



SEARCH

NSF Web Site



Press Release 11-007

Writing About Anxiety Helps Students Ace Exams

Research says test performance improves when students write about their worries



The desire to perform well in academics causes some students to perform below their abilities.

[Credit and Larger Version](#)



The researchers' findings are described in the Jan. 14, 2011 issue of the journal *Science*.

[Credit and Larger Version](#)

January 13, 2011

Sian Beilock, lead author of a new study that appears today in the journal *Science*, says writing about test-related worries for ten minutes immediately before taking an exam is an effective way to improve test scores in classroom settings.

"By writing down one's negative thoughts, students may come to realize that the situation is not as bad as they thought or that they are prepared to take it on," said Beilock, an associate professor of Psychology at the University of Chicago. "As a result, they worry less during the test."

Her study, "Writing about Testing Worries Boosts Exam Performance in the Classroom," was funded by the National Science Foundation's Directorate for Education and Human Resources.

"Understanding performance strategies that help people overcome memory limitations in high-pressure situations is an important goal of this research," said Gregg Solomon, a program director in the directorate's Division of Research on Learning in Formal and Informal Settings.

"Other researchers have shown that expressive writing can help people decrease worries, but Beilock and her co-author wanted to test the benefits for students in the classroom."

University of Chicago Institute of Education Sciences pre-doctoral fellow Gerardo Ramirez conducted the study with Beilock.

"For many students, the desire to perform their best in academics is high," Beilock and Ramirez wrote in the report. "Yet, despite the fact that students are often motivated to perform their best, the pressure-filled situations in which important tests occur can cause students to perform below their ability instead."

But students who get particularly anxious about tests taking saw their scores on high stakes exams go up nearly one grade point after they wrote about why they feared the test's outcome.

In fact, highly-anxious students who had the opportunity to write down their thoughts before taking a research-study, administered math test received an average grade of B+. Highly anxious students who didn't write down their thoughts received an average grade of B-.

The researchers concluded that the writing exercise provided students an opportunity to unload their anxieties before taking the test and thereby freed up brainpower needed to perform successfully--brainpower that is normally occupied by testing worries.

Beilock, who is also the author of a recently published book about mental logjams called "Choke: What the Secrets of the Brain Reveal about Getting It Right When You Have To," said the findings of this new research are somewhat counterintuitive. Writing about anxiety before a test, it seems, would cause the worries to crystallize and manifest themselves, not alleviate them.

"But, once you know some of the science behind test anxiety, expressive writing and test performance, it makes sense," she said.

It has been suggested that writing about one's thoughts and feelings regarding a particular event or situation reduces one's tendency to ponder negative consequences because it allows individuals to reexamine the situation such that the need to worry is decreased.

"If worries use up important thinking and reasoning resources that could otherwise be devoted to exam performance and writing eliminates these worries, then students' performance should improve," said Beilock.

The researchers say this type of writing may help people perform their best in variety of pressure-filled situations--whether it is a big presentation to a client, a speech to an audience, or even a job interview.

-NSF-

Media Contacts

Bobbie Mixon, NSF (703) 292-8485 bmixon@nsf.gov

William Harms, University of Chicago (773) 702-8356 wharms@uchicago.edu

Program Contacts

Gregg Solomon, NSF (703) 292-8333 gesolomo@nsf.gov

Principal Investigators

Sian L. Beilock, University of Chicago (773) 834-3713 beilock@uchicago.edu

The National Science Foundation (NSF) is an independent federal agency that supports fundamental research and education across all fields of science and engineering. In fiscal year (FY) 2010, its budget is about \$6.9 billion. NSF funds reach all 50 states through grants to nearly 2,000 universities and institutions. Each year, NSF receives over 45,000 competitive requests for funding, and makes over 11,500 new funding awards. NSF also awards over \$400 million in professional and service contracts yearly.

 [Get News Updates by Email](#)

Useful NSF Web Sites:

NSF Home Page: <http://www.nsf.gov>

NSF News: <http://www.nsf.gov/news/>

For the News Media: <http://www.nsf.gov/news/newsroom.jsp>

Science and Engineering Statistics: <http://www.nsf.gov/statistics/>

Awards Searches: <http://www.nsf.gov/awardsearch/>

Email 

Print 



The National Science Foundation, 4201 Wilson Boulevard, Arlington, Virginia 22230, USA
Tel: (703) 292-5111, FIRS: (800) 877-8339 | TDD: (800) 281-8749
Celebrating 60 Years of Discovery

Last Updated: January 20, 2011