

Building resilient student assessment in fragile contexts



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Your expectations from today's workshop?



Learning objectives

After this presentation, we will be able to:

1. Define characteristics of assessment in fragile contexts

2. List challenges of online examinations in fragile contexts

3. Criticize actions to buffer challenges of assessment in fragile contexts

4. Describe assessment clock as a model to prioritize students' assessment in fragile contexts

Let us know



Let us know



- 1) How close to reality were the exam scores you estimated for students under normal circumstances?
- 2) What are the first words that come to your mind when it comes to the student assessment in time of fragility?
- 3) Do you agree with holding online structured viva voce examinations in times of fragility?
- 4) Are you in favor of AI-based and live monitoring systems in student assessments?

Characteristics of assessment in fragile contexts

Complex with some degree
of compromise unavoidable

Adjustment of assessment aspects without
undermining the overall integrity of the system

Decisions grounded in pragmatism when resources are
limited (What can we implement well with what we have?)

Cost and acceptability at the
heart of implementation



Some challenges of online examinations in fragile contexts

Demanding robust digital infrastructure

Proctoring arrangements

Technical support

Digital divides

Actions to buffer challenges

Lending laptops and Wi-Fi hotspots

Offering asynchronous options

Distributing paper-based assignments in low-resource settings

Completing assessments while sheltering in conflict zones

Remote proctoring (Controversial)

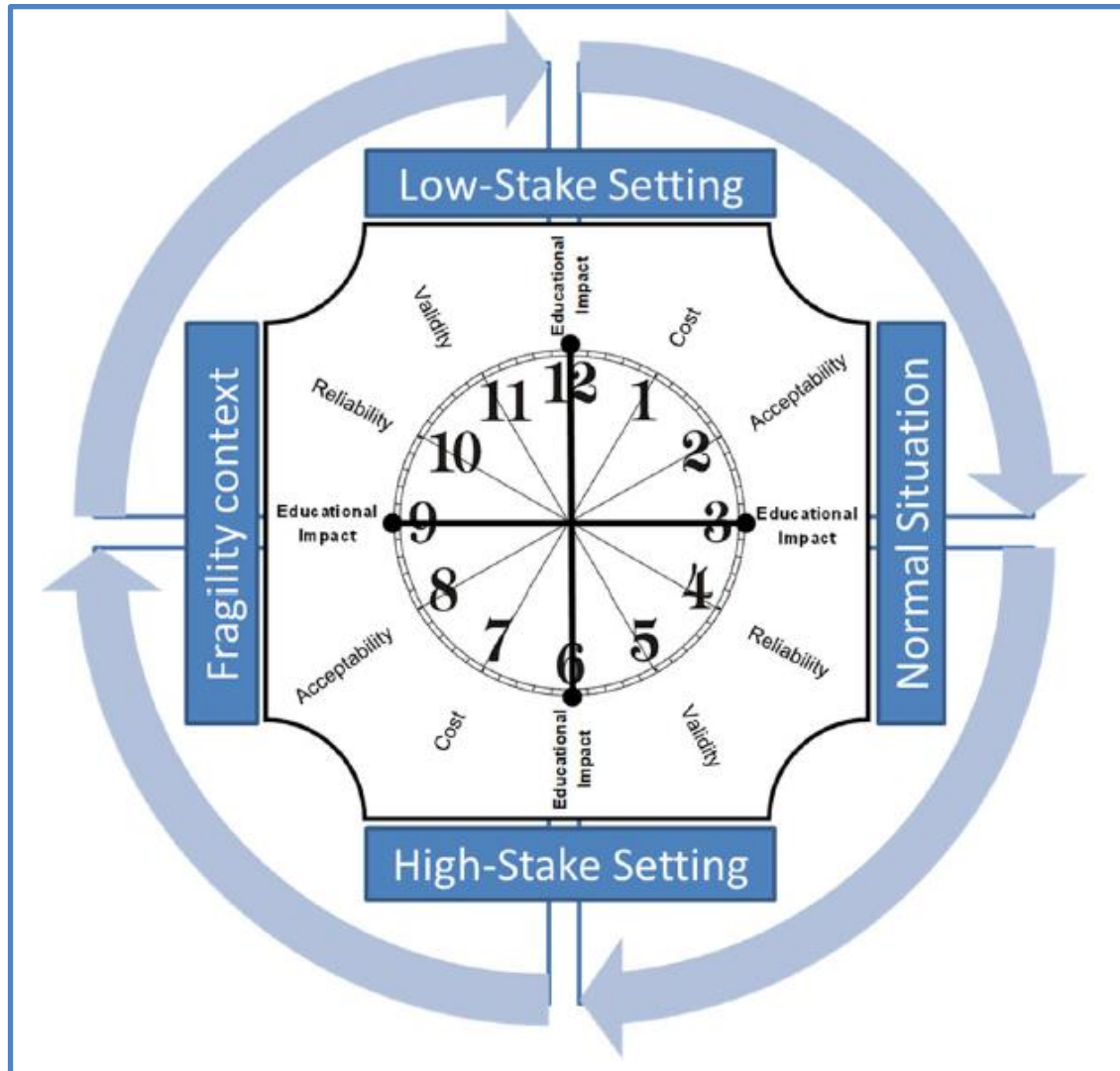
AI-based and live monitoring systems (concerns related to privacy, technical instability, and unequal access)



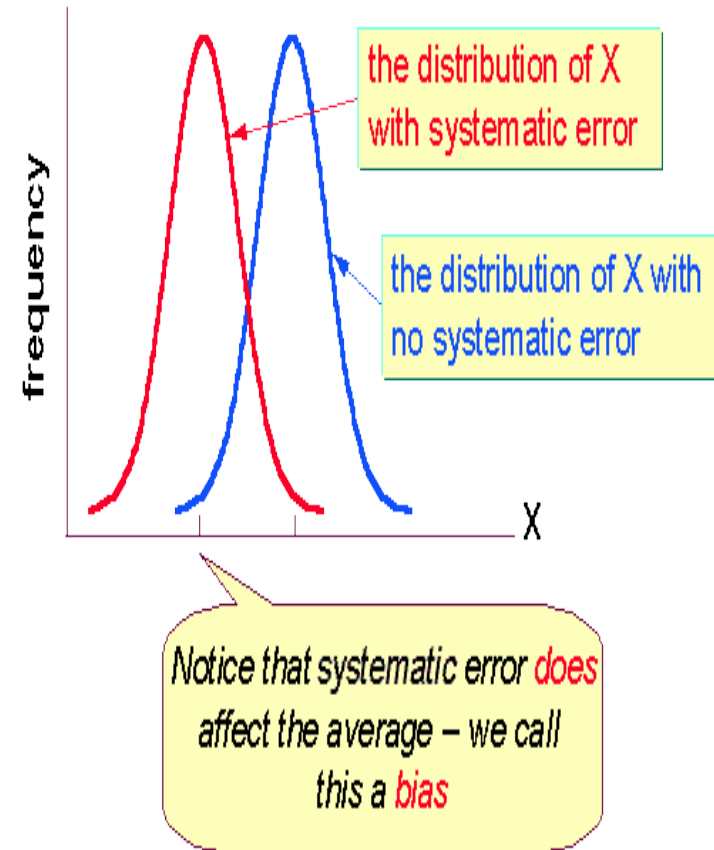
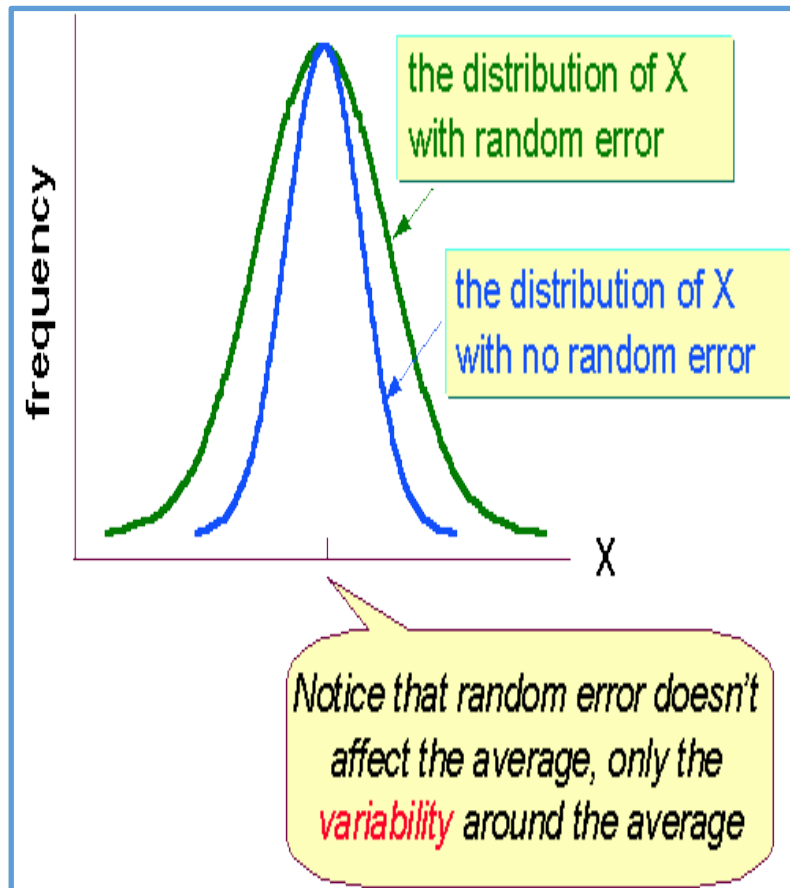
Your summary up to now?



Assessment clock as a model to prioritize students' assessment in fragile contexts



Bias and error in measurement



Miller's pyramid



Figure 1 Miller's original pyramid. Reprinted with permission from Miller GE. The assessment of clinical skills/competence/performance. Acad Med. 1990;65(9 suppl):s63-s67.

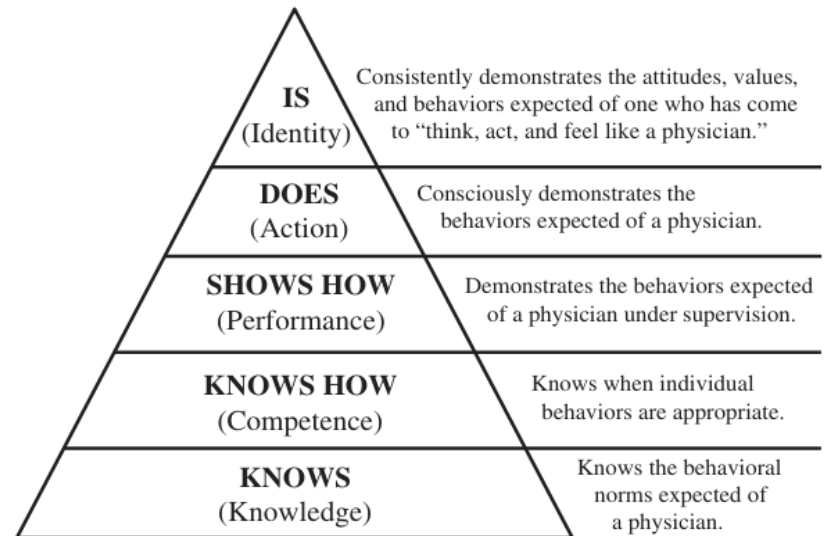
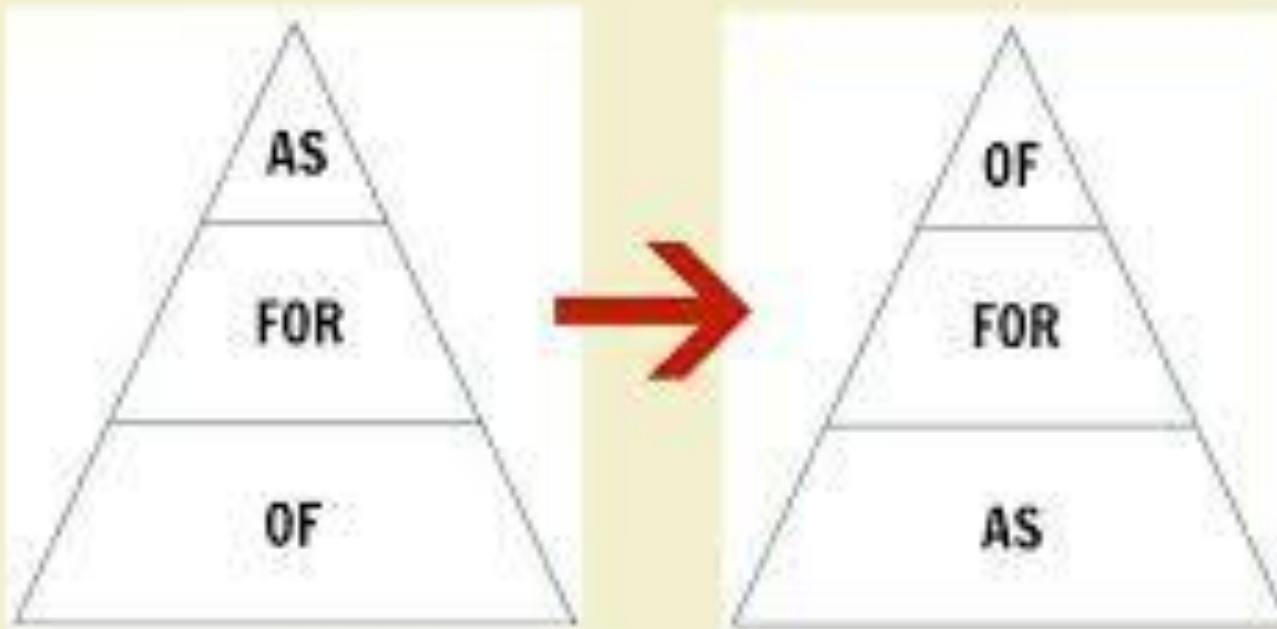


Figure 2 The amended version of Miller's pyramid with the addition of "Is" and an outline of what is to be assessed at each level. Sources: Adapted with permission from Miller GE. The assessment of clinical skills/competence/performance. Acad Med. 1990;65(9 suppl):s63-s67. Quotation from Merton, 1957.²²

The ultimate goal of teaching and assessment



Goal of assessment



**Traditional VS Reconfigured
Assessment Pyramid**

Different approaches to student assessment

Assessment	Of Learning	For Learning	As Learning
Type	Summative	Formative	Formative
What	Teachers determine the progress or application of knowledge or skills against a standard.	Teachers and peers check progress and learning to help learners to determine how to improve.	Learner takes responsibility for their own learning and asks questions about their learning and the learning process and explores how to improve.
Who	Teacher	Teacher & Peers	Learner & Peers
How	Formal assessments used to collect evidence of student progress and may be used for achievement grading on grades.	Involves formal and informal assessment activities as part of learning and to inform the planning of future learning.	Learners use formal and informal feedback and self-assessment to help understand the next steps in learning.
When	Periodic report	Ongoing feedback	Continual reflection
Why	Ranking and reporting	Improve learning	Deeper learning and learning how to learn
Emphasis	Scoring, grades, and competition	Feedback, support, and collaboration	Collaboration, reflection, and self-evaluation

Van Der Vleuten's utility formula

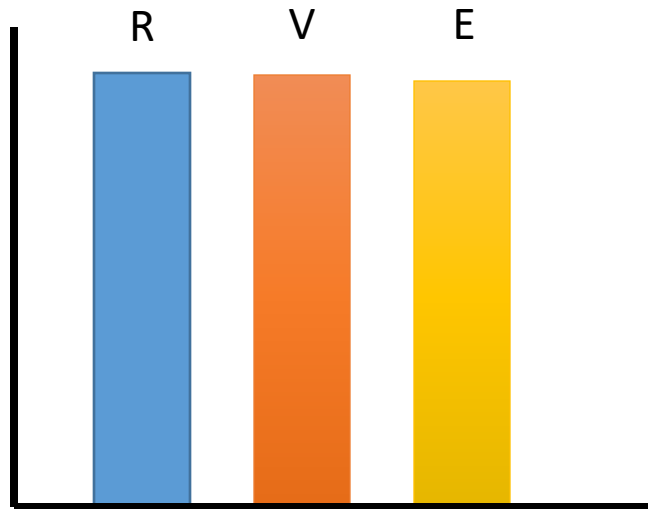
$$\square U = R_w * V_w * E_w * A_w * C_w$$

Five interdependent components of:

- 1) Reliability
- 2) Validity
- 3) Educational impact
- 4) Acceptability
- 5) Cost

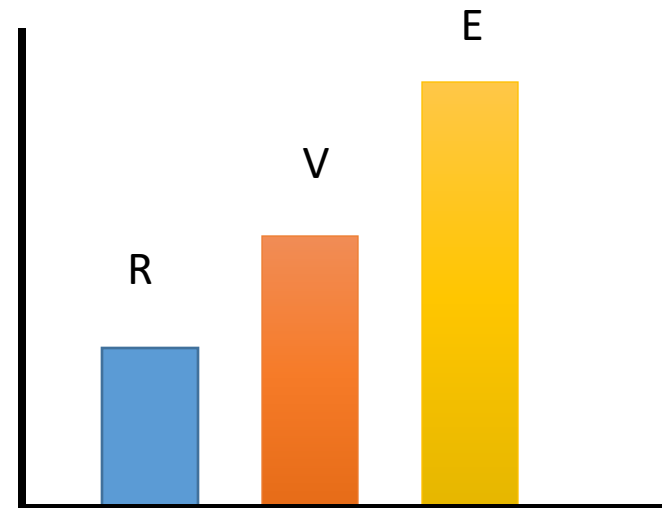
- Not a mathematics multiplication relative
- Not the same weights
- Weight of each element shifts depending on the assessment's purpose and stakes

Assessment attributes for different purposes

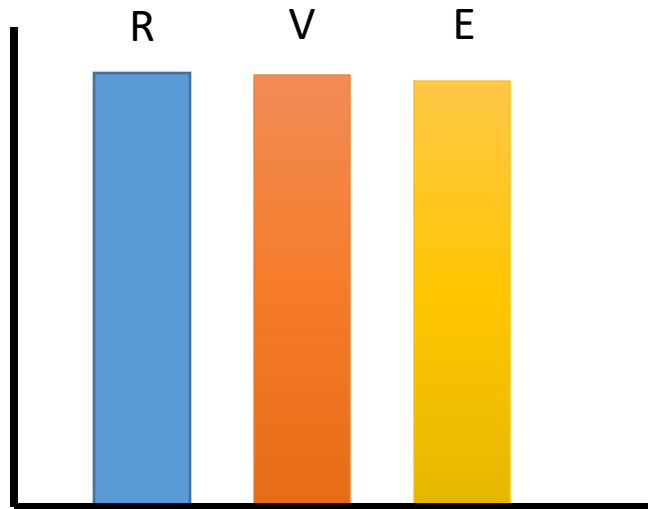


Ideal

Formative

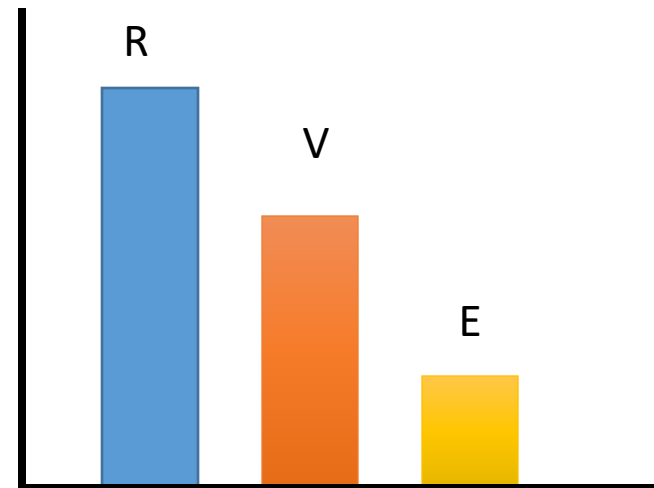


Assessment attributes for different purposes

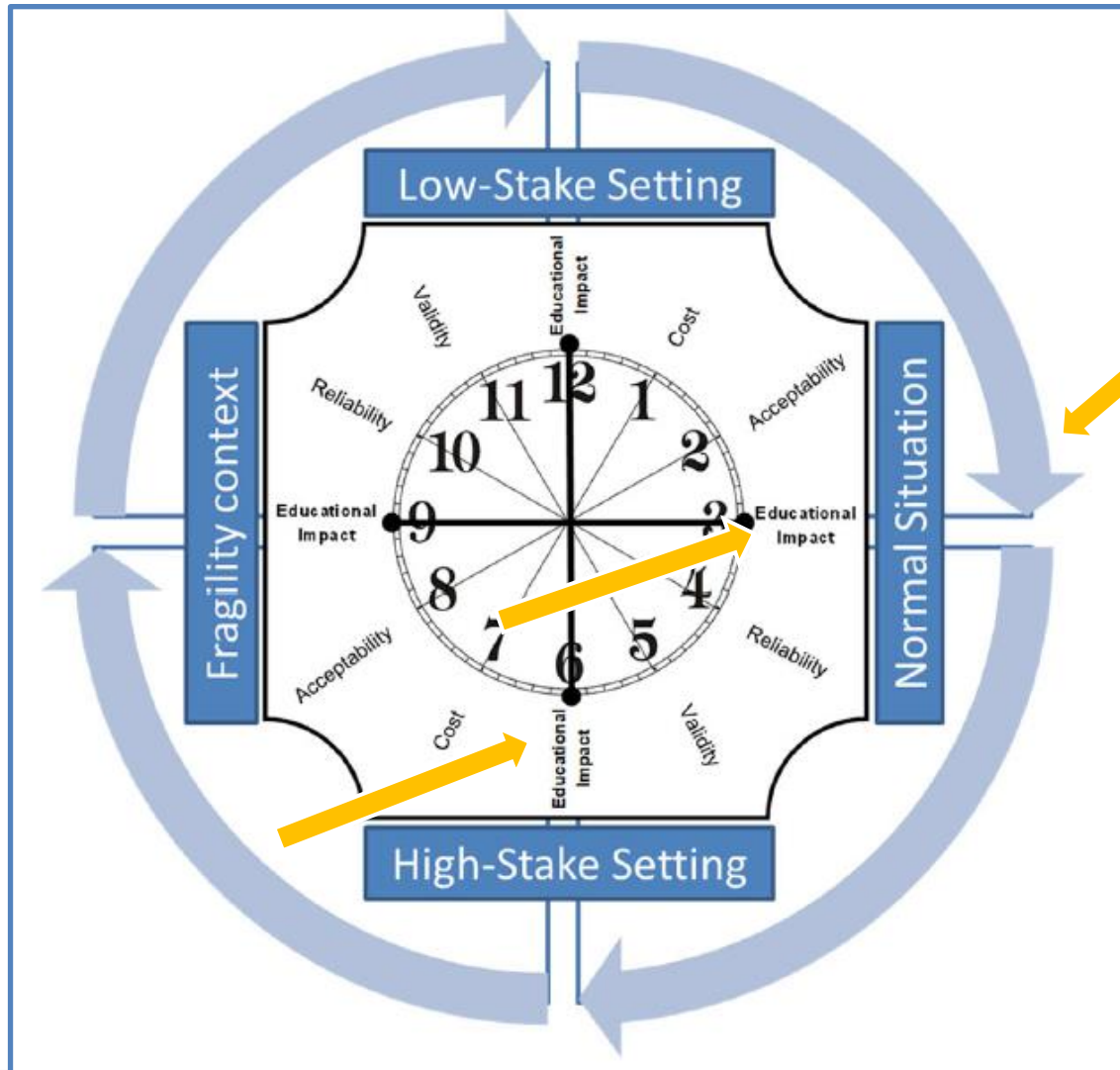


Ideal

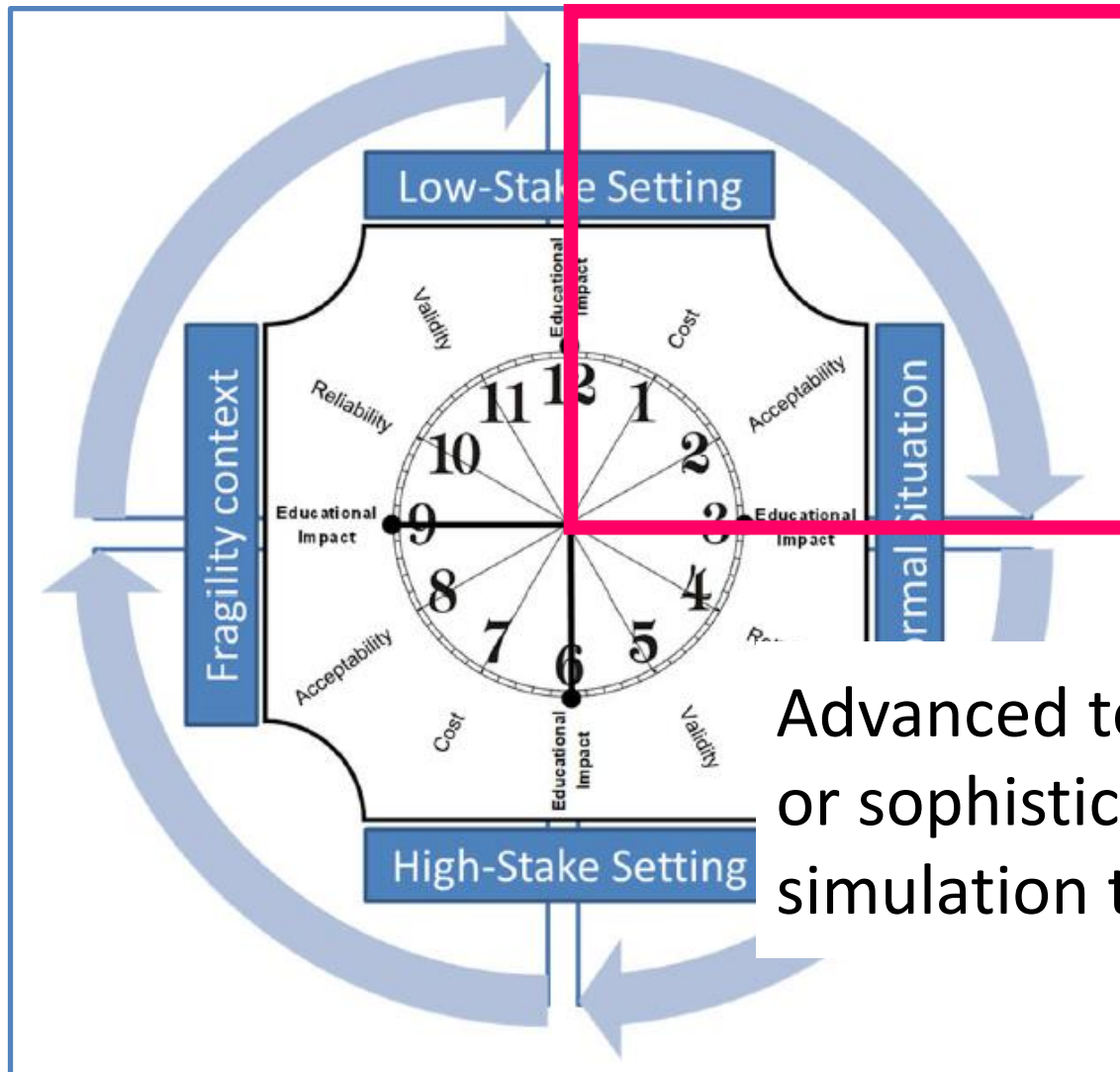
Selection



Assessment clock as a model to prioritize students' assessment in fragile contexts

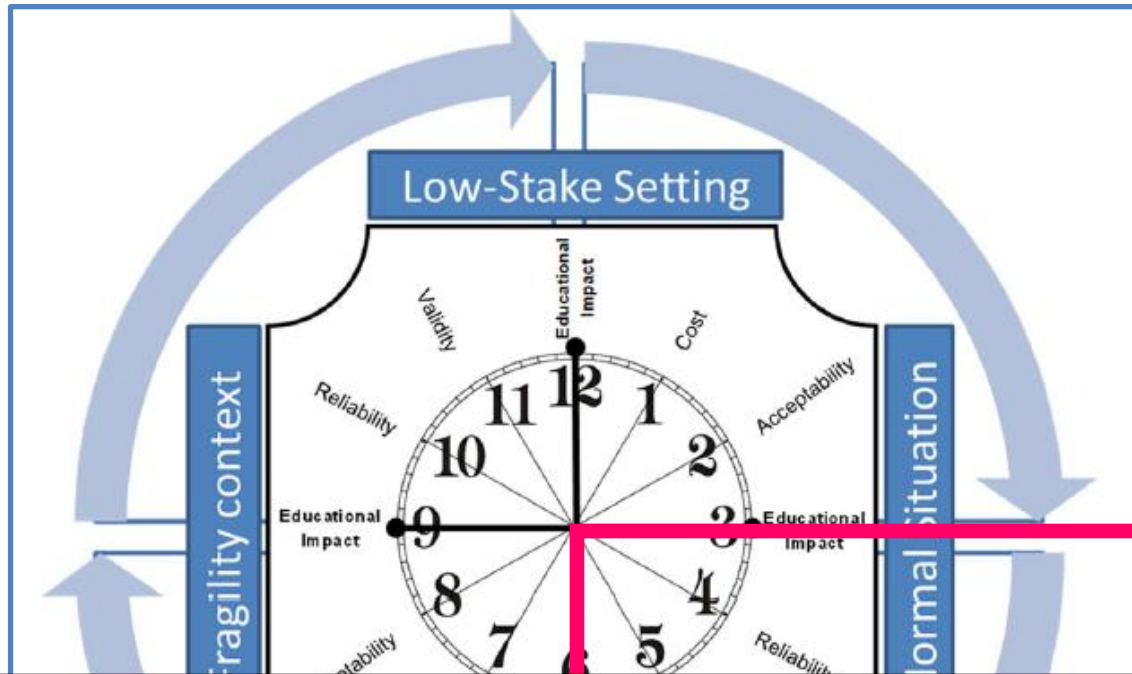


Assessment clock as a model to prioritize students' assessment in fragile contexts



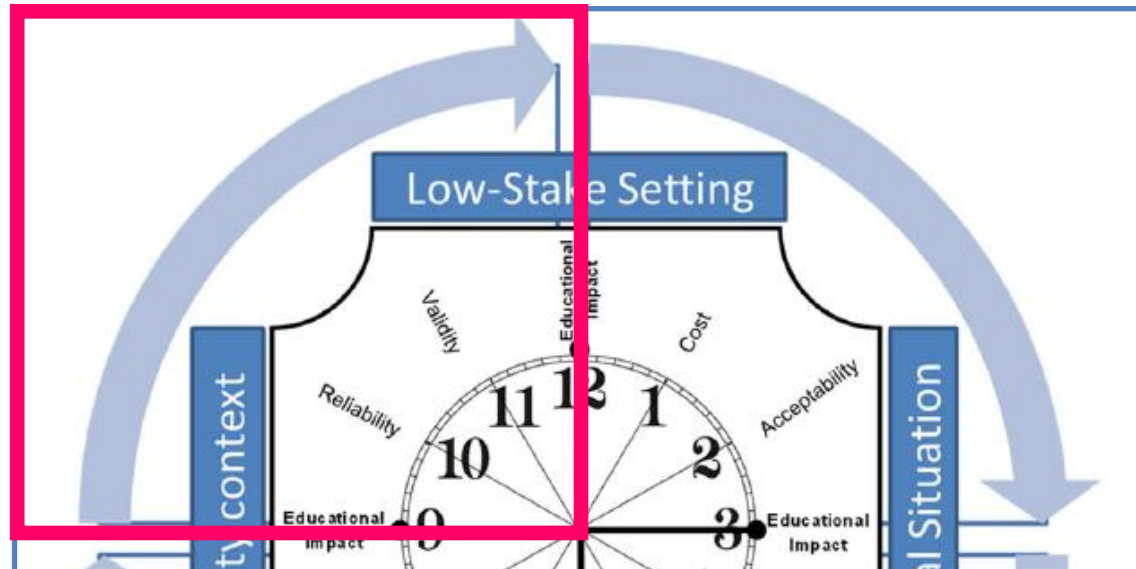
Advanced technologies
or sophisticated
simulation tools

Assessment clock as a model to prioritize students' assessment in fragile contexts



Rigorous assessment process involving detailed **blueprinting**, careful **item development**, **examiner training**, and **robust standard-setting** procedures to ensure fair and defensible decisions.

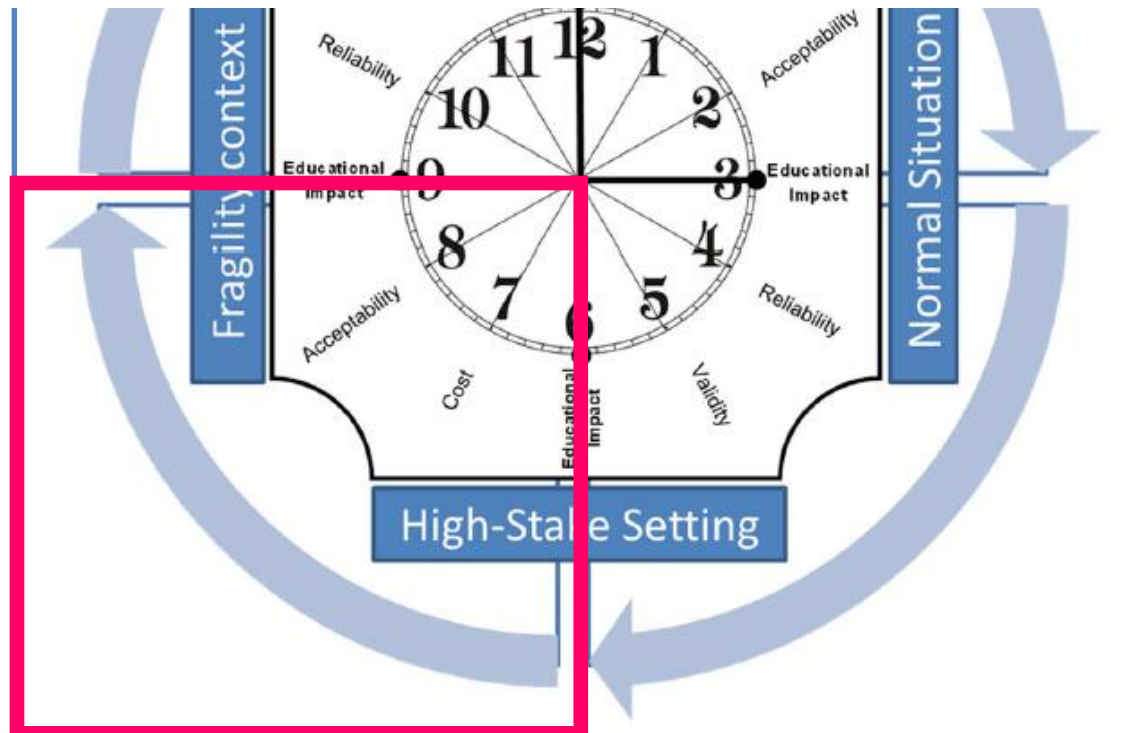
Assessment clock as a model to prioritize students' assessment in fragile contexts



Open-book or take-home exams that emphasize knowledge application and reasoning over recall, written assignments and projects – portfolios, reflective essays, research tasks – that allow asynchronous progression

Assessment clock as a model to prioritize students' assessment in fragile contexts

Remote OSCEs or online structured viva voce examinations



Embedding resilience within assessment

“Heightened importance of well-being in fragile settings – especially in relation to assessment – Wadi et al. introduced the Systematic Assessment for Resilience (SAR) framework. Although designed to embed resilience within assessment during normal conditions, SAR offers practical and actionable guidance that remains highly relevant during periods of disruption”.



Lessons learned from the assessment clock?



Which of the following phrases/statements about student assessment during times of educational fragility are correct?

- 1) Relying on meticulous standards we usually during normal situations
- 2) **Compromise**
- 3) Arbitrary compromise
- 4) **Clear understanding of which assessment aspects can be adjusted without undermining the overall integrity of the system**
- 5) Cost and acceptability at the heart of implementation
- 6) **Blueprinting, careful item development, examiner training, and robust standard-setting procedures in summative exams during fragility**

Case studies illustrating
the resilience of Health
Professions Education
(HPE) in overcoming
challenges posed by
fragile settings

Case Study 1: Re-building graduate medical education in Haiti Post-Earthquake

“After the 2010 earthquake, the country faced an acute shortage of medical personnel and training opportunities.

In 2013, a 300-bed, solar-powered teaching hospital was established. It addressed Haiti’s urgent need for trained professionals by launching residency programs in five specialties. Social medicine was integrated into the curriculum. By 2019, 67 physicians had graduated. Nearly all remained in Haiti, with over half working in rural communities.

The hospital also served as a teaching and research site for Haitian and Harvard faculty. Its solar energy system – the largest of any hospital globally – showcased sustainable infrastructure supporting local resilience.”

Case Study 2: Resilience of the faculty of Medicine, University of Gezira (FMUG), during armed conflict in Sudan

“When armed conflict erupted in Sudan in April 2023, the Faculty of Medicine at the University of Gezira faced massive disruptions: the main campus was occupied, students and staff were displaced, and clinical training was suspended.

A crisis management committee coordinated evacuations and ensured continued communication with students scattered across the country. Teaching shifted to online platforms, using tools like Telegram and asynchronous modules to reach learners in unstable areas. The curriculum was reorganized into longitudinal formats and supplemented with a specialized ‘War and Health’ module focused on trauma care and infectious disease management. Mobile clinics were deployed, providing essential care and practical training in underserved communities. Alumni and diaspora contributed by supporting telemedicine and capacity-building initiatives. The institution’s leadership transformed adversity into innovation.”

Case Study 3: Curriculum delivery in medical education during an emergency (COVID-19) – University of Sharjah, United Arab Emirates

“During the COVID-19 pandemic, a structured, institution-wide response to sustain curriculum delivery and assessment was implemented. Faculty were trained in using Blackboard, Zoom, and Microsoft Teams. Teaching activities were redesigned to include e-lectures, e-PBL, virtual patient encounters, and simulation-based sessions. Weekly coordination meetings ensured curriculum consistency and quality assurance. To enhance engagement in theoretical components, the college introduced online Team- Based Learning (TBL) using Blackboard Lockdown Browser, breakout rooms, and Microsoft Forms. Final-year dental students’ summative assessment included MEQs, MCQs, OSCEs, and oral exams, conducted using Blackboard and MS Teams. E-OSCEs were launched using Microsoft Teams. Students remained in assigned virtual rooms while faculty rotated across cases. Targeted manuals were disseminated to guide faculty. Each manual was accompanied by training sessions, video tutorials, and ongoing support to ensure consistent implementation.”

Summary

- ✓ Characteristics of assessment in fragile contexts
- ✓ Challenges of online examinations in fragile contexts
- ✓ Actions to buffer challenges of assessment in fragile contexts
- ✓ Assessment clock as a model to prioritize students' assessment in fragile contexts

Your summary of the entire session?



Take home message

“Even the most advanced assessment tools may remain unused if assessors or learners feel unprepared or unconvinced – for instance, incorporating highly technical simulation equipment into a final OSCE may be theoretically ideal but practically unfeasible without adequate training and buy-in.”



References



- 1) Mohamed Hassan Taha, Majed Wadi, Abdelrahim Mutwakei Gattar, Esra Abdallah Abdalwahed Mahgoub, Ghaith Alfakhry, David Taylor & Mohamed Elhassan Abdalla (10 Jan 2026): **Building resilient health professions education in fragile contexts: AMEE guide No. 182**, Medical Teacher, DOI: 10.1080/0142159X.2025.2606070
- 2) Dent J, Harden RM, Hunt D. **A practical guide for medical teachers**, e-book. Elsevier health sciences; 2021.
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- 4) Al-Eraky M, Marei H. **A fresh look at Miller's pyramid: assessment at the 'Is' and 'Do' levels**. Medical education. 2016;50(12):1253-7.
- 5) Cruess RL, Cruess SR, Steinert Y. **Amending Miller's pyramid to include professional identity formation**. Academic Medicine. 2016 ;91(2):180-5.
- 6) Google images

Appreciate your attention.
Any questions?

