

STUDIES ON THE IMPACT OF CELL PHONES ON ACADEMICS

STUDIES SHOWING CELL PHONES' NEGATIVE IMPACT ON ACADEMICS WHEN USED IN CLASS

1. "The Impact of Mobile Phone Usage on Student Learning"

MAIN FINDING: College students who were not using their cell phones wrote down 62% more information in their notes and scored a letter grade and a half higher on a multiple choice test than students who were actively using their phones.

Note: This study was cited in Dr Ruston's [Op-Ed on CNN.com](#)

Ref: Kuznekoff et al. (2013) *Communication Education V. 62*, 233-252 <http://www.tandfonline.com/doi/abs/10.1080/03634523.2013.767917>.

2. "Ill Communication: Technology, distraction & student performance"

MAIN FINDING: When schools in England banned mobile phones, the test scores of 16-year-old students increased by 6.4%. These effects were twice as impactful on the scores of low-achieving students and had little to no impact on already high-achieving students.

Ref: Louis-Philippe Beland, Richard Murphy, "Ill Communication: Technology, distraction & student performance," *Labour Economics*, Volume 41, 2016, Pages 61-76, ISSN 0927-5371, <https://doi.org/10.1016/j.labeco.2016.04.004>.

3. "Non-academic internet use in the classroom is negatively related to classroom learning regardless of intellectual ability"

MAIN FINDING: Students in an introductory psychology class were surveyed three times over the course of their 15 week-long class on their use of portable devices in the classroom. Students were using portable devices and many of them were cell phones.

Ref: Ravizza et al (2014), *Computers & Education* V.78, 109-114
<http://www.sciencedirect.com/science/article/pii/S0360131514001298>.

4. [“An Empirical Examination of the Educational Impact of Text Message-Induced Task Switching in the Classroom: Educational Implications and Strategies to Enhance Learning”](#)

MAIN FINDING: While college students watched a videotaped lecture, they were randomly interrupted by text messages. Based on the number of texts sent and received, three “texting interruption” groups were defined as Low, Moderate and High. A recall test measured the impact of the texting distractions on students’ memory. The high texting group scored significantly worse (10.6% lower) than the low texting interruption group.

Ref: Rosen, et al. (2011) *Psicologia Educativa*, 163-177 <https://www.psychologytoday.com/sites/default/files/attachments/40095/anempiricalexaminationoftheeducationalimpactoftextmessage-inducedtaskswitchingintheclassroom-educati.pdf>.

5. [“Texting as a Distraction”](#)

MAIN FINDING: This study observed the difference in performance on a lecture quiz between students who were randomly assigned to text message during the lecture and those who were not supposed to text at all. Those who text messaged throughout the lecture scored significantly lower on the quiz.

Ref: Dietz, Stephanie & Henrich, Christopher (2014) *Computers and Human Behavior* V. 36, 163-

167 <http://www.sciencedirect.com/science/article/pii/S0747563214001678>.

6. ["The Effects of Cell Phone Use and Emotion-regulation Style on College Students Learning"](#)

Ref: Lee, et al. (2017) *Applied Cognitive Psychology*, 360-366
<http://onlinelibrary.wiley.com/doi/10.1002/acp.3323/abstract>.

7. ["Examining the impact of off-task multi-tasking with technology on real-time classroom learning."](#)

Ref: Wood et al. (2012) *Computers & Education*, 58(1), 365–374
<https://www.sciencedirect.com/science/article/pii/S0360131511002077>.

STUDIES SHOWING CELL PHONES' NEGATIVE IMPACT ON ACADEMICS WHEN PRESENT BUT NOT USED IN CLASS

1. ["Cell Phone Use Policies in US Middle and High Schools"](#)

MAIN FINDING: 85% of schools do not restrict phones during lunch or recess periods. 16% of middle schools and 25% of high schools do not restrict phone use in classrooms.

Ref: Tandon PS, Zhou C, Hogan CM, Christakis DA. Cell Phone Use Policies in US Middle and High Schools. *JAMA Netw Open*. 2020;3(5):e205183. doi:10.1001/jamanetworkopen.2020.5183. <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2765995#zld200040t2>.

2. ["Brain Drain: The Mere Presence of One's Smartphone Reduces Available Cognitive Capacity"](#)

MAIN FINDING: Participants turned off their phones. While they performed memory tasks, some could keep their phone with them and some had to put it in the other room. Those who had the phone with them did significantly worse on the tasks. The

attention and energy it takes to not check a phone seems to cause "brain drain."

Note: This study was also referenced in Dr. Ruston's Op-Ed on CNN.com.

Ref: Ward et al. (2017) *JACR*, 140-154
<http://www.journals.uchicago.edu/doi/abs/10.1086/691462>.

3. ["The Mere Presence of a Cell Phone May be Distracting: Implications for Attention and Task Performance"](#)

MAIN FINDING: College students did various cognitive tests with phones present and with them out of sight. The presence of phones negatively impacted attention and task performance.

Ref: Thorton et al. (2014) *Social Psychology V. 45*, 479-488 :
<http://psycnet.apa.org/record/2014-52302-001>.

4. ["The Extended iSelf: The Impact of iPhone Separation on Cognition, Emotion, and Physiology"](#)

Ref: Clayton, R. B., Leshner, G. and Almond, A. (2015) *J Comput-Mediat Comm V. 20*, 119-135.
<http://onlinelibrary.wiley.com/doi/10.1111/jcc4.12109/full>.

5. ["The Attentional Cost of Receiving a Cell Phone Notification"](#)

Ref: Stothart, C., Mitchum, A., Yehnert, C. (2015) *J Exp Psychol Hum Percept Perform V. 41*, 893-897.
<https://www.ncbi.nlm.nih.gov/pubmed/26121498>.

TEACHERS' VIEWS ON HOW CELL PHONES USED IN THE CLASSROOM ARE NEGATIVELY IMPACTING STUDENTS

1. "Growing Up Digital Alberta"

MAIN FINDING: Survey of 2,300 Canadian teachers. 67% believed the number of students negatively distracted by

technology in class is growing. 75% reported that the attention span of students has decreased.

Ref: A collaborative research project by Harvard Medical School Teaching Hospital, the Center on Media and Child Health, Boston Children's Hospital, University of Alberta, and the Alberta Teachers' Association (2016).

STUDENTS OFTEN HAVE THE FALSE BELIEF THAT CELL PHONE USE IN CLASS DOES NOT IMPACT THEIR LEARNING

1. “Non-academic internet use in the classroom is negatively related to classroom learning regardless of intellectual ability”

MAIN FINDING: Introductory psychology students were asked about the frequency and duration of their use of portable electronic devices and how it affected their learning. Higher rates of internet use were found to be linked to lower test grades.

Ref: Ravizza, Susan M., Hambrick, David Z. & Fenn, Kimberly M. (2014), *Computers & Education* V.78, 109-114
<http://www.sciencedirect.com/science/article/pii/S0360131514001298>.

2. “An introduction to multitasking and texting: prevalence and impact on grades and GPA in marketing classes”

MAIN FINDING: Marketing students from two separate universities said they received an average of 37 texts per day and wrote about 16. Students said they believed they were able to pay attention to the professor while writing and receiving texts. However, those who did text while in class received lower grades.

Ref: Clayson, D. E., & Haley, D. A. (2013). *Journal of Marketing Education*, 35, 26e40.

<http://journals.sagepub.com/doi/abs/10.1177/0273475312467339>.

3. ["An empirical examination of the educational impact of text message-induced task switching in the classroom: educational implications and strategies to enhance learning"](#)

MAIN FINDING: Participants received texts that demanded a response while watching a 30-minute video lecture. Participants split into different classrooms and were randomly assigned to different groups: receiving no text messages, receiving four text messages or receiving eight text messages. Participants were then given a test on the content of the lecture. Those who received the most text messages scored the worst.

Ref: Rosen, L. D., Lim, A. F., Carrier, L. M., & Cheever, N. A. (2011). *Psicología Educativa*, 17, 163e177.

<https://www.psychologytoday.com/sites/default/files/attachments/40095/anempiricalexaminationoftheeducationalimpactoftextmessage-inducedtaskswitchingintheclassroom-educati.pdf>.