First-year Medical Student Feedback Regarding the Addition of Online Learning Modules to the Curriculum

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Introduction

The first-year medical student curriculum at the John A. Burns School of Medicine (JABSOM) begins with MD1: Health & Illness, a 9-week introduction to Problem-Based Learning (PBL) and foundational sciences.

In response to COVID-19, MD1 course directors introduced foundational science online modules (pre-recorded lectures assigned outside of scheduled lecture times) in fall 2020. These online modules ranged in duration from two to four hours per week which was considered in the allotted instructional time for MD1. Live, online Q&A and review sessions for each online module were also scheduled in the second half of MD1 to provide dedicated time for students to meet with instructors. The formats of each session was left to the discretion of the instructor, resulting in high variability.

While student ratings of MD1 were mostly favorable, students expressed specific concerns regarding online modules in MD1 mid-course evaluations. In response, we surveyed students on these online modules and review sessions. Although this project was done in the context of MD1 online modules, we hope to extend the recommendations to all lectures in pre-clerkship units.

Objective

The purpose of this study was to identify strengths, areas of improvement, and suggestions regarding online modules assigned in MD1.

Methods

- A quality improvement online survey was administered to 77 students in the JABSOM Class of 2024 in October 2020
- Quantitative & qualitative questions were developed based on feedback provided by students in the MD1 mid-course evaluations
- Surveys addressed preferred presentation style, lecture reviews, effective & ineffective characteristics, & overall sentiment towards online modules
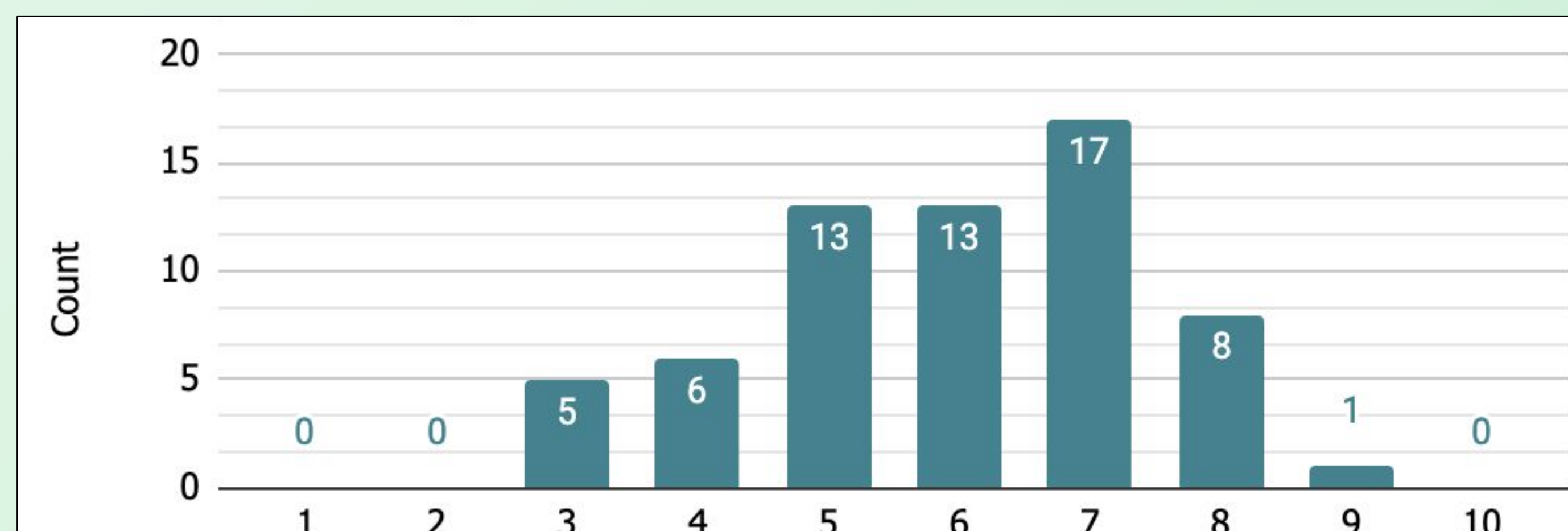- Patterns among qualitative responses were identified to recognize student preferences

Figure 1. Response distribution to "Overall, how did you feel about the MD1 online modules?" (0 = not effective at all, 10 = very effective)
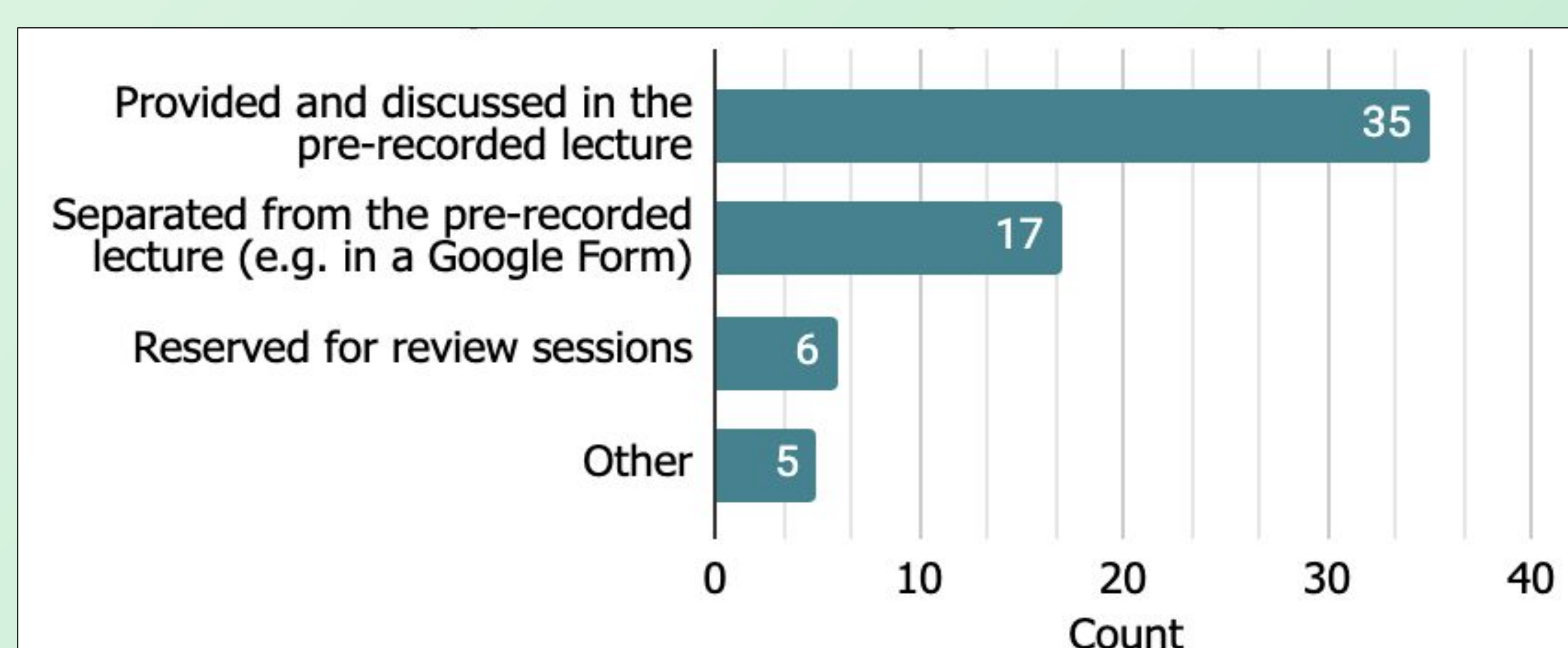

Figure 2. Response distribution to "where would you rather have practice questions?"
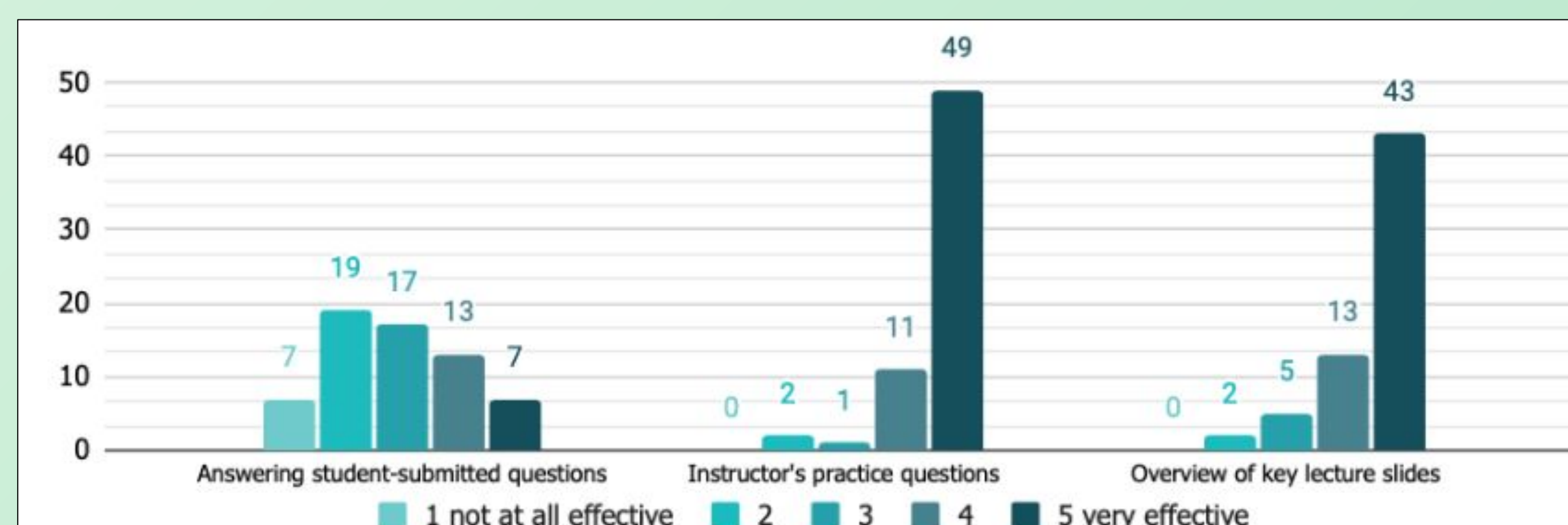

Figure 3. Response distribution to "please rate each of the following review session formats by how effective they were for your learning."

Student Quotes

Question: "What 3 qualities/features did the most effective online modules have?"
- "**Practice questions** throughout or at the end of the lecture **with explanations**"
- "Summary slides of **key/high-yield** points"
- "Bringing the specific ideas to the **bigger picture of PBL and clinical relevance**"

Question: "What are suggestions for improvement for future online modules that you would like to see utilized more at JABSOM?"
- "It would be nice if the **course directors scheduled in times during normal class hours for students to watch the pre-recorded lectures** and set strict time limits for recordings (no longer than 1 hour and 30 minutes) to mimic real lectures"

Results

- **Response Rate: 63 out of 77 (81.8%)** students completed the survey
  - Note: 100.0% of students passed MD1 final exams
- **Overall Effectiveness:** Students rated the online modules **5.9±1.5 out of 10** (0 = not effective at all, 10 = very effective)
- **Practice Questions:** Most students (55.6%) preferred questions that were
  (1) provided & discussed *during* online modules,
  (2) similar to those on *exams*, &
  (3) had *explanations* & *correlations to PBL cases*
- **Review Sessions:** Students preferred review sessions that included
  (1) *practice questions* &
  (2) *summaries* of key lecture slides
- **Scheduling:** Students preferred when *dedicated time blocks* to watch online modules were scheduled in the course calendar to mimic in-person lectures

Discussion

- The prevalence of online learning in medical school curricula has increased, likely due to the COVID-19 pandemic.
- We surveyed the JABSOM Class of 2024 about their MD1 online learning experiences & consolidated their feedback to three recommendations:
  (1) Regarding content, we recommend lecturers (a) relate the material to PBL cases & (b) discuss clinical examples.
  (2) Regarding practice questions, we recommend lecturers prepare & discuss practice questions during their lectures.
  (3) Regarding review sessions, we recommend lecturers prepare a summary of both (a) testable, key concepts & (b) additional practice questions.
- We propose these recommendations may lead to improved learner satisfaction and performance in not only medical school, but also other areas in which online learning is applicable.

Acknowledgements