

Girls' mathematics performance more likely to suffer than boys' as a result of mathematics anxiety

8 July 2012

If a train is travelling a distance of 55 miles at 150mph, how long will it take to reach its destination? If the thought of having to answer this question makes you apprehensive, then you may have mathematics anxiety. A new study published today in BioMed Central's open access journal *Behavioral and Brain Functions* reports that a number of school-age children suffer from mathematics anxiety and, although both genders' performance is likely to be affected as a result, girls' maths performance is more likely to suffer than boys'.

Mathematics anxiety is a state of discomfort associated with performing mathematics tasks and is thought to affect a notable proportion of both children and adults, having a negative impact on their mathematics performance. Researchers from Cambridge University, UK, set out to investigate in 433 British secondary school children whether mathematics anxiety has any effect on mathematics performance on boys and girls. The team controlled for [test anxiety](#), a related construct, but which isn't typically controlled for in mathematics anxiety studies.

The investigators found children with higher mathematics anxiety have a lower mathematics performance, but girls showed higher levels of mathematics anxiety than boys and it was a significant indicator of their performance. The fact that there were no [gender differences](#) in maths performance despite higher mathematics anxiety in girls could suggest that girls could have the potential to perform better in mathematics were it not for higher [levels of anxiety](#).

The results from this study provide strong evidence to show that secondary school children experience mathematics anxiety. Lead author Dénes Szűcs commented, "Mathematics anxiety warrants

attention in the classroom because it could have negative consequences for later mathematics education, particularly as it is thought to develop during the primary school years." Mathematics anxiety could account for the reasons why only 7% of pupils in the UK study mathematics at A level and why the number of students taking maths at university level is in decline.

More information: Gender differences in mathematics anxiety and the relation to mathematics performance while controlling for test anxiety, Amy Devine, Kayleigh Fawcett, Denes Szűcs and Ann Dowker, *Behavioral and Brain Functions* (in press)

Provided by BioMed Central

APA citation: Girls' mathematics performance more likely to suffer than boys' as a result of mathematics anxiety (2012, July 8) retrieved 9 October 2022 from <https://medicalxpress.com/news/2012-07-girls-mathematics-boys-result-anxiety.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.