

American girls read and write better than boys

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As early as the fourth grade, girls perform better than boys on standardized tests in reading and writing, and as they get older that achievement gap widens even more, according to research published by the American Psychological Association.

"The common thinking is that boys and [girls](#) in grade school start with the same cognitive ability, but this research suggests otherwise," said David Reilly, a doctoral student at Griffith University and lead author of the study published in *American Psychologist*. "Our research found that girls generally exhibit better reading and writing ability than boys as early as the fourth grade."

Reilly and his colleagues analyzed information from the National Assessment of Educational Progress, a nationally representative data sample of [standardized test scores](#) from more than 3.4 million students in the fourth, eighth and 12th grades in the United States over a span of 27 years.

While the tests showed that girls, in general,

scored significantly higher than boys in both reading and writing in the fourth grade, that gap widened further in eighth and 12th grades, and the difference was far more substantial for writing than it was for reading.

"It appears that the gender gap for writing tasks has been greatly underestimated, and that despite our best efforts with changes in teaching methods does not appear to be reducing over time," said Reilly.

The authors offered several theories to explain the findings. For instance, boys are statistically more likely to have a learning disability and they may also face peer pressure to conform to masculine norms, which could cause them not to make reading a priority.

Another explanation could be that there are [gender differences](#) in behavioral problems, such as physical aggression and disobeying rules, as well as attention disorders, which have been associated with general reading and writing impairments, according to Reilly. "These can be disruptive in the classroom but might also point to a neurological contribution," he said.

There is also some research evidence that girls use both brain hemispheres when presented with reading and writing tasks, whereas boys are more likely to using a single hemisphere of the brain, according to Reilly.

"Bilateral language function presumably affords some benefits, which could explain the female advantage observed on such tasks," he said.

"Boys may also struggle to write as well as girls because it is an ability that requires solid reading skills, as well as competency in verbal fluency, spelling and grammar," said co-author David Neumann, Ph.D., also of Griffith University.

"Reading and writing sets the stage for later

schooling. While we've concentrated on basic literacy, the demands on students for writing grow stronger as they progress through education. In particular, it's crucial for high school and college entry. Each year, more women than men apply for college entry, and more women than men complete their college degrees. It has a cascading effect on students, either up or down," said Reilly.

The findings don't necessarily suggest that boys and girls have radically different learning styles and should not be used to support calls for single-sex education, Reilly warned.

"All the evidence suggests that gender segregation of education reinforces negative gender stereotypes, and makes gender more salient, which could be harmful for boys with reading and writing, and for girls with math and science," he said.

"Rather, it suggests that we need to better tailor our education to meet the needs of boys and really encourage in them early a love not just of reading but also writing."

Future research should closely examine reasons for [gender](#) differences in reading and writing so that educators can design new ways to improve those essential skills in school, he said.

More information: "Gender Differences in Reading and Writing Achievement: Evidence From the National Assessment of Educational Progress (NAEP)," by David Reilly, David Neumann, PhD, and Glenda Andrews, PhD, Griffith University. *American Psychologist*, published Sept. 20, 2018.

Provided by American Psychological Association

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