



Webcams and Attention in the Online Classroom

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Introduction:

We have not seen virtual learning so prevalent in mainstream use until only a few years ago. This means tackling virtual learning today is fairly new since we have not seen its long-term use until recently. Homeschooling and different programs that do not use in-person classrooms are not entirely novel. But how have virtual classrooms affected the bigger population of students that were introduced to them only a short time ago? The information on these newly adopted educational tools is scarce. Many studies are predictive of what they hold or mention the positive aspects of it as seen in their short-term use. This study tries to understand how the use of webcams in online classrooms affects the attention and engagement of students in the course. This study is a continuation of Dr. Dennen's work surrounding this topic (Dennen et al., 2022).

Research question:

How does student webcam use during online learning relate to their attention and engagement?

Method:

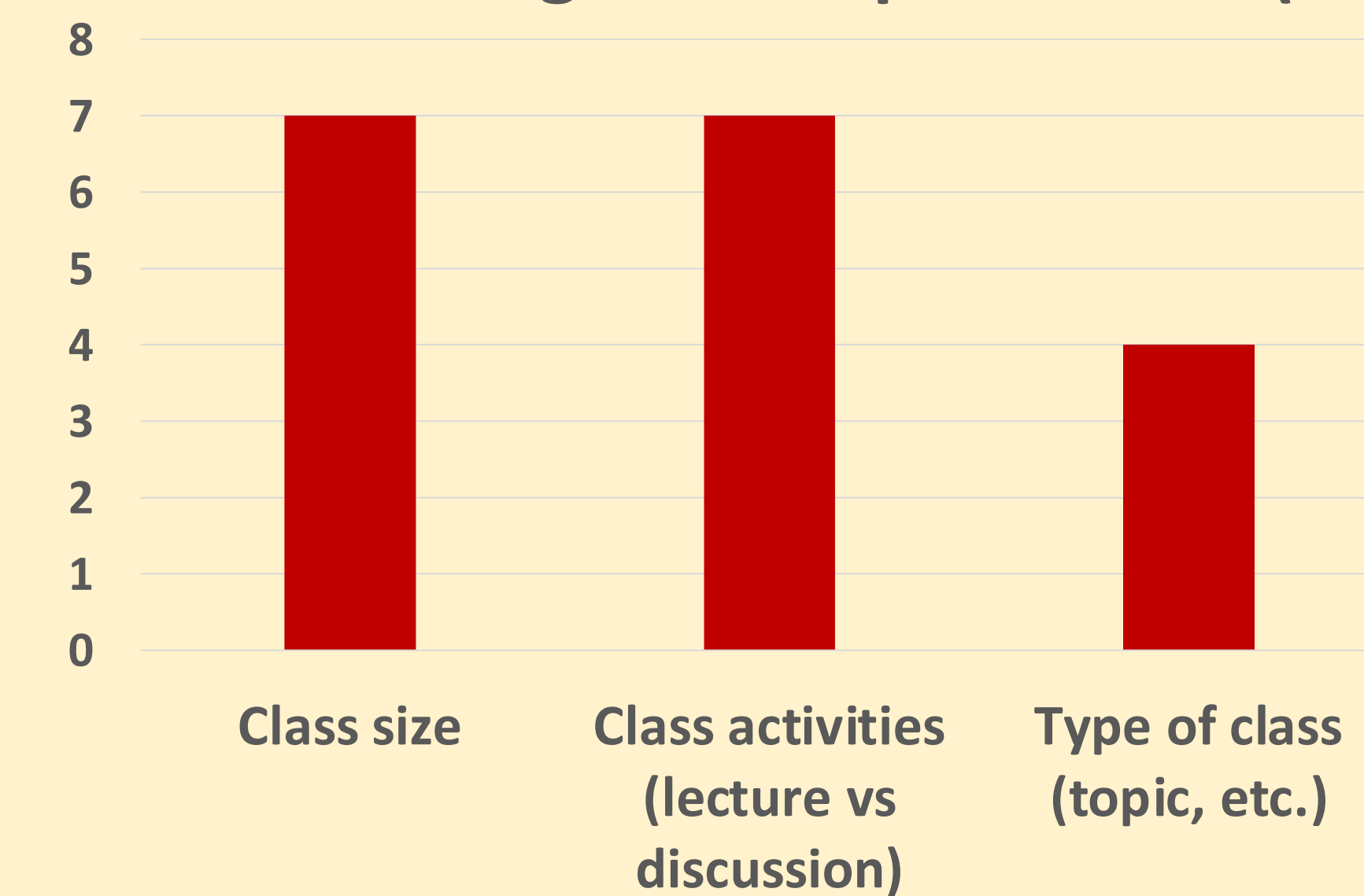
- Sample:
 - Students recruited from the College of Education study pool
 - Undergraduate (n=8) and graduate students (n=3)
 - All had past experience with synchronous online courses
- Instruments:
 - Interviews (via Zoom)
 - Semi-structured interview
 - Ask about online school experience, webcam use and preference, multitasking behaviors
- Data analysis:
 - Otter.ai was used to transcribe and clean interviews
 - Interviews were reviewed to identify themes related to camera use
 - Dichotomous coding was done for some items to facilitate a forthcoming epistemic network analysis phase

References:

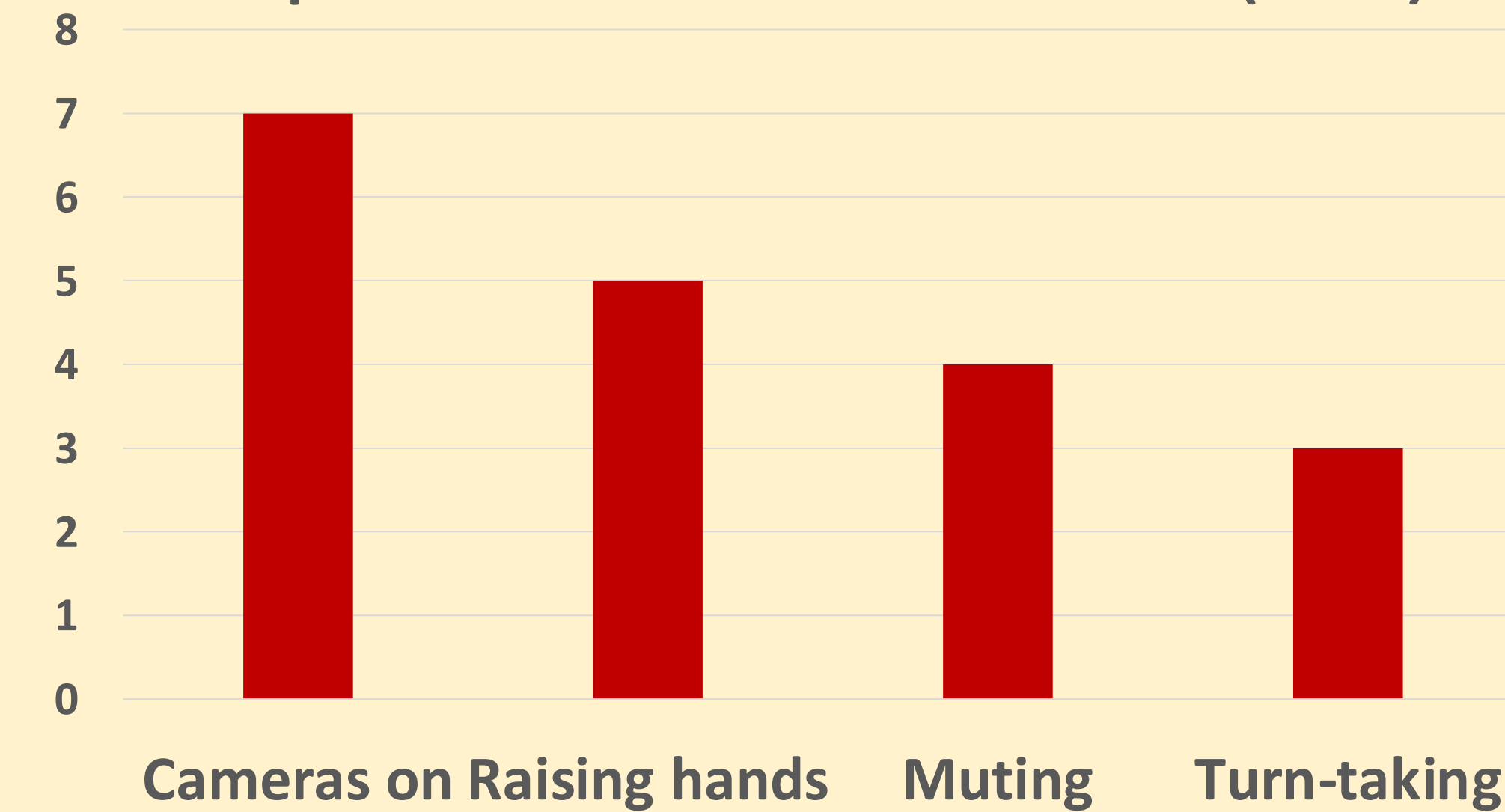
Dennen, V. P., Yalcin, Y., & Hur, J. (2022). Student webcam behaviors and beliefs: Emergent norms, student performance, and cultural difference. *Online Learning*, 26, (4), 168-192. DOI: 10.24059/olj.v26i4.3472

Results:

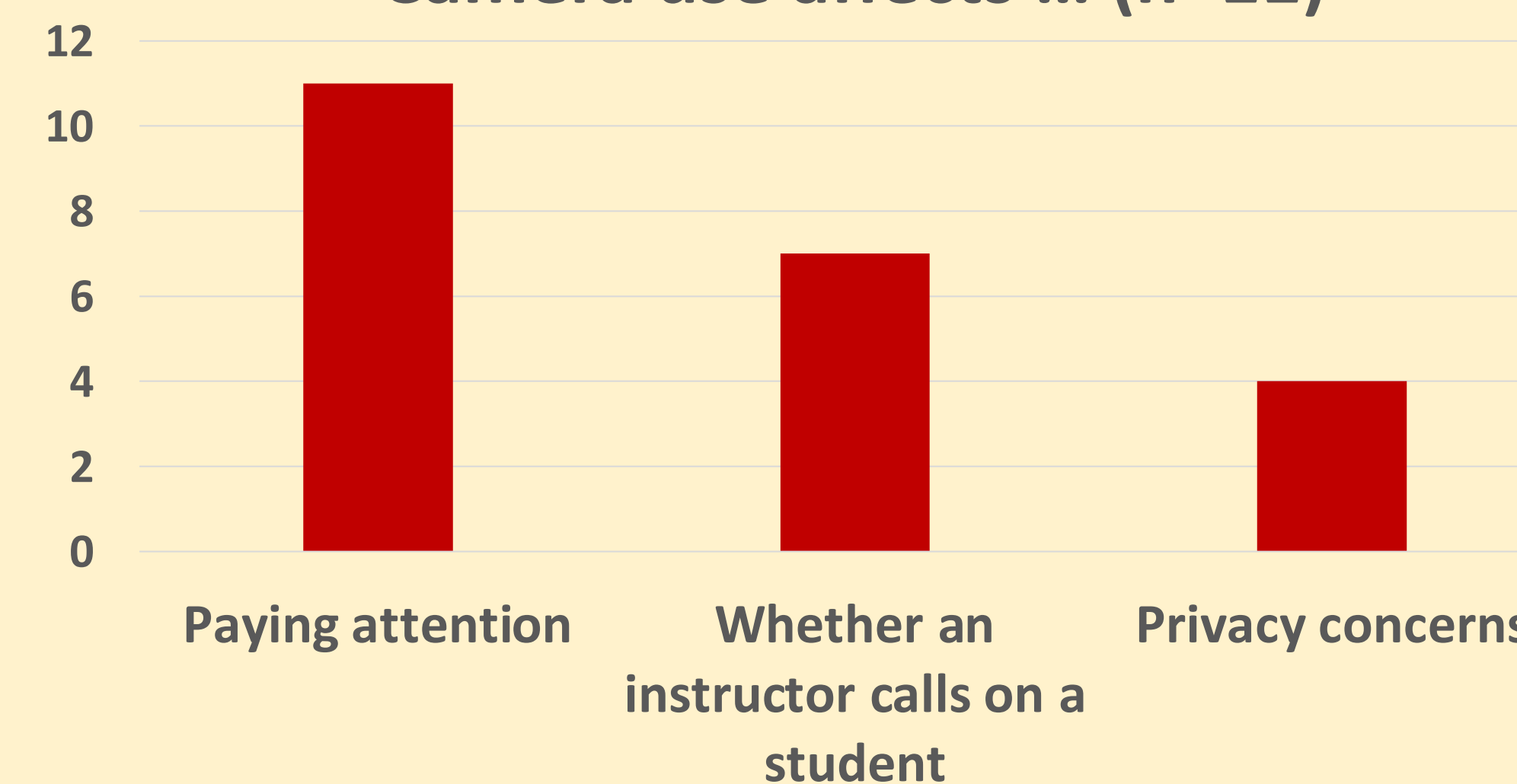
Factors affecting camera preference (n=11)



Important areas for webcam rules (n=11)



Camera use affects ... (n=11)



Discussion:

- Webcam use affects attention, primarily when more engaging activities take place
- Webcam use is considered important by most students, but many will decide to turn them off
- Increasing interactivity in general promotes engagement and attention to class
- Much like an in-person class, the use of webcams keeps a student alert by promoting engagement and social interactions
- Webcam use promotes self-monitoring during class
- Mandatory use of webcams may lead students to pay closer attention

- 4 of the participants had a preference for keeping cameras on, whereas 7 had a preference for keeping them off
- 2 participants who typically keep cameras off turn them on for breakout rooms
- All participants reported that cameras affect how closely they pay attention

Participant responses:

"Because when you're on a zoom class, you're not in person. You don't get that engagement that you would if you were in person. So, I feel like turning your camera on signals to the professor that you're present, not just physically but showing you're attentive to what they're teaching. I feel like I usually turn my camera on."

"Even if I'm not having a great day, I prefer to keep it on so that I can see the professor. If I'm asking a question, I feel like I'm able to actually be more into it, even if it's through a camera. I feel like we have more of a connection if we have the camera on."