

Purpose Statement and Research Questions

The purpose of this quantitative study will be to retrospectively analyze how the timing of when students watch asynchronous lectures impacts exam grades of first- and second-year medical students at the Brody School of Medicine

1. Is there a significant relationship between student pattern of engagement with asynchronous lectures and their exam grades?
2. Do the factors of student viewing time, prolonged student viewing time (binge-watching or cramming), and repetition of viewing significantly predict exam grades?

Background

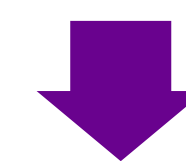
- At the Brody School of Medicine, lectures are available to be viewed in-person or asynchronously via recordings
- 37.0% of medical students “almost never” attend lecture nationwide
 - Trend increased due to COVID (Huerta et al., 2023; Wu et al., 2021)
- Pros:
 - Allows for student autonomy
- Cons:
 - Decreases attendance and socialization among medical students (Bridge et al., 2009; Franklin et al., 2011)
- Many studies on which methods students use to study, but few on the timing of when medical students use these resources and how they perform

METHODS

Sample: First- and second-year medical students at the Brody School of Medicine at over the past three years.

Sampling period: The interval between each exam ~ 4 weeks

Gather Panopto lecture data and exam grades and de-identify



Organize data to be analyzed:

- **Viewing habits:**
 - % started in the morning, afternoon, evening, night
 - Total views
 - Total time
 - % views started during exam week
- **Outcomes:**
 - Exam grades



Model using linear regression

POTENTIAL IMPACT

Measure the effects of student asynchronous lecture viewing habits on their exam grades.

If there is a statistically significant relationship:

1. Can advise future medical students on how to best utilize the asynchronous lectures as a resource.
2. Create another metric to check-in on struggling students and intervene if their viewing habits are not beneficial.

REFERENCES

- Bridge, P. D., Jackson, M., & Robinson, L. (2009). The effectiveness of streaming video on medical student learning: A case study. *Medical Education Online*, 14, 11. Scopus. <https://doi.org/10.3402/meo.v14i.4506>
- Franklin, D. S., Gibson, J. W., Samuel, J. C., Teeter, W. A., & Clarkson, C. W. (2011). Use of Lecture Recordings in Medical Education. *Medical Science Educator*, 21(1), 21–28. <https://doi.org/10.1007/BF03341590>
- Huerta, C. T., Saberi, R. A., Thorson, C. M., Hui, V. W., Rodgers, S. E., & Sands, L. R. (2023). Effects of Recorded versus Live Teleconference Didactic Lectures on Medical Student Performance in the Surgery Clerkship. *Journal of Surgical Education*, 80(2), 228–234. <https://doi.org/10.1016/j.jsurg.2022.09.017>
- Wu, J. H., Gruppuso, P. A., & Adashi, E. Y. (2021). The Self-directed Medical Student Curriculum. *JAMA*, 326(20), 2005–2006. <https://doi.org/10.1001/jama.2021.16312>

