Entrustable Professional Activity-Based Competency Assessment in Experiential Learning

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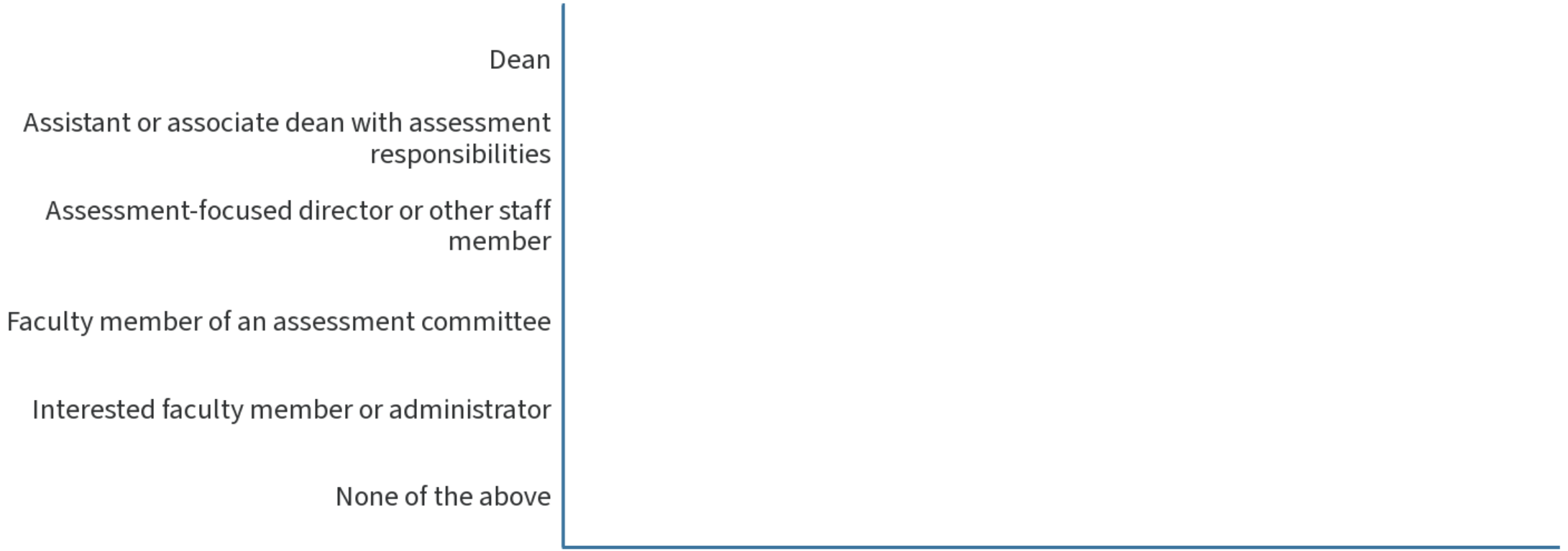
Objectives

1. Describe principles related to competency-based assessment in experiential learning.

2. Outline strategies for development and implementation of a new assessment plan for experiential learning.

3. Recognize how data gathered from experiential learning assessment can be used to improve student, curriculum, and accreditation outcomes.

Which of the following BEST describes your role related to assessment?



How familiar are you with competency-based assessment, EPAs, and related topics?

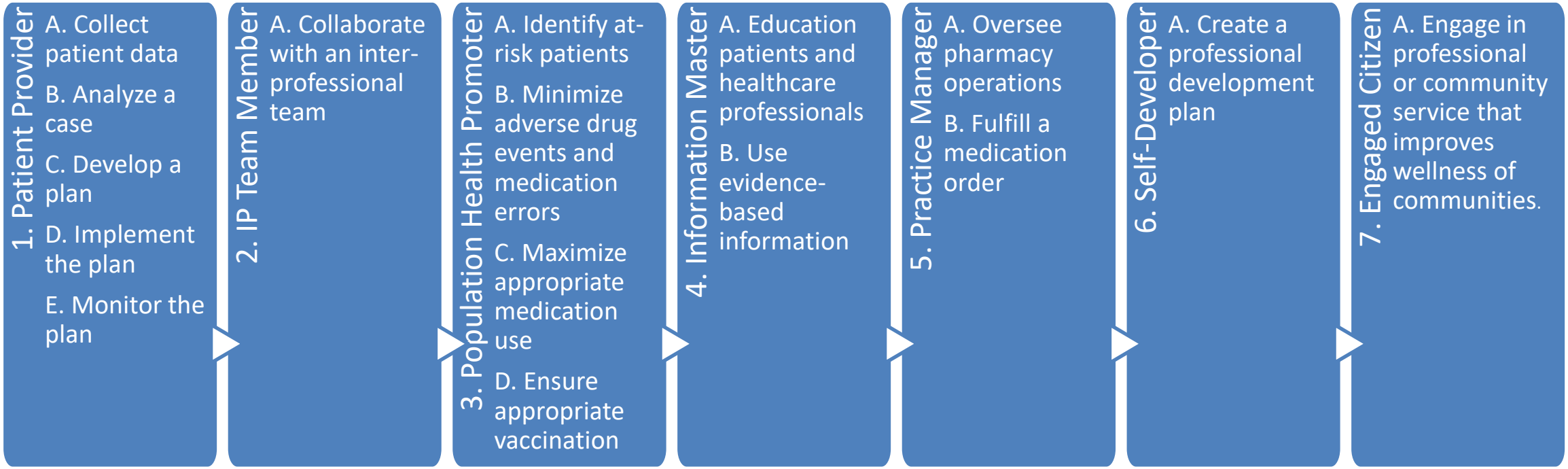
Competency-Based Assessment

- Knowledge, skills and attitudes needed for mastery of a complete activity
- Advancement requires the ability to master a skill
- Six key assessment elements
  1. Continuously and frequently administered
  2. Criterion rather than norm-referenced
  3. Authentic to work or practice
  4. High quality, core assessment tools
  5. Qualitative
  6. Collaboration among faculty and engagement with students

Holmboe ES et al. *Med Teach.* 2010;32:676-82.

EPAs

- Unique tasks or units of work that are essential to the responsibilities of a profession, reflecting professional competencies



EPA: Entrustable Professional Activity

Jarrett JB et al. *Am J Pharm Educ*. 2018;82(5):6256.
Haines ST et al. *Am J Pharm Educ* 2017; 81(1): S2.

Which of the following best meets the definition of an EPA for a new pharmacy graduate?

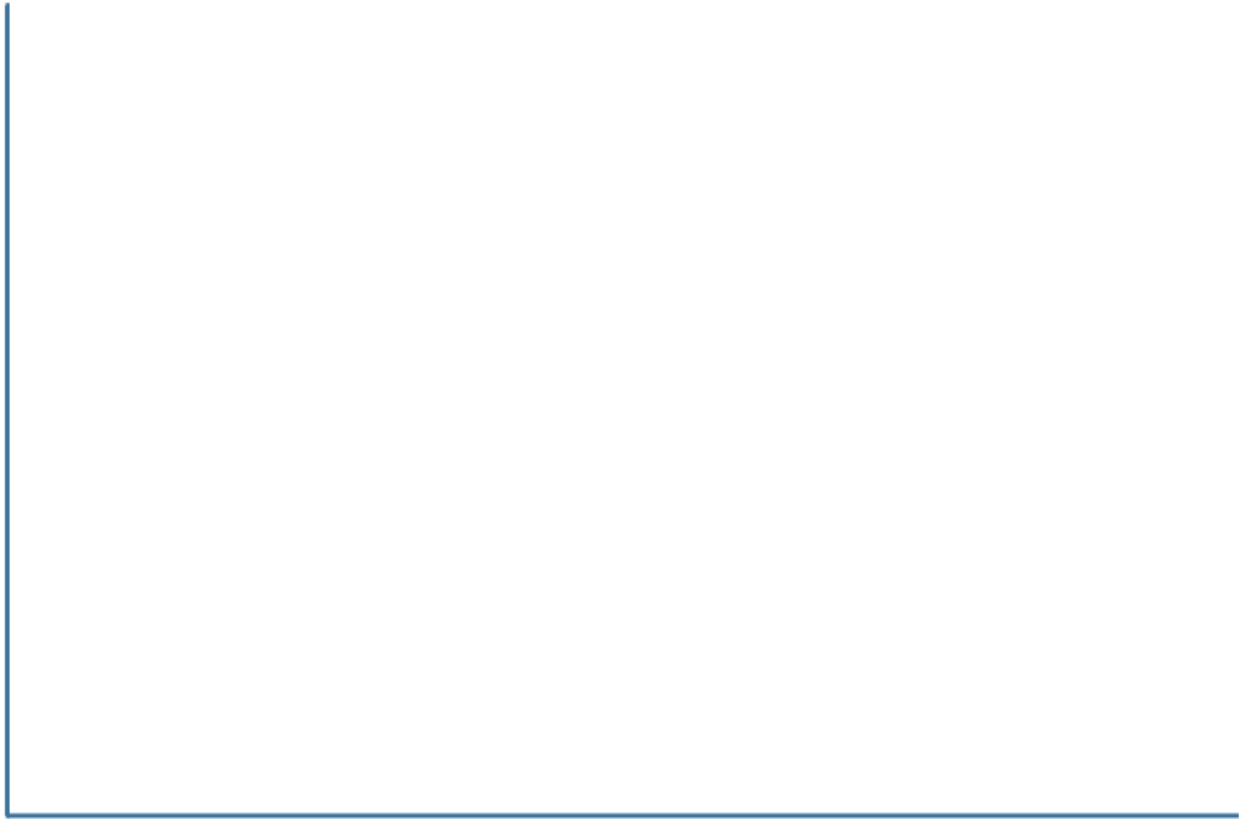
Collaborate as a member of an interprofessional team.

Collect information to identify a patient's medication-related problems and health-related needs.

Create a written plan for professional development.

Fulfill a medication order.

Maximize the appropriate use of medications in a population.



Levels of Entrustment

Level	Description	Setting	Entrustment
I	Thoughtful observation	IPPE	Low
II	Rudimentary tasks, directly supervised	Simulation, IPPE, early APPE	Moderate
III	Necessary tasks, distance supervision	Later APPE, early practice	High
IV	Complex tasks, unique experience	Resident, later practice	Complete
V	Able to impart education	Clinical educator	Complete

APPE: Advanced Pharmacy Practice Experience
IPPE: Introductory Pharmacy Practice Experience
Jarrett JB et al. *Am J Pharm Educ*. 2018;82(5):6256.

A preceptor working with a P4 APPE student has observed them taking medication histories for several weeks, and has become comfortable trusting them to complete this task without observation. Which level of entrustment should they rate the student?

Self-Efficacy

- “Personal belief in one’s capability to organize and execute courses of action required to attain designated types of performances.”

- Originates from
  - Actual performance
  - Vicarious experiences
  - Persuasion from others
  - Physiologic response

Artino AR. *Perspect Med Educ*. 2012;1(2):76-85.

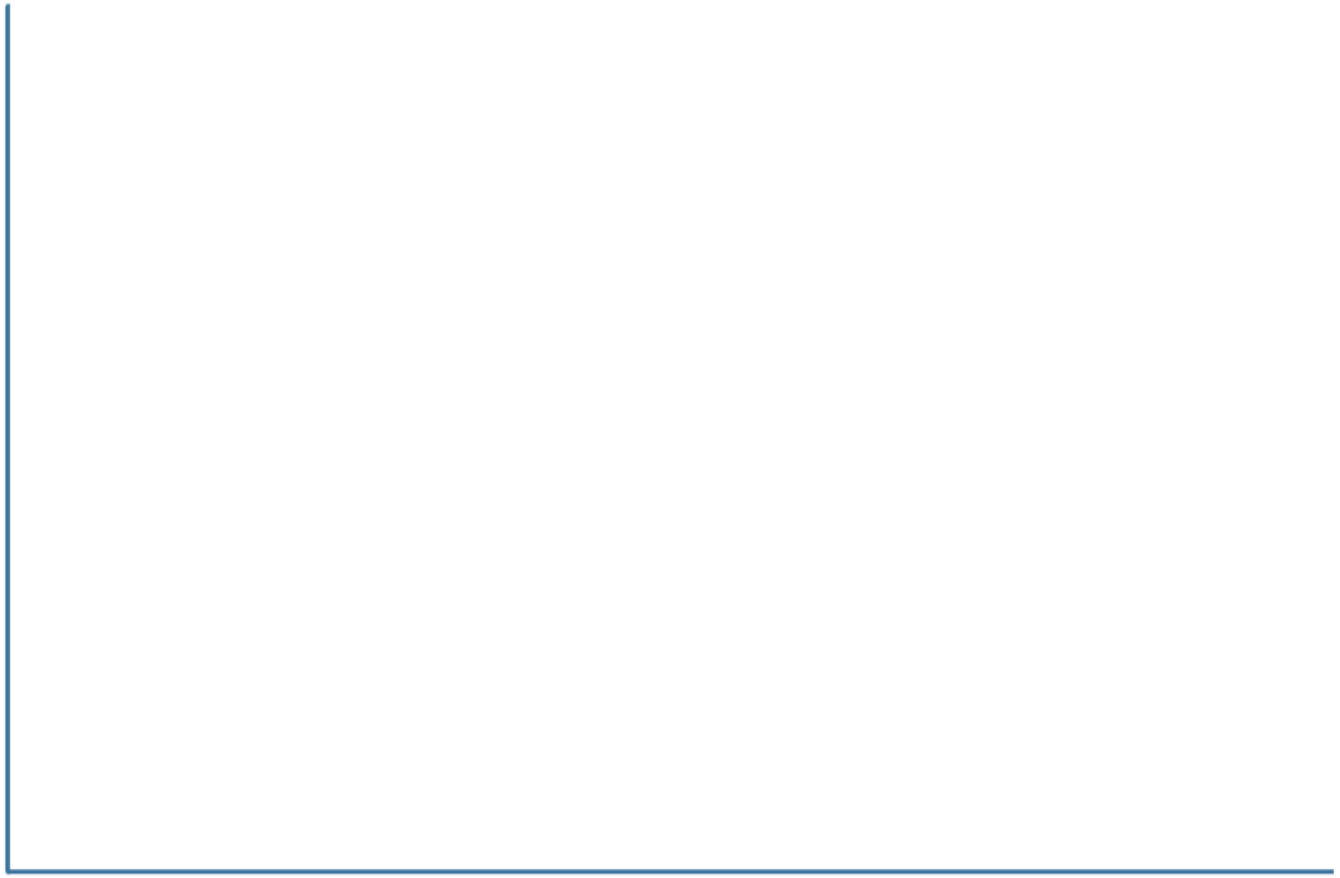
Which originator has the greatest impact on self-efficacy?

Actual performance

Vicarious experiences

Persuasion from others

Physiologic response



Experiential Assessment at Manchester

Baseline Status

- P4 year experiential learning (APPEs)
- 11, 4-week blocks
- Direct patient care and non-direct patient care

Strengths

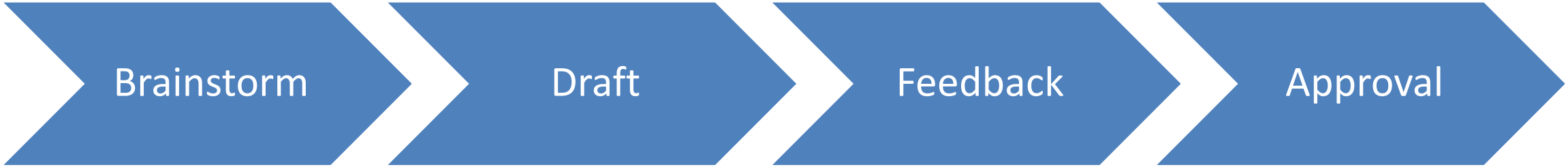
- Statewide evaluation tool (P/NP)
- Evaluation tool based on and mapped to EPAs
- Assessed based on levels of entrustment

Challenges

- Not all EPAs represented
- Passing grades despite LII ratings
- Hesitation to rate students at “below expectations”

Project purpose: Articulate how we verify and document each student’s individual practice-readiness on specific professional competencies.

Project Development



- Associate Dean for Academic Programs
- Assistant Dean for Assessment
- Assistant Director of Experiential Education

- Assistant Dean for Assessment

- Director of Assessment
- Office of Experiential Education
- Assessment Committee

- Pharmacy faculty

Assessment Plan for Practice-Readiness

After APPE block 6…

- Identify students with any LI rating (“ready for thoughtful observation”) or LII ratings (“ready for direct supervision”) on the same EPA by more than one preceptor
- Notify students of the potential trend
- Meet with Assistant Dean for Assessment or Director of Experiential Education to make a plan for continued focus, practice, and improvement in the area

After APPE block 10…

- Identify students with any LI rating (“ready for thoughtful observation”) or LII ratings (“ready for direct supervision”)
- Assistant Dean for Assessment and Director of Experiential Education review student’s schedule and past performance
- Develop student-specific plan
  - Meetings
  - Additional assignments
  - Altered rotation schedule

Data Collection

CORE ELMS

APPE Evaluation of Student by Preceptors

CORE CompMS

Mapping of APPE Evaluation questions to provide integrated outcome details report by EPA performance

Checkpoint Results

Checkpoint	2021 – 2022 73 students / 730 experiences
R6	2 students identified • 1 failed rotation • 1 EPA below expectation on 2 rotations
R8	4 students identified • EPAs below expectations on 1 rotation ○ (3 – 3 EPAs, 1 – 4 EPAs)
R10	6 students identified • EPAs below expectations on 1 rotation ○ (2 – 1 EPA, 1 – 2 EPAs, 1 – 3 EPAs, 1 – 6 EPAs, 1 – 7 EPAs)
R12	5 students identified • EPAs below expectations on 1 rotation ○ (2 – 1 EPA, 1 – 2 EPAs, 1 – 3 EPAs, 1 – 4 EPAs)
	15 / 73 unique students **18 / 730 experiences** (7 very last experience)

Most Commonly Identified EPAs

- 4A Educate patients and professional colleagues regarding the appropriate use of medications. (12)
- 4B Use evidence-based information to advance patient care. (9)
- 1C Establish patient-centered goals and create a care plan for a patient in collaboration with the patient, caregiver(s), and other health professionals that is evidence-based and cost-effective. (9)
- 1B Analyze information to determine the effects of medication therapy, identify medication-related problems, and prioritize health-related needs. (6)
- 6A Create a written plan for continuous professional development. (6)

Plans of Action

- Discussion with student with Assistant Dean of Assessment or Director of Experiential Education
- Review of student schedule to ensure opportunity to demonstrate competency on future experiences
- Rescheduled rotation for failed rotation
- End of year – review of past rotations to ensure student demonstrated competency on multiple experiences

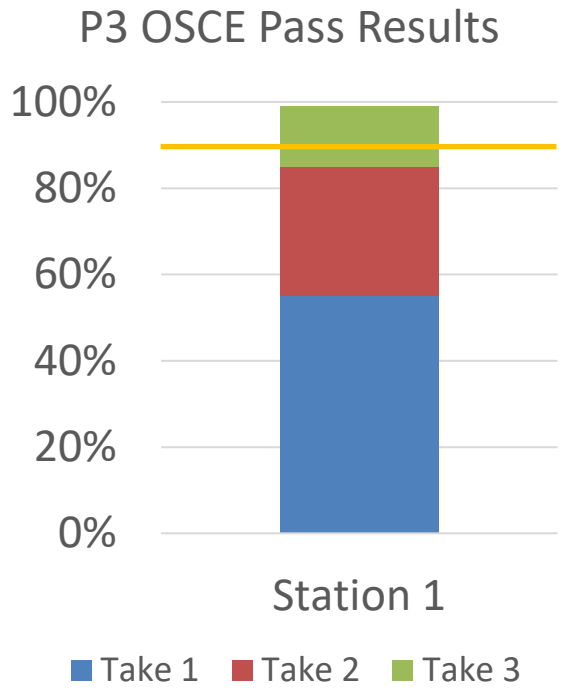
Example Student Case

- Student PB is an “on track” P4 student who was successful on initial attempts of all OSCEs and did not have to repeat any courses. PB entered the P4 year with an average GPA of around 3.1. On APPEs, PB was consistently rated at an LIII except:
  - Rotation 4 (acute care, psychiatry): 1C (Plan), 1D (Implement), two items each; single rotation, no action taken
  - Rotation 8 (acute care, critical care): 1B (Assess), 1C (Plan), 1D (Implement), 1 item each

- After R8:
  - Reviewed schedule to determine whether ample opportunities remained to demonstrate LIII competency on 1B, 1C, and 1D
  - Met with student to discuss strategies for success and approach to direct patient care/inpatient APPEs
  - No additional ratings below LIII on subsequent APPEs

Example Curricular Change

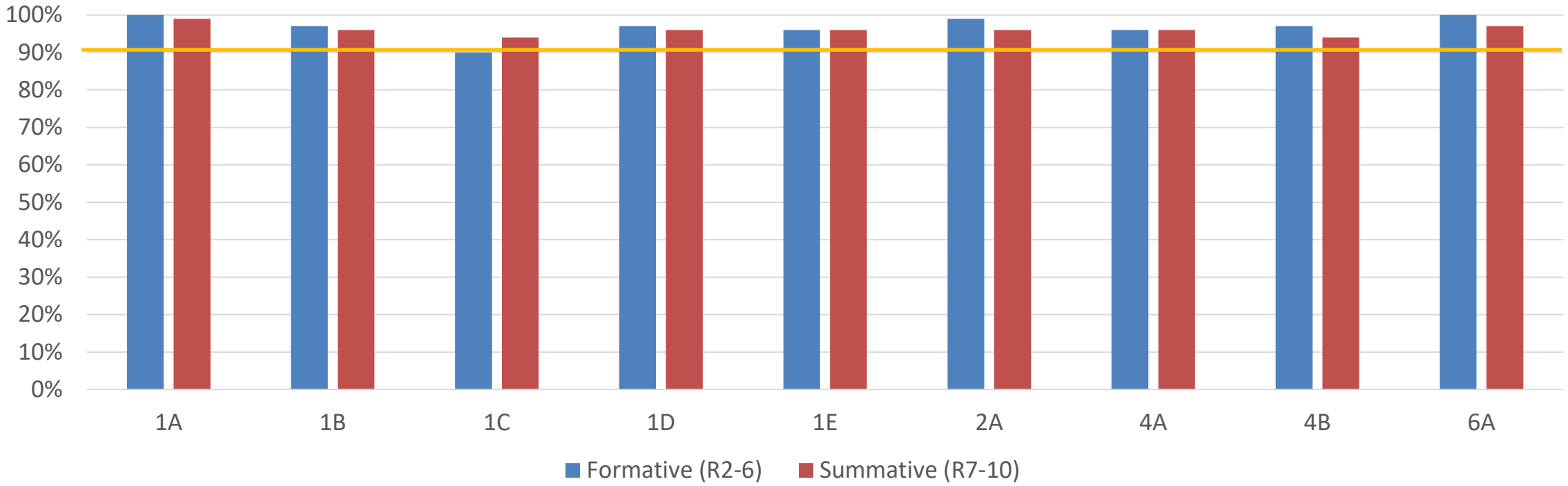
- Triangulated with OSCE results
  - Implementation of a case conference series to support application of 1B, 1C, and 1D
  - Guided development of case conference to reduce the number of cases in earlier semesters, allowing class sessions to focus on each Domain 1 EPA



Example Accreditation Support

- Provided data to illustrate high percentage of student performances rated at LIII or higher
- Demonstrated that each graduating student met LIII for each EPA by year's end at a deeper level than whether they passed all required APPEs
- Positive feedback regarding implementation of EPAs, integration into normal process for APPE evaluation, and use of data to inform curricular change

2020-2021 P4 Practice-Readiness Achievement



- All students who flagged during the formative period were successful in the summative, excepting one
- 62/68 (91%) of students demonstrated practice-readiness during the summative period (target: 90%)
- All students who flagged during the summative period successfully demonstrated practice-readiness in R11/12
- All students successfully completed all co-curricular and NAPLEX-preparation requirements

Ongoing Challenges

- EPAs not well-assessed on the current tool
  - 3B Minimize adverse drug events and medication errors.
  - 3C Maximize the appropriate use of medications in a population.
  - 5A Oversee the pharmacy operations for an assigned work shift.
  - 7A Engage in professional and community service that improves wellness (i.e., emotional, environmental, intellectual, occupational, physical, social, or spiritual) of communities.
- Overly sensitive assessment after R10
- Students who suddenly have a challenge on R11 or 12

Small Group Workshop

- With the group sitting at your table, share:
  - How you assess experiential learning at your program
  - Other data sources or tools that your program uses
  - How you might modify your assessment plan following the talk

- Following small group conversations, we'll ask for examples during a large group debrief.

What are some ideas you are considering "taking home" after today's conversations?

Top

Key Takeaways

- Competency-based approaches to assessment can help us verify, at the individual student level, that they are meeting expectations for an entry-level professional.
- Seeking input and buy-in from key stakeholders, and strategically using your resources already in place, helps implementation of new processes run more smoothly.
- Data from competency-based assessments in experiential learning can serve individual students, curriculum change, and accreditation efforts.

Questions and Comments

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