

## Learn More in Less Time by NOT Multi-Tasking

Multi-tasking has become so common that it seems like normal behavior. Multi-tasking is the act of trying to attend to and work on two tasks simultaneously. For example, while you read an assignment for class, you also text with a few friends. Or, while listening to a lecture, you do some online window shopping. These everyday examples may seem harmless and inconsequential. But they aren't. Multitasking has a disruptive and negative effect on learning.

A large body of research has investigated media multi-tasking in which students engage in non-class activities such as texting, social media, and scanning websites during class or while studying. Here is what the research has found.

**Media multitasking is common in college classes.** One study reported that 80% of college students admit to texting during class; 15 percent say they send 11 or more texts in a single class period. A study that monitored students' laptops found substantial multitasking behavior and that non-course-related software applications were open and active about 42% of the class period. Another study found that 58% of second- and third-year law students who had laptops in class were using them for non-class purposes more than half the time (Sovern, 2012).

**Multi-tasking divides your attention which is disruptive.** A common misconception about multitasking is that people allocate their full attention to carry out two tasks simultaneously. But people CANNOT allocate their full attention to two complex tasks at the same time. Sure, it's possible to walk down the street (one task) and carry on a coherent conversation (a second task) at the same time. But walking does not require much conscious attention, so you can devote your mental resources to the conversation. But, even walking can demand mental effort. As you approach a busy intersection, suddenly you have to think about how to navigate across the street and this interrupts your conversation.

Research shows that people are not able to attend to and perform two complex tasks simultaneously (Shomstein & Yantis 2004; Clapp, Rubens, & Gazzaley, 2009). Instead, when you think you are doing two things simultaneously, you actually are shifting your attention back and forth between the two tasks. Task switching is disruptive and inefficient. You must mentally disengage from one task and then engage with another, and then switch back. While you attend to one task, you are not able to attend to the other. Upon switching back you need to re-orient, which not only takes time but may be difficult if you missed critical information.

**Whenever your attention is divided, learning can suffer.** A growing body of research has documented negative outcomes associated with multi-tasking in the classroom and while doing homework. These include:

- Assignments take longer to complete (Rosen, Carrier & Cheever, 2013).
- Mental fatigue leads to more mistakes (Levitin, 2014).
- Memory is impaired when attention is divided (Fried, 2008).
- Students are less adept at extending and transferring new knowledge to novel contexts (Foerde, Knowlton & Poldrack, 2006).
- Students get lower grades. Media multitasking is negatively correlated with course grades and GPAs (Glass & Kang, 2019; Patterson, 2017; Ravizza, Uitvlugt & Fenn, 2017).

- Heavy media multitaskers are more distractible and have a more difficulty focusing their attention on a single task (Ophir, Nass, & Wagner, 2009; Uncapher, Thieu & Wagner, 2016).

Unfortunately, even though students know that multitasking is detrimental, many have difficulty controlling themselves. Some students habitually look at their phones. Regardless of whether you are a casual or compulsive multitasker, it is worth acknowledging your tendencies and trying to control the habit.

**How to reduce your media multitasking.** Some students depend on other people to help them. One study reported how a student went to her parents' home on weekends to study for exams. Upon arriving she gave her phone to her parents and told them not to give it back until she left to return to campus.

Obviously that student recognized she had a problem controlling her behavior. To get a sense of your own multitasking, you might keep track of how many times and how long you engage in off task behavior for several days.

A milder form of self-control is to try to develop two habits that establish boundaries for off task activity:

1. Turn off your phone and put it away before class.
2. Schedule phone breaks when you study. For example, study for 45 minutes and then take a 5-10-minute break when you can use your phone as needed.

These are simple recommendations but not necessarily easy to implement. It helps to acknowledge that multitasking interferes with learning and that by avoiding chronic multitasking you can improve your academic performance and save time.

### Recommended viewing

[Multitasking animated video](#) by Dan Willingham (4-minute video)

[The Distracted Mind lecture by Adam Gazzaley](#) (one-hour video)

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