Laura Galles*

Mentor: Jeffrey Karpicke, Ph.D.

*Self-Regulated Learning and Metacognitive Monitoring in Videos

Video Link

Abstract

The present study investigates whether lecture video format influences metacognitive monitoring as same-day learning. In particular, we sought to determine (1) Whether having the freedom to interact with videos (e.g., the ability to pause, rewind, fast-forward, etc.) in an asynchronous, self-regulated [SR] lecture environment enhanced learning relative to watching the same video without control (experimenter-controlled; ER), and (2) Whether having the freedom to interact with lecture videos improves metacognitive accuracy in test performance. College students studied a biology lecture from Khan Academy with or without the ability to interact with the video. Students then made immediate judgements of learning (JOL’s) and completed a short-answer test. Being able to pause, rewind, and fast-forward did not improve test performance. However, only 55.2% of participants in the self-regulated condition interacted with the video, but there was no difference in test performance between SR participants who chose to interact or not. Contrary to our expectations, both conditions revealed moderate metacognitive accuracy; those in the EC condition showed slightly better resolution and calibration than those in the SR condition. Future studies should continue to explore metacognitive monitoring and self-regulated learning with lecture videos.

* denotes Research Focused Honors Program participant