

Study of first-time smartphone users reveals devices may be detrimental to learning process

July 7 2015, by Amy Mccaig



A yearlong study of first-time smartphone users by researchers at Rice University and the U.S. Air Force found that users felt smartphones were actually detrimental to their ability to learn. Credit: ThinkStockPhotos.com

A yearlong study of first-time smartphone users by researchers at Rice University and the U.S. Air Force found that users felt smartphones were actually detrimental to their ability to learn.

The research paper "You Can Lead a Horse to Water But You Cannot Make Him Learn: Smartphone Use in Higher Education" appeared in a recent edition of the British Journal of Educational Technology. The research reveals the self-rated impact of smartphones among the users.

"Smartphone technology is penetrating world markets and becoming abundant in most college settings," said Philip Kortum, assistant professor of psychology at Rice and the study's co-author. "We were interested to see how students with no prior experience using smartphones thought they impacted their education."

The research revealed that while users initially believed the mobile devices would improve their ability to perform well with homework and tests and ultimately get better grades, the opposite was reported at the end of the study.

The longitudinal study from 2010 to 2011 focused on 24 first-time smartphone users at a major research university in Texas. Prior to the study, the participants were given no training on smartphone use and were asked to answer several questions about how they thought a smartphone would impact their school-related tasks. The students then received iPhones, and their phone use was monitored during the following year. At the end of the study, the students answered the same questions.

When participants were asked to rate their feelings on the following statements specifically related to learning outcomes, such as homework, test-taking and grades, they provided the following answers (one represents "strongly disagree" and five represents "strongly agree"):

- My iPhone will help/helped me get better grades – In 2010 the average answer was 3.71; in 2011 the average answer was 1.54.
- My iPhone will distract/distracted me from school-related tasks – In 2010 the average answer was 1.91; in 2011 the average answer was 4.03.
- The iPhone will help/helped me do well on academic tests – In 2010 the average answer was 3.88; in 2011 the average answer was 1.68.

- The iPhone will help/helped me do well with my homework – In 2010 the average answer was 3.14; in 2011 the average answer was 1.49.

Kortum noted that the study did not address the structured use of smartphones in an educational setting. He said that the study's findings have important implications for the use of technology in education.

"Previous studies have provided ample evidence that when smartphones are used with specific learning objects in mind, they can significantly enhance the learning experience," Kortum said. "However, our research clearly demonstrates that simply providing access to a [smartphone](#), without specific directed learning activities, may actually be detrimental to the overall [learning](#) process."

More information: "You can lead a horse to water but you cannot make him learn: Smartphone use in higher education." *British Journal of Educational Technology*, 46: 713–724. doi: 10.1111/bjet.12176

Provided by Rice University

Citation: Study of first-time smartphone users reveals devices may be detrimental to learning process (2015, July 7) retrieved 26 April 2024 from <https://phys.org/news/2015-07-first-time-smartphone-users-reveals-devices.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.