




MEDICAL SCHOOL

UNIVERSITY OF MINNESOTA
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Competency Based Medical Education

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CBME

Responsibility



Accountability

CBME

A focus on curricular outcomes

An emphasis on abilities

Promotion of learner centeredness

Definition of CBME

An approach to **preparing** physicians for practice that is fundamentally oriented to graduate **outcome abilities** and **organized around competencies** derived from an analysis of societal and patient needs. It de-emphasizes time-based training and promises greater **accountability, flexibility, and learner-centeredness**.



Paradigm Shift

Variable	Structure and Process-Based	CBME
Driving force for curriculum	Content Knowledge acquisition	Outcome Knowledge application
Driving force for process	Teacher	Learner
Path of Learning	Teacher	Student \leftrightarrow Teacher
Responsibility of Content	Teacher	Student \leftrightarrow Teacher

Paradigm Shift

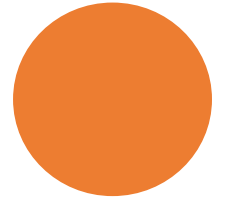
Variable	Structure and Process-Based	CBME
Typical Assessment Context	Proxy/Removed (gestalt)	Authentic Direct Observations
Assessment tool	Single subjective measure	Multiple objective measures (portfolios)
Type of Evaluation	Norm referenced	Criterion-referenced
Timing of Assessment	Emphasis on summative	Emphasis on formative

Competency

an **observable ability** of a health professional, integrating multiple components such as **knowledge, skills, values and attitudes**.

Competencies can be **assembled** like building blocks to **facilitate progression of development**.

Since competencies are **observable**, they can be measured and assessed to ensure their acquisition.



Domains of Competence

Systems-based Practices

Interpersonal and Communication Skills

Practice-based Learning and Improvement

Professionalism

Patient care

Interprofessional Collaboration

Personal and Professional Development

Knowledge for Practice

Scientific and Clinical Inquiry



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Entrustable Professional Activities

Represent the day-to-day work of the professional

Observable and Measurable

A practical approach to teaching and assessing competencies

They define the tasks that all new residents must be able to perform under indirect supervision on Day 1 of residency



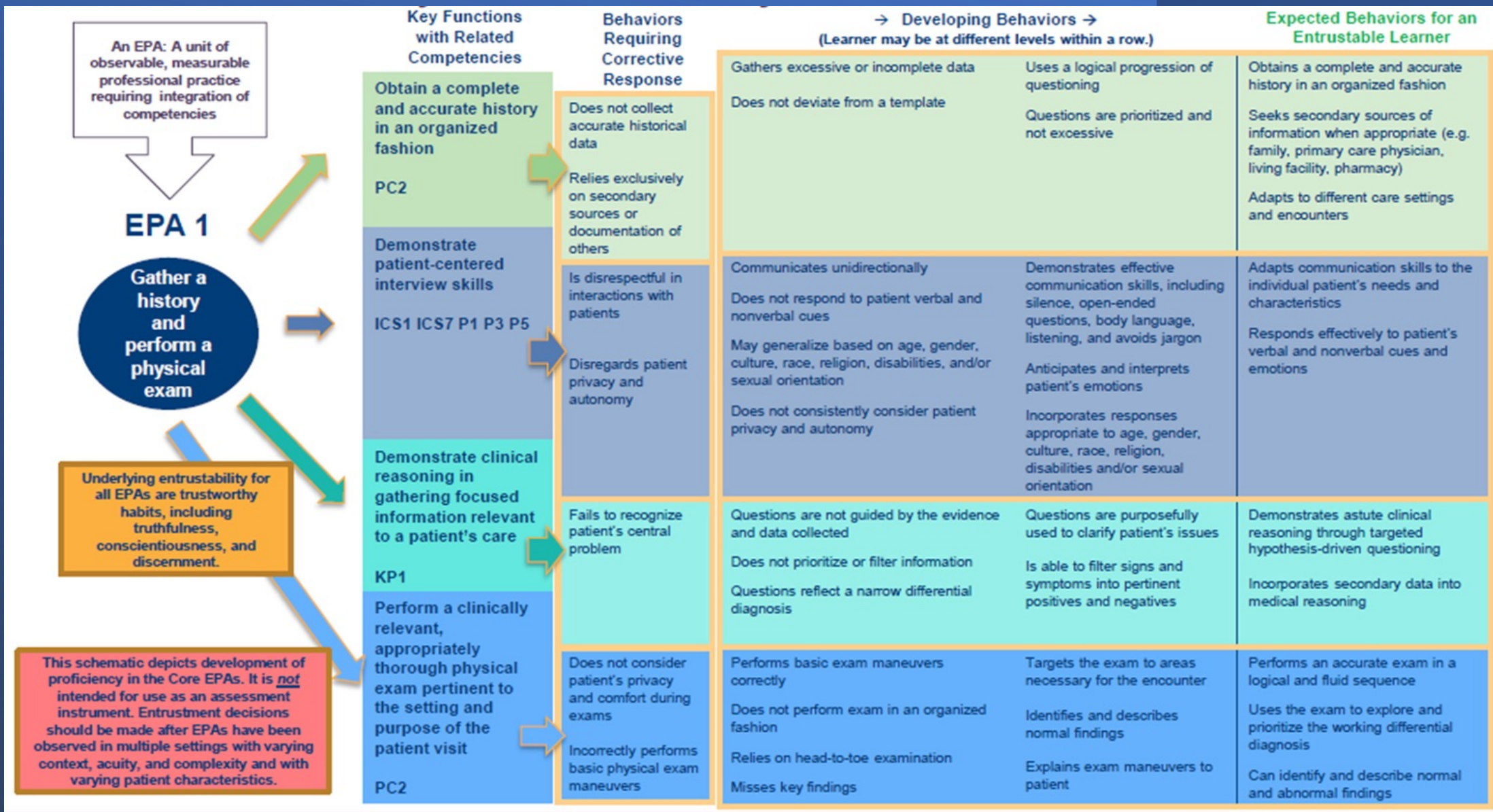
Core EPAs

1. Gather a **history** and perform a **physical/mental status exam**.
2. Develop and prioritize a **differential diagnosis** following a clinical encounter and select a working diagnosis following a patient encounter.
3. Recommend and interpret common **diagnostic and screening tests**.
4. Enter and discuss **orders** and prescriptions.
5. Provide **documentation** of a clinical encounter in written or electronic format.
6. Provide an **oral presentation**/summary of a clinical encounter.

Core EPAs

7. Form clinical questions and **retrieve evidence** to advance patient care.
8. Give or receive a **patient handover** to transition care responsibility.
9. Collaborate as a member of an **interprofessional team**.
10. Recognize a patient requiring **urgent or emergent care**, initiate evaluation and management.
11. Obtain **informed consent** for tests, procedures and/or treatment options.
12. Perform **general procedures** of a physician.
13. Identify system failures and contribute to a **culture of safety and improvement**.





EPA 1: Gather a History and Perform a Physical Examination

An EPA: A unit of observable, measurable professional practice requiring integration of competencies

EPA 1

Key Functions with Related Competencies

Obtain a complete and accurate history in an organized fashion

PC2

Demonstrate

Behaviors Requiring Corrective Response

Does not collect accurate historical data

Relies exclusively on secondary sources or documentation of others

→ Developing Behaviors →
(Learner may be at different levels within a row.)

Gathers excessive or incomplete data

Does not deviate from a template

Uses a logical progression of questioning

Questions are prioritized and not excessive

Expected Behaviors for an Entrustable Learner

Obtains a complete and accurate history in an organized fashion

Seeks secondary sources of information when appropriate (e.g. family, primary care physician, living facility, pharmacy)

Adapts to different care settings and encounters

Entrustable Professional Activities (EPAs)



EPA= core physician task

EPA assessments ask an observer to estimate the amount of help a trainee needs to successfully complete the task

“Entrustable” refers to readiness to safely and effectively perform the activity without (direct) supervision



EPA Assessment

In supervising (student name) today, how much did you participate in the task for EPA1: Gather a history and perform a physical exam.

Rating	Level of Entrustment
1. Observation only: “I did it. The student observed.”	Student was not trusted to practice the EPA; was allowed to observe.
2. Direct Supervision: “We did it together.”	Student was trusted to practice the EPA only as a co-activity with the supervisor.
3. Direct Supervision: “I supervised and helped the student from time to time.”	Student was trusted to practice the EPA only under proactive/full supervision, with the supervisor stepping in as needed.
4. Indirect Supervision: “The student did it. I double checked ALL elements.”	Student was trusted to practice the EPA under reactive/on-demand supervision, with the supervisor directly double checking <u>all</u> findings.
5. Indirect Supervision: “The student did it. I double checked KEY elements.”	Student was trusted to practice the EPA under reactive/on-demand supervision, with the supervisor directly double checking <u>key</u> findings.

1. Observation only: *"I did it. The student observed."*

2. Direct Supervision: *"We did it together."*

3. Direct Supervision: *"I supervised and helped the student from time to time."*

4. Indirect Supervision: *"The student did it. I double-checked ALL elements."*

5. Indirect Supervision: *"The student did it. I double-checked KEY elements."*

Describe any **strengths** you noticed for in performing EPA 1. Note any specific knowledge, skills, or behaviors that were particularly strong.

What does need to do on EPA 1 in the future to move to the next level of entrustment?

EPA 2-Early in Clerkships

EPA Rating

3	Good organization of questions, included all relevant pieces of the H&P. Asked appropriate follow-up questions and PMH questions. Also kept the interview moving at an appropriate pace.	Continue working on determining which ROS questions will be particularly important/relevant for specific presentations.
3	... a did a great job eliciting a history of both the chronic illness itself and the more acute presentation, helping sort out differences between this episode, what had occurred since the previous episode, and the reason for...	Continue to work on asking focused ROS questions as well as a broad for H&P. Think about relevant PMH, PSH, Social hx etc.
4	Well organized presentation with relevant positives and negatives. Excellent documentation with concise summary of important points.	Let's start reviewing pediatric vital signs and growth charts (including HC) for each patient so you can learn what's normal
3	... did a good job getting a comprehensive history and was able to provide appropriate pertinent positives and negatives for history and physical	continue to gain comfort in examining pediatric patients on own
3	... got all the issues patient wanted to talk about, got key pieces of history that changed course of conversation	we will continue doing histories and physicals in the future

EPA Strengths

EPA Opportunities

EPA 10/11 Midway through Clerkships

EPA Rating

4	Reasoned approach to level of escalation, correctly identified level of care needed	Broadening the differential/ next steps if initial steps did not clarify management
4	gaining good comort level with recognizing when kids have potential to be 'sick' based on presentation/cc/age/exam/vitals	Continuing to think about next steps of what we do if the patient was 'sick'
5	Immediately recognized that this patient needed to be admitted and required further work up	Knowledge of typical and atypical criteria for Kawasaki
4	Took initiative to have the conversation when she realized we would most likely be doing the procedure (I&D for abscess). Accurately described the procedure to the patient, including patient comfort measures (anesthetic)	Next we will expand to more formal consent procedures ie with documentation.
3	Took initiative to discuss vaccination with patient historically resistant to receiving vaccines. Prioritized the 1-2 most important vaccines and focused on those.	Move on to more formal consent processes.

EPA Strengths

EPA Opportunities

EPA 6-Early in Clerkships

EPA Rating

2

1) Presentations were generally complete with respect to subjective and objective sections, especially for common conditions.
..

Continue to work on formalizing the approach to presentations, especially with respect to the assessment and plan. This especially includes leading with an assessment, then formalizing a plan and ddx by problem.

4

The very first day [redacted] gave an oral presentation, she spoke with confidence and was willing to give it a shot. She took feedback really well and incorporated it into her presentation immediately.

With practice the flow of going through presentations will come. But she did a fantastic job for That being her first 2weeks on the wards.

3

-Understand process/purpose of post op appointment
-Appropriately focused ROS

Further developed plan

2

Better focused on surgical issues, more timely

Better development of plan, leave out extraneous details

EPA Strengths

EPA Opportunities

Not appropriate feedback

- _____ is polite
- Read more
- Attended sessions and was engaged
- Read, Read, Read!
- Keep practicing
- Notes have improved
- Asked questions
- Presented using SOAP
- NA
- Doing Good
- Shows up on time

Core EPAs

An assessment for learning that provides ongoing, specific and actionable feedback to support a learners growth

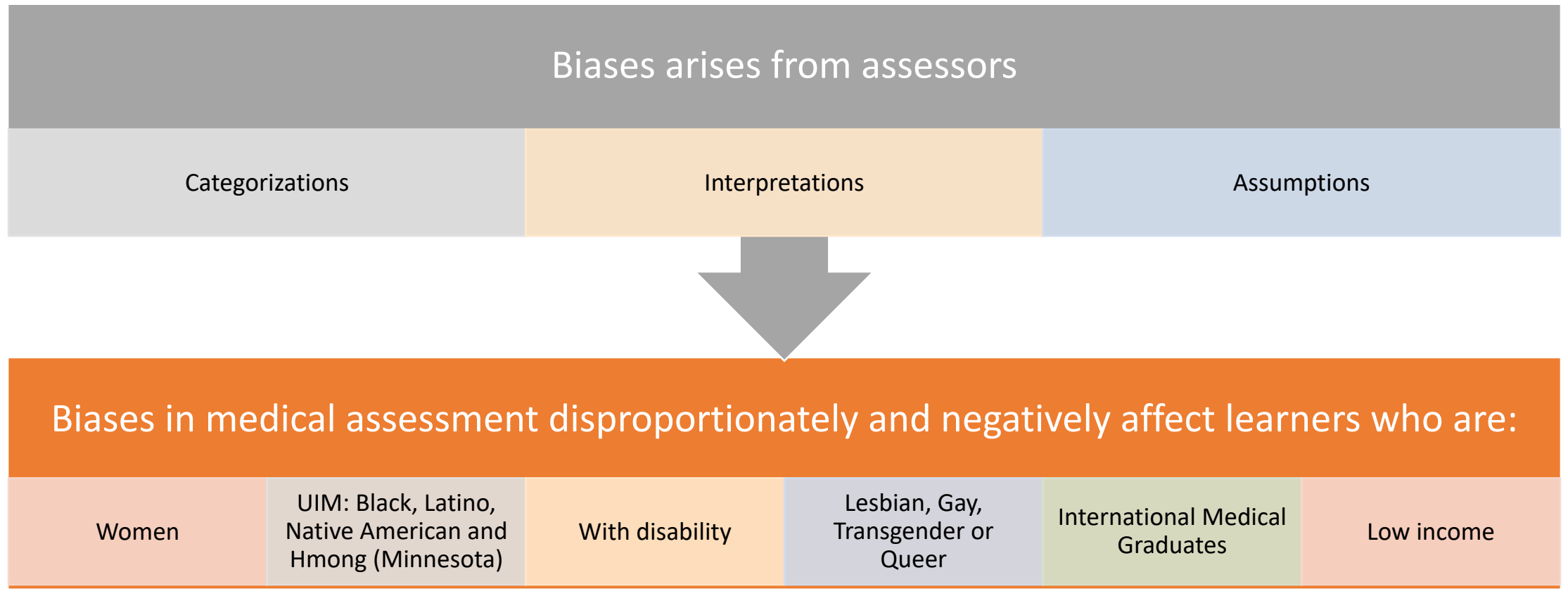
- *Focus is on direct observation*
- *Multiple assessments/assessors*
- *Emphasis is on formative feedback*





- All assessments are subject to Bias
- Competencies are abilities of individuals and are particularly subject to bias:
 - Professionalism
 - Interpersonal Communication
 - Interprofessional Collaboration

Bias in Learner Assessment



Bias in Learner Assessment



Observational Study > J Gen Intern Med. 2019 May;34(5):684-691.

doi: 10.1007/s11606-019-04889-9.

Differences in Narrative Language in Evaluations of Medical Students by Gender and Under-represented Minority Status

Alexandra E Rojek ¹, Raman Khanna ², Joanne W L Yim ³, Rebekah Gardner ⁴, Sarah Lisker ^{1 5}, Karen E Hauer ¹, Catherine Lucey ¹, Urmimala Sarkar ^{6 7}

> PLoS One. 2017 Aug 9;12(8):e0181659. doi: 10.1371/journal.pone.0181659. eCollection 2017.

Differences in words used to describe racial and gender groups in Medical Student Performance Evaluations

David A Ross ¹, Dowin Boatright ², Marcella Nunez-Smith ^{3 4}, Ayana Jordan ¹, Adam Chekroud ⁵, Edward Z Moore ⁶

Bias in Assessment

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Personal Attributes

Active

Enthusiastic

Poised

Polite

Lovely

Pleasant

Wonderful

Bias in Assessment

- EPAs may be a solution to bias mitigation
- Allows a common understanding of expectations
- A tool designed for frequent observations
- Requires direct observation of specific behaviors such as taking a history and physical or creating a differential



EPA Assessment



- Note: Conscious and unconscious biases can influence the judgments we make about others. When selecting your ratings, please focus on observations of the student's behaviors that contributed to your ratings, and limit or eliminate comments pertaining to the student's appearance, inferred intentions, or summary judgments of their character.

Eliminating Bias

- Think about the words you are using and why you are choosing those words.
- Do the words label a behavior or a personality trait. Rephrase what you are saying to describe a specific behavior related to the EPA
- Take a moment and consider if your feedback would be the same if the student were a different gender? Or a different race? Or did not have a disability that impacts their mobility?

Assessment and Coaching Experts(ACE)

- 15 faculty in the Twin Cities and Duluth
- Every student will be paired with an ACE for required clinical coaching
 - Encourage Students to reflect on their growth and opportunities for developing
 - At least 3 meetings per year
 - Identify and mitigate bias when possible
- Readily available to help with Faculty Development on giving feedback and providing fair and equitable assessments.

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