Single-Sex Education Unlikely to Offer Advantage Over Coed Schools, Research Finds

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February 3, 2014

Single-sex education does not educate girls and boys any better than coed schools, according to research published by the American Psychological Association analyzing 184 studies of more than 1.6 million students from around the world. The findings are published online Feb. 3 in the APA journal Psychological Bulletin.

"Proponents of single-sex schools argue that separating boys and girls increases students' achievement and academic interest," said author Janet Shibley Hyde, PhD, of University of Wisconsin-Madison. "Our comprehensive analysis of the data shows that these advantages are trivial and, in many cases, nonexistent."

A separate analysis of just U.S. schools had similar findings. Researchers also looked at studies that examined coed schools that offered single-sex instruction in certain subjects and found no significant benefits for boys or girls in these cases.

Some studies showed modest benefits for both boys and girls in math performance in single-sex schools, but not for science performance. However, these advantages in math were not evident in studies with more rigorous research methods.

The analysis, funded by the National Science Foundation, included studies of K-12 schools published from 1968 to 2013. Among the studies, 57 used stronger research methods, such as studies in Trinidad and Tobago and Korea that randomly assigned thousands of students to single-sex or coed schools and tracked their outcomes.

Other examples of more rigorous studies controlled for pre-existing differences between students, such as testing students before and after they enrolled in either a single-sex or coed institution. The total sample included 1,663,662 participants in 21 countries. The studies examined students' performance and attitudes in math and science; verbal skills; and attitudes about school, gender stereotyping, aggression, victimization and body image. They did not find sufficient evidence to show any difference in these attitudes between boys and girls in single-sex or coed classrooms.

Theories that single-sex education may be better for students have included the idea that without boys in the classroom, girls would be able to thrive in traditionally male-dominated subjects, such as math and science. "The theoretical approach termed 'girl power' argues that girls lag behind boys in some subjects in coed classrooms," said co-author Erin Pahlke, PhD, of Whitman College in Walla Walla, Wash. "This is not supported by our analysis and, moreover, girls' educational aspirations were not higher in single-sex schools."

The authors noted the lack of studies on single-sex education among low-income students and ethnic minorities, particularly in the U.S., and recommended further research in these populations.

The Article:

"The Effects of Single-Sex Compared With Coeducational Schooling on Students' Performance and Attitudes: A Meta-Analysis," Erin Pahlke, PhD, Whitman College; Janet Shibley Hyde, PhD, and Carlie M. Allison, MS, University of Wisconsin-Madison; Psychological Bulletin, Online Feb. 3, 2014.

Journal reference: Psychological Bulletin

Provided by: American Psychological Association

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