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Schlosser: Girls raise boys' grades

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Contrary to some expectations, increasing the proportion of girls in the classroom may increase the academic attentiveness of normally unfocused boys and can lead to improved learning across entire classes, research from a former post-doctorate fellow at the University shows.

Analia Schlosser, who completed her fellowship in labor economics in December and is now a professor at Tel Aviv University, worked with Victor Lavy of the Hebrew University of Jerusalem to demonstrate that primary-school students in classes made up of more than 55 to 60 percent females show higher test scores and matriculation-success rates and less anxiety about safety concerns, violence and disruption compared to students in male-dominated classes.

Many scholars believe that having mixed-gender classes sometimes causes the boys in the class to show off to the girls and the girls to subdue their talent so as not to scare off the boys by seeming too smart. Schlosser and Lavy's research showed, however, that at least in middle-school-age children, raising the proportion of girls in classrooms increases both boys' and girls' math and science test scores. Classes with high percentages of girls also experienced less disruption and violence and better inter-student and student-teacher relationships.

Princeton educational psychology professor Gita Wilder said that, in general, boys tend to be more disruptive and show higher incidences of reading difficulties and learning disabilities, "so it stands to reason that, if there are more girls than boys in the classroom, the incidence of all of these things will be lower for the class as a whole."

She added that since girls tend to be quieter and generally better behaved, "it would seem logical that, in a class that's populated by equal numbers of males and females, boy behavior and ethos will prevail," while classes dominated by girls will be more composed.

"The 'culture' of the classroom is undoubtedly a function of its members, and the proportions of males and females can be expected to exercise an effect on how the class functions," Wilder said.

Psychology professor Joel Cooper said in an e-mail that the argument that gender composition is responsible for improved academic performance is "highly plausible, but not proven" by the study. He added that Schlosser and Lavy arrived at this conclusion because they could not find evidence for other causes of improved performance. He said that the study was "very well done, statistically."

The research found that seventh- and eighth-grade students in classes with higher proportions of girls showed higher test scores for girls in math and languages.

"My suspicion is that boys, who are more overtly competitive than girls, increase the level of competitiveness in girls," Wilder said. "I would guess that girls, being more likely to collaborate with other girls than to compete with them, may be spurred to compete with the boys in the class and therefore work a bit harder and do better."

The effects on seventh- and eighth-grade boys' test scores were also positive, though less precise, when there were higher proportions of girls in the classes.

The research was based on comparisons of test scores, course credits and matriculation-success rates among classes of nearly half a million schoolchildren enrolled in the Israeli public school system during the 1990s. The paper was completed last August and has not yet been published.

Part of the inspiration for the study, Schlosser said in an e-mail, was a "renewed interest on the effects of classroom gender composition on students' learning" since Title IX regulations allowed schools to offer single-sex classes or activities while still upholding nondiscrimination requirements. She added that she was also interested in "the potential effects of imbalanced sex ratios in co-ed schools that could arise from a differential demand [for] single-sex classes."

Though girls might improve academically when placed in female-only classes, there are drawbacks for the other gender. "The gain for females from school or classroom gender segregation is offset by the loss for males," Schlosser and Lavy wrote in their report, explaining that "placing girls in single-sex classes in math and sciences would deny boys the positive externalities of girls."

Schlosser does not recommend trying to increase the proportion of female students in a class "above its natural level." The question of what that natural level may be, however, is uncertain.

Many coeducational schools aim for roughly equal numbers of females and males. At Princeton, for example, the ratio of males to females in the undergraduate population is about 51 to 49.

The research also indicated that boys in classes with high proportions of females were more likely to take advanced math and science classes during high school than were boys who did not have high proportions of female classmates. Cooper said this might be showing that boys are "claiming this subject area as 'their jurisdiction' and whether that might lead to greater performance (and interest) differences between boys and girls in an area that needs coaxing in the other direction."

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