The Great Laptop Debate: Laptop Use in University Classrooms and Grades

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Introduction

LAPTOPS & CLASSROOMS

- Some educators have promoted tech advances and laptops in classrooms as the next great educational advances
- Others have shown that laptop use distracts students and leads to lower test scores
- Students who multitasked on a laptop during a lecture scored lower on a test compared to those who did not multitask, and participants who were in direct view of a multitasking peer scored lower on a test compared to those who were not
- Some students view laptop use to be an automatic process. These users engage in media behavior with very little mental work.

SELF-CONTROL

- Self-control is used to override automatic processes such as distracting laptop use during class

HYPOTHESES

- Students who have low self control (vs. high self-control) will be more likely to get lower grades in classes that allow laptops than classes that don't allow laptops
- Students with high self-control (vs. low self control) will be more likely to get higher grades in classes overall

Method & Procedure

PARTICIPANTS

- Predetermined sample size of 156 students (54 males, 101 females, 1 other; M_{age} = 20.04) recruited from university participant pool

MATERIALS

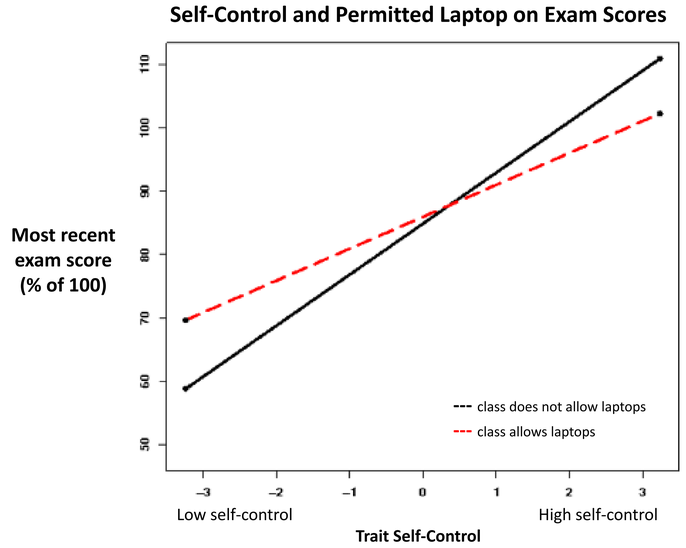
- **Laptop Use:** Participants answered questions about laptop use for each class in which they are currently enrolled and each class last semester
  - **EX:** Does the instructor allow laptops in class?
  - **EX:** Percentage of time (out of 100%) laptop is used during class
- **Academic Performance:** current grade and expected grades in each class for the current and previous semesters
- **Trait Self Control:** extent to which participants endorse behaviors and attitudes indicative of trait self-control

PROCEDURE

- Participants answered questions about their laptop use, their academic performance, and trait self-control in one 30 minute online session.
- All participants reported academic performance first, then the order of trait self-control and laptop use measures were counterbalanced

Results

HLM ASSOCIATION BETWEEN SELF-CONTROL AND EXAM SCORE



Overall, people's exam scores were better when they had high self-control than low self- control.

- For classes that do not allow laptops, b = 8.06, Z = 4.44, p < .001
- For classes that allow laptops b= 5.04, Z=2.32, p=0.02

- For people with low self-control, average exam scores in classes that allow laptops are significantly higher than classes that do not allow laptops, b= 10.84, Z = 2.26, p=0.02
- For people with average self-control, there was no difference in average exams scores for classes that allow laptops vs. those that do not allow laptops, b = 1.09, Z = 1.64, p = 0.10
- For those with high self-control, there was no significant difference in average exam score in classes that allow vs. don't allow laptops, though the trend suggests that they did better in classes that don't allow laptops than classes that do allow laptops, b = -8.66, Z = -1.78, p = 0.07

Conclusions

- Contrary to our hypothesis, students with low self-control performed better in classes that allowed laptops than classes that didn't allow laptops
- We are planning to test if students who have low self-control use their laptops differently during class than students who have high self-control (note taking strategies etc.)

Select References

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