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Multitasking increases in online courses compared to face-to-face

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Summary: The phenomenon of multitasking across three or four internet-connected devices simultaneously is increasingly common. Researchers were curious to know how often this happens during online education, a method of delivering college and even high school courses entirely via an internet-connected computer as opposed to a traditional face-to-face course with a teacher physically present.

FULL STORY

Kent State University Professor Andrew Lepp, Ph.D., remembers the incident well.

About two years ago on campus, he encountered a student entering data into a spreadsheet using a desktop computer. Next to the desktop computer, the student had a laptop computer open with Netflix streaming. Beside the laptop was the student's smartphone, which the student was listening to through a pair of wired headphones. Being curious about the simultaneous use of three screens, Dr. Lepp asked the student what she was listening to on the headphones.

"Oh, that's my online biology course," the student replied to Dr. Lepp's complete amazement.

This phenomenon of multitasking across three or four internet-connected devices simultaneously is increasingly common. Dr. Lepp and his colleagues Jacob Barkley, Ph.D., and Aryn Karpinski, Ph.D., of Kent State's College of Education, Health and Human Services were curious to know how often this happens during online education, a method of delivering college and even high school courses entirely via an internet-connected computer as opposed to a traditional face-to-face course with a teacher physically present.

Nationwide, millions of students take online courses each year, and the trend is increasing rapidly. Dr. Lepp and his colleagues wondered if students multitask more frequently in online courses compared to face-to-face courses.

"This question is important to ask because an abundance of research demonstrates that multitasking during educational activities significantly reduces learning," Dr. Lepp said.

Dr. Lepp, Dr. Barkley and Dr. Karpinski, along with the help of Kent State graduate student Shweta Singh, surveyed 296 college students. Each student surveyed had recently completed an online, for-credit college course and a traditional face-to-face college course. The survey asked students how often they participated in common multitasking behaviors during their previously taken online courses as well as their previous face-to-face courses. These behaviors included texting, using social networking apps, emailing, off-task internet surfing, talking, doodling and other distracting behaviors. The survey also measured students' preference for multitasking and their belief in their ability to self-regulate their behavior.

Results of the study revealed that students' multitasking behavior is significantly greater in online courses compared to face-to-face courses. Additionally, in online courses, the students who prefer to multitask do indeed multitask more than students with less of a preference for multitasking; however, in face-to-face

courses, the students who prefer to multitask do not multitask more frequently than students with less of a preference for multitasking.

"This is likely because in face-to-face courses, a physically present teacher and the presence of conscientious students help to enforce classroom policies and behavioral norms against multitasking," Dr. Lepp said.

Finally, students who were confident in their ability to self-regulate their behavior multitasked less in face-to-face courses when compared to students who were not so confident in their ability to self-regulate behavior. However, in online courses, even those students who believe they are good at self-regulation could not resist multitasking. Indeed, they multitasked at a similar frequency to other students.

"This suggests that how we teach students to self-regulate for learning applies well to traditional face-to-face courses, but perhaps it does not apply well to online learning," Dr. Barkley said. "Because multitasking during educational activities has a negative impact on learning, it is important to develop methods for reducing this academically disadvantageous behavior, particularly in the increasingly common online learning environment."

The researchers say that students can learn to be more singularly focused and to minimize multitasking.

"For example, during online learning and any other educational activity, put all distractions away, including smartphones and tablets," Dr. Lepp said. "This should become habit. This can even be practiced during leisure. For example, when watching a favorite TV show or sporting event, focus on the show and don't get distracted by texting friends and posting to social media."

For students struggling with multitasking in required online courses, Dr. Karpinski suggested that students try taking the course on a computer in a quiet part of the library where there are already norms in place which discourage many distracting behaviors.

"Additionally, as universities increase their online course offerings, even for students already living on or near campus, these same universities might consider computer labs dedicated to online learning that are proctored in an effort to keep students on task," Dr. Karpinski said.

Story Source:

Materials provided by **Kent State University**. *Note: Content may be edited for style and length.*

Journal Reference:

1. Andrew Lepp, Jacob E. Barkley, Aryn C. Karpinski, Shweta Singh. **College Students' Multitasking Behavior in Online Versus Face-to-Face Courses**. *SAGE Open*, 2019; 9 (1): 215824401882450 DOI: 10.1177/2158244018824505

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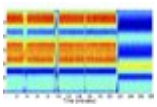

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