

# LEARN SERVE LEAD<sup>20 23</sup>

THE AAMC ANNUAL MEETING

Validating the PREview Exam:  
Expanding Criteria for Student  
Success

# Validating the PREview<sup>®</sup> Exam: Expanding Criteria for Student Success

Monday, November 6, 2023 1:15 PM to 2:30 PM

Christina Grabowski, PhD, University of Alabama at Birmingham Heersink School of Medicine

Ioannis Koutroulis, MD, PhD, MBA, The George Washington University School of Medicine and Health Sciences

Boyd Richards, PhD, University of Utah Spencer Fox Eccles School of Medicine

Darin Chhing, Washington State University Elson S. Floyd College of Medicine

# Audience Poll

1. You are currently using a situational judgment test (SJT) tool in your admissions process.
2. You are currently researching an SJT at your school.
3. You are interested in using an SJT tool in your admissions process.
4. You don't why you are here except there are a lot of friendly people in the room.

# Measures Professional Readiness



# 2017 PREview Exam Prototype Validity Research

The AAMC partnered with the following eight medical schools to conduct a longitudinal validity study of the PREview exam using a prototype of the exam:

- University of Minnesota Medical School - Twin Cities Campus
- Washington State University Elson S. Floyd College of Medicine
- University of New Mexico School of Medicine
- Drexel University College of Medicine
- Rutgers Robert Wood Johnson Medical School
- Meharry Medical College
- University of Utah Spencer Fox Eccles School of Medicine
- University of Alabama at Birmingham Marnix E. Heersink School of Medicine

These schools were varied in terms of geographic location, public/private status, and matriculant pool size.

# 2017 PREview Exam Prototype Research Results

“Predicting Medical Student Professionalism with a Situational Judgment Test in Admissions” in press, Academic Medicine

Marlene P. Ballejos, PhD, MPA,  
Christina Cestone, PhD,  
H. Liesel Copeland, PhD,  
Dana M. Dunleavy, PhD,  
Thomas Geiger, MA,  
Dimple Patel, MS



PREview scores predict elements/ratings of performance and relevant course outcomes.



PREview scores provide incremental validity above and beyond MCAT and GPA when predicting performance

# 2023 Validity Study

- Six medical schools providing outcome data following one or both years of the PREview exam operational pilot in 2020 and 2021
  - University of Alabama at Birmingham Heersink School of Medicine<sup>1</sup>
  - Des Moines University<sup>1</sup>
  - Morehouse School of Medicine<sup>1</sup>
  - Geisinger Commonwealth School of Medicine<sup>1</sup>
  - University of California Davis School of Medicine<sup>2</sup>
  - University of Minnesota Medical School – Twin Cities<sup>2</sup>

1 = Participated in one year of PREview pilot  
2 = Participated in both years of PREview pilot

# Why Would You Want to Conduct Local Validity Research?

Stakeholders may find local research more compelling.

Different admissions data or performance outcome measures may be of higher interest than those used in AAMC research.

Local data can inform how PREview scores should fit in to your school's unique mission and holistic review process.



# Identify Appropriate Outcome Data: Considerations

- Importance
- Conceptual relevance
  - Measures of pre-professional competencies
  - Measures reflecting multiple or unknown competencies
- Methodology
- Practical considerations

# Identify Appropriate Outcome Data: Conceptual Relevance

Do the outcomes seem aligned at face value?

## *Potential-Conceptual Alignment*

- *GRADE: Patient Centered Medicine*
- *GRADE: Patient, Doctoring, and Society*
- *Faculty ratings of cultural competence*
- *Professionalism flag*

## *No Conceptual Alignment – Eliminate from Study*

- *GRADE: Essentials of Biological Medicine*
- *GRADE: Neuroscience*
- *GRADE: Biostatistics*
- *Needed academic remediation*

# Identify Appropriate Outcome Data: Methodological and Practical Considerations



## Data must:

- Be accessible.
- Be useable:
  - In existing form.
  - Need recoding/aggregating/transforming.
- Be available for most students.
- Reflect individual performance.
- Have variability.
- Be reliable.

# Challenges in Collecting Course Outcomes

- Traditional course outcomes (e.g., final grades) are mostly knowledge based and limited overlap with the competencies as PREview
- There tends to be limited variation in course outcomes (e.g., pass/fail)
- There is no standardized, widely used measure of pre-professional competencies that will allow us to combine across samples



# Opportunities and Lessons Learned



**BUY-IN IS  
CRUCIAL**



**IDENTIFYING  
THE RIGHT  
RATERS**



**IMPORTANCE  
OF  
COLLECTING  
RELEVANT  
OUTCOMES**

# Third- and Fourth-Year Outcomes: Challenges in Assessment

Work is proceeding to generate new behaviors and revise existing behaviors for a research only performance tool capturing third- and fourth-year outcomes.

## Clerkship Outcomes Challenges

- Content relevance
- Variability
- Rater reliability

## ROPT Collection Challenges for 3rd & 4th Year

- Workforce across varying locations
- Logistical challenges
- Raters lack time to complete ratings



# Third- and Fourth-Year Outcomes: Tentative Timeline

Tasks	Tentative Timeline
Information gathering: One-on-ones to understand clerkship rotations and third year rating options at each individual school	August-Dec 2023
Contact and socializing with curriculum deans and relevant clerkship directors	August 2023 – Feb 2024
Data Collection	May 2024 – August 2025

# PREview Validity Working Group

Ioannis Koutroulis, MD, PhD, MBA

Interim Associate Dean of MD Admissions, Co-Director, MD program Clinical and Translational Research Track

Associate Professor of Pediatrics, Emergency Medicine, and Genomics and Precision Medicine  
George Washington University School of Medicine and Health Sciences



# Background

- Need for independent research
- Small sample size for each school
- Need for multisite study

# Methodology

- Multiple medical schools (5-10)
  - IRB approval
  - Discussions regarding outcomes and assessment tools
- 
- Research Only Performance Tool (ROPT)
  - Who should complete it?

# What is a Research Only Performance Tool (ROPT)?



## Standardized evaluation of student performance/outcomes

- Targeted raters evaluate students on relevant competencies.
- Uses a standard rating scale.
- Given under similar conditions.



## Ratings are used for research only

- Ratings DO NOT contribute to grades.
- Ratings are NOT shared for feedback.
- More likely to reflect honest, accurate feedback.
- More likely to observe variance in ratings.



## Higher likelihood of accurate, honest ratings

Because these data are collected for research purposes, more likely to get accurate, honest ratings & neither raters nor students need to worry about negative consequences, making ROPT one of the best performance outcomes to use.

## Research-Only Performance Ratings – Exercise

### Competency Area 1

#### Reliability and Dependability

Please review the competency definition and the proficiency level descriptions and examples prior to providing your ratings.

**Reliability and Dependability:** Consistently fulfills obligations in a timely and satisfactory manner; takes responsibility for personal actions and performance.

Proficiency Levels	Proficiency Level Descriptions and Examples
N/A	<i>Insufficient Information to Rate</i>
5 High	<p><b>Completes assignments on time and comprehensively by holding self and others accountable; Prioritizes tasks effectively and thoroughly resolves conflicting responsibilities</b></p> <p>Examples:</p> <ul style="list-style-type: none"> <li>• Appropriately manages and attends to commitments, even when they compete with one another</li> <li>• Double-checks work and addresses potential errors with others</li> </ul>
4 Medium-High	<p><b>Completes assignments on time and comprehensively; Prioritizes tasks effectively and seeks alternative solutions to conflicting responsibilities</b></p> <p>Examples:</p> <ul style="list-style-type: none"> <li>• Contributes thoughtfully and comprehensively to discussions</li> <li>• Prepares and presents well-organized, accurate, and concise reports and cases</li> </ul>
3 Medium	<p><b>Completes assignments on time and satisfactorily; Prioritizes tasks effectively and satisfactorily addresses conflicting responsibilities</b></p> <p>Examples:</p> <ul style="list-style-type: none"> <li>• Meets deadlines for assignments</li> <li>• Arrives to class prepared to contribute to discussions</li> </ul>
2 Medium-Low	<p><b>Generally completes assignments on time and generally satisfactorily; May require assistance prioritizing tasks and managing conflicting responsibilities</b></p> <p>Example:</p> <ul style="list-style-type: none"> <li>• Communicates with faculty in case of late assignments or absences</li> </ul>
1 Low	<p><b>Occasionally fails to complete assignments on time and satisfactorily and sometimes misses an assignment; May fail to identify key priorities and/or address conflicting responsibilities</b></p> <p>Example:</p> <ul style="list-style-type: none"> <li>• May arrive to class without evidence of preparation</li> </ul>

# AAMC Developed an ROPT for M1-M2 Students that You Can Use!

- **Content:** Relevant professional competencies
- **Raters:** Faculty, preceptors, mentors or others who observe learner performance
- **Rating scale:** 5-point behaviorally anchored scales
- **Delivery:** Online survey

# Research-Only Performance Ratings

- Raters are asked to make ratings of students' proficiencies in eight competency areas:
  1. Reliability and Dependability
  2. Capacity for Improvement
  3. Ethical Responsibility to Self and Others
  4. Resilience and Adaptability
  5. Social Skills, Service Orientation
  6. Cultural Competence
  7. Teamwork
  8. Unprofessional Behaviors

# Methodology

- Pre-clinical years vs. clinical
- Challenges

# Next steps

- IRB approval at all sites
- Prospectively collect data for the selected current first year students for 2 years
- Develop ROPT for years 3 and 4

Please join if interested: [ikoutroulis@gwu.edu](mailto:ikoutroulis@gwu.edu)

# Use of Situational Judgement Tests at the Spencer Fox Eccles School of Medicine University of Utah

Boyd Richards, PHD

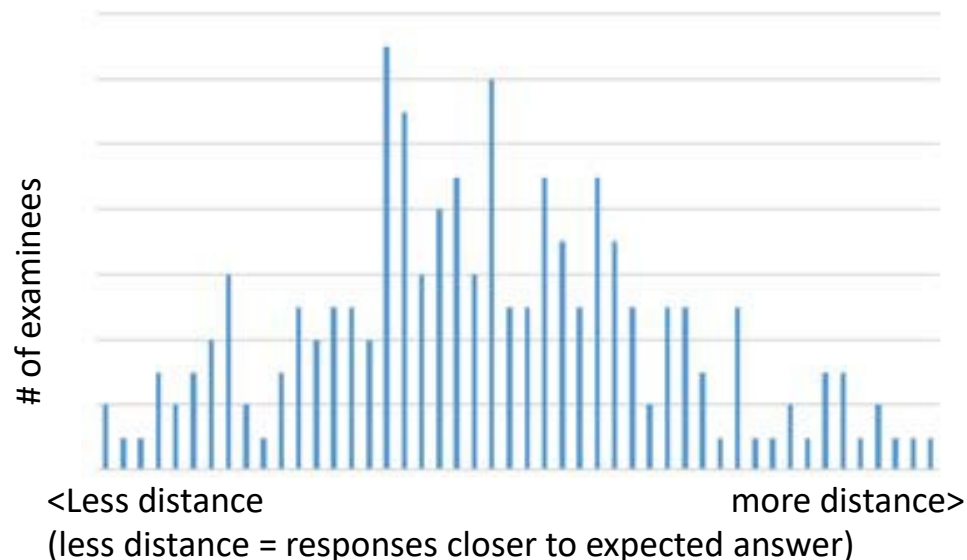
Director of Educational Research and Scholarship



# Admissions SJT, 2017-18

It is your first day at work as an administrative aid to a team of professionals. After several hours on the job, you still have not been introduced to team members.

1. Approach the team member who seems friendliest and ask this person to introduce you to the other team members.
2. Ask your supervisor to walk you around and introduce you to team members.
3. Call a team meeting at which introductions can occur.
4. Wait for team members to introduce themselves to you when ready.



	SJT	MMI	SVI	MCAT
SJT				
MMI	.133**			
SVI	.114**	.337**		
MCAT	0.010	0.059	0.080	
GPA	0.069	-0.010	0.072	.304**

SVI=Structured Video Exam

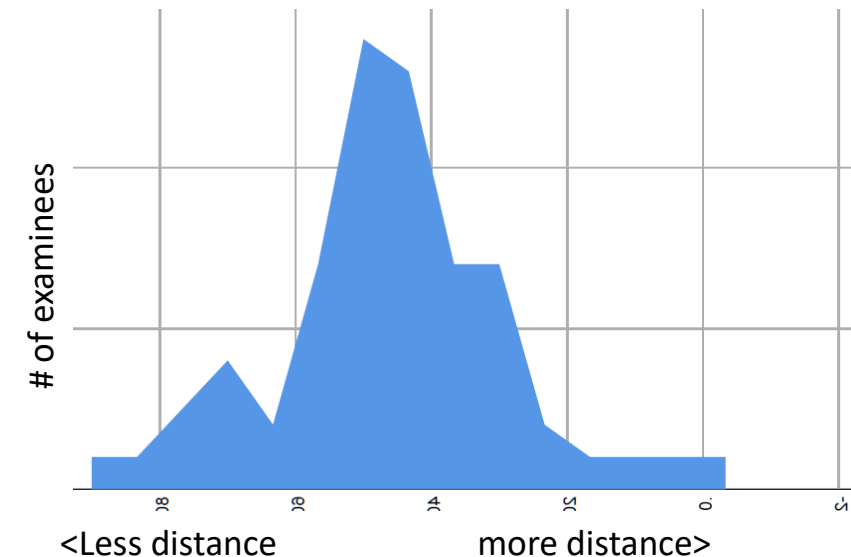
# Rationale for Assessments Beyond Admissions:

- Because we care about non-cognitive competencies as a profession, we should use reliable measures of these competencies in admissions.
- Because non-cognitive competencies are not static, similar to cognitive ones, we should continue to measure these non-cognitive competencies during medical school.
- SJT format is an established method for measuring non-cognitive competencies, especially per industrial/occupational (IO) psychologists.
- Therefore, using SJTs post-admissions makes sense.

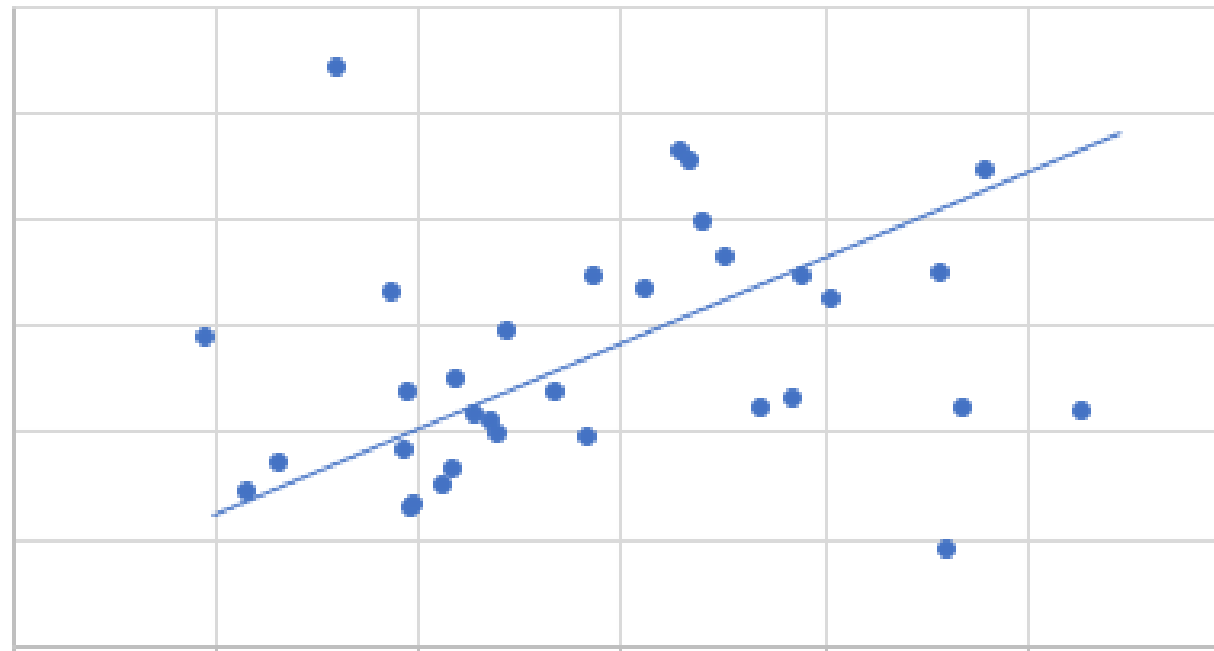
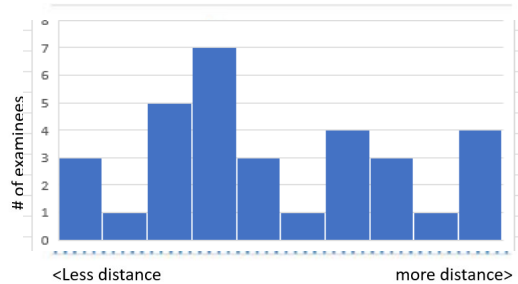
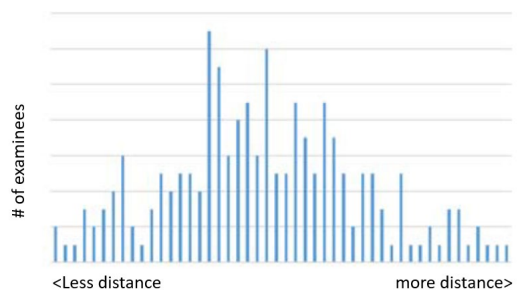
# Transitions to Clerkship SJT, 2019

A student is working in a hospital and is called into a room by a patient who explains that they no longer want to be seen by a particular provider. They explain they do not feel comfortable being seen by a provider of a different race than their own.

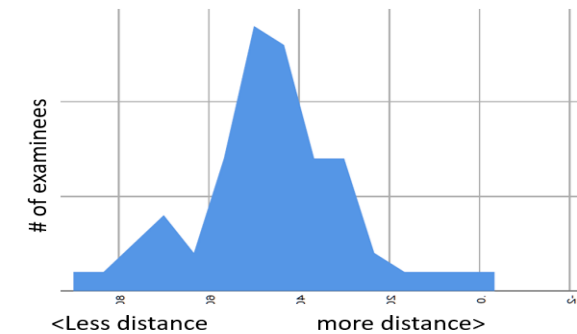
1. The student endorses the abilities of the other provider and asks the patient to clarify their concerns.
2. The student informs the patient that no change in provider is possible.
3. The student agrees with the patient that they are entitled to direct their own care and that this decision is within their rights.
4. The student immediately assures the patient that they will advocate for them to get a new provider



# Correlation: Admissions with Transitions SJT Based on 33 student volunteers



n=33: Correlation=0.22 (p=.21)



# Example using results in class discussion.

A student is working in a hospital and is called into a room by a patient who explains that they no longer want to be seen by a particular provider. They explain they do not feel comfortable being seen by a provider of a different race than their own.

	Very Inappropriate		Very appropriate		
	1	5	11	19	
	14	19	5		
	2	8	12	9	5
	12	13	10	2	

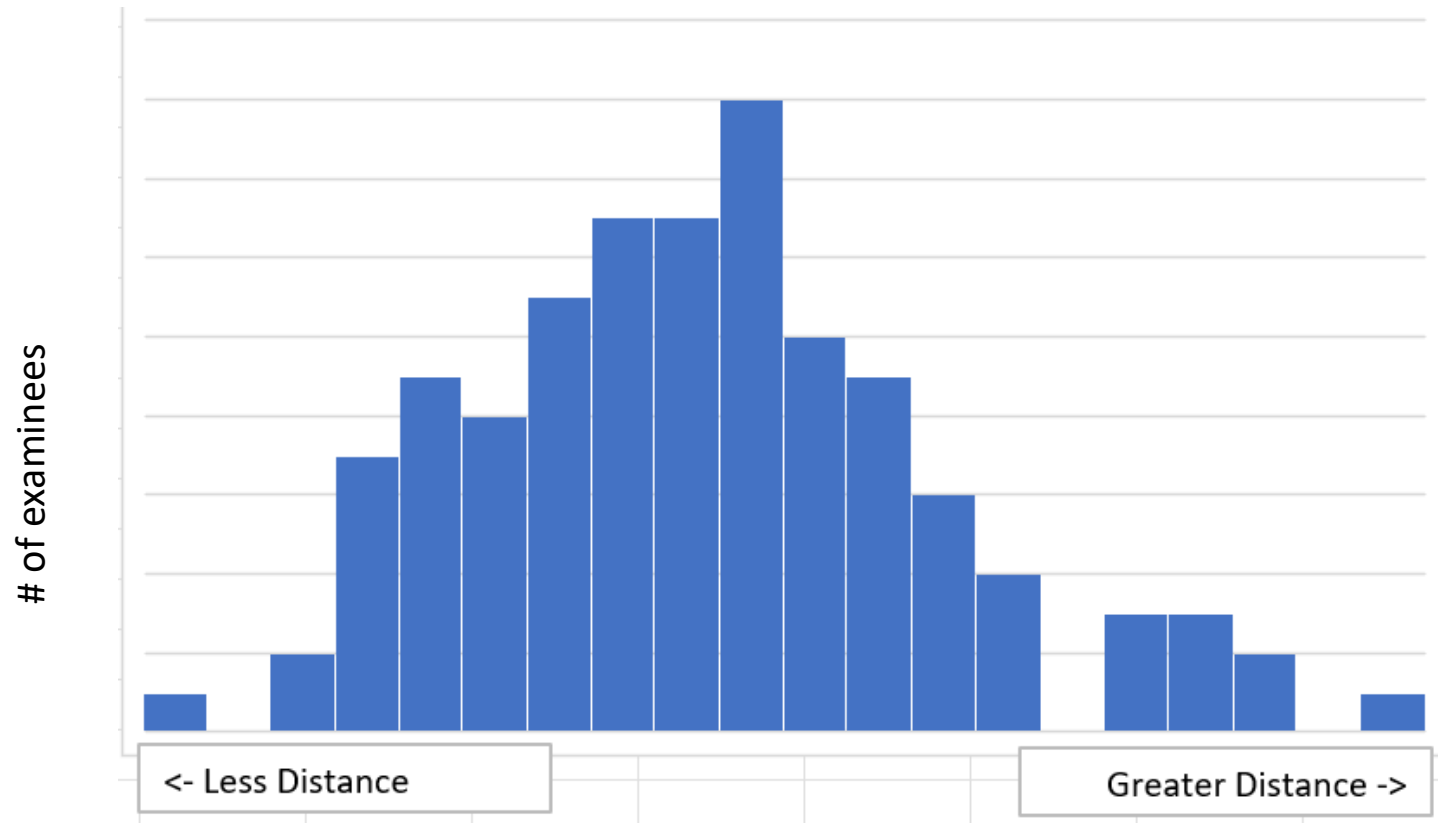
1. The student endorses the abilities of the other provider and asks the patient to clarify their concerns.
2. The student informs the patient that no change in provider is possible.
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4. The student immediately assures the patient that they will advocate for them to get a new provider.

# Cultural Humility SJT, 2023

You are a clinician working in a health clinic located on tribal lands as part of your family medicine clerkship. AB, a 13-year-old adolescent, presents for a well-child examination, accompanied by his father. During introductions, AB identifies as transgender (female to male), and as living openly as a boy for approximately 18 months. This includes adopting male pronouns, clothing, and a new first name. However, AB's father uses AB's original name and female pronouns repeatedly during conversations.

1. Continue with the standard well-child examination but refer to the child using the patient's preferred name, gender and pronouns, as much as possible, to model using the child's preferred gender.
2. Ask the father if you can discuss potential treatments for transgender youth, such as puberty blockers.
3. Ask the family if you can refer them to a social worker with expertise working with transgender youth

# Cultural Humility SJT, 2023



# Acknowledgements:

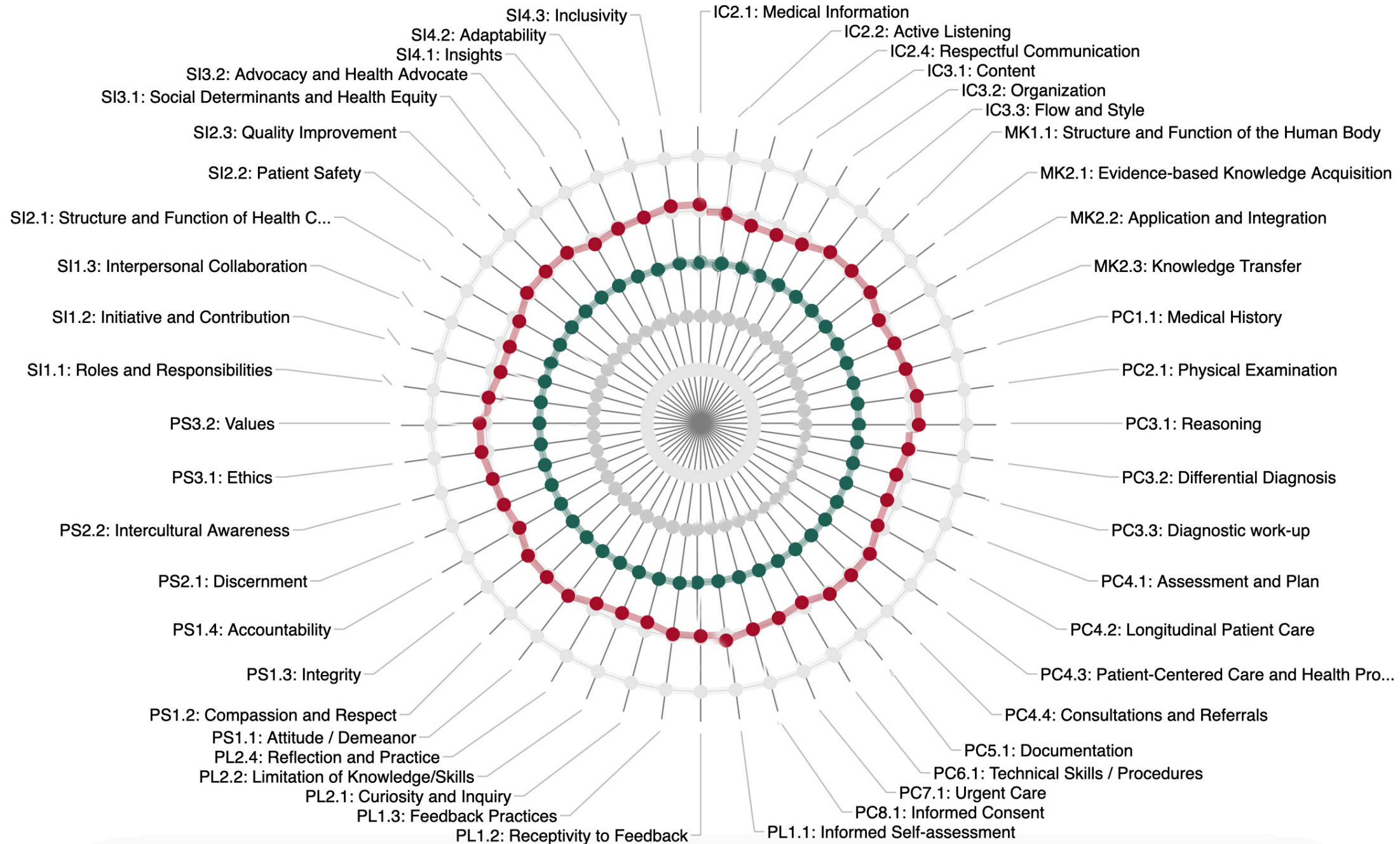
- Admissions SJT
  - Benjamin Chan, MD, MBA, MEd, Associate Dean of Admissions
  - Admissions Staff
  - Richard Sudweeks, PhD, Brigham Young University
- Transitions to Clerkships SJT
  - Taylor Dean, University of Utah
  - Academy of Health Science Educators, Educational Scholarship Grant
  - Members of Interprofessional Development Team (Medicine, Nursing, Health)
- Cultural Humility SJT
  - Matt Prewitt, PhD & Nadia Schellenberg Grad Student, Central Michigan Univ
  - Members of Interprofessional Development Team (Medicine, Health)



# Darin Chhing

MD Class of 2026  
President, Medical Student Council  
Elson S. Floyd College of Medicine  
Washington State University

# Overall Competency Development



# Breakout Session/Small Group Activity

# DISCUSSION Q

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What outcomes already exist at your school(s) for measuring the same professional competencies as the PREview exam?





# DISCUSSION Q

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Are there data or tools you feel your school needs to develop/collect to better measure these competencies?

# Validity Resources for Schools

Linked from the Tools For Schools AAMC Page for Admissions Officers

<https://www.aamc.org/services/amcas-admissions-officers/tools-schools-using-aamc-preview-scores>

Course 101: “Evaluating the Use of AAMC PREview™ Scores at Your School — Is Local Validation Right for You?”

Course 102: “Evaluating AAMC PREview™ Scores With Admissions Data”

Course 103: “Evaluating AAMC PREview™ Scores With Existing Student Outcome Data”

Course 104: “Evaluating AAMC PREview™ Scores With a Research-Only Performance Tool (ROPT)”

Word Document Upload of Research Only Performance Tool