

Evaluating the Impact of a Peer-Directed Gamified Review to Support Exam Readiness in a Doctor of Pharmacy Curriculum



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INTRODUCTION

- Gamification is the use of game elements in learning designed to improve engagement, motivation, retention.^{1,2}
- In a gamified Internal Medicine Elective course within the PharmD curriculum, 100% of the students reported positive feedback from the course.³
- The addition of peer-led learning has shown to enhance understanding by reinforcing prior learning and improving academic performances.⁴
- Gap: Limited data in PharmD curriculum combining both peer-led learning and gamification.
- Purpose: Evaluate impact of peer-led gamified review on exam performance and student perception.

OBJECTIVES

Primary Objective:

- Impact of a peer-led gamified review session on pharmacy student exam scores for the PY1 Spring Healthcare Innovations I (HCI I) course on Exam 1.

Secondary Objectives:

- Evaluate pharmacy students' perceptions of the gamified review session, specifically how it supplemented their in-class learning and its impact on their motivation and engagement.
- Explore the overall student satisfaction with gamification as a teaching strategy in the pharmacy curriculum and gather feedback on its potential for broader use.

METHODS

- Design:** Experimental, comparative study
- Intervention:** Peer-led Jeopardy-style review before Exam 1
- Control:** Students who did not attend
- Statistics:** Unpaired t-test ($p < 0.05$) and descriptive statistics

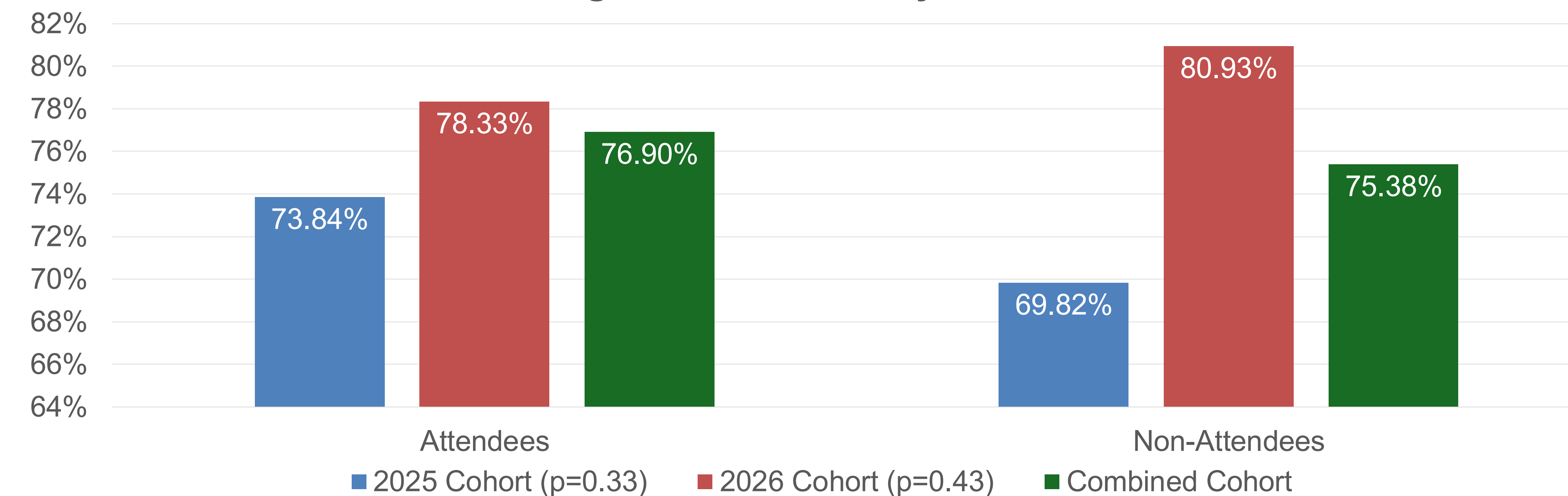
SUBJECTS

- PY1 PharmD students enrolled in the HCI I course
- 2025 Cohort (Class of 2028)**
 - Attendees = 14
 - Non-attendees = 67
- 2026 Cohort (Class of 2029)**
 - Attendees = 6
 - Non-attendees = 47

RESULTS

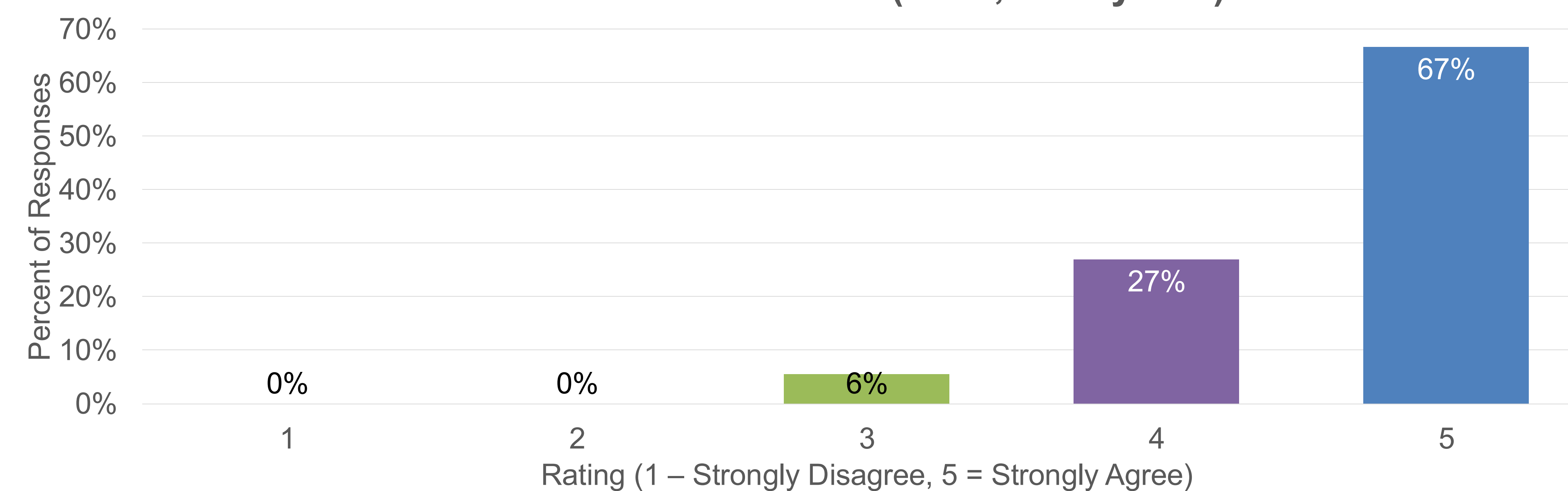
Primary Outcome:

Average Exam Scores by Attendance

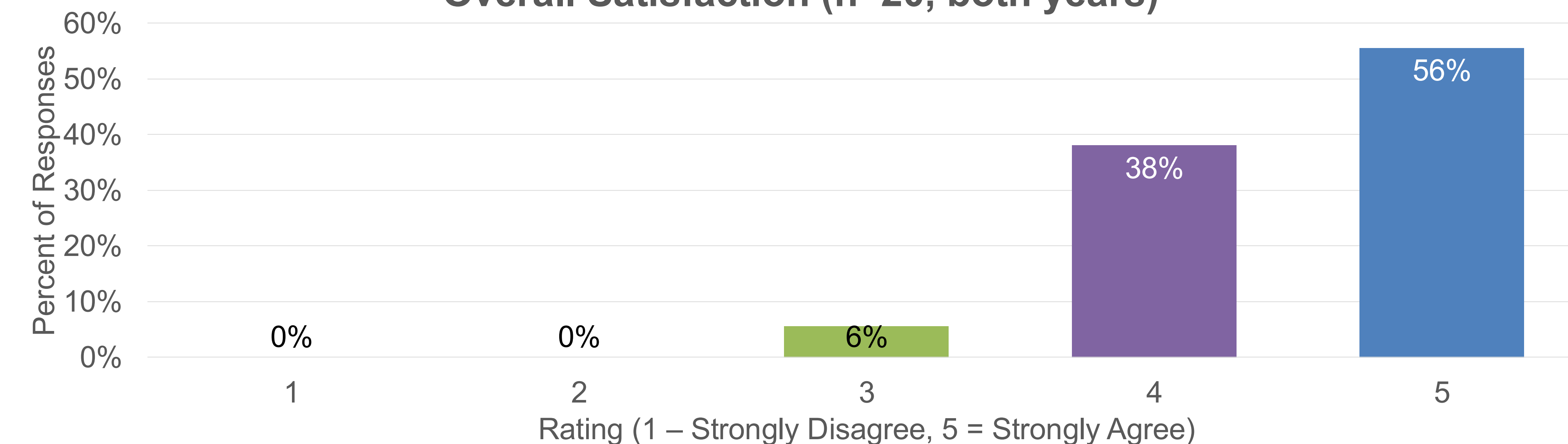


Secondary Outcomes:

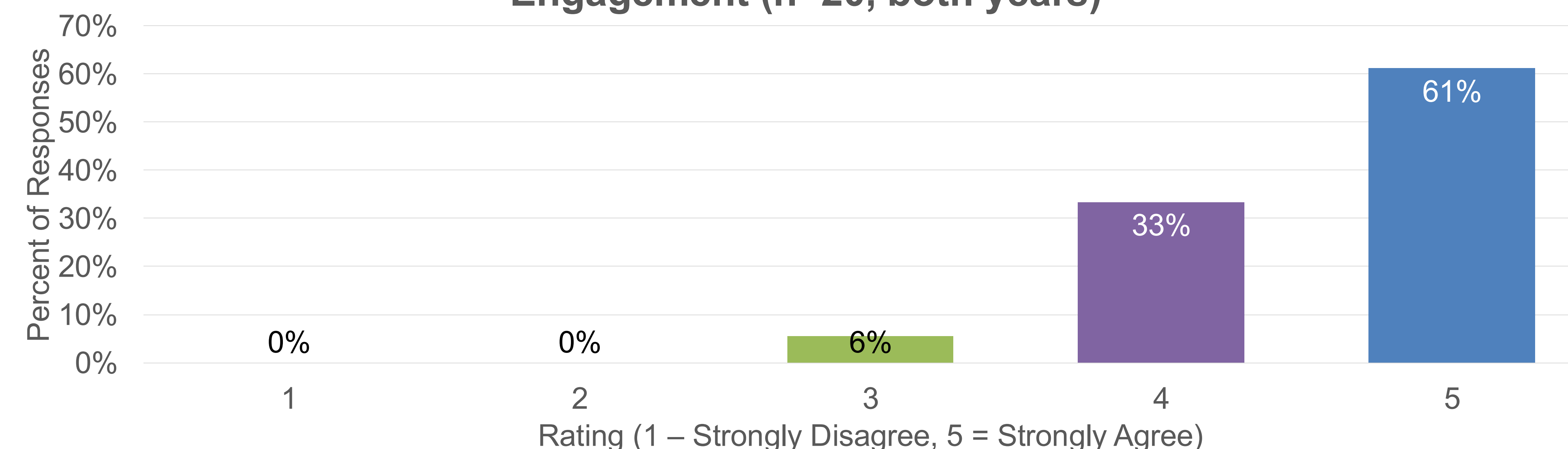
Recommendation to Peers (n=20, both years)



Overall Satisfaction (n=20, both years)



Engagement (n=20, both years)



DISCUSSION

Significance of Results

- Null exam findings suggest peer-led gamification alone did not improve test scores.
- Strong positive perceptions (engagement mean 4.3/5; interest in future sessions mean 4.6/5) indicate value as an engagement strategy.
- Students reported increased motivation (mean 4.1/5), supporting continued use as a supplemental tool.

Limitations

- Small sample size of attendees (2025: n=14; 2026: n=6) limited statistical power.
- Voluntary attendance introduced self-selection bias (motivated students may have attended regardless).
- Optional, anonymous survey prevented linking individual perceptions to exam performance.
- Inconsistent rule enforcement and ambiguous question wording (noted in qualitative feedback) may have diluted intervention impact.

CONCLUSION

- Peer-led gamified review sessions did not significantly improve exam scores.
- Students reported high engagement, motivation, and satisfaction.
- Gamification remains a valuable supplemental tool to enhance student experience in pharmacy education, even without measurable effects on academic performance.

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DISCLOSURE

All Authors: Nothing to disclose