

# Do girls really experience more math anxiety?

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Girls report more math anxiety on general survey measures but are not actually more anxious during math classes and exams, according to new research forthcoming in *Psychological Science*, a journal of the Association for Psychological Science.

Existing research suggests that females are more anxious when it comes to mathematics than their male peers, despite similar levels of achievement. But [education researchers](#) Thomas Götz and Madeleine Bieg of the University of Konstanz and the Thurgau University of Teacher Education and colleagues identified a critical limitation of previous studies examining math anxiety: They asked students to describe more generalized perceptions of mathematics anxiety, rather than assessing anxiety during actual [math classes](#) and exams.

To address this limitation, the researchers conducted two studies in which they collected data from approximately 700 students from grades 5 to 11. In the first study, they compared students' responses on two different measures: A questionnaire measuring anxiety about math tests, and their real-time self-reports of anxiety directly before and during a math exam. In the second study, they compared questionnaire measures of math anxiety with repeated real-time assessments obtained during math classes via mobile devices.

Findings from the two studies replicated prior research and existing [gender stereotypes](#), showing that girls reported more math anxiety than boys on generalized assessments, despite similar [math achievement](#).

However, the data obtained during math exams and classes revealed that girls did not experience more anxiety than boys in real-life settings.

The data further suggest that lower self-reported competence in mathematics may underlie the discrepancy between the levels of anxiety reported

by girls in the two settings. The researchers note that general questionnaires may allow inaccurate beliefs about math ability to negatively bias girls' assessments of their math abilities and exacerbate their [math anxiety](#).

According to Götz, Bieg, and colleagues, these results suggest that stereotyped beliefs regarding [math ability](#), rather than actual ability or anxiety differences, may be largely responsible for women not choosing to pursue careers in math-intensive domains.

Provided by Association for Psychological Science

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