Warning: studying can seriously affect your grades

A report by two professors provides proof that the number of hours you spend studying has an effect on your grades.

Marc Abrahams
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Drinking will not damage your grades as much as playing video games – apparently. Photograph: Frank Baron

Does studying affect grades? Ralph and Todd Stinebrickner published what they say is the first persuasive evidence that it does. In their words, there is a "causal effect of studying on grade performance".

Ralph Stinebrickner is a professor of mathematics and computer science at Berea College in the US. Todd, his son, is a professor of economics at the University of Western Ontario, Canada. Their report appears in the Berkeley Electronic Journal of Economic Analysis and Policy.

People assume blithely that studying affects grades. The Stinebrickners say that there was never any real proof. They tell how others had sought – and failed – to find some:

"The difficulty of providing information about the causal effect of studying is highlighted by an ambitious 10-year study by Schuman et al at the University of Michigan. The authors took four different approaches ... but could not uncover a (conditional) correlation which indicated evidence of the 'hypothesised substantial association'."

The Stinebrickners tried a new approach, asking students to fill out survey forms detailing how they spent their time during the first two years of college, and then examining each student's grade point average.

One surprising conclusion: that while actually attending class may be a good thing, it "is, to a large degree, irrelevant" in explaining which students get good grades and which do not.

"Our key finding," they write, "is that whether a student's roommate brings a video game to school has a strong causal effect on the student's grade performance." Having a video-game-toting roommate, they say, results in a difference in the number of hours a student spends studying. The Stinebrickners insist they found "no evidence of any..."
differences in study efficiency”. Quantity, not quality, is how the roommate/video-game factor dominates.

The Stinebrickners gathered their data at Berea College, a small institution in central Kentucky. Berea prohibits alcohol possession, and “approximately 85% of all students do not report [engaging in] any partying”. The Stinebrickners say that even if some students fudged the truth about booze and socialising, that fudging “does not vary in a meaningful way with whether a person’s roommate brought a video game”. They add that, even among students who admit having a good time, “we find no evidence of a relationship between the number of hours spent partying” and whether a roommate has a video game.

As for the central discovery – that having a roommate with a video game can affect how many hours one studies, which can in turn affect one’s grades – the Stinebrickners conclude that “there is no obvious reason to believe that we should expect substantially different results elsewhere”.

The study was awarded the Berkeley Electronic Press’s Arrow Prize in Economic Analysis & Policy.

• Marc Abrahams is editor of the bimonthly Annals of Improbable Research and organiser of the Ig Nobel prize
• This article was amended on 23 November 2009 to clarify the name of the organisation awarding the Arrow Prize.