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Multiple-Choice Question-Based Assessment: A Conceptual Framework for Evaluating Learning Depth in Undergraduate Health Sciences Education

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INTRODUCTION & AIM

Do High MCQ Scores Reflect Deep Understanding?

The Problem:

- MCQ-based assessment is widely used in large-enrollment courses.
- Students may adapt their preparation strategies to the assessment structure.
- Learning depth may not always be reflected by MCQ performance

Research Gap:

- Most studies rely on self-reported learning strategies.
- Limited emphasis on objective indicators of learning behavior.

Proposed study design

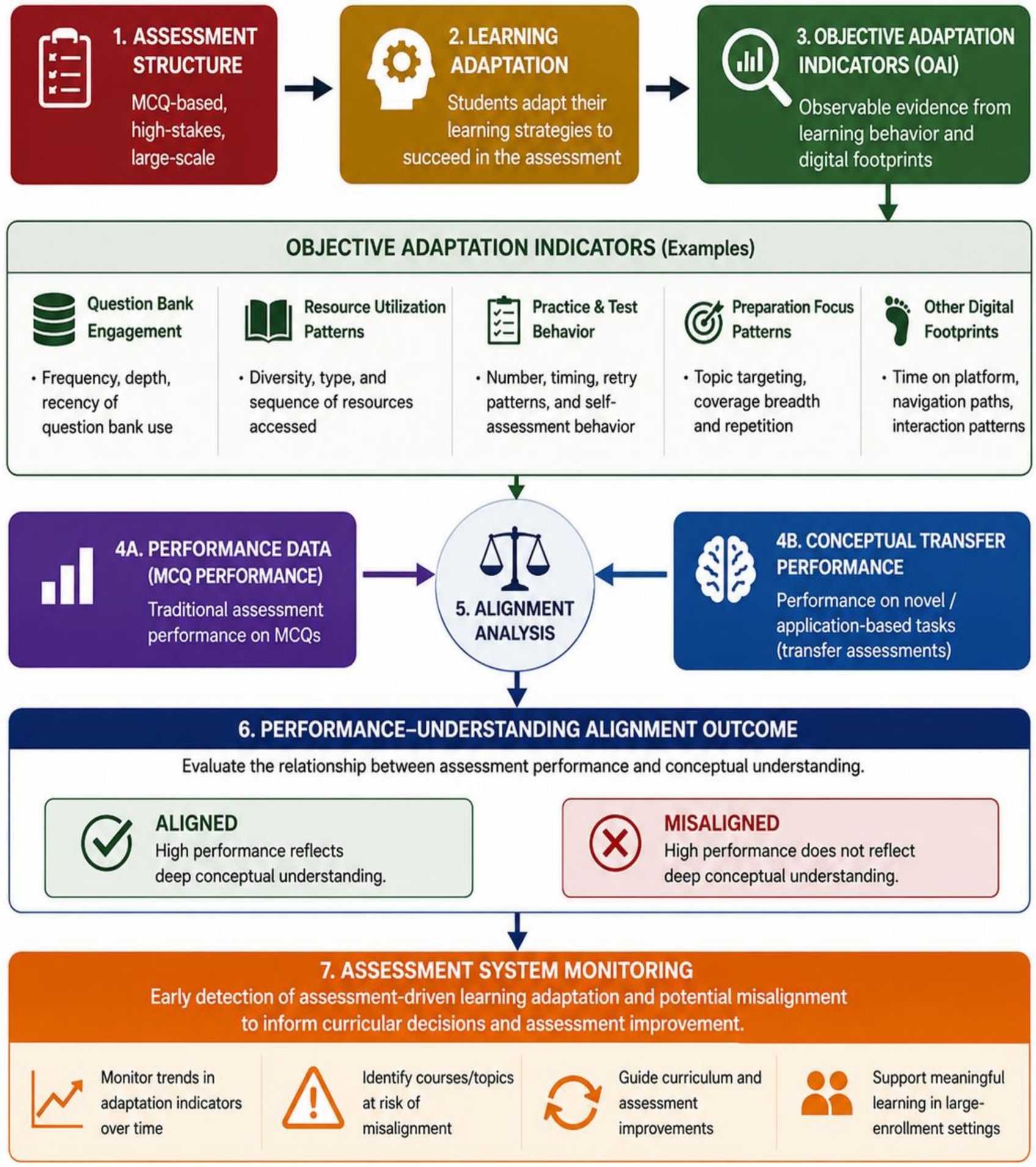
Objective Indicators:

- Test preparation patterns
- Question bank use
- Study resource selection

Learning Depth Measures:

- MCQ performance
- Novel conceptual questions
- Knowledge transfer tasks

Proposed Conceptual Framework



Why does this framework matter?

Using objective learning data to identify performance-understanding gaps in MCQ-dominant Health sciences courses.

Feedback requested and appreciated

- Which indicator best captures learning behavior?
- How should conceptual understanding be measured?
- What should be added to this framework?
- What would you advise?

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