

## Distracted learning a big problem, golden opportunity for educators, students

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Food chemistry professor Shelly J. Schmidt is the author of a review paper that explored recent research on distracted learning and strategies that can help students manage their use of digital media and their time. Credit: L. Brian Stauffer

Scanning social media while listening to a lecture. Watching a favorite



television series while studying. Today's young people frequently juggle multiple streams of information and entertainment media while doing schoolwork, a trend that researchers call distracted learning.

And while numerous researchers found that simultaneous use of electronic devices has a significant detrimental impact on learning, many students shrug off warnings about the negative consequences because they consider themselves such good multitaskers, said food chemistry professor Shelly J. Schmidt of the University of Illinois at Urbana-Champaign.

In a paper published in the *Journal of Food Science* Education, Schmidt reviewed recent studies on distracted learning and suggested strategies to help students stay engaged and on task.

Like many teachers, Schmidt, who also serves as a Fellow in the U. of I.'s Center for Innovations in Teaching and Learning, has grappled with the problem of students' attention being diverted by their <u>mobile devices</u> during classes.

While some <u>faculty members</u> restrict or ban students' unsanctioned use of cellphones and other devices in the classroom, these policies can be difficult for instructors to enforce and cast technology as "the enemy," she said.

"Banning technology use in the classroom suggests to our students that they are children who can't learn to appropriately handle it, rather than young adults we are helping to grow into professionals," Schmidt said.

"In a world where distractions abound, we have a golden opportunity to help our students and ourselves learn how to control our actions and focus on what really matters. Learning how to become less distractible is an essential and timeless skill for success in education, as well as many



other facets of life."

While it's "virtually impossible to make students limit all distractions" in class or out, Schmidt said teachers and parents can encourage youths to develop an internal locus of control—the attitude that they have control over the situation and their success or failure is a result of the effort they invest in their education.

"Armed with an internal locus of control, students are able to recognize and control factors that impede their success, such as distractions while they're trying to learn," she said.

Researchers in psychology, <u>cognitive science</u> and neuroscience found that media multitasking during schoolwork interferes with students' attention and working memory. Students' learning is shallower and spottier; they understand less and have difficulty recalling what they have learned and applying it in new contexts. Their <u>reading</u> <u>comprehension</u>, note-taking ability, test performance and grade point averages all diminish, according to the studies Schmidt reviewed.

"Listening to a lecture, texting, online shopping and socializing on Facebook are all complex, very demanding tasks that draw on the same region of the brain, the prefrontal cortex," Schmidt said. "Under most conditions, the brain can't carry out two complex tasks simultaneously. But if students do not believe their learning is being hampered by this behavior, they have no incentive or motivation to change it, and the problem just continues."

Some researchers suggest that mobile devices can exacerbate a form of social anxiety called the "fear of missing out" that compels people to interrupt their studies and work projects constantly to read and respond to social media posts and messages, negatively affecting their performance.



When working on projects that require sustained concentration, Schmidt said intentionally removing extraneous devices from their workspaces can help people limit distractions and resist the urge to respond to every buzz or ping emitted by their phone.

Another strategy for limiting interruptions and managing one's time is using a work-reward system. For example, a student would commit to studying without distractions for a defined period such as 25 minutes, then reward himself with five minutes of social media use. Or they could limit their web surfing or social media usage to the time of day when they are least productive.

Alternating intensive periods of focused work with preplanned bursts of pleasure helps alleviate boredom—one of the primary reasons people turn to digital media to begin with, she said.

Likewise, fostering a work-hard, play-hard mindset encourages young people to focus exclusively on their schoolwork when they are supposed to be learning, and devote the same attention to <u>recreational activities</u> when it's time to play, Schmidt said.

Moreover, people can improve their ability to focus on tasks with activities that boost brain function and enhance cognitive control, particularly <u>physical exercise</u>.

"Exercise has been shown to be of enormous benefit to both cognitive functioning and well-being, including mental health," Schmidt said. "Teachers could incorporate movement into classroom activities by asking students to pair up and go on a brief walk indoors or outdoors to discuss a concept from the day's lesson."

Schmidt suggested that promoting active learning in the classroom can help teachers keep students engaged with the course content, so they are



less inclined to turn to their smartphones for stimulation.

For example, teachers might encourage students to set goals related to their academic performance or to develop course content on topics of their choosing and teach it to other students, strengthening their investment in their learning and deepening their understanding of the subject matter.

**More information:** Shelly J. Schmidt. Distracted learning: Big problem and golden opportunity, *Journal of Food Science Education* (2020). DOI: 10.1111/1541-4329.12206

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