

Do co-ed classrooms optimize learning?

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(Phys.org)—Do students behave and perform better when only in class with peers of the same sex? A recent study done by University of Arkansas professor Sandra Stotsky reveals clues about the potential of same-sex classes.

"People have been concerned about the gaps between <u>boys</u> and <u>girls</u>, the gender gap in reading and writing and the <u>gender gap</u> in math and science. The latter has, in the past, favored boys or disfavored girls," Stotsky said. "There have been different programs and policies to help girls more with math and science. But the other gap has been around for a long, long time: the gap between boys and girls in reading and writing."

Stotsky, working with colleagues George Denny and Nick Tschepikow in 2009, collected data from two Arkansas elementary schools who were trying same-sex classes, grade 5 in one school and grade 6 in the other.

This voluntary program separated boys and girls and enabled teachers to take advantage of the differences in their interests and try different techniques to engage their students. For example, the grade 6 <u>mathematics teacher</u> found analogies with football in his all boys' class and with gymnastics in his all girls' class helpful. In another school, in a boys' language arts class, the teacher wrote a grammatically incorrect paragraph on the board, and when the boys raised their hands to point out an error, they were tossed a Styrofoam ball before going to the board to correct the mistake. She found that this engaged young boys' competitiveness and playfulness while motivating them to focus and learn.



Having same-sex classes allowed librarians and reading teachers to pick topics that are more enjoyable to the whole class instead of to only part of the class. Boys tended to like books about adventures, cars and sports, while girls gravitated more towards books about <u>personal relationships</u>.

There were mixed results on the state's annual tests for the two schools. In one school, the boys in the same-sex class significantly improved their reading scores compared to boys in the mixed class. In the other school, boys in the single-sex class did not gain more or less than boys in the mixed class.

According to Stotsky, these differences may be the result of many factors. The school where improvement was seen had the same teacher teaching all of the subjects, compared with the other school that had different teachers teaching different subjects. On the other hand, the study could not control for teacher differences in a school with selfcontained classes.

Informal interviews with parents and teachers indicated many positives but also a few negatives for the same-sex classes. Overall, however, they showed promise, and no red flags were raised. Ultimately, Stotsky believes that more research is needed into same-sex classes in coeducational public elementary schools.

"We're just an exploratory study, two classrooms, a couple of years ago. We're just saying single-sex classes are worth exploring more," Stotsky said. "Especially since they are formed and maintained with the consent of teachers, parents and the principal."

Stotsky is an endowed chair in teacher quality. The research reported will be published in the *Journal of* <u>School</u> *Choice* in December 2012.



Provided by University of Arkansas

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