Driven to distraction: How to help wired students learn to focus

By Larry Rosen
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Learning to live with both internal and external distractions is all about teaching the concept of focus, Rosen writes.

A recent Pew Internet & American Life Project report surveyed 2,462 middle and high school Advanced Placement and national writing project teachers and concluded that: "Overwhelming majorities agree with the assertions that today's digital technologies are creating an easily distracted generation with short attention spans, and today's students are too 'plugged in' and need more time away from their digital technologies."

Two-thirds of the respondents agree with the notion that today's digital technologies do more to distract students than to help them academically.

Mind you, we are talking about teachers who typically teach the best and brightest students and not those who we would generally think of as highly distractible.

Recently my research team observed 263 middle school, high school, and university students studying for a mere 15 minutes in their homes. We were interested in whether students could maintain focus and, if not, what might be distracting them. Every minute we noted exactly what they were doing, whether they were studying, if they were texting or listening to music or watching television in the background, and if they had a computer screen in front of them and what websites were being visited.

The results were startling, considering that the students knew we were watching them and most likely assumed we were observing how well they were able to study. First, these students were only able to stay on task for an average of three to five minutes before losing their focus. Universally, their distractions came from technology, including: (1) having more devices available in their studying environment such as iPods, laptops, and smart phones; (2) texting; and (3) accessing Facebook.

Other researchers have found similar attention spans among computer programmers

and medical students, and in those studies technology provided the major sources of distraction.

We also looked at whether these distractors might predict who was a better student in general. Not surprisingly, those who stayed on task longer and had well-developed study strategies were better students. The worst students were those who consumed more media each day and had a preference for switching back and forth between several tasks at the same time.

One additional result stunned us: If the students checked Facebook just once during the 15-minute study period, they had a lower grade-point average. It didn't matter how many times they looked at Facebook; once was enough. Not only did social media negatively impact their temporary focus and attention, but it ultimately impacted their entire school performance.

So, what was going on with these students? We have asked thousands of students this exact question, and they tell us that when alerted by a beep, a vibration, or a flashing image, they feel compelled or drawn to attend to that stimulus. However, they also tell us that even without the sensory intrusions they are constantly being distracted internally by thoughts such as, "I wonder if anyone commented on my Facebook post," or "I wonder if my friend responded to the text message I sent five minutes ago"—or even "I wonder what interesting new YouTube videos my friends have liked."

Three-fourths of teens and young adults check their devices every 15 minutes or less and if not allowed to do so get highly anxious. And anxiety inhibits learning.

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I am convinced that learning to live with both internal and external distractions is all about teaching the concept of focus. In psychology, we refer to the ability to understand when you need to focus and when it is not necessary to do so as "metacognition," or knowing how your brain functions. In one recent study, we found a perfect demonstration of metacognition, albeit totally by accident. In this study we showed a video in several psychology courses, which was followed by a graded test.

Students were told that we might be texting them during the videotape and to answer our text messages. In fact, one-third did not get a text message, one-third got four texts during the 30-minute video, and the other third got eight texts, enough, we guessed, to distract them and make them unable to concentrate on the video. One other wrinkle was that we timed the text messages to occur when important material was being shown on the videotape that was going to be tested later.

We were right that the students who got eight texts did worse—they averaged a "D" on the test—but the students who received four texts and the students who did not receive a text message during the video got a "C" on our test. However, a mistake in our instructions told us more about what was going on inside the students' heads when the text arrived. We told students to reply to our text messages, but we did not tell them when to reply. Those students who manifested a knee-jerk reaction to their vibrating phone and answered our texts immediately were the ones who got the lower test grades. Those few students who opted to wait a few minutes to respond got the highest scores in the class.

After the study, when asked why they did not respond immediately, they told us that they were waiting for a time when the videotape material seemed less important and not likely to be on the test. Those students were using their metacognitive skills to decide when was a good time to be distracted and when it was important to focus.

How do we teach focus in a world that is constantly drawing our attention elsewhere? One strategy that we are using in classrooms around the world is called "technology breaks." Here's how it works: In many classrooms, students are allowed to use their smart phones, tablets, or laptops as tools to search the web, access social media, or perform other activities that promote learning. In such classrooms, teachers often report that in between times that students are using their devices for schoolwork, they are checking their eMail and text messages, tweeting, or accessing social media.

A tech break starts with the teacher asking all students to check their texts, the web, Facebook, whatever, for a minute and then turn the device on silent and place it upside down on the desk in plain sight and "focus" on classroom work for 15 minutes. The upside-down device prohibits external distractions from vibrations and flashing alerts and provides a signal to the brain that there is no need to be internally distracted, because an

opportunity to "check in" will be coming soon.

At the end of the 15-minute focus time, the teacher declares a tech break and the students take another minute to check in with their virtual worlds, followed by more focus times and more tech breaks. The trick is to gradually lengthen the time between tech breaks to teach students how to focus for longer periods of time without being distracted. I have teachers using this in classrooms, parents using it at the dinner table or at a restaurant, and bosses using tech breaks during meetings with great success. So far, though, the best we can get is about 30 minutes of focus thanks to Steve Jobs (and others) for making such alluring, distracting technologies.

Technology is not going to disappear from our world and, in fact, it is only going to get more appealing as screens become sharper, video becomes clearer, and touch screens become the norm, all of which attract our sensory system and beckon us to pay attention to them rather than schoolwork or the people in front of us.

With more electronic social connections in our lives, internal distractors are also increasing—and tech breaks can be used to train the brain to focus without the worry and anxiety about what we might be missing in our virtual social world.

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