

HEALTH
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Flipped Classroom Didactics: Three-Year Data of Faculty and Resident Beliefs and Practices

Brandon Kennedy, MD¹, Katherine Hu, MD¹, Rachel Patel, MD¹, Griffin Jardine, MD¹,
Rachel Coddien, MPH², Jeff Pettey, MD, MBA¹, Rachel Simpson, MD¹, Sravanthi Vegunta, MD¹

¹Department of Ophthalmology, John Moran Eye Center, University of Utah, Salt Lake City, Utah, USA
²Division of Epidemiology, Department of Internal Medicine, University of Utah, Salt Lake City, Utah, USA



Background

- Up until 2019, the residency education curriculum at the Moran Eye Center was structured around 1-hour traditional lectures 3-4 mornings per week.
- Residents and faculty shared mutual dissatisfaction with resident engagement, retention of didactic material, and attendance.
- Based on resident, faculty, and administrative input, a reimagined flipped classroom curriculum rooted in learning objectives, pre-work assignments, and interactive learning activities was designed and implemented in July 2020.

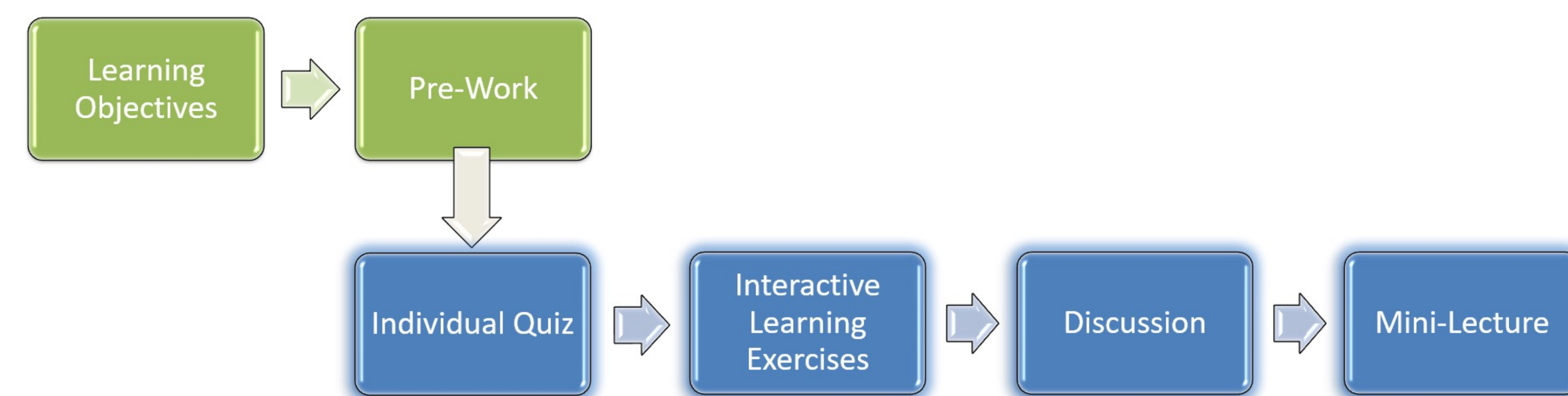


Fig 1. Development of an interactive, flipped classroom curriculum model for ophthalmology resident education.

Purpose

- To evaluate resident and faculty experience, satisfaction, and perceived efficacy of prior traditional didactic lectures versus newly implemented flipped classroom sessions.
- To determine resident and faculty preferences on pre-work assignments, active learning techniques, and time spent preparing for lectures.

Methods

- Residents and faculty were surveyed on
- Understanding of flipped classroom learning
 - Perceived barriers to implementation
 - Satisfaction with teaching/learning
 - Resident participation
 - Pre-work preferences
 - Active learning modality preferences

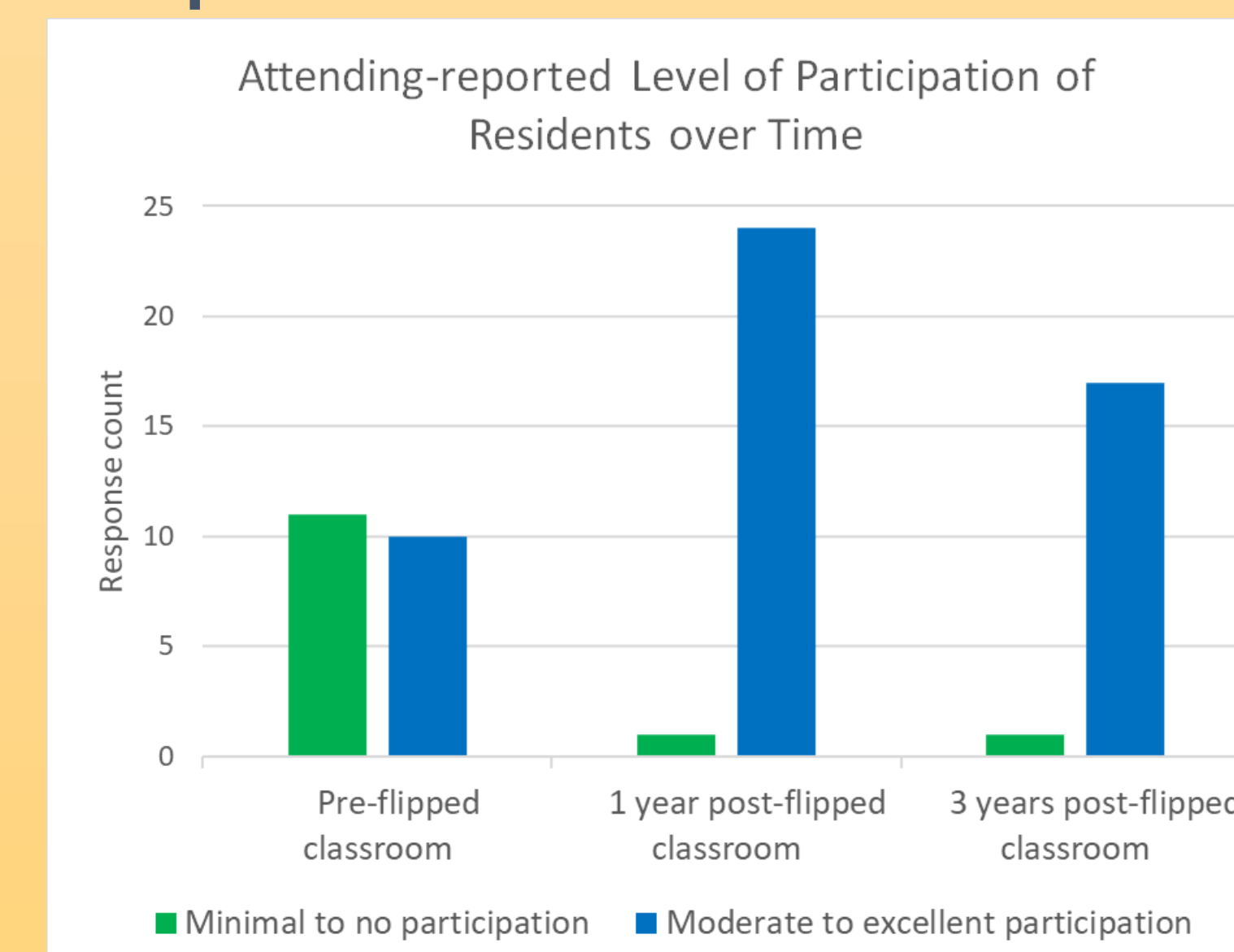
- Surveys were conducted at three time points in relation to curriculum implementation.
- Six months before
 - One year after
 - Three years after

Results

- Faculty surveyed: **24**
- Residents surveyed: **16** (PGY-1 to PGY-5)

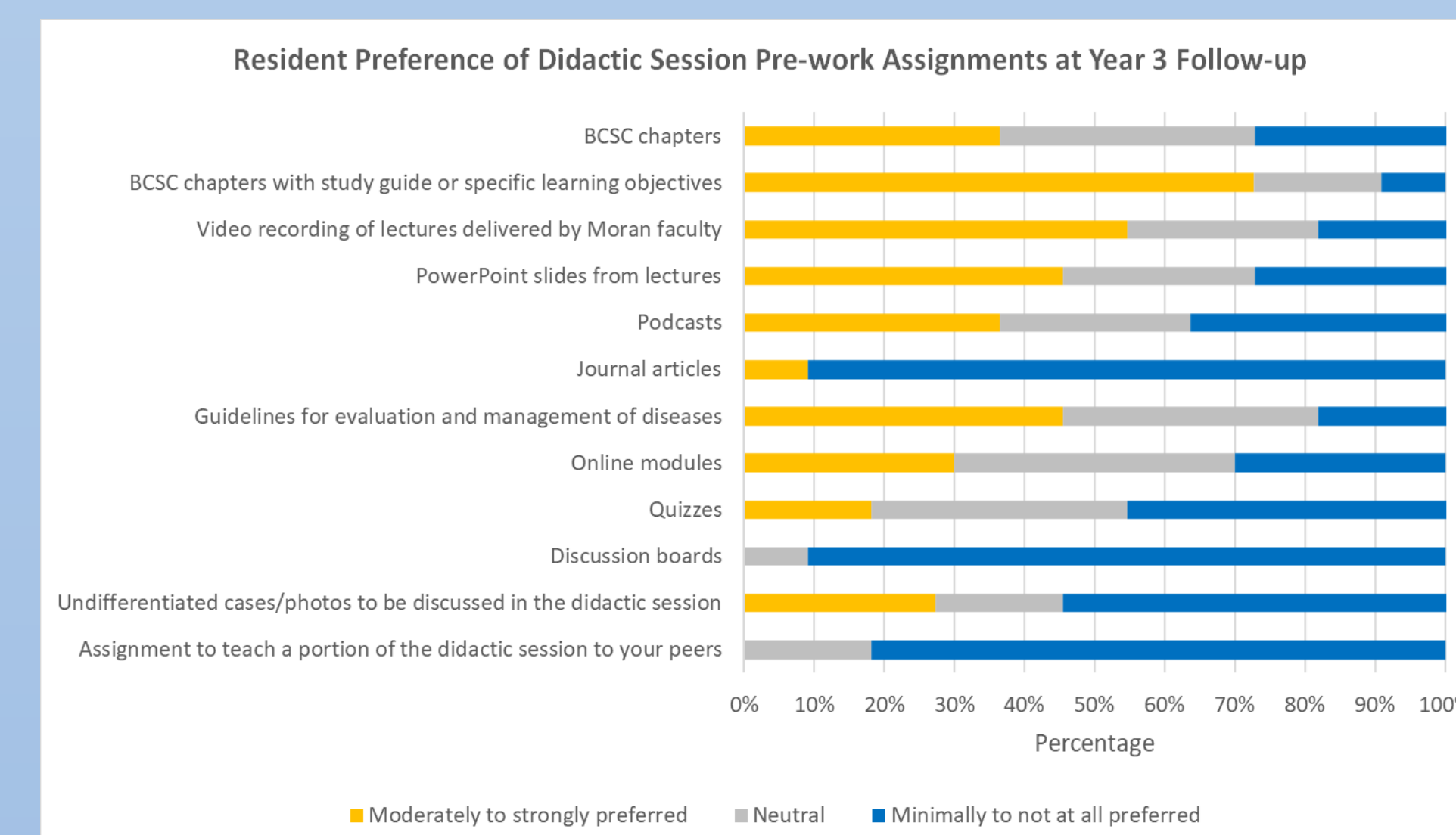
Participation & Preparation

- Faculty reported that resident participation levels increased in post-flipped classroom lectures.
- Residents reported increased time spent preparing for flipped classroom lectures.
- Yearly attendance rates also increased from 61.7% to 84.2%.

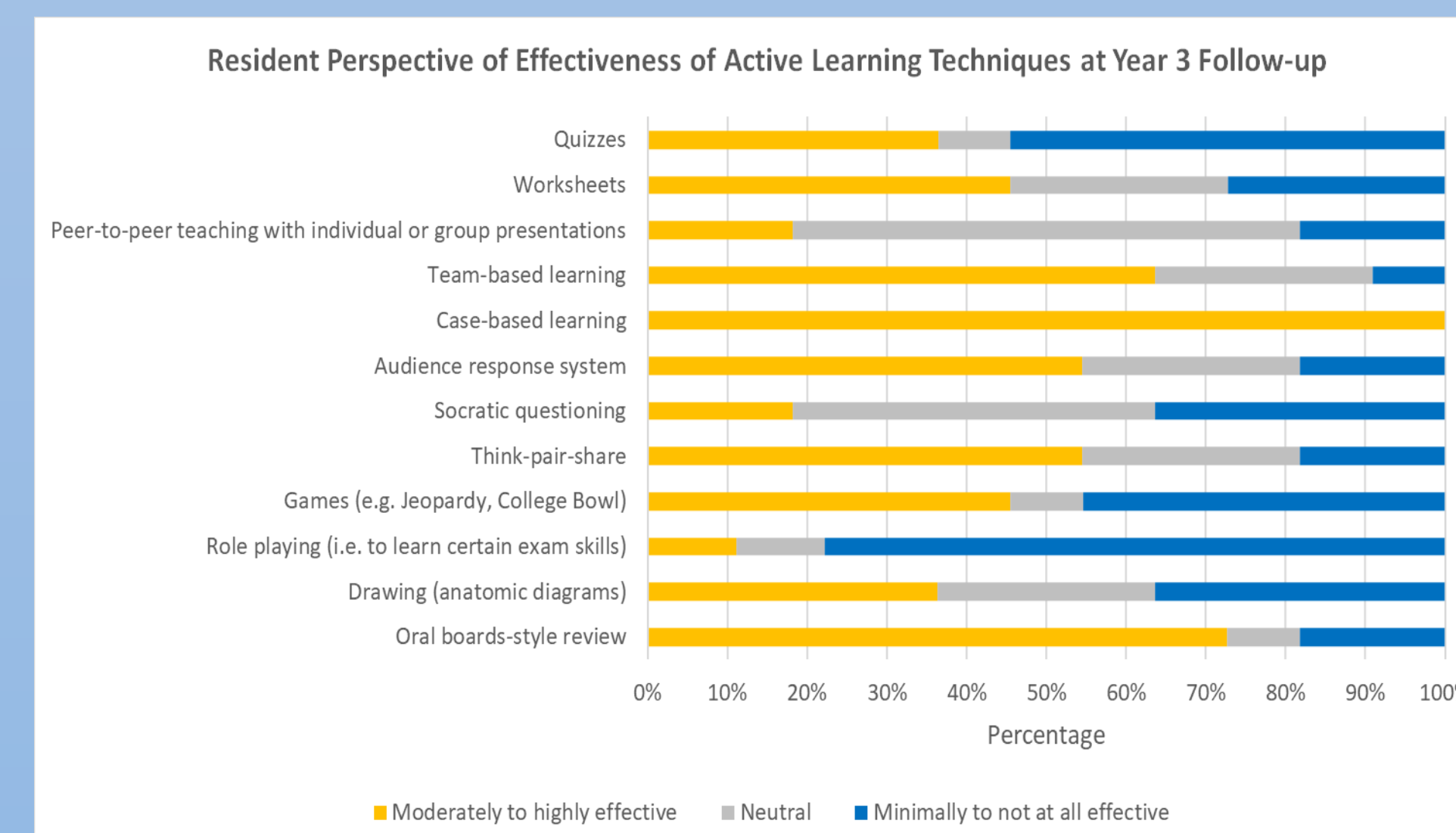


Pre-work & Active Learning Techniques

- In year 3, the preferred pre-work assignments by residents included BCSC chapters with study guides or specific learning objectives and video recordings of lectures.

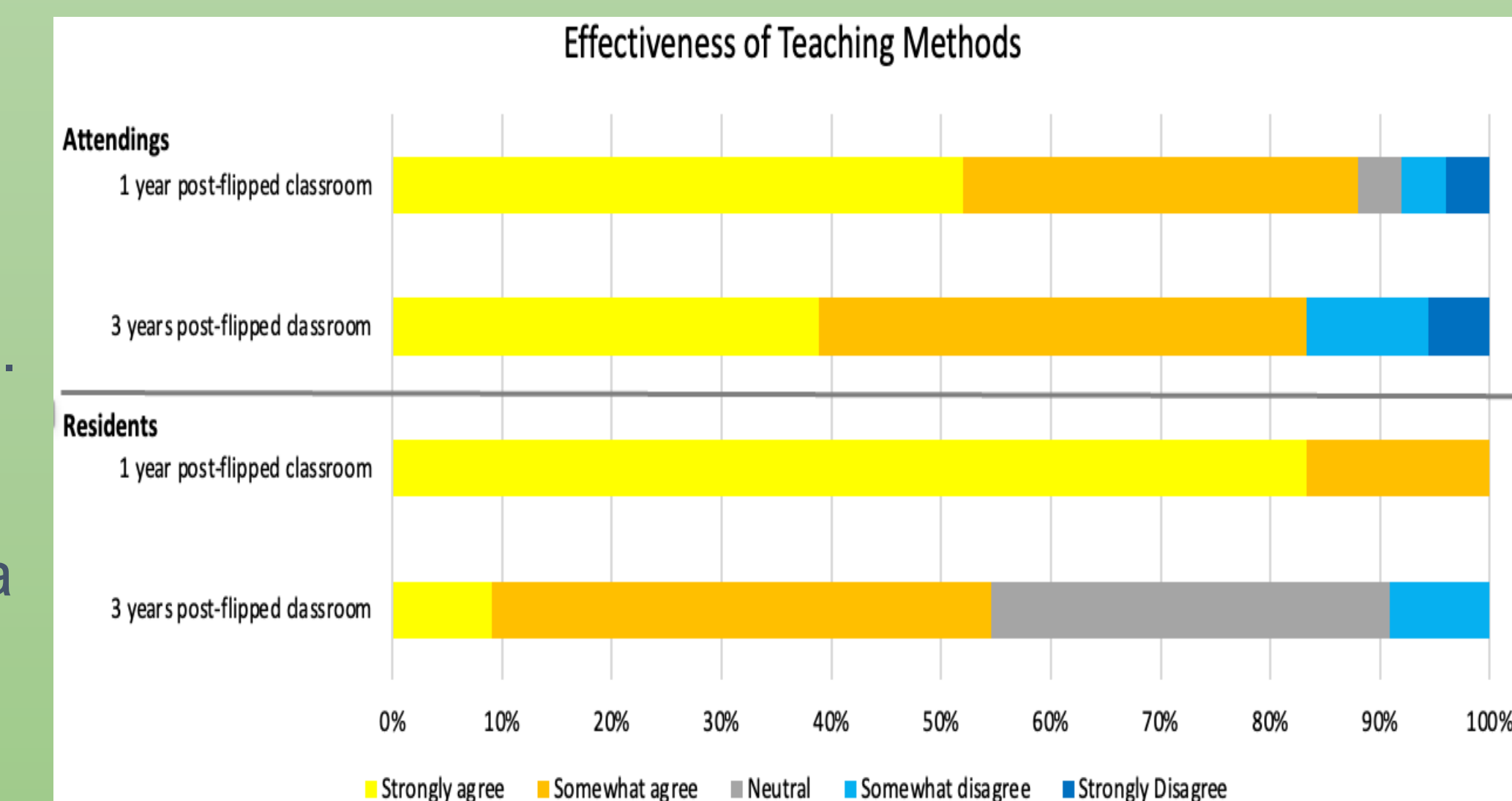


- In year 3, the most effective active learning techniques per residents were case-based learning and oral boards-style review.



Lecture Style Preference

- At year 3, both attendings and residents reported flipped classroom to be a more effective teaching/learning method than traditional lectures.
- 3 years post-flipped classroom
- 63.6% of residents preferred a flipped classroom format.
- 67% of attendings preferred teaching in a flipped classroom format.



Conclusions

- A flipped classroom curriculum can improve faculty and resident satisfaction, lecture participation, and attendance.
- Three years after the curriculum change, roughly two-thirds of residents and attendings preferred the flipped classroom style.
- Feedback from residents and attendings is integral to continue to make improvements to the curriculum.
- For programs motivated to implement a flipped classroom model for residency education, faculty development videos and subspecialty roadmaps can be found by scanning the QR code or at <https://morancore.utah.edu/moran-ophthalmology-learning-experience>



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Contact Information

Brandon Kennedy, MD
Brandon.kennedy@hsc.utah.edu

Sravanthi Vegunta, MD
Sravanthi.vengunta@hsc.utah.edu