

I Banned Phones in My College Classroom. Students Loved It.

Ezekiel J. Emanuel

A physician and a professor of medical ethics and health policy at the University of Pennsylvania.

I'VE taught the same course to a class of undergraduate, M.B.A., medical and nursing students every year for over a decade. While I didn't change my lectures or teaching style, somehow the students' evaluations of last year's class were better than ever before:

"This course taught me more than any course I've ever learned at Penn. . . ."

"The best course I have ever taken."

"Amazing class!!"

Out of all the reviews, only one was negative. But the point is not to brag — I don't think these comments reflect anything about me and my teaching ability. I'm teaching in basically the same manner I have for years.

So what changed? I banned all cellphones and computer-based note taking in the classroom, with the exception that students could use a device if they wrote with a stylus. Initially, my students were skeptical, if not totally opposed. But after a couple of weeks, they recognized they were better off for it — better able to absorb and retain information, and better able to enjoy their time in class.

My policy required phones to be turned off, and, more important, not be visible on desks. I did allow students who were expecting urgent calls — say, from a spouse about to have a baby — to have a mobile phone readily available during class.

Class sessions are recorded, and transcripts of the lectures are available any time after class to students with academic accommodations or those who want to go over them again.

My 40 years of pedagogical intuition tell me that this change made students less dis-

tracted and more engaged. I think it made them more attentive and satisfied with the learning.

Associating the no-digital-device policy with high course evaluations is just my sense, but it comports with the available data on the effects of computer note taking on retention of classroom material and the impact of cellphones — even when turned off — on the quality of and satisfaction with person-to-person interactions.

To help sell this policy, I presented in the first lecture of the course a study showing that students who were required to take class notes by hand retained significantly more information than students who used computers. The reason is that with computers, students can type as fast as I speak and strive for verbatim transcripts, but there is almost no mental processing of the class's content. Conversely, virtually no one can hand write 125 words per minute for 90 minutes. Thus, handwritten notes require simultaneous mental processing to determine the important points that need recording. This processing encodes the material in the brain differently and facilitates longer-term retention.

The data on the distracting effect of mobile phones — even when they are face down and turned off — are strong. In one study, researchers enrolled 520 undergraduates who were required to have their phone ringers and vibration functions turned off during class. Members of one group put their phones face down on their desks. Members of a second group put their phones in bags or pockets. Members of a third group had their phones stored in another room. Then all students were given cognitive tests to assess mental focus and attention.

One test evaluated their ability to solve math problems while keeping track of randomly generated letter sequences. Another

involved solving novel problems like completing a pattern. Students performed worst on both tests when phones were on desks, next worse when they were placed in bags or pockets and best when they were stored in another room.

Interestingly, when asked, the students reported perceiving no difference in phone-related thoughts regardless of the phone's location. The study investigators argued that "the mere presence of one's smartphone reduces available cognitive capacity, even when it is not in use." Translation: Smartphones don't make us smarter. Indeed, quite the opposite.

The presence of smartphones also undermines the quality of in-person social interactions. In another study, researchers in British Columbia asked people to go to a restaurant with family members or friends. Some were allowed to keep their phones on the table during the meal; others were not. Those who kept their phones on the table were more distracted and less able to connect with dining companions who were sitting right there, even when their phones were not being used. Diners who had their phones on the table also reported more boredom and less enjoyment of the dining experience.

These are strong arguments for banning phones and laptops in schools — in the classroom, in the cafeteria, during recess and at other times throughout the school day. Thankfully, this data has precipitated new policies across the country. As of April, 11 states had enacted statewide bans or restrictions on mobile phone use or access in public K-12 schools. Additional states have legislation pending to either ban or restrict students' phone use or access in school.

This trend has not caught on in colleges and universities. My searches have turned up just one small college, Wyoming Catholic College, that has banned mobile phones in

Let's go back to the good old days when students had only flip phones.

the classroom. While most college students are legal adults, neuroscience teaches us that they are not biologically adults. Their prefrontal cortices, the part of the brain that controls planning, executive functioning and risk taking, aren't fully developed. They sometimes exercise poor judgment, act impulsively and make decisions that damage their social relationships and learning. That's among the reasons that students' education, particularly for undergraduates, is entrusted to professors and university leaders.

What I would really like is for every university classroom to be treated more like the sensitive compartmented information facilities, or SCIFs, in the White House and other government buildings: Phones are not permitted and are locked in cubbies outside of every room. Students would have to deposit their phones before class and pick them up after class. Ideally, professors could still choose to opt out of this policy, especially if phones or other mobile devices were integral to the educational process and content of the class.

I'm certainly not alone. I recently learned that my class was not the only one at the University of Pennsylvania to ban cellphones. At least one philosophy professor on campus bans phones from his class, too. And in a religion class titled "Living Deliberately: Monks, Saints and the Contemplative Life," students are asked to forswear their phones for 30 days as part of experiencing a monastic life.

If bans on phones and computers in classes were widely instituted, students might learn more from their classes, be more willing to speak their minds in class, be more at ease in their social interactions and feel more fulfilled. Let's go back to the good old days, nearly two decades ago, when students had only flip phones and were learning more.