How do mobile devices in the classroom impact student learning?

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Mobile devices are ubiquitous—including in the college classroom. Instructors across disciplines now compete with a host of electronic stimuli for students' attention. But to what extent is messaging interfering with student learning? Can students concentrate with the same intensity while exchanging texts with their friends and family? A new study published in the National Communication Association's journal, Communication Education, evaluates how different types of messaging impact student retention of classroom material.

Previous research has shown that students who text in class generally recall less about the classroom content than those who do not. Similarly, those who used mobile devices in class took notes of poorer quality, detracting from another cognitive process by which students integrate new material. As mobile technology has become more widespread, however, some instructors have begun to include texting or digital technology in their lesson plans, which begs the question: Is it still distracting to students? Can students reply to and send messages about class content without being distracted? A new study by J.H. Kuzennekoff, et. al., examines these questions. The researchers tested students using mobile devices in class to respond to messages that were relevant to classroom material; additionally, the researchers varied the form of the messages (responding to another message or composing an original one) and the frequency of the texts. Their results are compiled in "Mobile Phones in the Classroom: Examining the Effects of Texting, Twitter, and Message Content on Student Learning."

Students who replied to messages relevant to class material scored higher on multiple choice tests than students who replied to messages that were unrelated to the class. The study authors conclude from this that "sending or receiving relevant messages may allow students to engage in similar processes as those that occur during note-taking. Specifically, relevant messages may allow students to encode lecture content in a manner similar to the processes that occur during note-taking (Peverly et.al. 2013)." The frequency of messaging was also found to be a factor in the interruption of learning: students who tweeted with higher frequency on content not related to the class took lower quality notes than those who tweeted less frequently on non-classroom related subjects, and scored up to 17 percent lower than the control group on multiple-choice tests.

While many instructors assume that mobile devices interrupt learning processes in the classroom—even when they are related to material being studied—this research points to the value that such devices may impart. That said, the study suggests that texting about content external to the lesson, or texting at a very high frequency, can, indeed, interrupt learning. In addition to helping guide campus and classroom mobile device policies, this research contributes to the growing body of research on how the brain processes information when confronted with multiple, simultaneous sources of input.

More information: "Mobile Phones in the Classroom: Examining the Effects of Texting, Twitter, and Message Content on Student Learning" DOI: 10.1080/03634523.2015.1038727

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