## MGUH Equity Forward Faculty Workshop: Foundational Principles for Equity in Assessment in Health Professions Education (IEM) Activity Information

Original Release Date October 1, 2025
Termination Date April 30, 2028

Target Audience Physicians, Nurses

Speaker Name: Mun Chun Chan, PhD

**Speaker Disclosure Information:** No relevant financial disclosures to report.

#### **Learning Objectives**

- Position assessment design as part of equitable inclusive course design
- Practice self-examination as part of inclusive teaching within the health and scientific fields
- Use structure of equitable assessment design to design equitable assessments
- Reinforce the need to evaluate and revise teaching practices, including assessments

#### **Evaluation Information**

You must complete an online evaluation at the end of this course to receive continuing education credit.

After completing the evaluation, your CE credits will be available on your MedStar Health CE transcript on CloudCME™ on the next business day.

No commercial support has been provided.

#### The following Planning Committee members have reported no relevant financial relationships:

Mun Chun Chan, PhD | Sneha Daya, MD | Vicki Girard, JD | Aniket Kini, MBBS, MPH | Sarah Kureshi, MD, MPH | Michelle A. Roett, MD, MPH | Lois Wessel, DNP, FNP-BC

#### **Accreditation**



In support of improving patient care, MedStar Health is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC) to provide continuing education for the healthcare team.

#### **Credit Designation**



This activity was planned by and for the healthcare team, and learners will receive **0.75** Interprofessional Continuing Education (IPCE) credits for learning and change.



#### MGUH Equity Forward Faculty Workshop: Foundational Principles for Equity in Assessment in Health Professions Education (IEM) Credits Available for this Activity

**Nurses:** This activity is approved for **0.75** ANCC contact hours. Nurses should claim only the credit commensurate with the extent of their participation in the activity.

**Physicians:** MedStar Health designates this enduring material for a maximum of **0.75** *AMA PRA Category 1 Credits*™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.



## MGUH Equity Forward Faculty Workshop: Foundational Principles for Equity in Assessment in Health Professions Education (IEM) Bibliographic Resources

#### **Overall Reflection Activity for this Workshop:**

Reflection Journal for Foundational Principles for Equity in Assessment in Health Professions Education.
 https://docs.google.com/document/d/198ZIwJ5Ii3aqKNYPuLu4PUR5OTQ5bTmums0T81wpols/edit?usp=sharing

#### I: Resources on the importance of Self in equity work.

- Chapter 1 of the <u>Norton's Guide to Equity-Minded Teaching (free digital version)</u> [https://seagull.wwnorton.com/equityguide]
   This chapter focused on the importance of self in equity work.
- <u>Deep Teaching by Bryan Dewsbury</u> [https://drive.google.com/file/d/1q5qjeQTcJleCBEDDBG-sCLWbjN7d9WC1/view] Emphasizes the importance of self-examination in equity teaching.
- Inequities in Science and health education papers.
  - Continued underrepresentation in medicine [DOI: 10.1097/ACM.000000000003925], 2 (In medical school) [DOI: 10.1056/NEJMsr2028487] Continued underrepresentation in science. [DOI 10.1007/s11162-008-9114-7]
  - Latest NSF Data on URM in science (2023). [https://www.nsf.gov/reports/statistics/diversity-stem-women-minorities-persons-disabilities-2023]
- A short historical perspective of systemic exclusion in medicine. [https://www.neomed.edu/news/journey-of-diverse-students-the-history-of-exclusion/]
- <u>A longer historical perspective of systemic exclusion in medicine.</u> [https://exchange.scholarrx.com/brick/underrepresentation-in-medicine-from-the-u.s.-perspective]
- Backward Design guide. From University of San Diego. Full Guide
  - Interesting examples:
    - Backward design in clerkships evaluations [DOI 10.1007/s40670-016-0305-0]
    - Backward design in pharmacy education [DOI: 10.5688/aj7006135]
    - Backward design to embed assessments in science education [DOI: 10.5688/aj7006135]



#### MGUH Equity Forward Faculty Workshop: Foundational Principles for Equity in Assessment in Health Professions Education (IEM) Bibliographic Resources (Cont.)

#### I: Resources on the importance of Self in equity work (Cont.)

- Equitable practices in graduate school admissions.
  - In <u>Graduate School Admissions</u> [https://doi.org/10.3390/educsci11060270]
  - In Medical School Admissions. [https://doi.org/10.15694/mep.2018.0000274.1]
- <u>Teaching to Transgress: Education as the Practice of Freedom</u> bell hooks.

#### II: Resources for structuring equitable assessments

#### **Guides:**

- Bloom's Taxonomy Guide and use.
  - A nice guide to all 3 domains. <u>University of Illinois Chicago.</u> [https://teaching.uic.edu/blooms-taxonomy-of-educational-objectives/]
  - The Use of Bloom's Taxonomy in <u>Designing MCQs in medical school</u>. [DOI: 10.1097/ACM.0000000000002087]
  - The Use of Bloom's Taxonomy (mostly cognitive) in Bio. education.
- Avoiding Stereotypes in Assessments [https://drive.google.com/file/d/1ZRRu0hpXFwdbPNo9\_ntfndSrG9n-SnBd/view?usp=sharing]
- <u>Equity in Assessment Checklist</u> [https://meded.ucsf.edu/faculty-educators/other-faculty-resources/equity-assessment-guidelines-and-checklist]

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- Inclusive Pedagogy Toolkit on <u>Assessment</u> [https://cndls.georgetown.edu/resources/ip-toolkit/assessment/] and <u>Mentorship</u>.
  [https://cndls.georgetown.edu/resources/ip-toolkit/mentorship/]
- Types of Medical School Assessments. A list. [PMID: 21475483]

#### **Examples:**

- Instructions for <u>Central Metabolite Diagram Design and use</u>. [https://docs.google.com/presentation/d/1kd7uRctwkXpDCFpt-vvGiip KpO0pJNt/edit?usp=sharing&ouid=104284392862974858257&rtpof=true&sd=true]
- Instructions for <u>revising lab papers</u> [https://docs.google.com/document/d/1SW8lyntpCW8bKHWmy1lfhPQyMfIX3SO\_/edit?usp=sharing&ouid=104284392862974858257&rtpof=true&sd=true]

#### MGUH Equity Forward Faculty Workshop: Foundational Principles for Equity in Assessment in Health Professions Education (IEM) Bibliographic Resources (Cont.)

#### II: Resources for structuring equitable assessments (Cont.) Examples (Cont.):

Importance of social justice in scientific work.

<u>Underrepresentation Curriculum Project.</u> [https://underrep.com/]

STEM Teaching Tools [https://stemteachingtools.org/brief/71]

Social Justice in medical education [PMID: 22737646]

• The <u>use of parables in teaching social justice in STEM classes.</u> Examples. [https://drive.google.com/drive/folders/17oF-uyWx4acdT1YevTX4gk\_RBuFlEh5x]

#### **III: Resources on Assessing equitable assessments**

- <u>Types of Data to collect\_[https://docs.google.com/document/d/11UB5NEo1M9zD-Dy9meODt64HxXORzgzXFGbws519FGc/edit?usp=sharing]</u>
- References on <u>how to assess elements of a science course.</u>
   [https://docs.google.com/document/d/1\_AduYRy\_Jejf66OfXl7g\_gVBX72uNO7rwHtFNAJ2lOo/edit?usp=sharing]
- A study of the impact of assessment score prediction on performance in STEM course. [https://doi.org/10.1187/cbe.21-12-0341]

#### IV: Assessments beyond the semester.

• Evidence that equitable and inclusive teaching's effect can be seen beyond the semester's end. [https://doi.org/10.1371/journal.pone.0268620]

#### V: Resource shared during workshop.

• Nouri, A., & Sajjadi, S. M. (2014). Emancipatory pedagogy in practice: Aims, principles and curriculum orientation. The International Journal of Critical Pedagogy, 5(2). <a href="https://libjournal.uncg.edu/ijcp/article/view/228">https://libjournal.uncg.edu/ijcp/article/view/228</a>

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- <u>Teaching to Transgress: Education as the Practice of Freedom</u>. By Bell Hooks. Copyright 1994.
- <u>Inclusive Teaching: Strategies for Promoting Equity in the College Classroom</u>. By Kelly A. Hogan and Viji Sathy. Copyright 2022.

#### MGUH Equity Forward Faculty Workshop: Foundational Principles for Equity in Assessment in Health Professions Education (IEM) Evaluation and Transcript

You must complete an online evaluation at the end of this course within 30 days to receive continuing education credit.

After completing the evaluation, your CE credits will be available in your MedStar Health CE transcript on CloudCME™ on the **next business day**. CloudCME™ is a web-based continuing education portal where users can access their transcript anywhere, anytime, as well as register for MedStar Health conferences. Healthcare provider demographic information from all MedStar entities has been uploaded to CloudCME™ to facilitate a single sign-on system.

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  - 2. <u>Non-MedStar Health Learners:</u> From your browser, go to https://medstar.cloud-cme.com, select Sign in, select "I am Not a MedStar Associate," and log in with your credentials.
- Select My CE (yellow button in the navigation menu).
- Select **Transcript**.
- On the left side, adjust the Filter by Date fields to the desired time period.
- On the right side, select **Download Transcript** to save your transcript, or select **Email Transcript** to email your transcript to yourself or someone else.

#### For questions about accessing CloudCME™, please contact:

SiTEL Help Desk at 855-745-1861, Monday through Friday from 8 a.m. to 5 p.m. Eastern time, or at medstarceapplications@email.sitel.org.

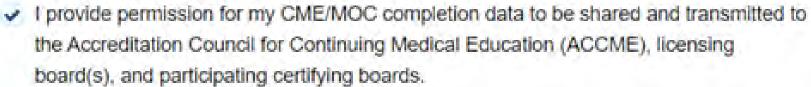


#### **Attention Physician Learners**

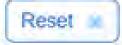
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It's how we treat people.



## Foundational Principles for Equity in Assessment in Health Professions Education

MC Chan

Associate Teaching Professor, Biology Dept.
STEM Pedagogy Specialist, Center for New Design, Learning & Scholarship (CNDLS)



### Objectives

At the end of the workshop, participants will be able to:

- Position assessment design as part of equitable inclusive course design
- Practice self-examination as part of inclusive teaching within the health and scientific fields
- Use the structure of equitable assessment to (re)design equitable assessments
- Center the need to evaluate assessments in the redesign of equitable assessments.
- Think about what are we assessing for, and what we SHOULD be



### Assessment Reflection Journal.

This workshop is linked to a Reflection Journal Document.

Link is provided in the chat.

Please do download a copy of your own in order to begin to jot notes as we talk.

As we progress through the workshop, we will provide an opportunity to reflect on what we learn and how it might apply in your own teaching.

There will be a chance to have a dialogue with your colleagues.

We hope this will guide you through your own process of design.



## Agenda

Introduction and Definitions.

- I. Self: Who We Are Affects
  How We think About
  Equitable Assessments
- I. Structuring Equitable Assessments

III. Assessments Beyond the Semester, Course or Rotation





# Introductions and Definitions



## WHY is equitable teaching important?

- Our fields are not equitably accessible; and the problems are historically entrenched.
- That inequity affects our fields, it affects the people we seek to serve.
   There are systemic inequities in the health-care fields.
- The promise/The hope (supported by research):-





### Section I

Self: Who We Are Affects How We Think About Assessments



## Importance of Examining Self in Inclusive Pedagogy

- Understand what we bring into the education space, and how that affects how we teach.
- Examine what drives us to teach; what drives us to improve?
- Who we are and how it affects how we learn → Who our students and how it affects how they learn.
- Recognize that we are oftentimes teaching those who are different from who we are. Not only different deficits/challenges, but also strengths.



## Assumption:

We, who are in this room,

who have succeeded in our fields,

have in general succeeded in the forms of assessments in our fields.



## Corollary:

Those who did not succeed in these forms of assessments,

are not in our fields; not in this room.



## Question 1: What are the criteria for success in your field, and how is it taught and assessed?

a. In your experience, list a criteria that are important for success in your field?

b. In the courses/rotations you teach/have taken, were these criteria <u>explicitly</u> taught? How?

c. In the assessments you give/have taken, were these criteria assessed?



## Backward Design: Alignment of Assessments to Goals to Teaching



Equitable Assessment BEGINS with evaluating the skills/knowledge needed for success in the field; in other words the criteria for membership.



## Criteria for membership and success is NOT neutral

Oftentimes, the history of criteria for both membership and success in our fields was designed to keep people out.

Academia is traditionally a space where these criteria are enforced/paradigms internalized as knowledge/skills.

As practitioners in the field, and successful ones at that, we inherit/internalize the paradigms of the field



## Example: What are the assessment criteria for young researchers?

What are the criteria for a technician?

Research Experience.

But research experience is a privilege.

Research experience is a replacement of the criteria we care about. Other experiences can be used; especially if we value diversity.





## More Equitable Assessments ≠ Less Vigor



## Question 2: Do the criteria for success in your field need to change?

- a. Are there key skills or knowledge criteria that are oftentimes thought to be important in your field; but you disagree? You just don't think it is as important.
- a. Are there criteria that are oftentimes dismissed and diminished by others in the field, but you think are important for success in the field, AND for the success OF the field?
- a. Are the opportunities to gain these skills/criteria REASONABLY attainable by those in their training?
- d. What do you want to/need to change in the training in your field?



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# THE CLASSROOM REMAINS THE MOST RADICAL SPACE OF POSSIBILITY IN THE ACADEMY.

- bell hooks









### Section II

Structuring Equitable Assessments



## Structure your course, structure your assessments.

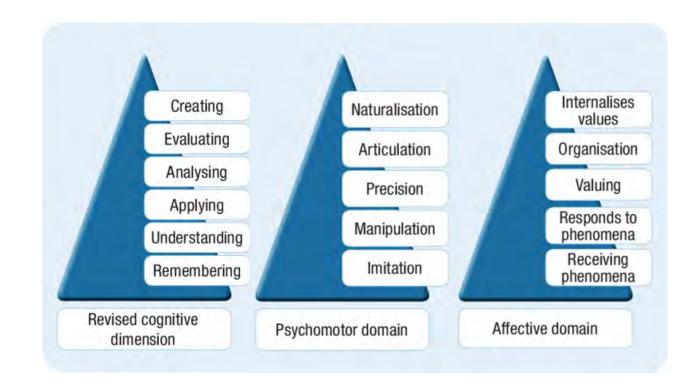
#### Backward-design your course.

What are your learning goals?

Scaffold the learning and therefore the assessments.

Assess beyond remembering and understanding.

Teach, and therefore assess beyond the Cognitive. - Psychomotor and Affective.





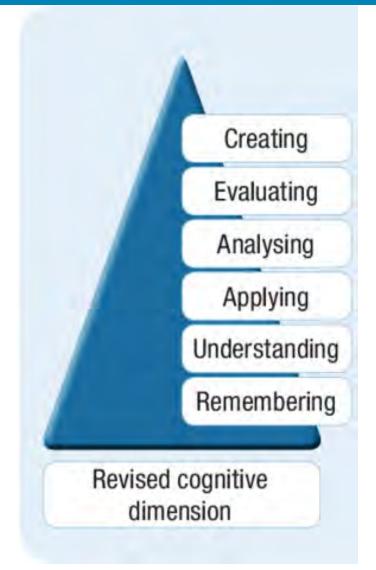
### A moment on Teaching for Standard Exams.

Standardized exams are important in our fields.

They predominantly (but not exclusively) assesses the bottom of the cognitive domain.

What strategies do we use to help students prepare for these exams in our courses/assessments?





## Don't just measure knowledge, assess learning.

Assessing Learning is about designing ways to provide feedback, correct course, and build to (higher order) assessments.

- Low-stakes formative assessments before summative.
- Retake exams, or relearn modules.
- Break up large assignments into intermediate tasks.
- Assess knowledge application, not just recall.



## Provide opportunities to build persistence, and assess persistence.

Persistence:- Continue to do something, even though it is difficult.

Reward Trying, and Trying Again.

Reward Engagement in the course.

Want students to do something. Assess it (give them points for doing it).

Reward Metacognition; help students understand why they should persist?

Provide opportunities for students to reflect on/improve their own learning.

Provide opportunities for students to see how knowledge can be applied.

Provide opportunities for students to see how their knowledge can be applied to better their communities; a tool for social justice.



## What do we mean when we say use scientific knowledge for Social Justice?

Knowledge and skills gained in the science class gives those who have learned it power. e.g. There is power in being a scientist, to being able to do scientific work.

That power can be used to promote social justice; to right current injustices, to challenge systemic injustices. e.g. Innocence Project, or environmental justice work, or teaching, or orphan disease research or providing healthcare in underserved communities, or deciding who gets to work in your lab.

The goal of what we teach is to not only help our students see the potential of the power they gain, but gain a desire to use that power.



## Summary

Structure your course and your exams through backward design. Start with your goals. Question your goals.

Assess psychomotor and affective domain skills too.

Teach & Assess higher-level cognitive skills.

Assess Learning, not just knowledge.

Provide Opportunities for students to build persistence, Assess Persistence.

Provide opportunities for students to see their learning as social justice work.



### But which do I do?

- Choose 1; stick to it for a bit.
- Know that this is a long process, and iteration is crucial. Not going to get it right first time around.
- Don't do it alone. CNDLS, other professors, SoTL are your support.
- Explain it to your students; be transparent about what you are trying to do.
- Assess the assessment.



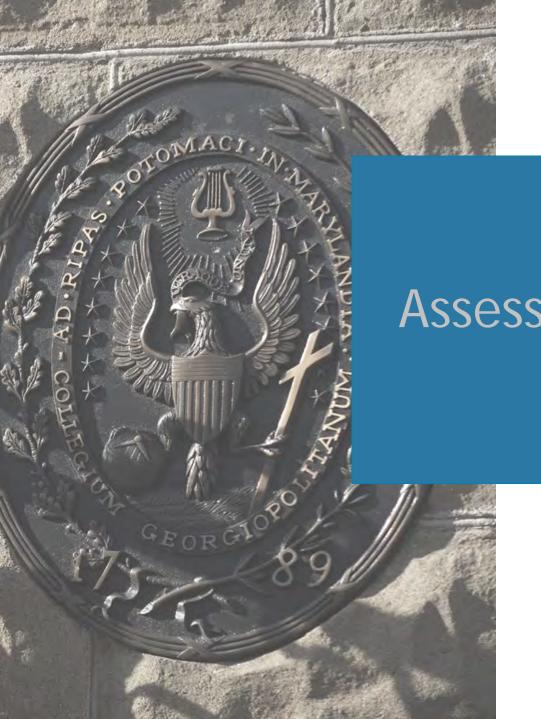
### Question 3: Backward (re)design an assessment.

Choose an assessment that you want to redesign, or want to add to your course.

- a. Explain what are the goals you want to achieve with this assignment? Which Bloom's Domain are these goals in? What level?

  Consider incorporating the skills and knowledge criteria that you had previously considered to be important in your field, especially those that are frequently forgotten/dismissed.
- a. How would you structure students' learning so that they can be successful in this assessment? How will you teach, how will you provide opportunities for them to practice through formative assessments?
- a. How would you provide ways for them to correct misconceptions, so that they can provide evidence of their persistence in their learning?
- a. What help do you need to flesh out this redesign?





### Section III

Assessments beyond the Semester, Course or Rotation.



## The true measure of a student's learning might not be evident until later

Each person that a hero meets on a quest teaches them a valuable lesson and leaves, but the importance of those lessons are not revealed until the end.

Institutions should think more about what holistic assessments should look like:-

How can you properly assess the effectiveness of a part of the training in preparing a student for the future?







The true impact of more equitable assessments might not be evident until after a semester, course or rotation is completed.

Might not be known for years.

What does the future in your field look like?

In the future, who is empowered to be in this room?

## Thank you. Questions?

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