WORKPLACE-BASED ASSESSMENT:

A SOLUTION TO CLINICAL SITE CHALLENGES?

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CONFLICTS OF INTEREST

I HAVE NO PERTINENT CONFLICTS OF

INTEREST TO DISCLOSE

OBJECTIVES

Workplace-Based Assessment

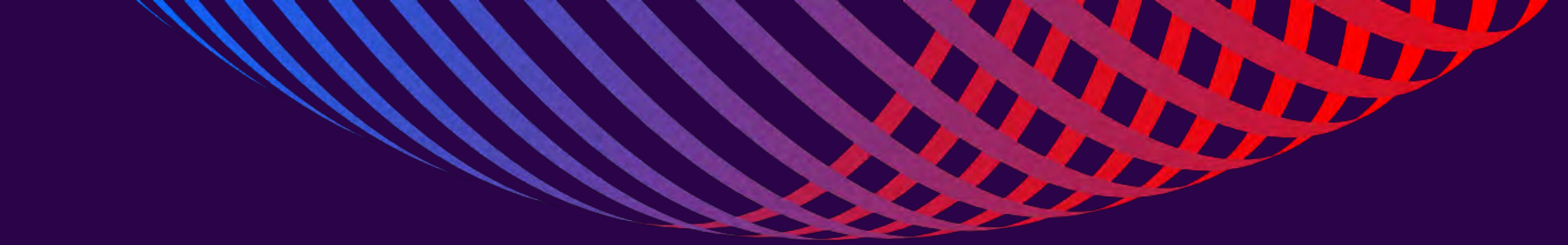
Describe the use of workplace-based assessment (WBA) tools, such as entrustable professional activities, in health professions education

Competency Development & Assurance

Discuss the role of WBA in the development, assessment, and summative endorsement of clinical competence

Implementation

Explore strategies to increase the efficiency of clinical learning by incorporating authentic WBA outside of traditional supervised clinical practice experiences



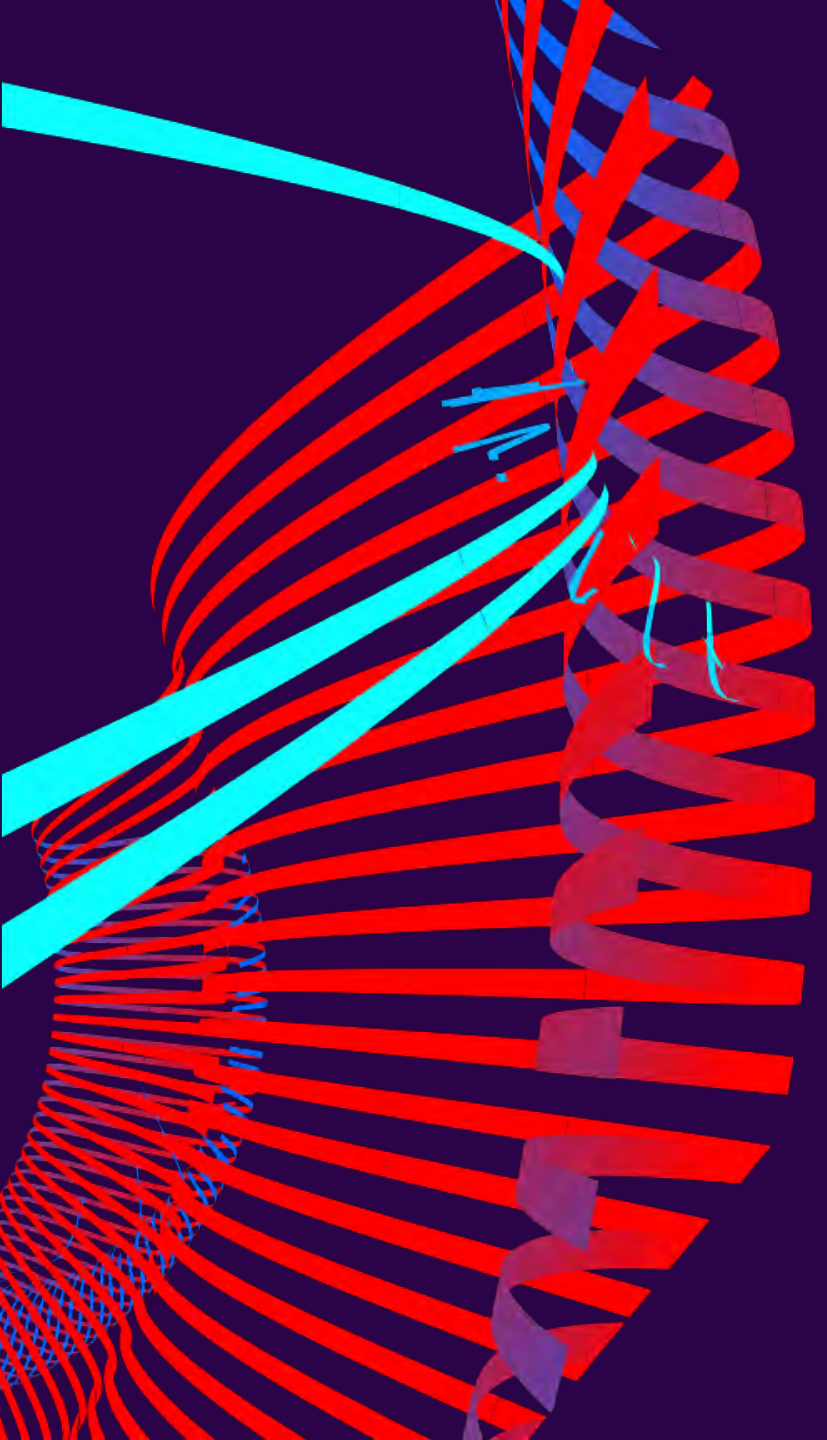
THIS PRESENTATION

WHAT IT IS…

- A review of workplace-based assessment and, more specifically, entrustable professional activities
- A chance to consider opportunities for an effective and efficient future

WHAT IT IS NOT…

- Specifically focused on one profession or accrediting body
- An all or nothing cookbook approach
- Perfect – Good vs. Great



THE CURRENT ENVIRONMENT

THE CURRENT ENVIRONMENT

Challenges in Quantity and Quality

COMPLIANCE

CLINICAL DEMANDS

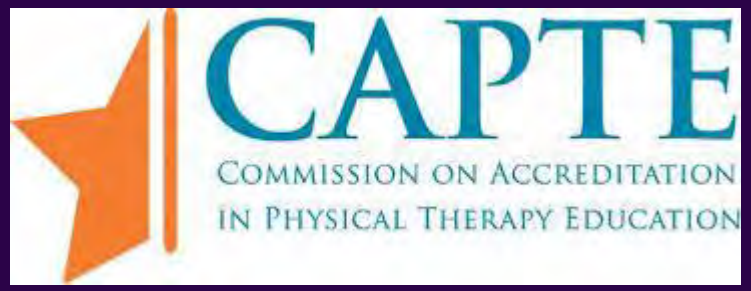
CAPACITY ISSUES

PROGRAM GROWTH

DYNAMIC ENVIRONMENT

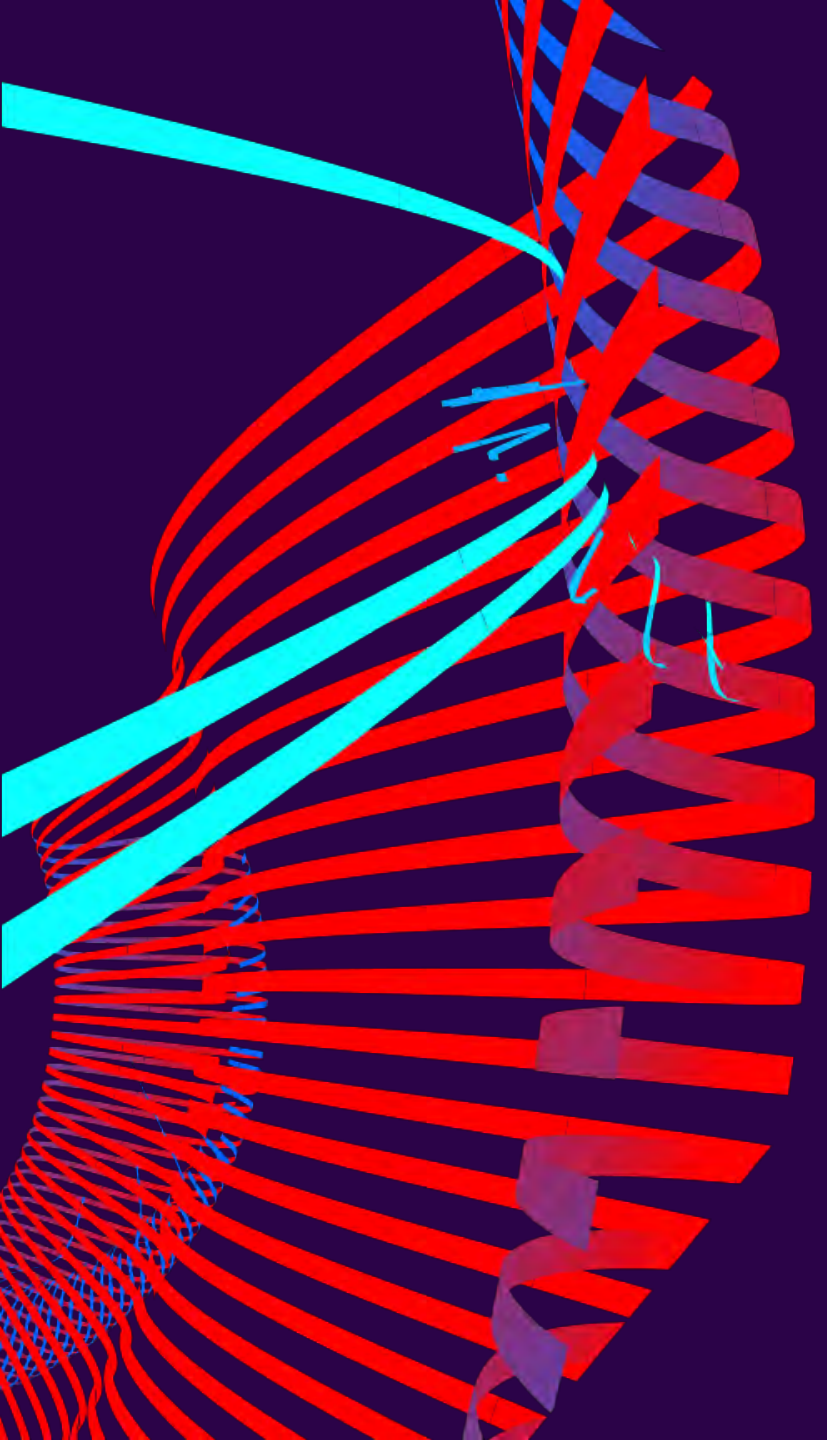
THE CURRENT ENVIRONMENT

Challenges in Quantity and Quality



THE CURRENT ENVIRONMENT

Challenges in Quantity and Quality[1]



WORKPLACE-BASED ASSESSMENT

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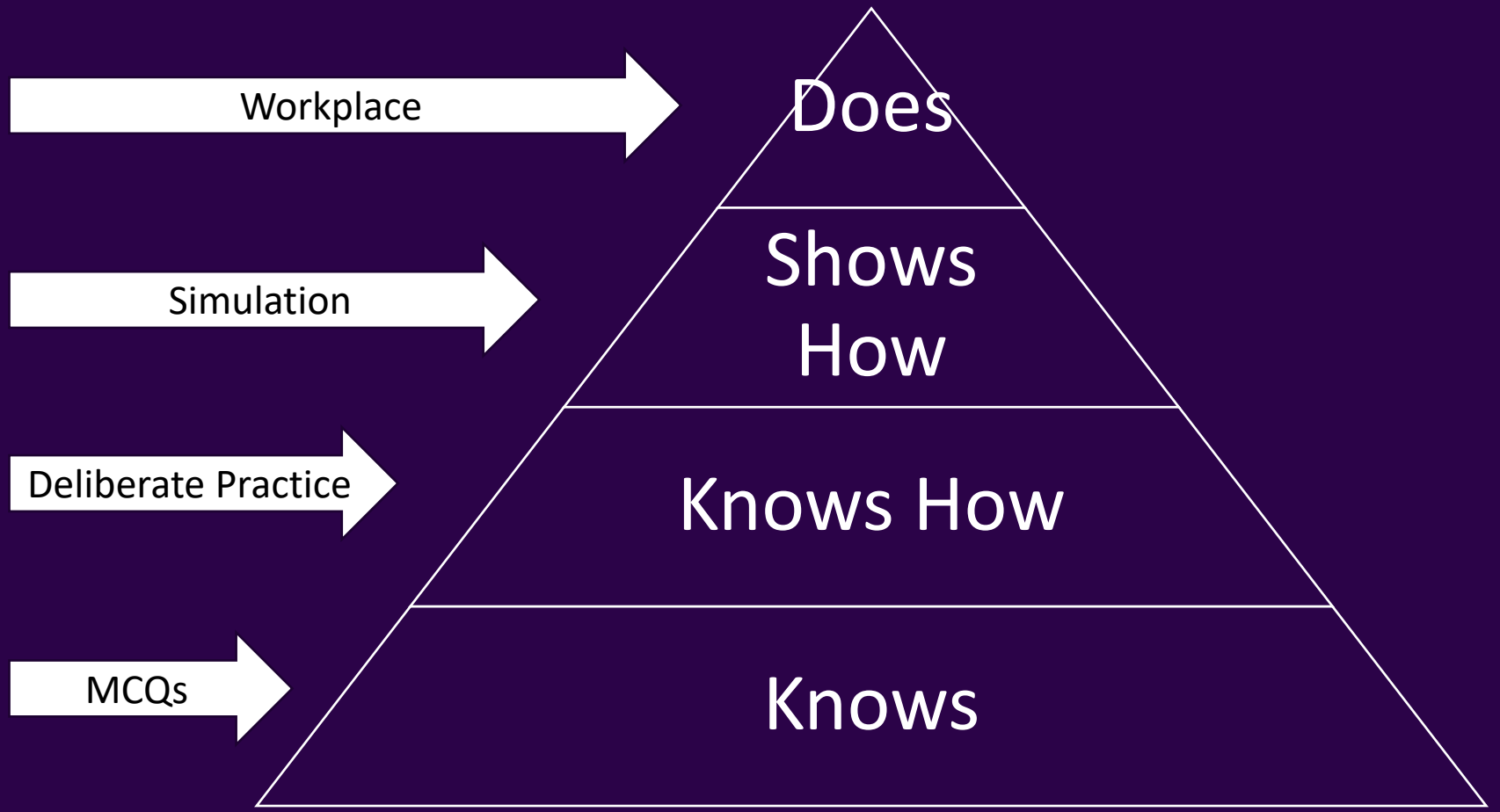
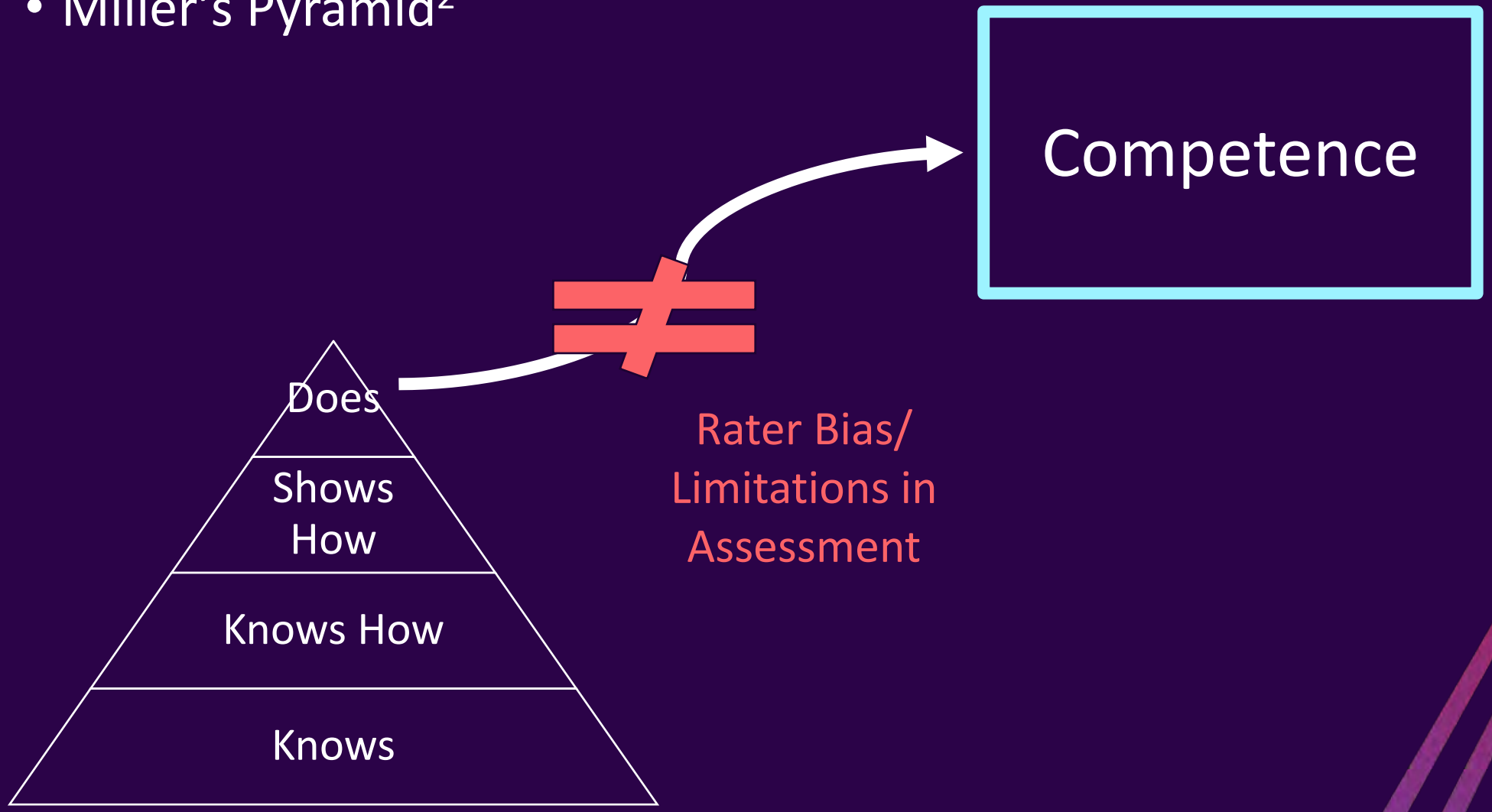
- Miller's Pyramid[2]



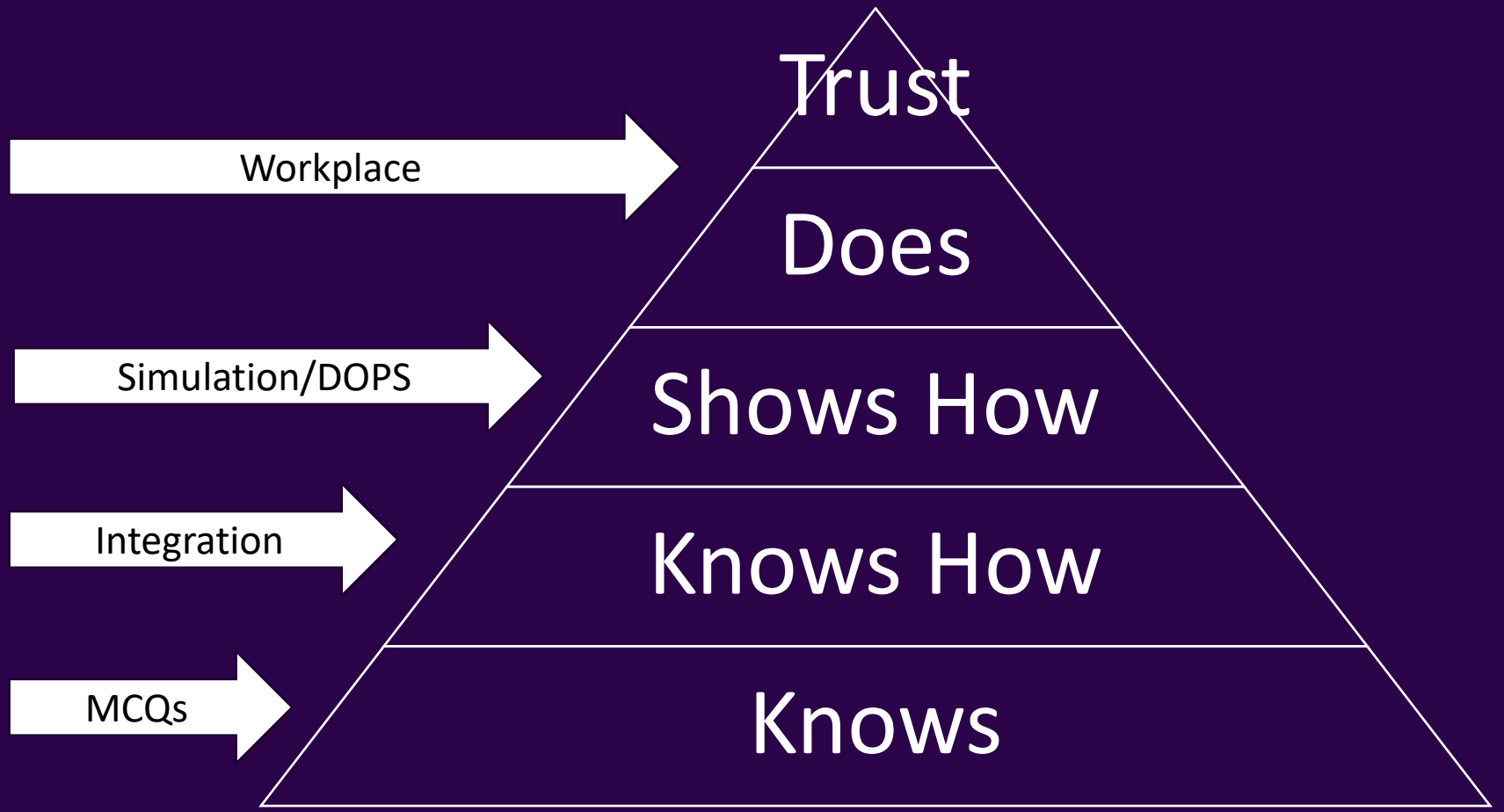
WORKPLACE-BASED ASSESSMENT

- Miller's Pyramid[2]



WORKPLACE-BASED ASSESSMENT

- Extending Miller's Pyramid[3]



WORKPLACE-BASED ASSESSMENT

WBAs

- Assessment of real-world performance in an authentic clinical environment
- Holistic, but can be incomplete
- Found to be feasible[4]
- Provides reliable distinctions between trainees' performance[4]

The best way to assess the ability of a trainee to do something is to observe them doing it.

WORKPLACE-BASED ASSESSMENT

The Clinical Learning Environment and Workplace-Based Assessment[4]

- "Social, cultural, and material contexts in which trainees learn"

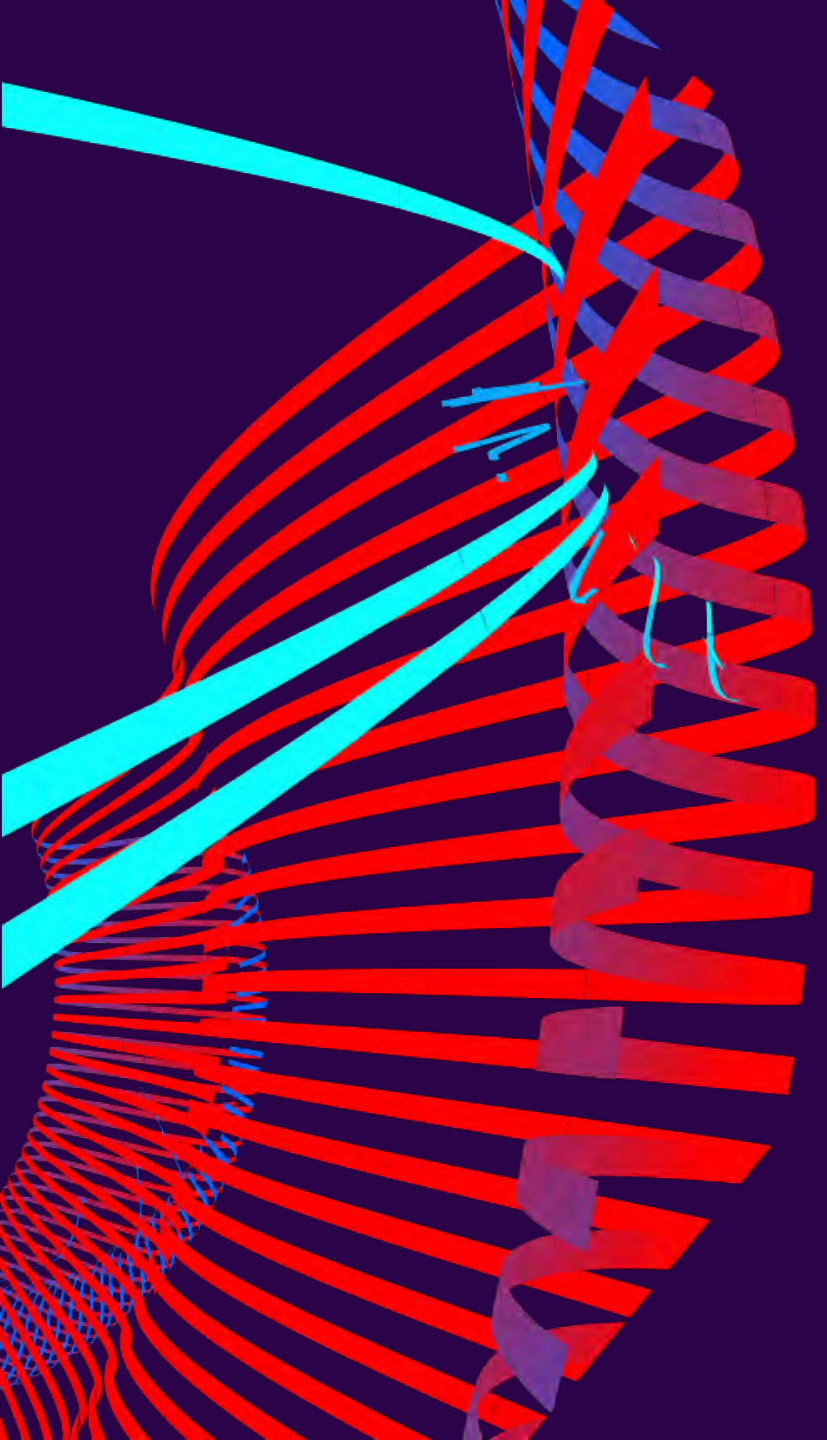
Assessment should drive learning[5]

- Framework and strategy for learning and goal setting
- Movement from formative to summative
- Development of self-regulation in learning
- Coaching learner development

WORKPLACE-BASED ASSESSMENT

Implementation of a Workplace-Based Assessment System in the Pediatric Clerkship[6]

- WBA was developed using a mobile-friendly modified version of the Ottawa Clinic Assessment Tool (OCAT)
  - Rates performance 1 to 4 (1-“I had to do it” to 4-“I had to be there just in case”)
  - All students required to request feedback for 6 of 13 Core EPAs
- Results[6]
  - Scores across EPAs were greater in later rotations ($r = 0.157$, $P < .001$)
  - One-way ANOVA: significant variance on score by student, assessor, and timing of clerkship block
  - Final grades correlated with OCAT scores (Spearman’s $r = 0.25$, $P < .001$)



ENTRUSTABLE PROFESSIONAL ACTIVITIES

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- Focuses on the work to be done
- Assesses learners based on the level of trust an assessor has in the trainee to perform essential clinical activities
- Completion of the activity requires demonstration of competence (simultaneous, integrated demonstration of competencies[7])
- Modeled on the informal decisions we continuously make with learners in clinical learning

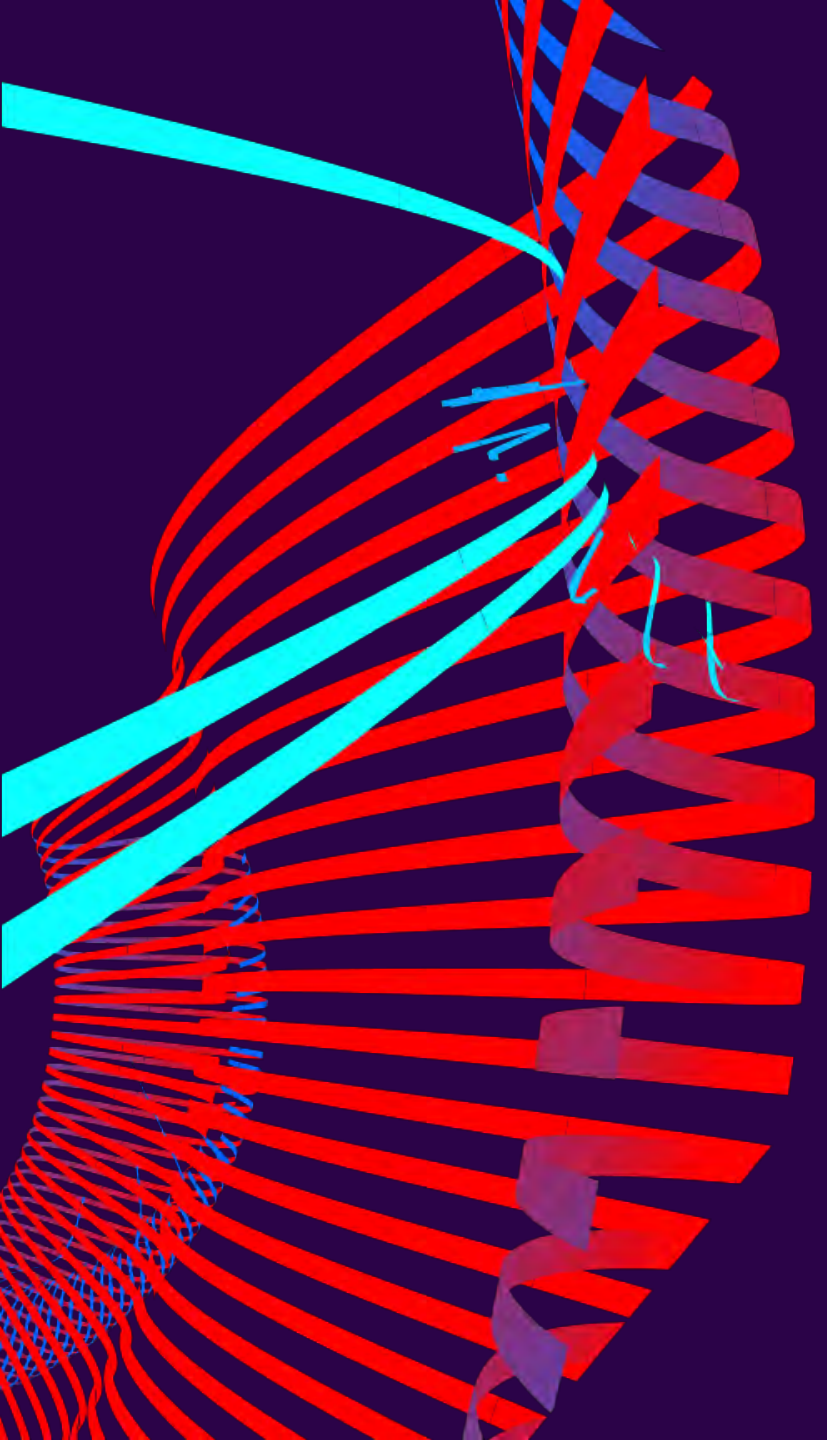
ENTRUSTABLE PROFESSIONAL ACTIVITIES

A Balancing Act

- Granularity for specific feedback while maintaining holistic view of profession (pragmatism and flexibility between experiences)

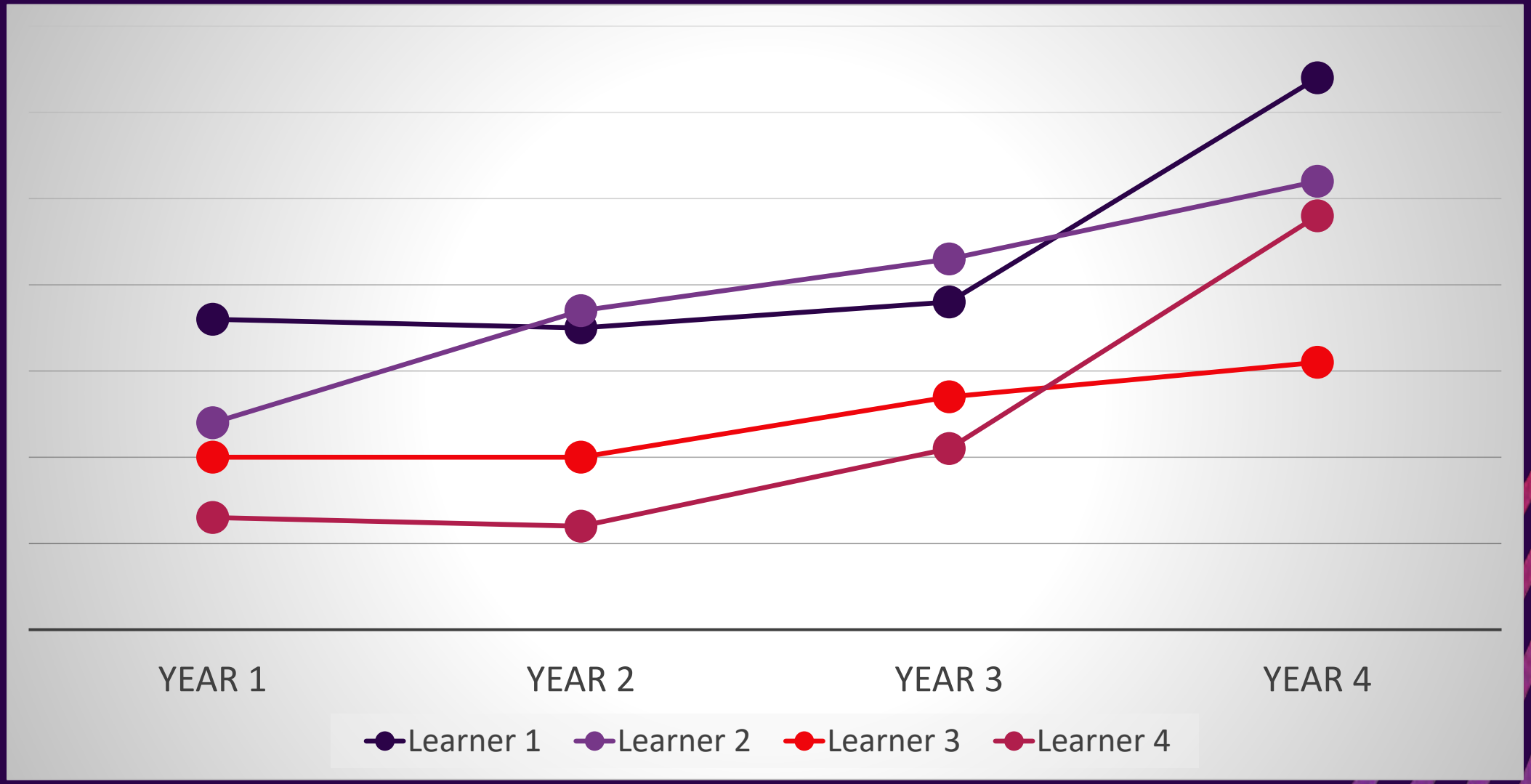
- Ad hoc versus summative entrustment decisions

- Clinical competency committees must make sense of aggregate entrustment decisions

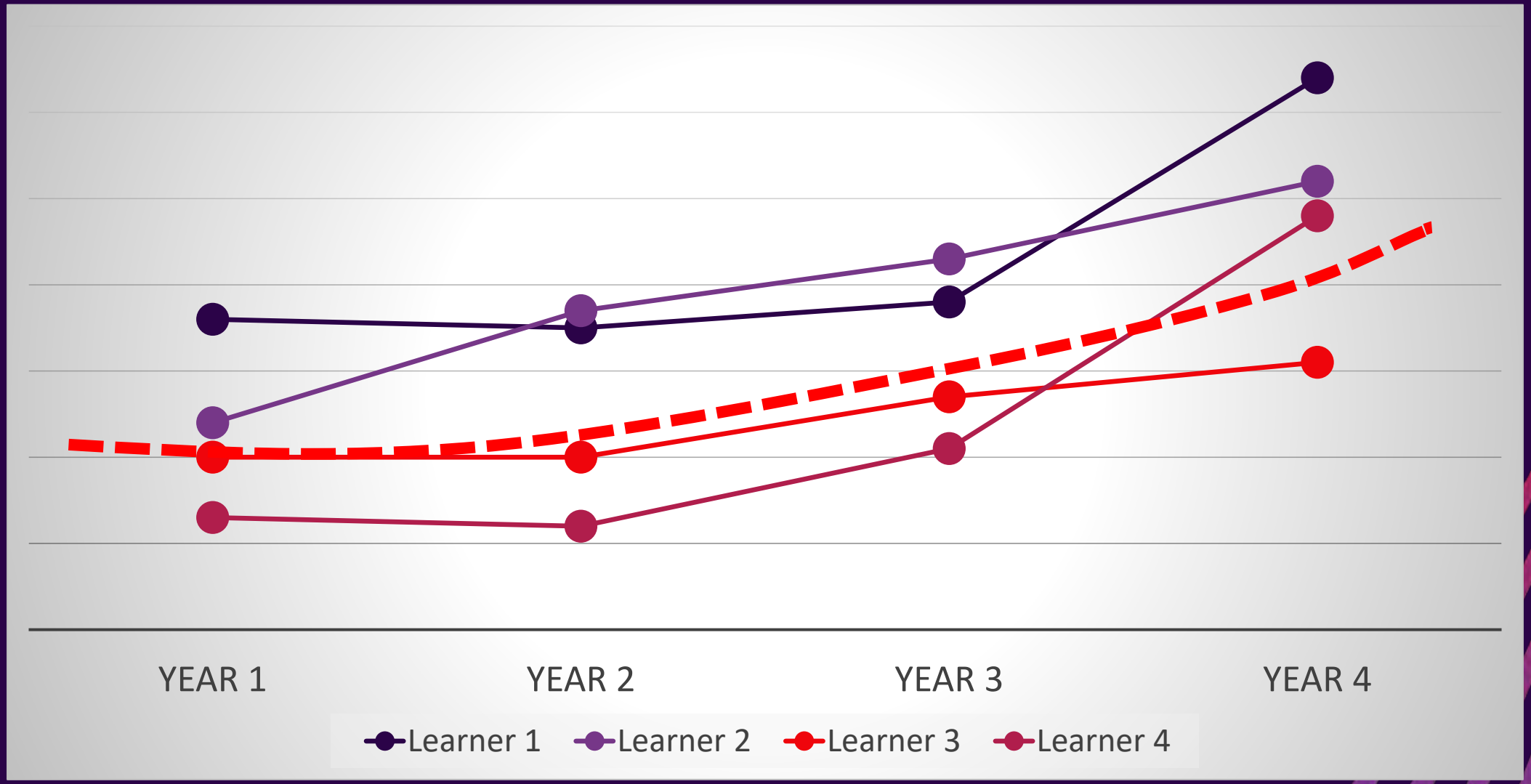


COMPETENCY DECISION MAKING

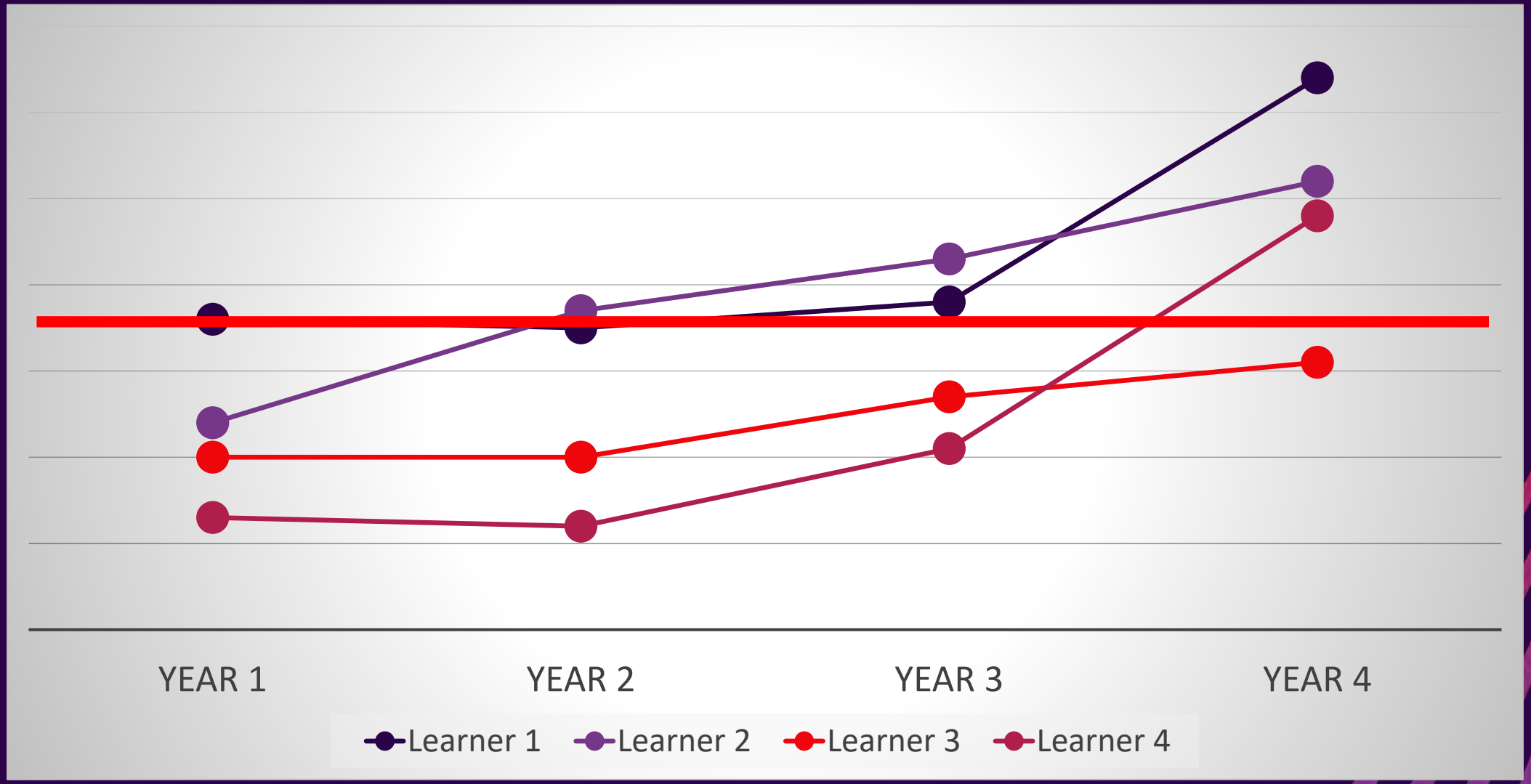
COMPETENCY GRANTING



COMPETENCY GRANTING



COMPETENCY GRANTING



COMPETENCY

Time-Variable Training in Medicine - Theoretical Considerations[8]

- Self-Regulation
- Motivation
- Neurocognitive Perspectives of Time & Learning
- Professional Identity Formation
- Entrustment as an Objective of Training

DELIBERATIVE PRACTICE

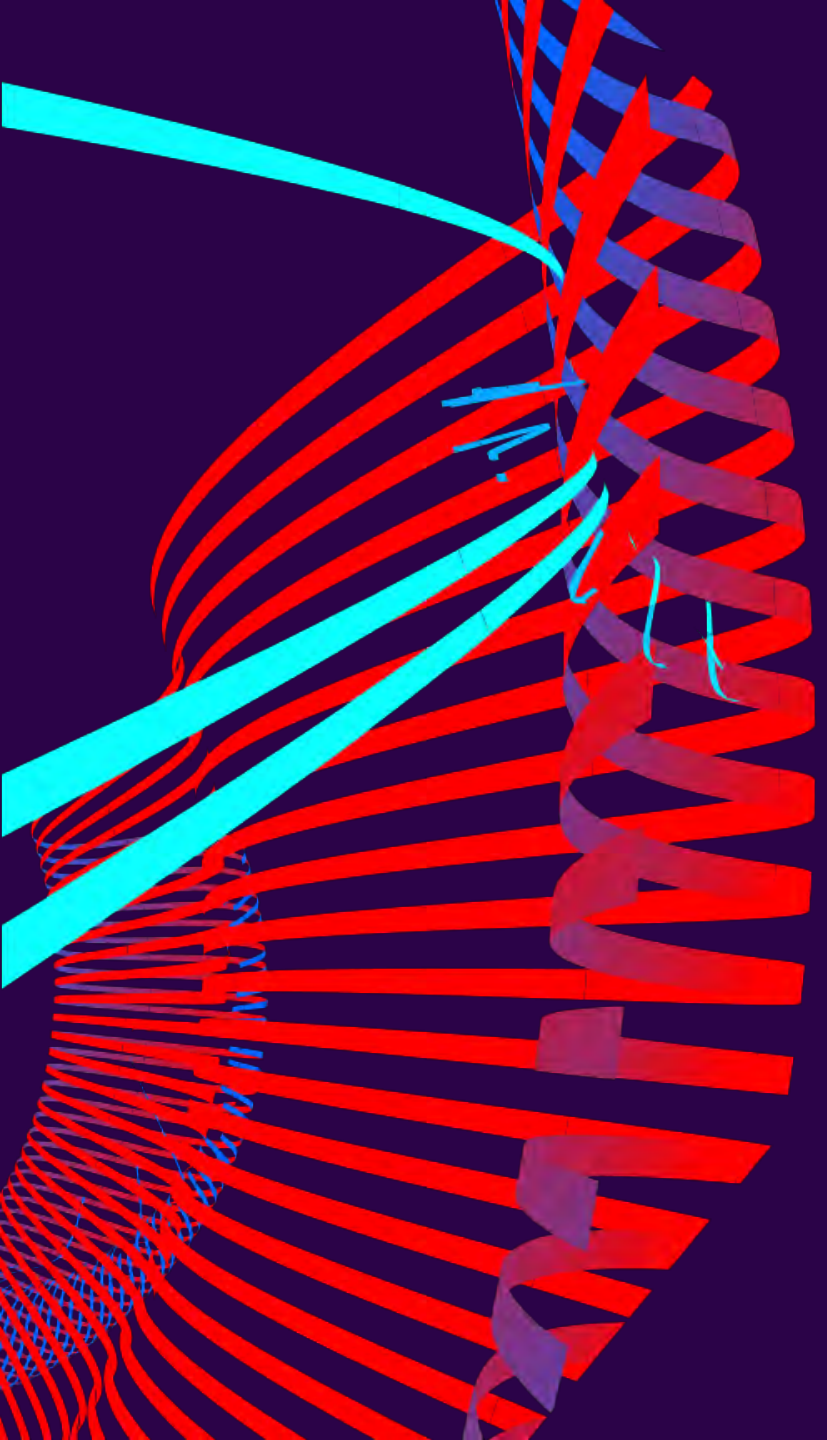
- Highly structured activity, the explicit goal of which is to improve performance[9]
- Erickson: Deliberate practice, not innate talent, is the key to expert performance[9]
- Mastery vs. expert (short vs. long term goals)
- Outside the workplace, deliberate practice has been shown to be effective[10-11]

- Some debate about the utility where/how deliberate practice can be applied[12]

DELIBERATIVE PRACTICE

Essentials of deliberate practice[10]

- Clear performance goals
- Focused, repetitive practice
- Rigorous, reliable measurements of results
- Informative feedback
- Monitoring and error correction
- Subsequent further practice



USING WBAs TO ADDRESS CLINICAL SITE CHALLENGES

CONCEPT 1: CONTAIN EXTRANEOUS LOAD

- For both trainee and clinical educator, the effort associated with teaching and learning can be burdensome
- Goal: Efficient, yet comprehensive
- Objective: Maximize learning strategies that help learner drive their learning and goal setting

NESTED MODELS

- Use of sub-EPAs to build-out a portfolio of entrusted (competent) activities that coalesce as representation of the overarching EPA[13-14]

- Considerations[15]
  - Reductionist?
  - Do the parts equal the whole?
  - Does this allow for identification of more specific strengths and weaknesses?

MAPPING FOR EFFICIENCY

- Curriculum maps of clinical experience goals
  - Intentional design
    - Avoids all things to all experiences
  - “Elegant simplicity”
  - Integrated model
  - Specific goals for each experience

MAPPING FOR EFFICIENCY

- Curriculum maps of clinical experience goals

	Family Medicine	Internal Medicine	Emergency Medicine	Pediatrics	Surgery	Women's Health	Behavioral Medicine
Patient Encounters	Preventative, Acute, and Chronic	Preventative, Acute, and Chronic	Emergent and Acute	Preventative, Acute, and Chronic	Acute and Chronic	Preventative, Acute, and Chronic	Acute and Chronic
Medical Care Across the Lifespan	Children, Adolescents, Adults, and the Elderly	Adult and Geriatric/Elderly	Children, Adults, and the Elderly	Infants, Children, and Adolescents	Adults	Adult Female Patients (Both OB and GYN Care)	Adults
Care for Conditions Requiring Surgical Management	Pre-operative care	Pre-operative care			Pre-operative, intra-operative, and post-operative care		
B3.03e - Care for Behavioral and Mental Health Conditions				Care of behavioral and mental health patients			Care of behavioral and mental health patients

MAPPING FOR EFFICIENCY: SPECIFIC GOALS

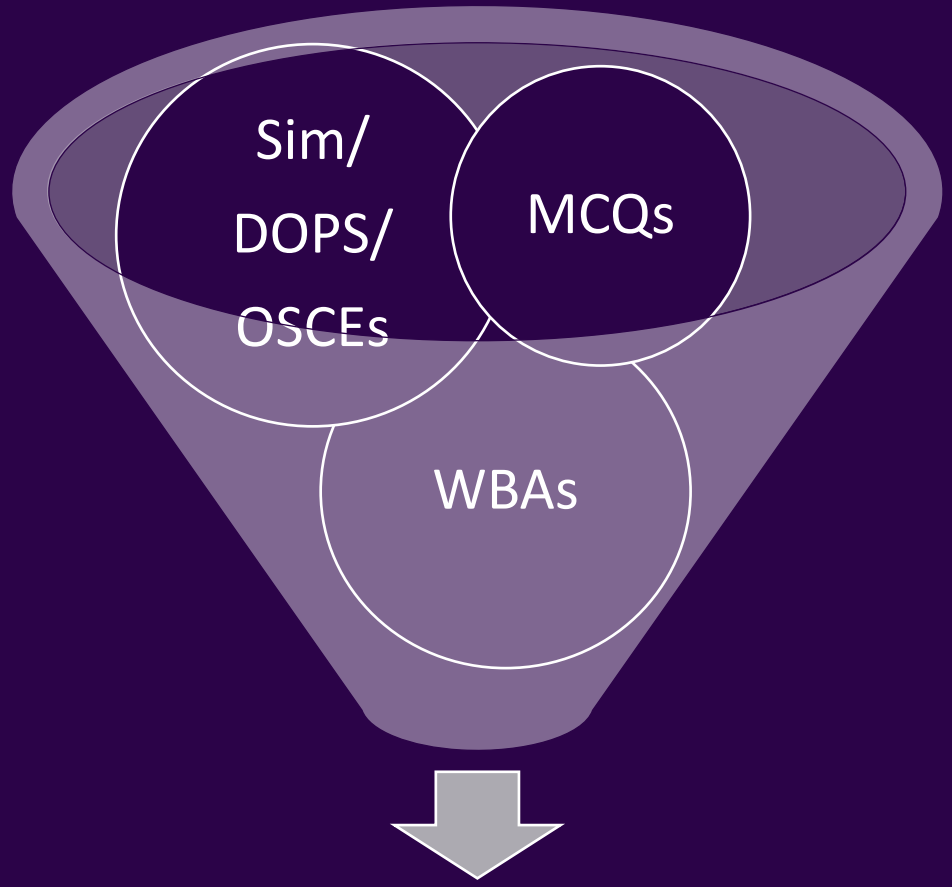
- Don’t boil ocean
- Use ongoing assessment data
- Coach ‘um up
- Ongoing conversations with students
- Engage students in goal setting
  - “goal-directed behaviors for the lifelong learner”

USE OF ASSESSMENT TO DRIVE EFFICIENCY

Data-driven Exploration of Engagement with Workplace-based Assessment in the Clinical Skills Domain[16]

- Clinical learning and assessment more informal, loosely regulated
- Multifaceted, data-driven assessment analytics
  - Clinical skills WBA data analysis
  - Included data mining to explore temporal aspects
  - Incorporated student reflections of WBAs
- Authors: AI can support better insight into clinical performance and can inform med ed practice

CONCEPT 2: MULTIMODAL ASSESSMENT



Competency Decision

CONCEPT 2: MULTIMODAL ASSESSMENT

- OSCEs
  - Authentic clinical encounter?
  - Often deconstructive of a patient encounter
  - Ability to simulate cases may be limited
- MCQs
  - Quality of construction and operationalization?
  - Data for action?

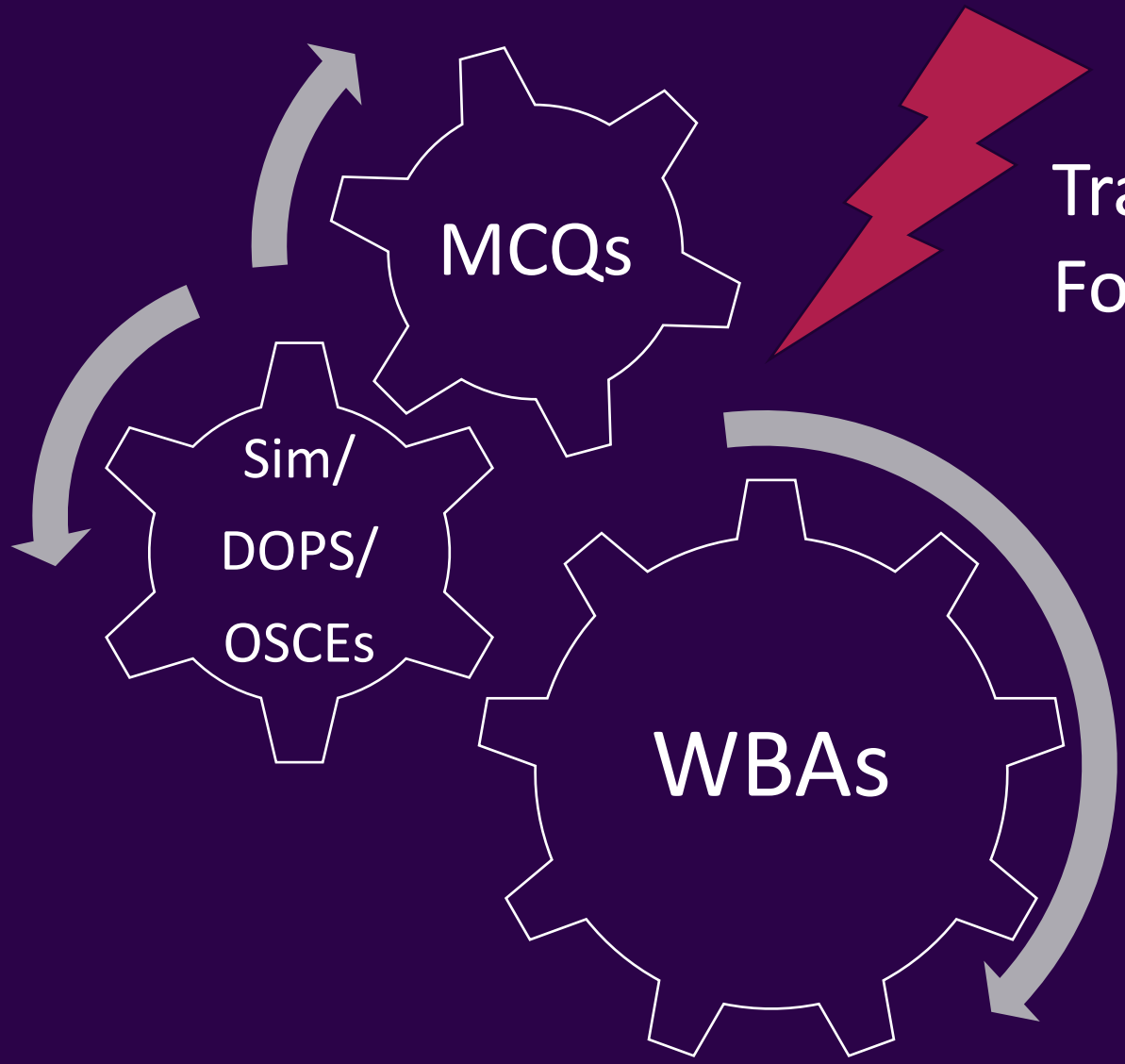
CONCEPT 3: MULTIMODAL WBAs

- Direct Observation of Procedural Skills (DOPS)
  - Realtime evaluation of procedural performance
  - Typically, in an authentic clinical setting
  - Holistic in nature – technique, patient interaction, professionalism, etc. all assessed
- Mini-Clinical Evaluation Exercise (Mini-CEX)
  - Short, ~15 min evaluation of actual clinical care
  - Hawthorne effect?
  - Authentic encounter with just in time learning
- Case-based discussion
  - Can be structured
  - Efficiency?

CONCEPT 3: ASSESSMENT OF PROCEDURAL SKILLS

- Teaching and assessment of technical skills can be time consuming
  - DOPS
  - Intentional time for deliberative practice
  - Incorporation into OSCEs/Simulations
- Trainees should be provided clear guidance on those procedural skills required
  - Programs should be thoughtful about this (when able)

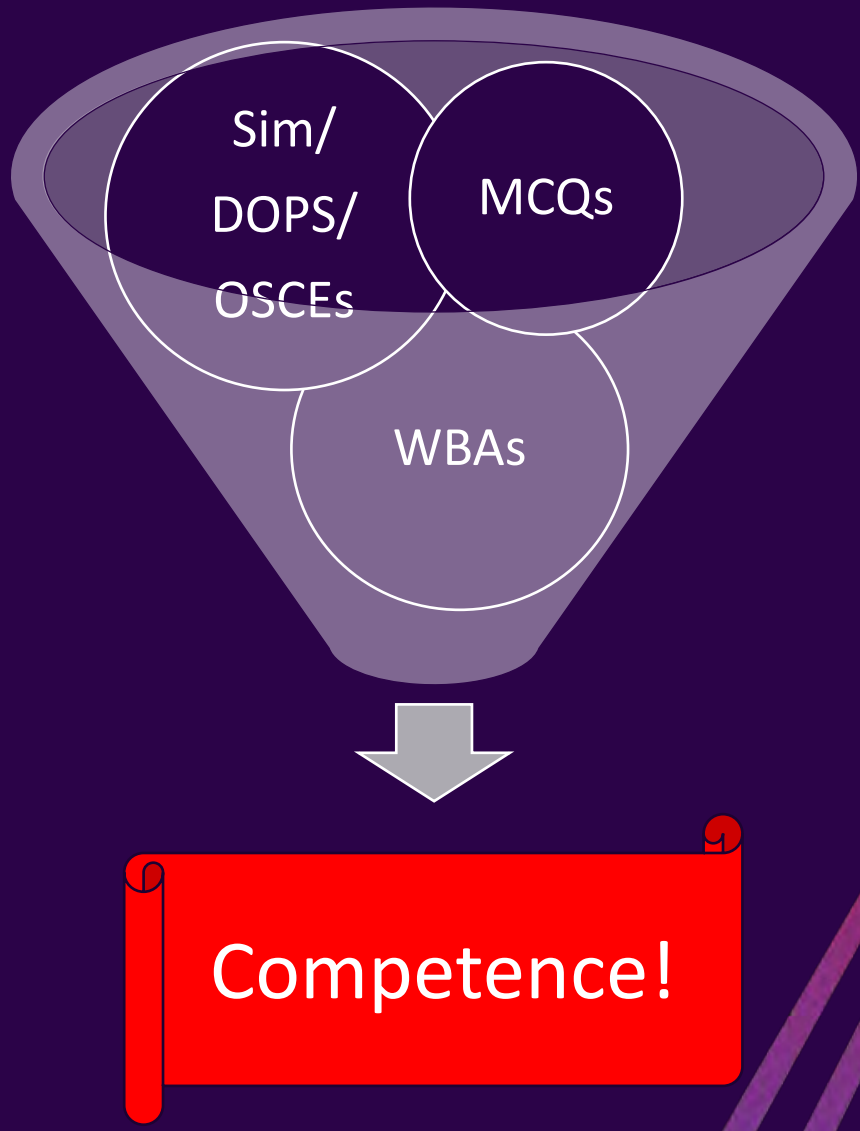
CONCEPT 2: MULTIMODAL ASSESSMENT



Trainee Reflection/
Formative Feedback

CONCEPT 2: UTILIZE MULTIMODAL ASSESSMENT

Intentional (data driven) approach moving learners through experiences more flexibly as competency is demonstrated through WBAs



CONCEPT 3: HARNESS THE FORMATIVE

- Chart-Stimulated Recall
- Reflection Journals
- Guided Goal Setting
- Reflective Practice
  - Move beyond “technical rationality”[17]
  - Reflect on experiences and choices – continuous learning
  - Shown valuable in medical education[18]; less known about nursing,[19] OT,[20] PT,[21] and PA[22]
  - Greater insight into strengths and opportunities for growth as well as personal and professional learning associated with clinical encounters [17]

CONCEPT 4: FACULTY DEVELOPMENT

- Clinical education becomes easier with increased skill and strategy
- Two-way street approach – students and clinician educators engaged

- Strategies
  - One-Minute Preceptor
  - SNAPPS
  - Ask-Tell-Ask Model

CONCEPT 4: FACULTY DEVELOPMENT

- Bring the development to the clinician
- Engage the learner to increase their understanding of learning and assessment strategies
- EPAs for the health professions educator[23]

CONCEPT 4: DEVELOPING THE EDUCATOR[23]

	Research and scholarship
1	Writing educational research proposals
2	Conducting qualitative educational research
3	Conducting quantitative educational research
4	Conducting mixed methods and consensus studies
5	Writing and publishing empirical research reports
6	Conducting and publishing literature reviews
7	Presenting at conferences and other meetings
8	Peer reviewing and editing
	Educational development
9	Conducting educational needs assessments
10	Developing a curriculum blueprint
11	Instructional design for a variety of teaching and learning contexts
12	Teaching and facilitating learning
13	Designing, applying and revising student assessment systems
14	Designing, applying and revising educational quality assurance systems
15	Designing and implementing faculty development
16	Mentoring, coaching, and advising individual students and faculty
17	Leading strategic education projects and policy developments
	Designing, implementing and evaluating student support services

CONCEPT 5: DEVELOPING AND EXPANDING THE CLINICAL LEARNING ENVIRONMENT

- Our goal: "Construct wise academic and clinical education practices that more deeply harness the power of workplace experiences and influences to holistically and authentically shape the development of students' professional practice capabilities".[24]

- "Simulated scenarios, encompassing a range of strategies such as case studies, role plays, actors and high-fidelity mannequins, could be used in professional education programs to supplement authentic clinical placement experiences both as a pre-placement preparation and as a means of developing a rich range of professional practice capabilities across the program. Through exposure to more authentic simulated experiences, students may be better prepared for the reality of clinical placements and be better placed to maximize their learning throughout placement experiences."[24]

- Good WPL programs provide (and develop) agency for both learner and clinical educator

CONCEPT 5: DEVELOPMENT OF THE CLINICAL LEARNING ENVIRONMENT

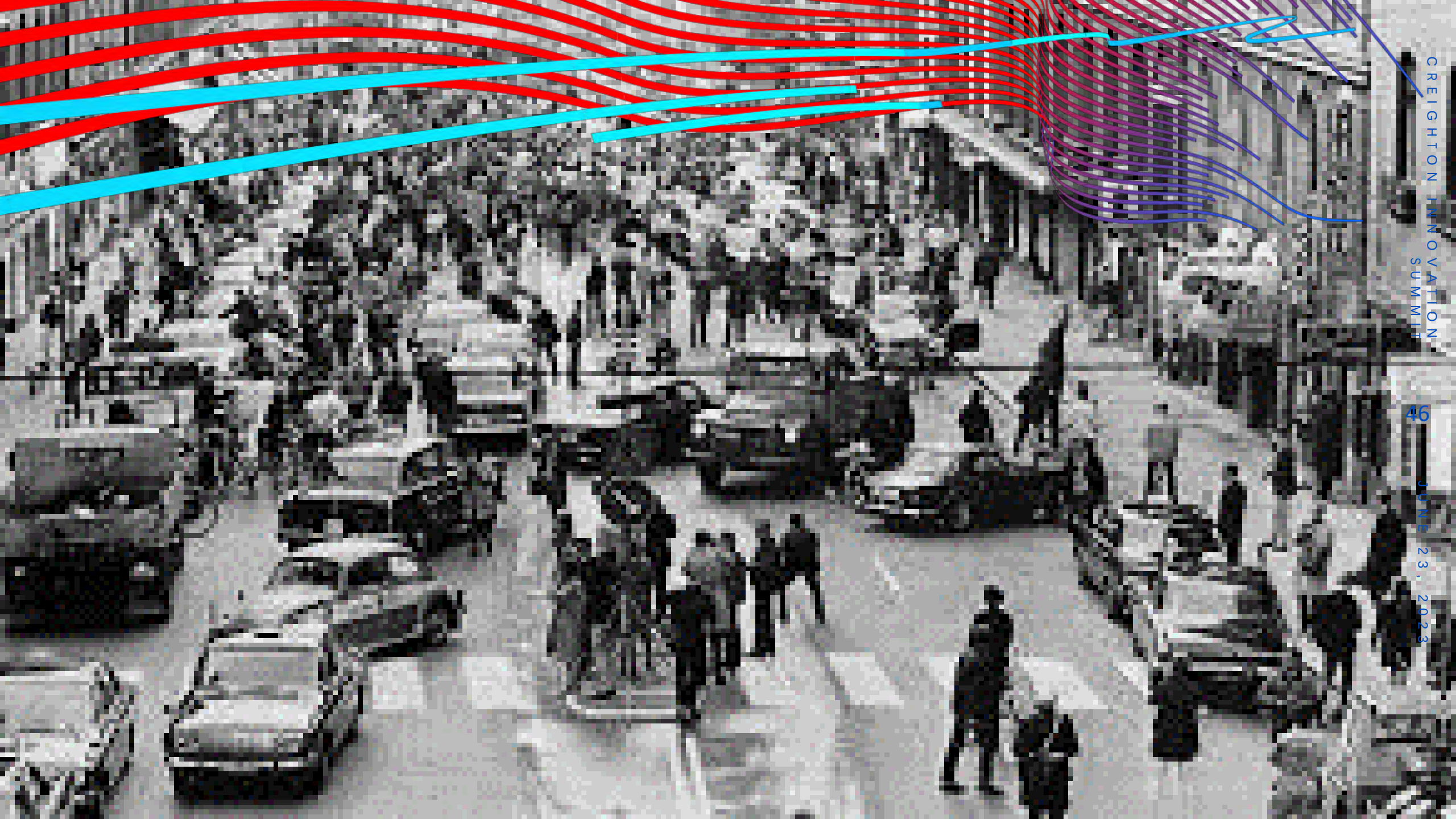
- Thinking outside the box[1]
  - Use of VR and AI
  - Longitudinal rotations
  - Increased use of sim and standardized patients
  - Interprofessional opportunities for teaching and learning

- Goal: Develop and assure competence with WBAs
  - Maximizing other learning and assessment strategies to dovetail and offload the clinical learning environment
  - Making the learning that occurs in clinical settings higher yield and more efficient

CONCEPT 5: DEVELOPMENT OF THE CLINICAL LEARNING ENVIRONMENT

Core Components Framework for Evaluating Implementation of Competency-Based Medical Education Programs[25]

1) Outcome competencies
2) Sequenced progression
3) Tailored learning experiences
4) Competency-focused instruction
5) Programmatic assessment



SUMMARY

Clinical workplaces are powerful arenas for shaping student learning in very different ways from academic environments.[24]

Thinking differently can help us innovate and support both clinician educator and learner.

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THANK YOU

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