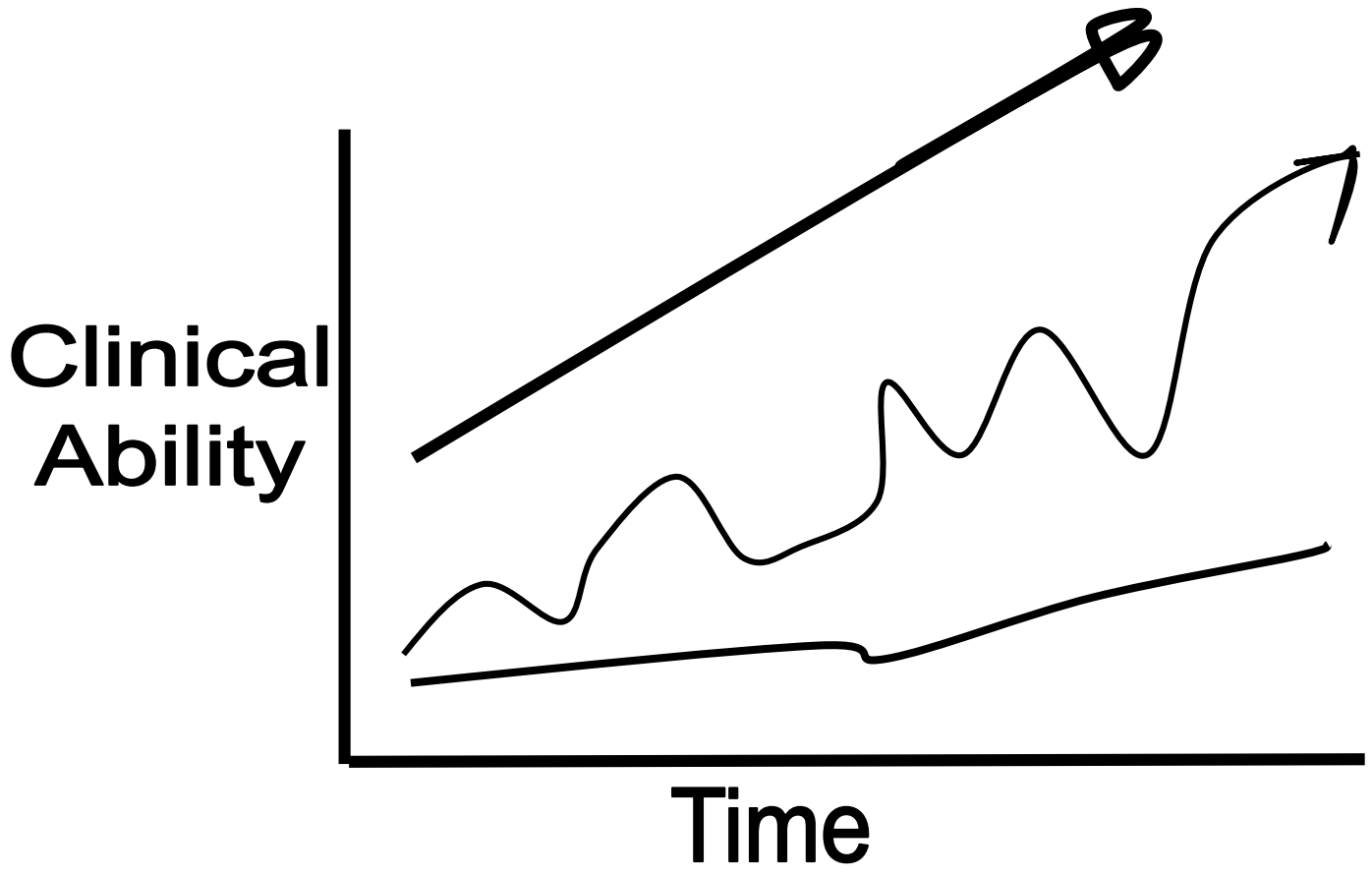
high validity/
high reliability

Cambridge Model of Competence: Many factors impact performance



Rethans, Med Educ 2002

Clinical Skill Development



Summary

1. Move from process-based teaching to competency and learner-based
2. Use authentic evaluations – direct observations
3. Use appropriate assessment tools
4. Need multiple evaluations over time

How would you rate this resident's communication skills?

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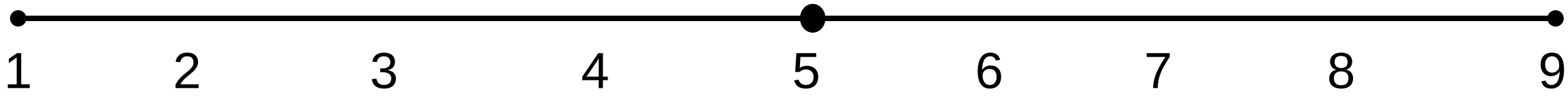
How would you rate this resident's communication skills?

Who is seeing the correct image?

How would you rate this resident's communication skills?

Provides timely and comprehensive verbal and written communication to patients	Effectively uses verbal and nonverbal skills to create rapport	Uses communication skills to build therapeutic relationship	Engages patients in shared decision making
Uses patient-centered education strategies	Counsels patients about the risks and benefits of tests and procedures	Demonstrates sensitivity to patients	Seeks to understand patient differences and views

How would you rate this resident's communication skills?



Poor
Dictatorial Patient with negative experience

Marginal
Missed some major elements (learner not aware of patient's understanding)

Good
Missed minor elements of discussion; overall positive

Excellent
Found common ground, shared decision/uncer-tainty comfortably

Mini-CEX Original

2. Physical Examination Skills (○ Not observed)

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

---

3. Humanistic Qualities/Professionalism

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

---

4. Clinical Judgment (○ Not observed)

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

---

5. Counseling Skills (○ Not observed)

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

---

6. Organization/Efficiency (○ Not observed)

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

---

7. Overall Clinical Competence (○ Not observed)

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

Alternate Mini-CEX by Donato et al, 2008

Interpersonal/Communication Skills:

- Greeting
- Set agenda, "anything else?"
- Used open-ended, non-leading questions
- Gives/responds to patient's non-verbal cues
- Uses summarizing/clarifying/reflective questions
- Demonstrates empathy
- Avoids medical jargon
- Attentive

Poor	**Marginal**	**Good**	**Excellent**
(offended patient, obviously negative interaction)	(missed >2 or borderline egregious mistake; marginal connection)	(missed 1-2 items without egregious mistake)	(Demonstrated all of above, outstanding interaction)
○	○	○	○

Comments

Remaining Characters: 5,000

Data Collection:

- Elicits focused chief complaint
- General-to-specific questioning
- Got relevant PMH/SH/ROS
- Asked discriminatory questions that prioritized differential

Poor	**Marginal**	**Good**	**Excellent**
(tangential data collector; missed major topics; "lost" in data)	(missed 1 or more vital data points; failed to discriminate Ddx or prioritize complaints)	(collected enough to correctly rank ddx, rarely tangential)	(understands historical nuances; no irrelevant data collected)

How do we get to the top of the pyramid?

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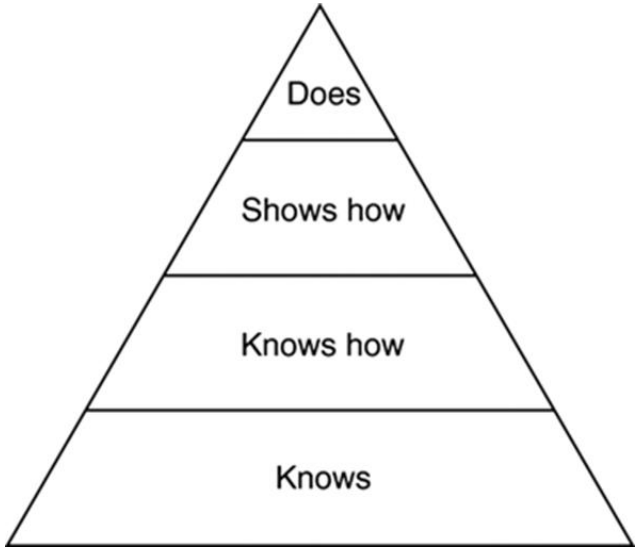
- Direct observation is a requirement
- Use assessment tools appropriate for goal
- Multiple assessments over time



- **Assessment must:**
  - **Identify relevant educational outcomes**
  - **Be criterion based with specific behavior terms**
  - **Facilitate developmental progression of competence**

Milestones

"The milestones would explicate the 6 ACGME general competencies by describing a developmental progression of observable behaviors.

…aimed at enhancing our profession's ability to verify that graduates of residency programs are competent, at a minimum, to deliver safe and effective patient care."

Green, JGME 2009

INTERNAL MEDICINE MILESTONES

ACGME Report Worksheet

1. Gathers and synthesizes essential and accurate information to define each patient's clinical problem(s). (PC1)				
Critical Deficiencies			**Ready for unsupervised practice**	**Aspirational**
Does not collect accurate historical data Does not use physical exam to confirm history Relies exclusively on documentation of others to generate own database or differential diagnosis Fails to recognize patient's central clinical problems Fails to recognize potentially life threatening problems	Inconsistently able to acquire accurate historical information in an organized fashion Does not perform an appropriately thorough physical exam or misses key physical exam findings Does not seek or is overly reliant on secondary data Inconsistently recognizes patients' central clinical problem or develops limited differential diagnoses	Consistently acquires accurate and relevant histories from patients Seeks and obtains data from secondary sources when needed Consistently performs accurate and appropriately thorough physical exams Uses collected data to define a patient's central clinical problem(s)	Acquires accurate histories from patients in an efficient, prioritized, and hypothesis-driven fashion Performs accurate physical exams that are targeted to the patient's complaints Synthesizes data to generate a prioritized differential diagnosis and problem list Effectively uses history and physical examination skills to minimize the need for further diagnostic testing	Obtains relevant historical subtleties, including sensitive information that informs the differential diagnosis Identifies subtle or unusual physical exam findings Efficiently utilizes all sources of secondary data to inform differential diagnosis Role models and teaches the effective use of history and physical examination skills to minimize the need for further diagnostic testing
☐	☐	☐	☐	☐
Comments:				

Milestone Benefits

- Outlines **clear markers of progression** for learner—sets expectations
- Facilitates **more accurate assessment** by defining specific behaviors
- Facilitates specific, **formative feedback**
- Enables trainee and program to **follow trajectory** of competency acquisition
- Helps to **identify deficiencies earlier** and with more specificity

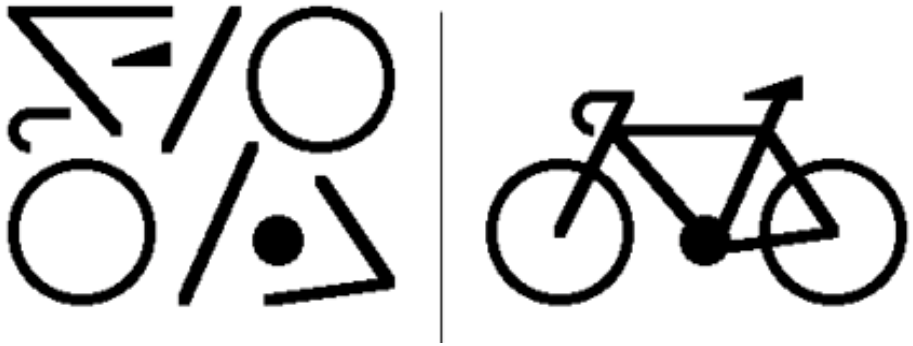
Milestone Criticisms

- Are the milestones too reductionistic?
  - 142→22 internal medicine milestones
  - Is the sum more important than the parts?
- No marker can capture the nuances of a system as complex as healthcare
  - Context is crucial
  - Still requires many observations in many settings

Milestone Criticisms

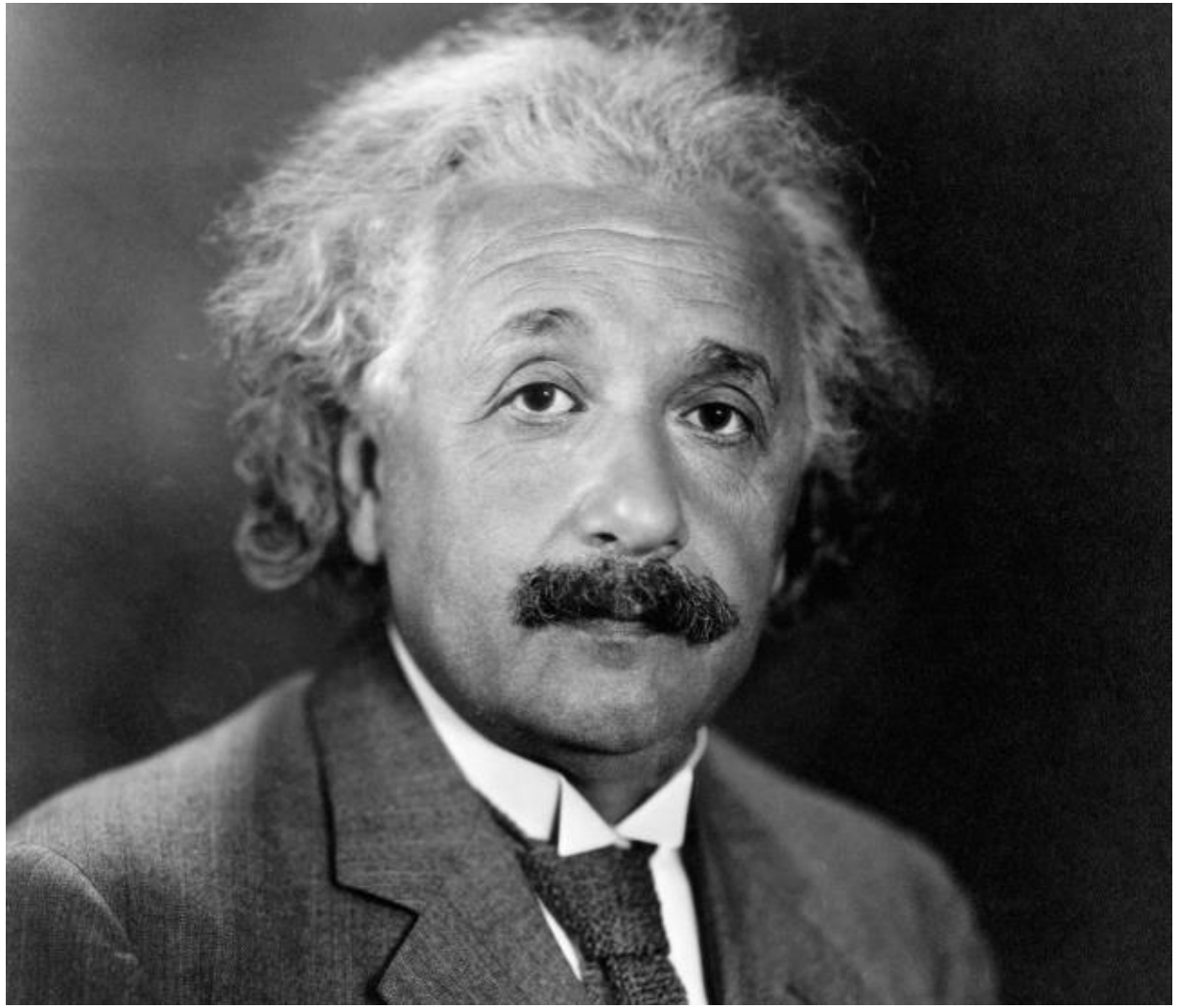
"*Competence is deconstructed into competencies to measure and to improve the elements of competence, and yet,* ***the whole of competence is greater than the sum of its parts****."*

Leach, Am J Pub Health, 2008



“Not everything that can be counted counts and not everything that counts can be counted”

Albert Einstein



Have we become too reductionistic?

Analytic:

- “breaks up”
- domains assessed separately
- useful for simple tasks
- e.g., ACMGE competencies, KSA

Synthetic:

- “puts together”
- composite assessment
- more relevant for complex tasks
- e.g., RIME

Pangaro 2007

Reporter	**Accurately and reliably gather clinical information; communicate clearly; distinguish important from unimportant; focus data collection and presentation on central issues**

Interpreter	**Identify and prioritize problems independently; develop differential dx and make case for and against each important diagnosis**

Manager	**Analyze risk/benefit of diagnostic and therapeutic measures base on pt's circumstances; decides when action should be taken**

Educator	**Define important questions to research in more depth; seek and scrutinize evidence for clinical practice; reflect on own skills and abilities**

Which is better, analytic or synthetic?

- There is room for both in an assessment system

- Milestones cannot replace a global assessment
  - They do help define what we see
  - Create a level playing field

Milestones

- Provides analytic framework, but still requires synthetic approach
- No single assessment “tool” is sufficient to evaluate competence
- Create a “portfolio” for each resident that includes
  - Formative and summative components
  - Qualitative and quantitative elements
- Enlist the wisdom of other educators via “competency” committee

Milestone-Based Evaluations 2.0

6* **CRITICAL THINKING: Synthesizes data coherently. Demonstrates clinical judgment in sorting out major from minor issues. Thinking processes show logic and organization.**

Struggling	Almost there	No concerns whatsoever	Quite skilled	Absolutely exemplary	Not observed
1	2	3	4	5	
○	○	○	○	○	○

PATIENT CARE SKILLS

7* **PATIENT CARE: Develops appropriate treatments for common clinical conditions. Enacts plans in a timely manner, with attention to important details. Decision-making incorporates patient factors and up-to-date information.**

Struggling	Almost there	No concerns whatsoever	Quite skilled	Absolutely exemplary	Not observed
1	2	3	4	5	
○	○	○	○	○	○

8* **TRIAGE / RAPID RESPONSE: Recognizes "sick" vs. "not sick." Knows when to ask for help. Initiates appropriate stabilization for deteriorating patients.**

Struggling	Almost there	No concerns whatsoever	Quite skilled	Absolutely exemplary	Not observed
1	2	3	4	5	
○	○	○	○	○	○

Milestone-Based Evaluations 2.0

24 **Please rate the overall competence of this intern/resident.**

Significant concerns (requires comment)	A few concerns, yet meeting some expectations for this PGY level at BIDMC at this point in the year	No concerns whatsoever, performs as is typical for this PGY level at BIDMC at this point in the year	Quite skilled, performs above what is typical for this PGY level at BIDMC at this point in the year	Absolutely exemplary, performs well beyond what is typical for this PGY level at BIDMC (requires comment)	Unable to assess
1	2	3	4	5	
○	○	○	○	○	○

General comments

Comments are the most valuable part of the evaluation for trainees. Be specific (and constructive). Areas to consider giving feedback on: work ethic, initiative, teaching skills, leadership, orientation to detail, speaking skills, efficiency, composure, confidence, approachability.

25* **The resident has strengths in the following areas...**

Comment *

26* **The resident should continue to work on the following areas...**

Comment *

27* **I have provided this feedback to this resident.**

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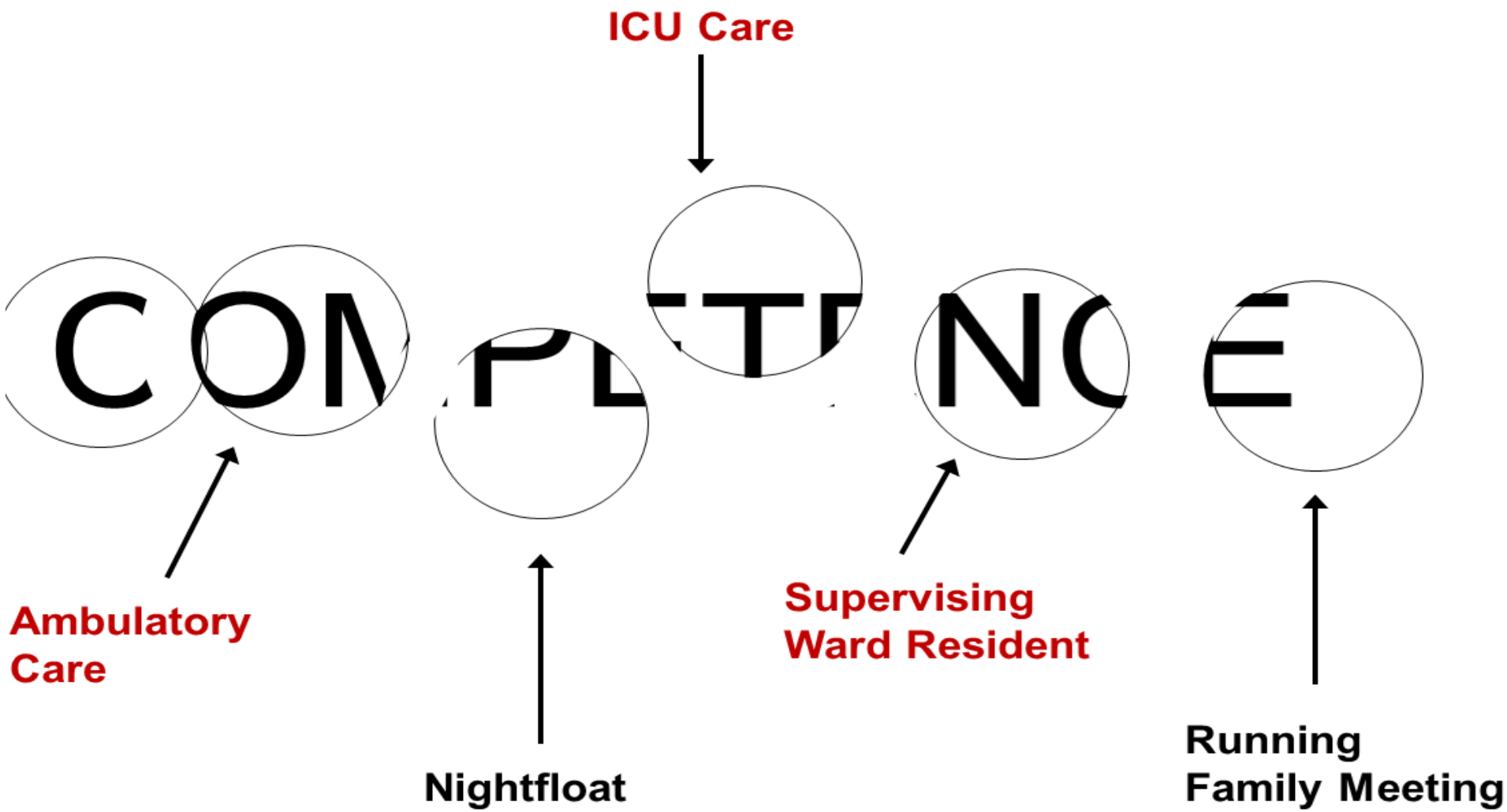
ICU Care
Ambulatory Care
Nightfloat
Supervising Ward Resident
Running Family Meeting

Caverzagie

Collect Multiple Sources of Data: The "Both/And" Approach

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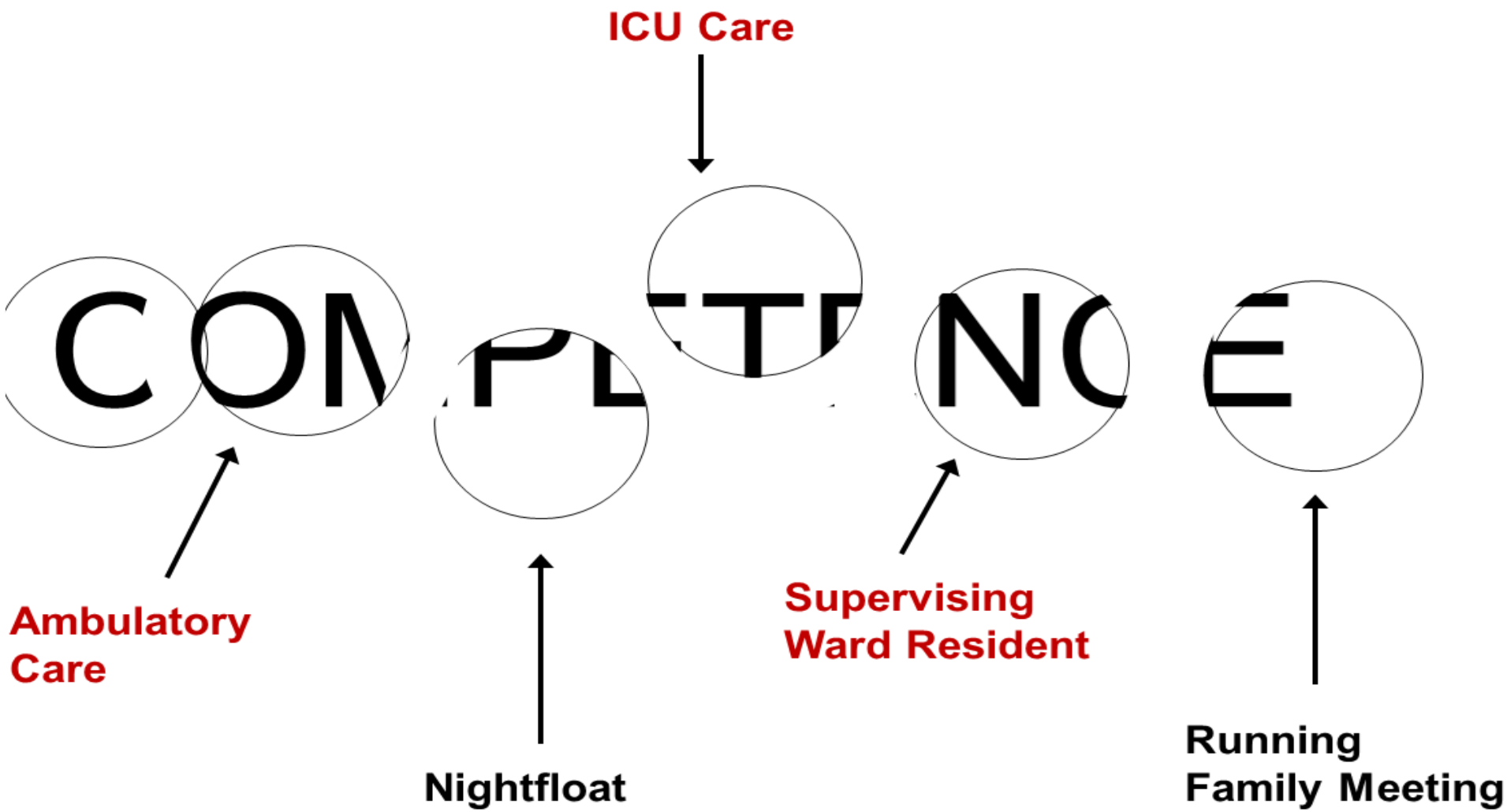
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Caverzagie

Competency Committees add Clarity to Evaluations

- Group conversations uncover deficiencies in professionalism
  Hemmer, JGIM 2001
  - 18% of resident deficiencies requiring remediation only became apparent through group discussion Schwind, Acad Med 2004

http://hfh-ny-dutc.huterra.com/committees

- Group assessment improved inter-rater reliability Thomas,JGIM 2011

Small group activity:
You are a competency committee

- You will form the program's competency committee
- Review the summary of milestone-based evaluation scores for a senior resident
- How was this resident's performance?
- Are there areas in need of improvement?
- Competent to graduate?

Confidential: Your Competency Committee Summary

Resident B

Grade scale:

1 = Infrequently (<10%)
2 = Some of the time (~25%)
3 = Frequently (~50%)
4 = Most of the time (~75%)
5 = Almost always (>90%)

	PGY3 Avg	Avg	Fellow	Peer	Peer	Peer	Hospitalist	Peer	Peer	ICU Attending	ICU Attending	Peer	Attending	Attending	Peer	Peer	Pe
Obtains relevant historical subtleties that inform and prioritize differential diagnosis and diagnostic plans, including information that may not be readily volunteered by patient.	**4.59**	**3.80**					4			4	**3**		4	4			
Role models gathering subtle history and physical exam findings for junior member of healthcare team.	**4.52**	**3.80**	**3**	**3**	5	4	**3**	4	4	4	4	4	4	4	**3**	4	4
Routinely identifies subtle or unusual physical examine findings that may influence clinical decision making.	**4.20**	**3.20**					**2**			**3**	**3**		4	4			
Synthesize and interpret all available data (including history, physical, laboratory/radiographic data, etc.) to help team create a prioritized, differential diagnosis and to create an evidence-based therapeutic plan for common conditions.	**4.60**	**4.07**	**3**	4	5	**3**	**3**	5	4	4	4	5	4	4	4	4	5
Recognizes disease presentations that deviate from common patterns and that require interpretation of more advanced diagnostic tests and complex decision making.	**4.47**	**3.93**	**3**	4	5	**3**	**2**	4	5	4	**3**	5	4	4	4	4	5
Appropriately modify differential diagnosis and care plan based upon clinical course and available data.	**4.60**	**3.50**	**3**				**3**			4	4		4	**3**			
Appropriately performs invasive procedures and provides post-procedures management.	**4.44**	**4.00**								4	N/A						
Stabilizes and initiates management for patients with emergent medical conditions.	**4.46**	**4.50**								5	4						
With appropriate supervision, manages a broad spectrum of patients with common and complex clinical disorders.	**4.84**	**4.21**		4	5	**3**	4	4	4	4	4	5	4	4	4	5	5
Recognizes when to seek additional guidance.	**4.80**	**4.00**					4			4	4		4	4			
Recognizes and manages patients with emergent medical condition.	**4.77**	**4.15**	**3**	4	5	**3**	**3**	5	4			5	4	4	4	5	5
Overall Evaluation of Patient Care	**7.42**	**6.67**	5	7	9	6	5	7	7	7	6	7	7	6	6	8	7
Demonstrates sufficient knowledge to diagnose and treat undifferentiated and emergent conditions.	**4.67**	**4.33**	**3**	4	5	N/A	**3**	4	5			5	4	5	4	5	5
Demonstrates sufficient knowledge to evaluate complex or rare medical conditions and multiple coexisting conditions.	**4.35**	**4.00**	**3**	4	5	**3**	**3**	4	4			5	4	4	4	4	5
Demonstrates sufficient knowledge to diagnose and treat medical conditions that require intensive care, including undifferentiated and emergent conditions.	**4.59**	**3.67**					**3**			4	4						
Understands indications for and basic skills in interpreting more advance diagnostic tests (cardiac catheterizations).	**4.57**	**4.40**	**3**	4	5	**3**	5	4	5	5	4	5	4	4	5	5	5
Overall Evaluation of Medical Knowledge	**7.25**	**6.93**	5	7	8	7		7	7	7	6	8	7	7	7	7	7

Breakout group activity:
You are a competency committee

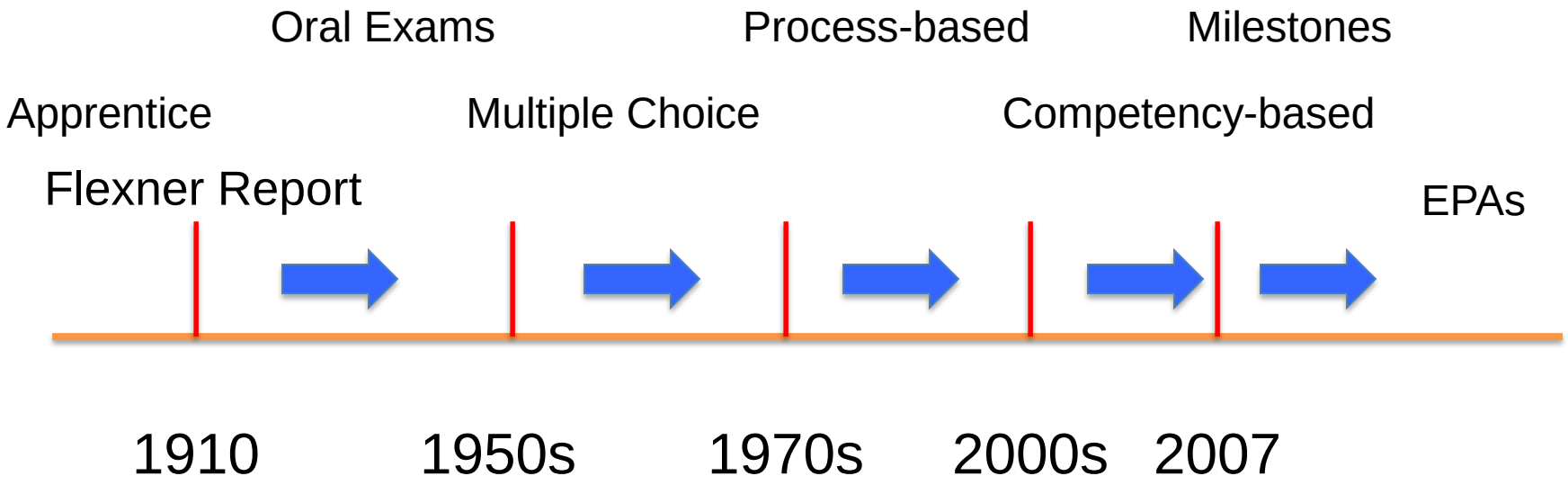
- You will form the program's competency committee
- Review the summary of milestone-based evaluation scores for a senior resident

- How was this resident's performance?
- Are there areas in need of improvement?
- Competent to graduate?

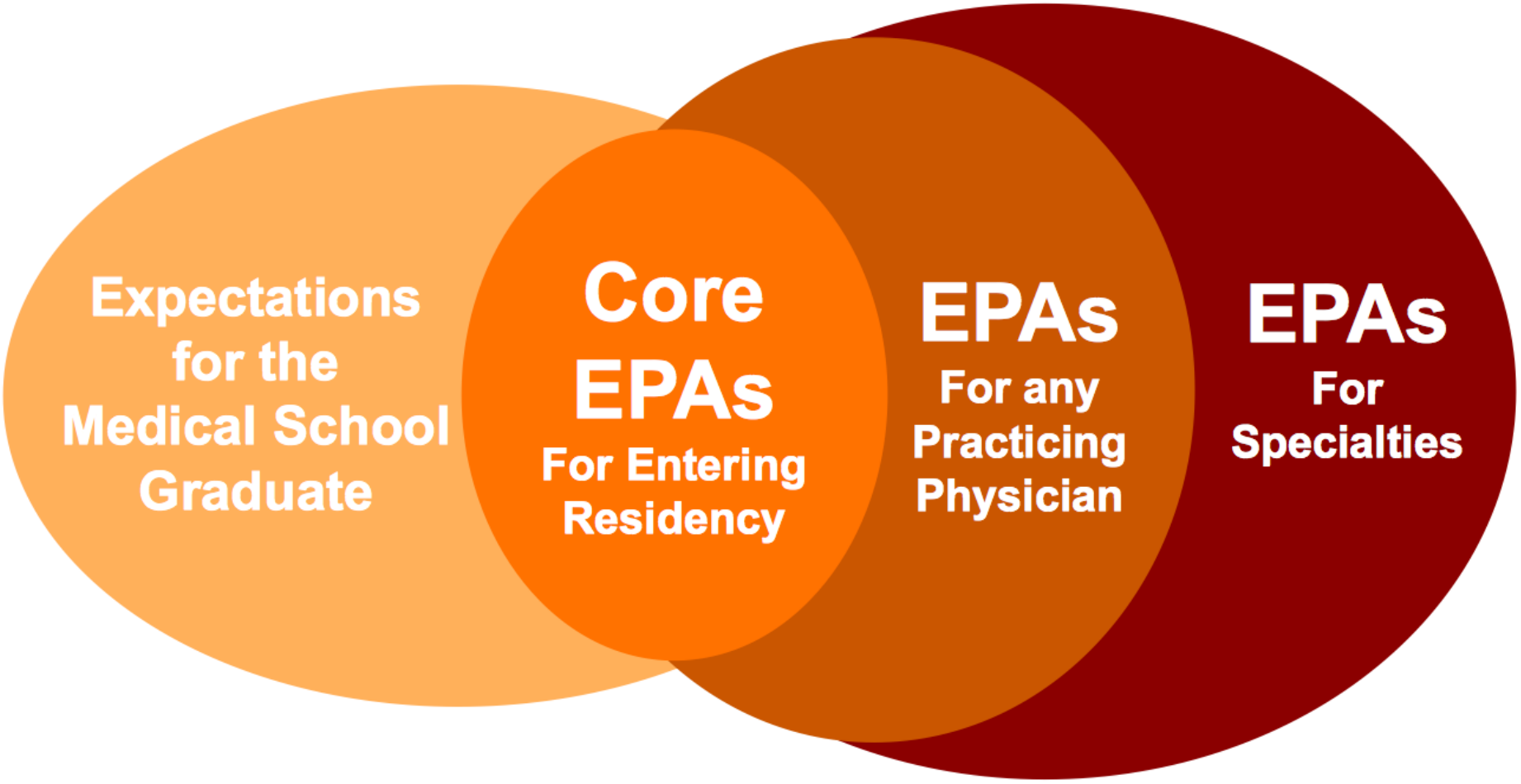
Breakout group activity:
You are a competency committee

- How was this resident's performance?
- Are there areas in need of improvement?
- Competent to graduate?

Evolution of Assessment of Competence In Medicine



Entrustable Professional Activities (EPAs)



https://www.aamc.org/download/427456/data/spring2015updatepptpdf.pdf

HARVARD MEDICAL SCHOOL
Entrustable Professional Activities for PCEs and Core Clerkships

EPA#	EPA Text	Pre-entrustable Behavior	Emerging	Entrustable Behavior
1A*	**Gather a history:**	Gathers too little/too much information, and does not link information in a clinically relevant fashion. Communication is unidirectional and not patient-focused. Does not tailor H&P to specific circumstances.	Gathers most relevant information, Links most history/PE findings in a clinically relevant fashion. Communication is mostly patient focused, but still somewhat unidirectional.	Gathers complete and/or focused and accurate history (appropriate to patient presentation and setting), demonstrates relevant clinical reasoning useful in patient care. Communication is considerate, culturally-sensitive and patient/family-centered.
1B*	**Perform a physical examination:**	Incorrectly performs or omits pertinent physical exam components. Does not tailor H&P to specific circumstances.	Correctly performs most of basic physical exam, and identifies and interprets most abnormal findings. May have trouble tailoring exam to setting.	Correctly performs basic and/or focused physical exam (appropriate to setting) and correctly identifies and interprets abnormal findings in the context of patient history.
2*	**Prioritize a differential diagnosis following a clinical encounter:**	Generates 1-2 possible Dx, largely based on pattern recognition; has difficulty generating alternative hypotheses or explaining supporting mechanisms of disease. Unable to outline diagnostic evaluations to confirm/exclude particular Dx.	Generates a short list of possible Dx based on pattern recognition and reasoning about pathophysiology. Eliminates a few Dx based on H&P and initial labs. Outlines a simple evaluation using commonly available tests to confirm/exclude particular Dx.	Generates a thorough, appropriate, and reasoned list of possible Dx based on pathophysiology and epidemiology. Determines most likely based on H&P and initial labs. Outlines high value test strategy to confirm/exclude most likely and/or dangerous Dx.
3*	**Recommend**	Misinterprets common results.	Knows/finds normal common lab	Correctly interprets abnl results

Courtesy of S. Fazio

EPA 6: Provide an oral presentation of a clinical encounter

	Pre-Entrustable	Emerging			Entrustable
Level of Supervision	**1a:** Not allowed to practice; allowed to ***observe***	**2a:** Allowed to practice EPA only under ***proactive, full supervision***, as ***co-activity*** w/supervision	**2b:** Allowed to practice EPA only under ***proactive, full supervision***, with supervisor in room ready to ***step in as needed***	**3a:** Allowed to practice EPA only under ***reactive/on-demand supervision***, with supervisor immediately available, ***all findings double-checked***	**3b:** Allowed to practice EPA only under ***reactive/on-demand supervision***, with supervisor immediately available, ***key findings double-checked***
	☐	☐	☐	☐	☐
Student Behavior	Provides an incomplete, inaccurate presentation w/out logical sequence. Does not distinguish between important/unimportant details of H&P and labs (pertinent +/-'s). Requires multiple clarifying questions. Reads from notes when presenting.		Provides a mostly complete, accurate presentation w/general logical sequence. Distinguishes between important/unimportant H&P elements (pertinent +/-'s). Requires more than 5 clarifying questions. Spontaneously presents critical H&P elements without notes.		Provides a complete, accurate and logically sequenced oral presentation. Presents pertinent +/-'s w/out prompting. Requires less than 5 clarifying questions. Spontaneously presents most H&P elements using notes only for reference.

Courtesy of S. Fazio

EPA	Description	Pre-PCE	PCE	Post-PCE
1A	**Gather a history**	**X**	X	X
1B	**Perform a physical examination**	**X**	X	X
2	**Prioritize a DDx following a clinical encounter**	**X**	X	X
3	Recommend and interpret common diagnostic/screening tests		X	X
4	Enter and discuss orders and prescriptions			X
5	**Document a clinical encounter in the patient record**	**X**	X	X
6	**Provide an oral presentation of a clinical encounter**	**X**	X	X
7	Form clinical questions and retrieve evidence to advance pt care		X	X
8	Give or receive a patient handover to transition care responsibility			X
9	Collaborate as a member of an interprofessional team		X	X
10	Recognize a pt requiring urgent/emergent care; initiate evaluation			X
11	Obtain informed consent for tests and/or procedures			X
12	Perform general procedures of a physician		+/-	X
13	Identify system failures and contribute to a culture of safety and improvement			X

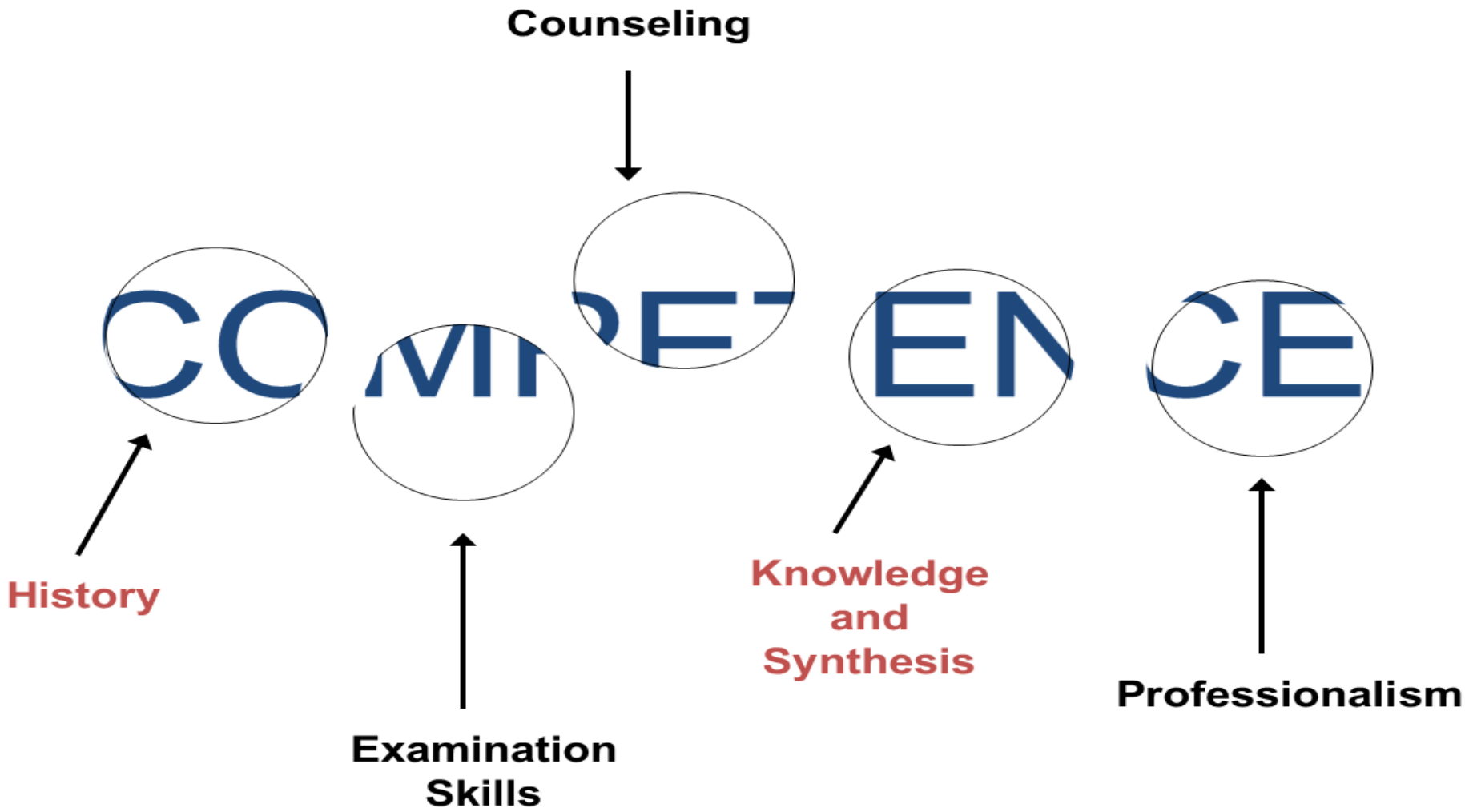
Courtesy of S. Fazio

EPA	Description	Pre-PCE	PCE	Post-PCE
1A	**Gather a history**	X	**X**	X
1B	**Perform a physical examination**	X	**X**	X
2	**Prioritize a DDx following a clinical encounter**	X	**X**	X
3	**Recommend and interpret common diagnostic/screening tests**		**X**	X
4	Enter and discuss orders and prescriptions			X
5	**Document a clinical encounter in the patient record**	X	**X**	X
6	**Provide an oral presentation of a clinical encounter**	X	**X**	X
7	**Form clinical questions and retrieve evidence to advance pt care**		**X**	X
8	Give or receive a patient handover to transition care responsibility			X
9	**Collaborate as a member of an interprofessional team**		**X**	X
10	Recognize a pt requiring urgent/emergent care; initiate evaluation			X
11	Obtain informed consent for tests and/or procedures			X
12	**Perform general procedures of a physician**		**+/-**	X
13	Identify system failures and contribute to a culture of safety and improvement			X

Courtesy of S. Fazio

EPA	Description	Pre-PCE	PCE	Post-PCE
1A	Gather a history	X	X	X
1B	Perform a physical examination	X	X	X
2	Prioritize a DDx following a clinical encounter	X	X	X
3	Recommend and interpret common diagnostic/screening tests		X	X
4	**Enter and discuss orders and prescriptions**			**X**
5	Document a clinical encounter in the patient record	X	X	X
6	Provide an oral presentation of a clinical encounter	X	X	X
7	Form clinical questions and retrieve evidence to advance pt care		X	X
8	**Give/receive a patient handover to transition care responsibility**			**X**
9	Collaborate as a member of an interprofessional team		X	X
10	**Recognize pt requiring urgent/emergent care; initiate evaluation**			**X**
11	**Obtain informed consent for tests and/or procedures**			**X**
12	**Perform general procedures of a physician**		**+/-**	**X**
13	**Identify system failures and contribute to a culture of safety and improvement**			**X**

Courtesy of S. Fazio


Counseling
History
Examination Skills
Knowledge and Synthesis
Professionalism

Caverzagie

Competence and Assessment

"Assessment drives learning, and learning is the key purpose of assessment."

Process vs. Competency-based Education Programs

Weinberger; Annals, 2010

Variable	Process-based	Competency-based
Educational Goal	Acquisition of Knowledge	Application of knowledge
Responsible for Education	Teacher	Learner
Responsible for content	Teacher	Student and teacher
Timing of assessment	**Summative**	**Emphasis on Formative**
Assessment tool	Indirect, proxy assessment	Direct observation of authentic task
Evaluation standard	Normative-referenced	Criterion-referenced
Program completion	Fixed time	Variable time

Competence and Assessment

- Aim for the top of the pyramid
- Use direct observation in authentic settings
  - Utilize multiple evaluations from different sources
  - Take into consideration the context
- Criterion/quantitative based assessment ***AND*** formative/qualitative comments
- Utilize expertise of competency committee
- Assessment for learning

Questions?

Thank you!

Challenges You Face?

10) Recognizes and manages patients with emergent medical condition.

Infrequently (<10%)	Some of the time (~25%)	Frequently (~50%)	Most of the time (~75%)	Almost always (>90%)	Not Applicable Insufficient Contact
O	O	O	O	O	O

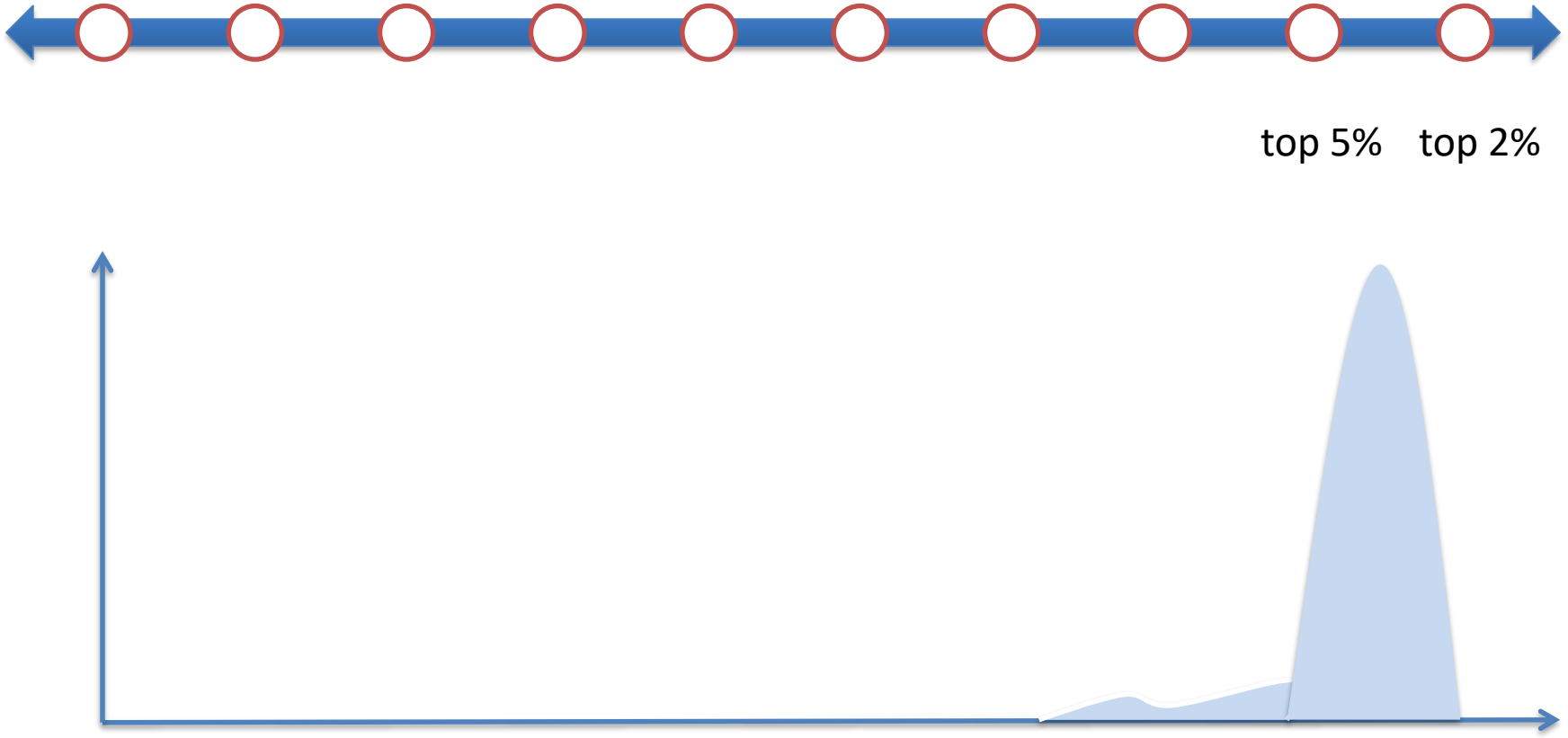
11) Overall Evaluation of Patient Care

Grave deficiencies	Significant deficiencies	Needs improvement	Below average for this PGY level	Average for this PGY level	Slightly above average for this PGY level	Considerably above average for this PGY level (top 25%)	Outstanding compared to most of this PGY level (top 10%)	One of the best ever at this PGY level (top 2%)	Not Applicable Insufficient Contact
1	2	3	4	5	6	7	8	9	
O	O	O	O	O	O	O	O	O	O

12) Please provide specific comments and recommendations for any area in which intern excels or aspects that need attention:

Comments

Unintended application of old scale



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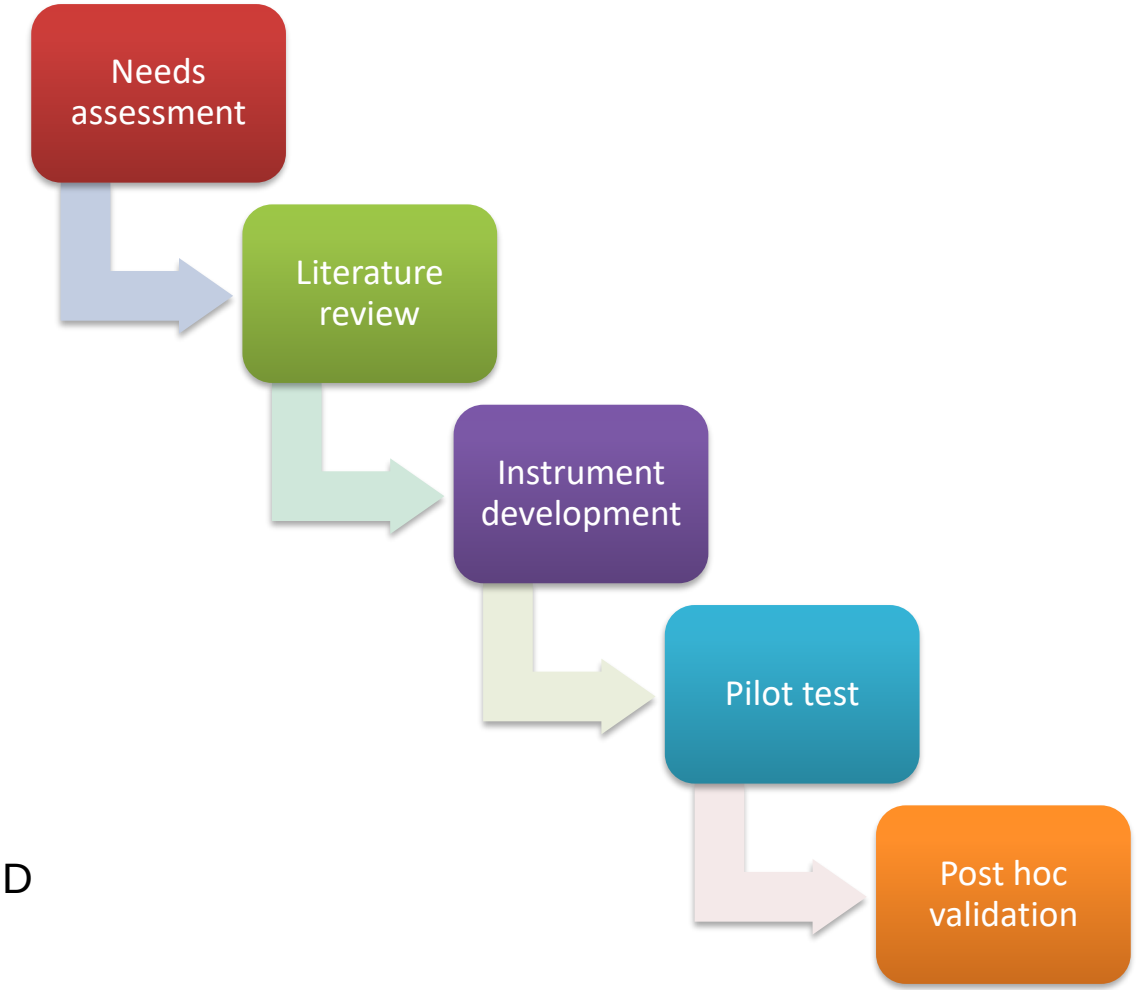
Slide Courtesy Grace Huang, MD

The Problem

- Long evaluations
- Skewed data
- Sporadic comments

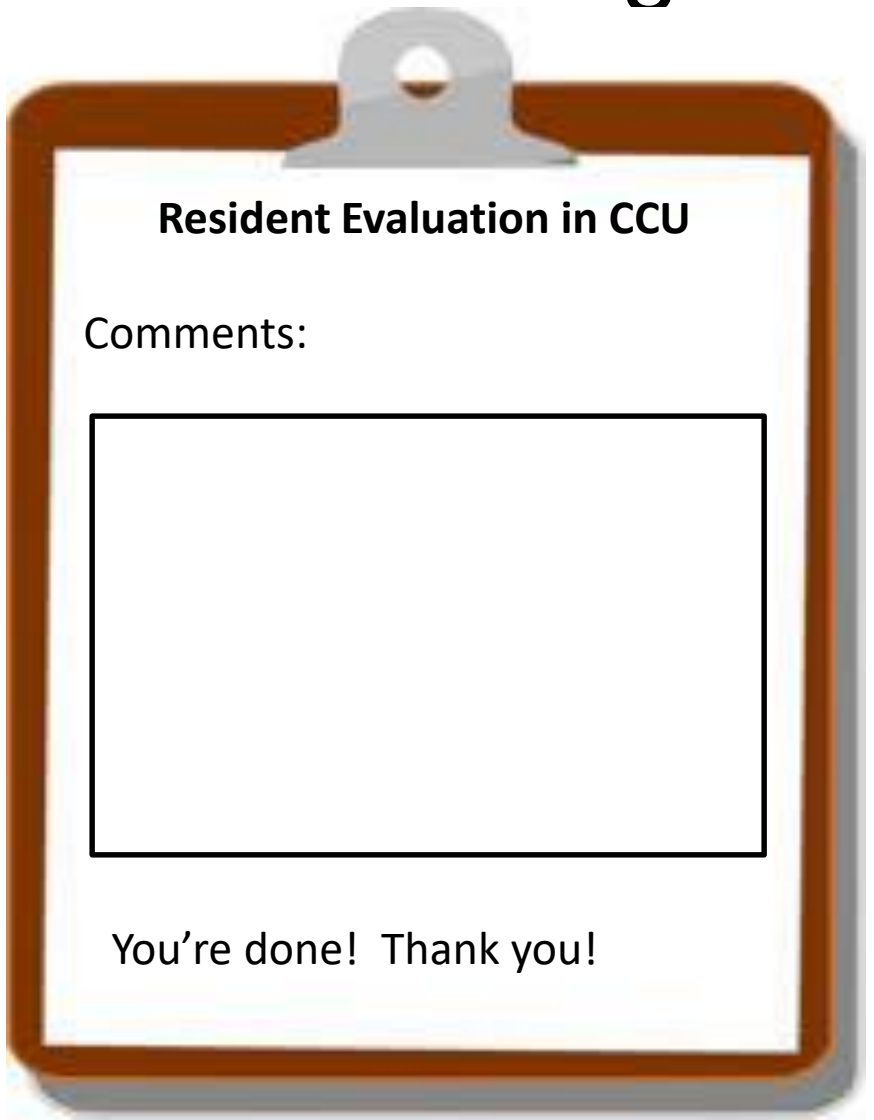


- Meaningful data
- Discriminatory power

The Goal

Slide Courtesy Grace Huang, MD

Wouldn't it be great?



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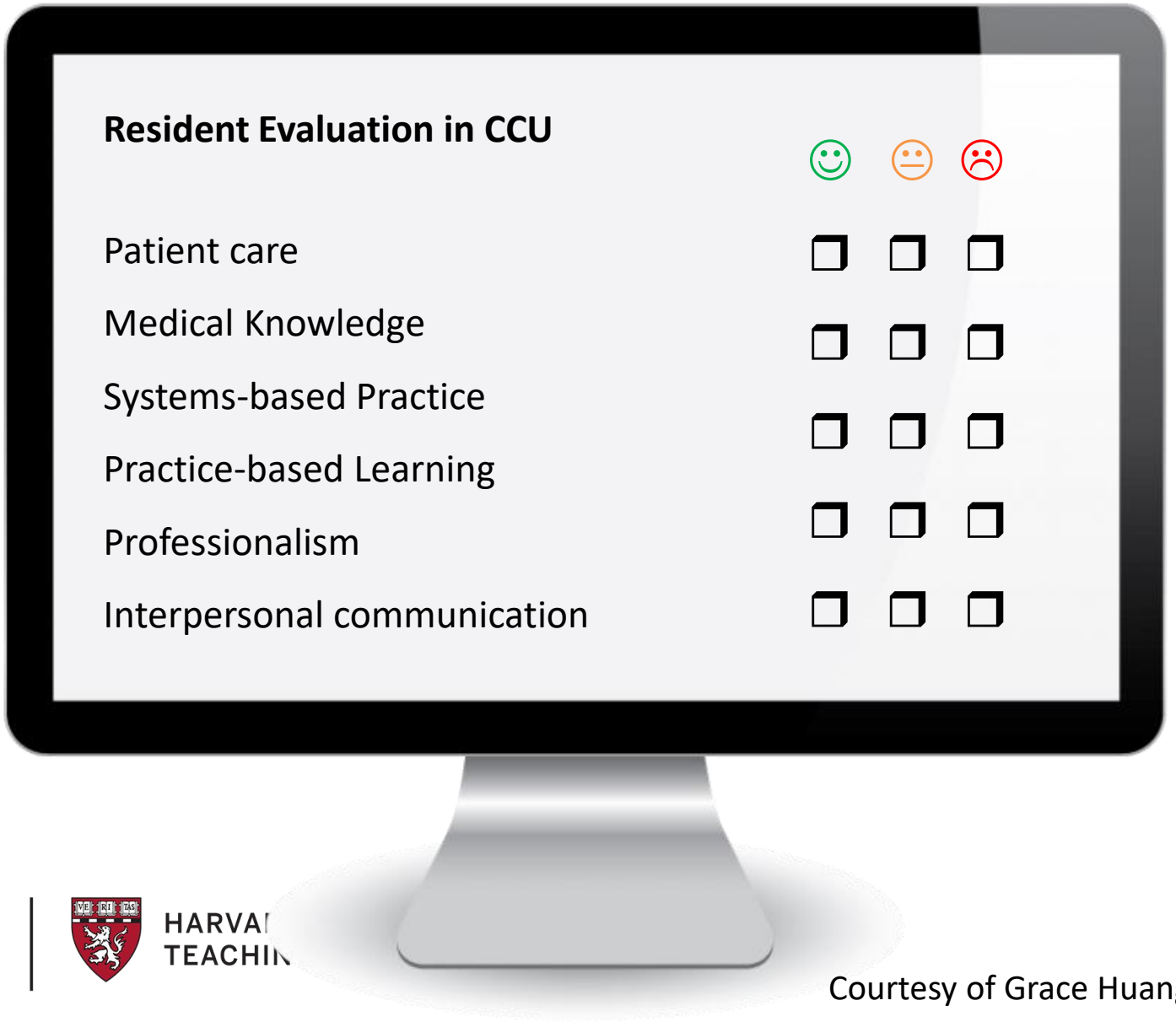
Courtesy of Grace Huang

Or why not this?



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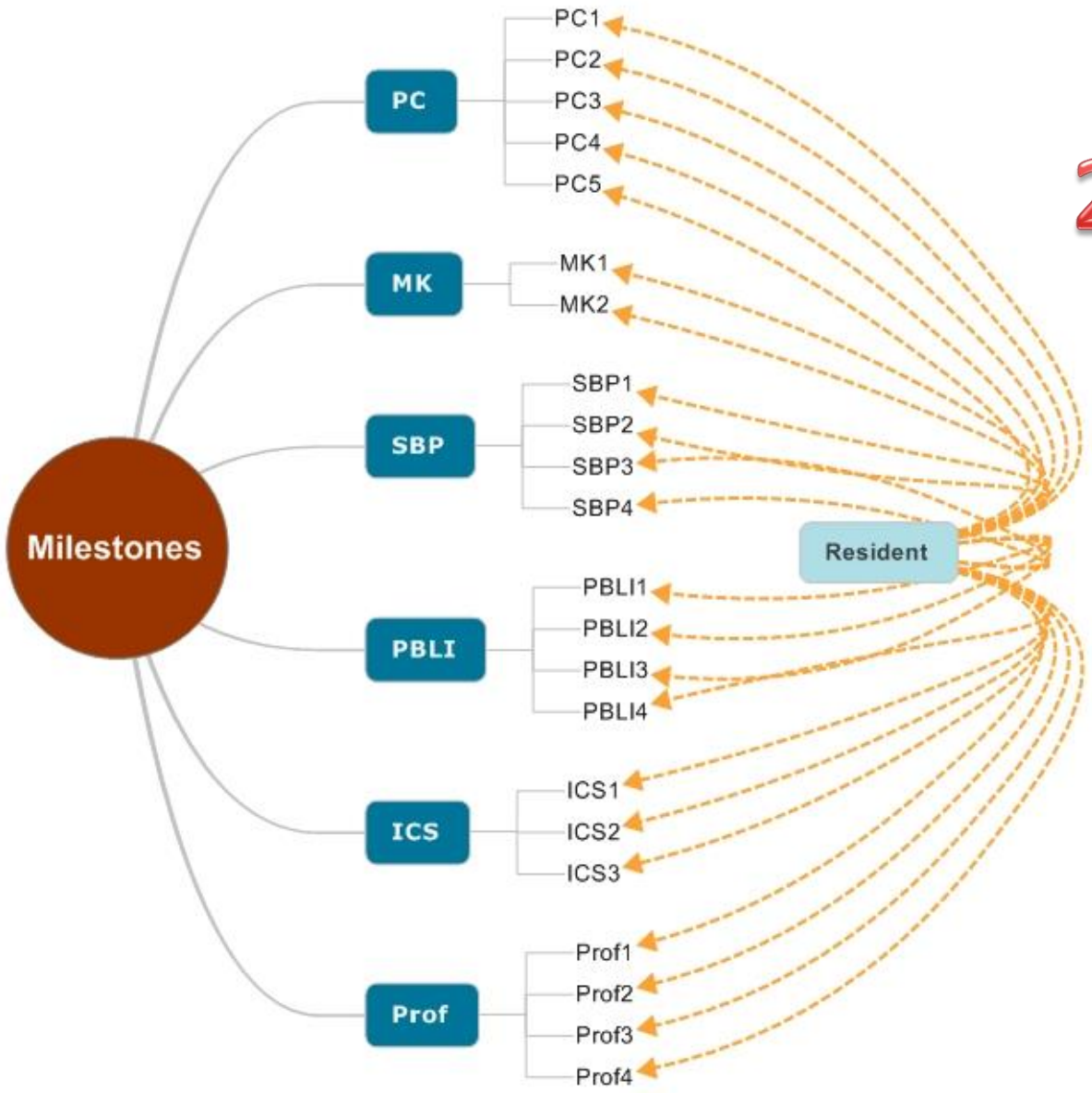
Courtesy of Grace Huang

ACGME/ABIM requirements



22 milestones

x 2/year

x 160+ residents

Beth Israe
Medical C

Evaluations 2.0

40-60% shorter

concrete

collect

meaningful feedback

Milestone Evaluations 2.0

6* **CRITICAL THINKING: Synthesizes data coherently. Demonstrates clinical judgment in sorting out major from minor issues. Thinking processes show logic and organization.**

Struggling	Almost there	No concerns whatsoever	Quite skilled	Absolutely exemplary	Not observed
1	2	3	4	5	
○	○	○	○	○	○

PATIENT CARE SKILLS

7* **PATIENT CARE: Develops appropriate treatments for common clinical conditions. Enacts plans in a timely manner, with attention to important details. Decision-making incorporates patient factors and up-to-date information.**

Struggling	Almost there	No concerns whatsoever	Quite skilled	Absolutely exemplary	Not observed
1	2	3	4	5	
○	○	○	○	○	○

8* **TRIAGE / RAPID RESPONSE: Recognizes "sick" vs. "not sick." Knows when to ask for help. Initiates appropriate stabilization for deteriorating patients.**

Struggling	Almost there	No concerns whatsoever	Quite skilled	Absolutely exemplary	Not observed
1	2	3	4	5	
○	○	○	○	○	○

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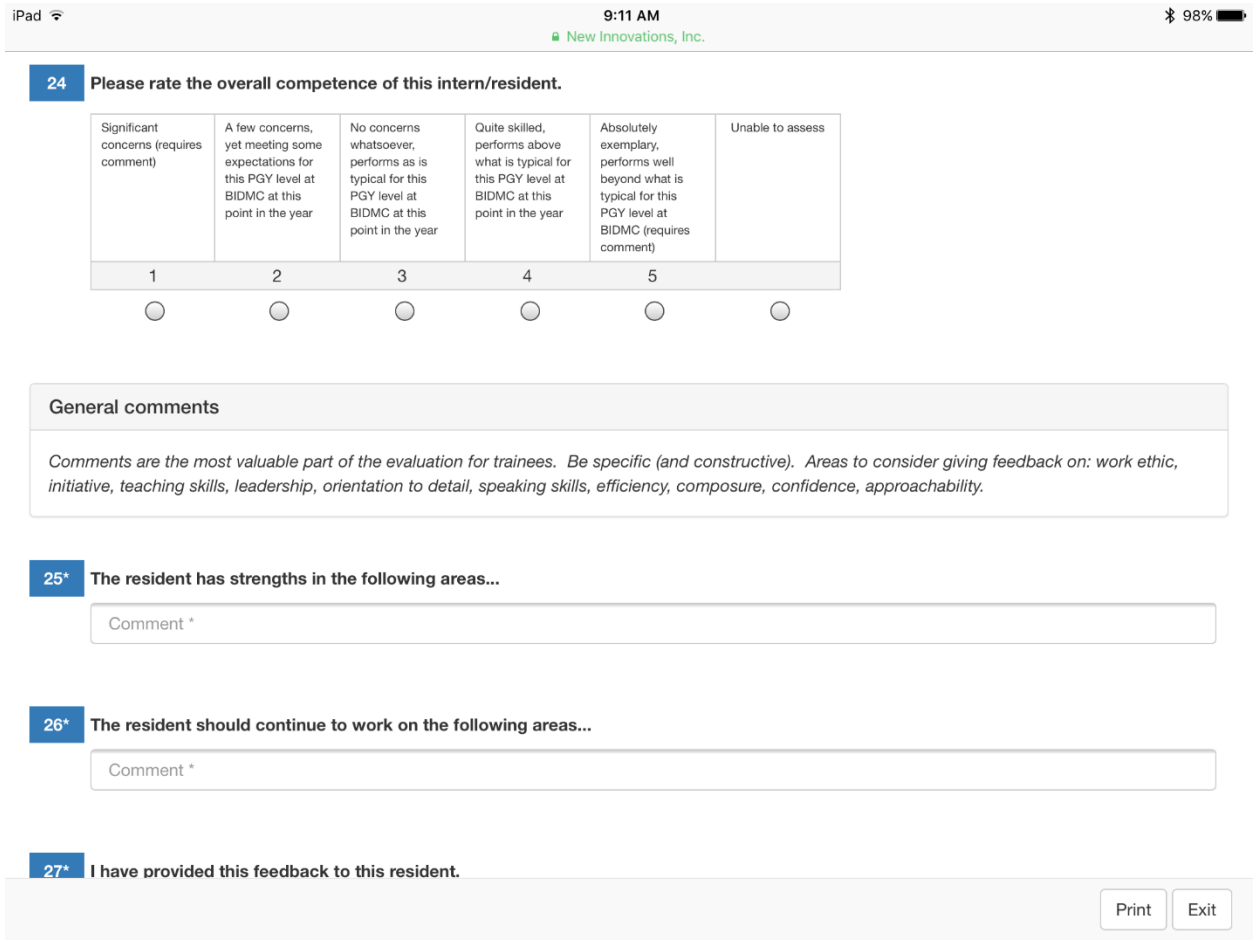
Milestone Evaluations 2.0



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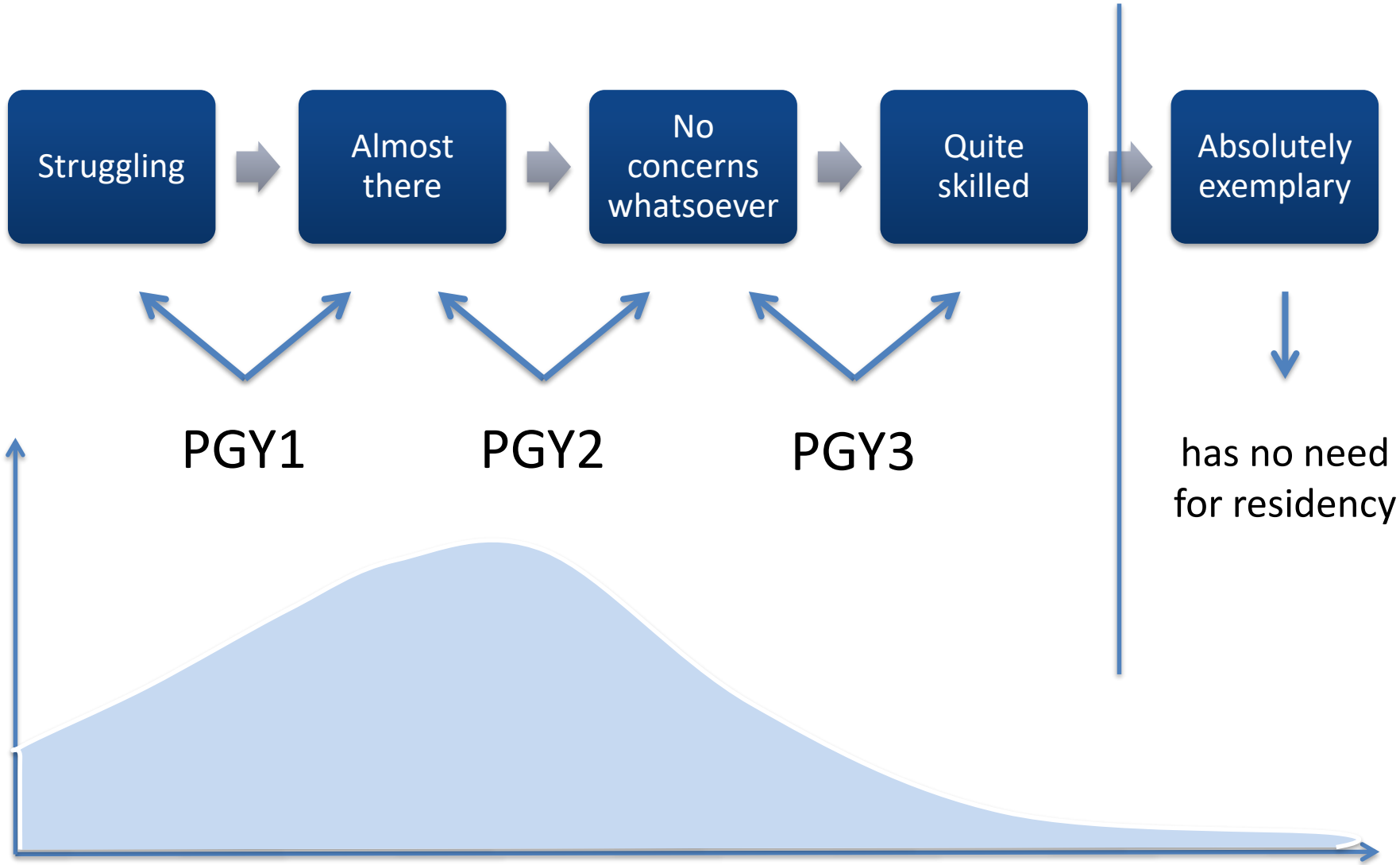
Use the whole scale



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Slide Courtesy Grace Huang, MD

Thank you!