

Single-Sex Classrooms: Are They Best for Girls?

Girls-only classes are gaining in popularity, but whether they help girls to learn is still an open question

by Karyn Hede, *special correspondent*



The popular musical group the Spice Girls calls it “Girl Power.” It’s that intangible feeling of self-worth that some girls have—and others don’t. But ask a group of researchers and educators how best to boost a girl’s self-esteem, which is thought to be key to academic success, and the arguments begin.

The idea that all-female secondary schools do a better job of instilling a sense of academic competence and accomplishment is spreading across the U.S. Enrollment in the 84 public and private girls’ schools that are members of the National Coalition of Girls’ Schools (NCGS) has increased 15 percent since 1991. And in the past three years, 18 new all-girl schools—seven of them public—have opened their doors in the U.S.

But a report issued in March by the American Association of University Women (AAUW) challenges the notion that “girls only” is the best approach to educating young women. After an exhaustive review of available research on single-sex classrooms in public, private and parochial schools worldwide, a panel of educators and researchers concluded that there is no evidence in general that a same-sex environment helps girls do better in school.

Then why are so many school boards taking a gamble on all-girl schools? Many trace the trend to a set of research articles that shook up educators in the mid-1980s. Among the most often cited is a three-year study of more than 100 fourth-, sixth- and eighth-grade classrooms by David and Myra Sadker of American University. The Sadkers found that both male and female teachers tend to favor boys and to downplay girls’ contributions and to discourage girls unintentionally from achieving in traditionally male-dominated subjects such as math and science. According to the researchers, boys receive more frequent and precise feedback, such as clear criticism and praise from teachers, whereas

girls receive less classroom attention, leading to decreased standardized test scores and self-esteem.

Child psychologist Mary B. Pipher added to the negative perception of coeducation with her 1994 best-seller *Reviving Ophelia: Saving the Selves of Adolescent Girls*. In the book, Pipher describes how girls are demeaned by the pattern of sexual harassment by adolescent boys they often face at school.

To remedy such ills, the state of California last year opened six pairs of experimental single-gender “academies” within existing public schools across the state, each funded by a \$500,000 grant from a state appropriation. New York City opened a public all-girl school in 1996, and similar experiments are being considered in cities from Seattle to Presque Isle, Me.

Girls, Math and Science

Barbie said, “Math is hard,” and parents and teachers across the country scurried to prevent girls from getting the message that it’s feminine not to like math.

But while educators strive to ensure that girls are given every opportunity to achieve in traditionally male-dominated fields such as math and computer science, some scholars are asserting that teachers and administrators must first recognize that girls relate to these subjects differently than boys.

The stakes are high: women who stick with math and science earn more than their counterparts who don’t. And the well-recognized gender gap in wages virtually disappears for women in their 30s who have earned eight or more credits of college-level mathematics, as reflected in 1991 Department of Education statistics. Yet girls still tend to avoid these subjects, and because of it they continue to be underrepresented in high-paying math, computer science and engineering jobs.

Many feminist scholars say girls will succeed in math and science more often if

teachers present the material in a “girl-friendly” way. Psychologist Carol F. Gilligan argues that girls learn best by making connections, whereas boys are more comfortable with abstract concepts and working things out individually—the way subjects like math and science have usually been taught.

“Girls have different ways of knowing,” says Suzanne K. Damarin of Ohio State University. She asserts that girls learn abstract concepts best if they are placed in the context of personal experience. Traditionally, Damarin observes, math concepts are presented in a language of hierarchies, power and competition that girls learn to avoid.

Damarin believes that single-sex schools are a good idea when they are implemented thoughtfully, because such environments allow girls to explore fields such as computer science that can be too intimidating in a coed situation. In some coed classes, teachers introduce students to computers using competitive games in which the on-screen “heroes” are male and students compete against one another or the computer for points. Most girls prefer a cooperative environment, according to Dam-



ARMEN KACHATURIAN Gamma Liaison Network

Girls participate in a science class at New York City's Young Women's Leadership School.

Proponents of all-girl schools point to studies showing that girls emerge from a single-gender educational environment more confident in their abilities and more likely to feel comfortable in math and science classes than girls from coeducational schools. "I think it's the culture of an all-girl environment that really puts a solid flooring under girls as they get involved in their schoolwork," says Whitney Ransome, executive director of NCGS. "There is no subtle message that they can't do something. It's a real can-do culture."

But the new report, entitled "Separated by Sex," reveals that although girls report higher self-esteem in single-sex classes, for most this does not translate into higher test scores or a propensity for a career in math and science. The one exception appears among minority girls, who seem to thrive in single-gender classrooms as compared with peers who are educated in coed classes. Researchers ascribe these differences to an atmosphere that empowers minority students to excel.

Other recent studies suggest that single-sex classes and schools not only do not lead to higher grades but in fact can actually reinforce traditional gender stereotypes that can hinder girls' achievements. For example, in a 1994 study of 21 schools across the U.S., University of Michigan researchers Helen M. Marks (now at Ohio State University) and Valerie E. Lee found that gender stereotyping—reinforcing the cultural norms of masculine and feminine behaviors—occurs as often in single-sex schools as in coed schools.

Lee, who is a co-author of the AAUW report, has conducted studies showing that Catholic all-girl schools improve the students' academic performance. Still, subsequent efforts to duplicate her research in nonparochial all-girl schools have caused her to have second thoughts about single-sex schooling.

Lee adds that instituting single-sex classes within coed schools can backfire. "People never think about what the ripple effects are going to be throughout the rest of a coeducational institution if you start offering physics or math classes just for girls," she says. "Not all girls are going to want that option. So you end up siphoning off some girls and having even fewer girls in the coeducational class."

Such criticisms might fuel already pending complaints such as the one against New York City's recently opened Young Women's Leadership School brought under Title IX of the Education Amendments of 1972 by the New York Civil Liberties Union and by the New York chapter of the National Organization for Women. Title IX prohibits school districts from discriminating against students on the basis of sex.

So what works for girls? The AAUW report concludes that small class size, a rigorous academic curriculum and teachers who are involved in helping all students achieve are more important than whether a boy sits at the next desk.

Janice Weinman, executive director of AAUW, says she hopes the report will slow some of the rush to institute all-girl education in public schools. "We'd like people to take a second look at whether there should be support and funding for single-sex classrooms in a public school setting," she says.

Yet the demand for all-girl schools remains strong. "What we need in this country is a variety of educational options," Ransome asserts. "We know more research is needed. But we also know from our own observations and decades of experience with all-girl settings that it does make a difference." 5A

arin, where teams work together and there is no fixed "right way" to solve a problem.

But other educators caution that overgeneralizing girls' innate interests and abilities can make girls who are already interested in math and science feel like something is wrong with them. Researchers such as Patricia B. Campbell, president of Campbell-Kibler Associates, an educational consulting firm in Groton, Mass., says that discussing sex differences between boys and girls only reinforces gender stereotypes. "If you are 13 and you have interests in math and numbers and people are telling you math's not for girls, that's devastating," she says.

Campbell challenges the notion that girls have different learning styles. The differences between individual girls and boys are much greater than between the "average" girl or boy, she notes. The key to having girls succeed in math and science is identifying strategies to teach those subjects that work for both girls and boys, she states.

Despite the continuing disparity between the achievements of girls and boys in math and science, things might be beginning to change. "Girls continue to underaspire,"

says Janice Weinman, executive director of the American Association of University Women (AAUW). "But we have made progress, particularly in the area of test scores, where the gap appears to be closing."

The test scores of U.S. 12th graders had one of the smallest gender gaps of the 41 nations that participated in the Third International Mathematics and Science Study, which was released in February—although U.S. students scored well below the international average. But data from the 1996 National Assessment of Educational Progress showed that even though fourth- and eighth-grade boys and girls had similar test scores in science, by the 12th grade, boys scored higher than girls.

So what does it take to keep girls engaged in math and science? There are hundreds of new programs that try to get girls involved in these subjects, but few have more than anecdotal evidence that they are doing any good. The problem, Campbell offers, is that most programs aren't doing follow-up research on how well they achieve their goals. "One program for girls I evaluated actually showed that doing nothing

was better than doing something," she says.

The Department of Education has established expert panels to review the educational programs in individual schools that have managed to keep both girls and boys interested in math and science. The panel is charged with recommending which of the schools has programs that others should adopt. The first panel, which is evaluating math programs, is expected by mid-1998 to designate programs that work, according to program coordinator Susan Klein. "The goal is to highlight programs that demonstrate excellence and make the information available nationally," she says.

But educators already agree that the best math and science programs for girls have several things in common. In a 1995 report entitled "Growing Smart: What's Working for Girls in School," the AAUW concluded that successful programs place girls in cooperative learning groups that eliminate a competitive environment; provide girls with mentors and role models; give girls plenty of access to computers and lab equipment; and work with community groups to help girls achieve goals. —K.H.

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