



Should boys and girls attend same gender schools?

To answer this question we must first examine whether **boys and girls learn differently?**

According to experts at the **www.greatschools.net** website, gender differences become apparent at an early age and can be seen in the different ways girls and boys play and learn. In a first-grade classroom, it's not unusual to find the girls working quietly at their desks or cooperatively in small groups as the boys toss paper wads through the air, make silly faces at each other across the room, or seem bored, distracted and restless when seated. While many girls politely raise their hands to answer the teacher's questions, many boys blurt out their answers. Over the past decade or so, researchers have attempted to determine what, if any, natural differences exist between male and female brains when it comes to learning. Research in neuroscience has found gender variation in human brain anatomy, chemical processes and function. These variations occur throughout the brain and influence language, memory, emotion, vision, hearing and navigation — all elements in human learning.

The Minds of Girls

The following are some of the characteristics of girls' brains:

A girl's corpus collosum (the connecting bundle of tissues between hemispheres) is, on average, larger than a boy's—up to 25 percent larger by adolescence. This enables more "cross talk" between hemispheres in the female brain.

Girls have, in general, stronger neural connectors in their temporal lobes than boys have. These connectors lead to more sensually detailed memory storage, better listening skills, and better discrimination among the various tones of voice. This leads, among other things, to greater use of detail in writing assignments.

The hippocampus (another memory storage area in the brain) is larger in girls than in boys, increasing girls' learning advantage, especially in the language arts.

Girls' prefrontal cortex is generally more active than boys' and develops at earlier ages. For this reason, girls tend to make fewer impulsive decisions than boys do. Further, girls have more serotonin in the bloodstream and the brain, which makes them biochemically less impulsive.

Girls generally use more cortical areas of their brains for verbal and emotive functioning. Boys tend to use more cortical areas of the brain for spatial and mechanical functioning (Moir & Jessel, 1989; Rich, 2000).

With more cortical areas devoted to verbal functioning, sensual memory, sitting still, listening, tonality, and mental cross talk, the complexities of reading and writing come easier, on the whole, to the female brain. This may explain why girls outperform boys in reading and writing.

The Minds of Boys

What, then, are some of the qualities that are generally more characteristic of boys' brains?

Because boys' brains have more cortical areas dedicated to spatial-mechanical functioning, males use, on average, half the brain space that females use for verbal-emotive functioning. The cortical trend toward spatial-mechanical functioning makes many boys want to move objects through space, like balls, model airplanes, or just their arms and legs. .

Boys not only have less serotonin than girls have, but they also have less oxytocin, the primary human bonding chemical. This makes it more likely that they will be physically impulsive and less likely that they will neurally combat their natural impulsiveness to sit still and empathically chat with a friend. (Moir & Jessel, 1989; Taylor, 2002).

Boys lateralize brain activity. Their brains not only operate with less blood flow than girls' brains, but they are also structured to compartmentalize learning. Thus, girls tend to multitask better than boys do, with fewer attention span problems and greater ability to make quick transitions between lessons.

The male brain is set to renew, recharge, and reorient itself by entering what neurologists call a *rest state*

. The boy in the back of the classroom whose eyes are drifting toward sleep has entered a neural rest state. It is predominantly boys who drift off without completing assignments, who stop taking notes and fall asleep during a lecture, or who tap pencils or otherwise fidget in hopes of keeping themselves awake and learning. Females tend to recharge and reorient neural focus without rest states.

This is especially true when the teacher uses more words to teach a lesson instead of being spatial and diagrammatic.

The more words a teacher uses, the more likely boys are to "zone out," or go into rest state. The male brain is better suited for symbols, abstractions, diagrams, pictures, and objects moving through space than for the monotony of words (Gurian, 2001).

These typical "boy" qualities in the brain help illustrate **why boys generally learn higher math and physics more easily than most girls do when those subjects are taught abstractly on the chalkboard;**

why more boys than girls play video games that involve physical movement and even physical destruction; and why more boys than girls tend to get in trouble for impulsiveness, shows of boredom, and fidgeting as well as for their more generalized inability to listen, fulfill assignments, and learn in the verbal-emotive world of the contemporary classroom. Info gathered from www.ascd.org (Association for Supervision and Curriculum Development) website with excerpts from the book **Educational Leadership**

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Closing Achievement Gaps

by

Michael Gurian and Kathy Stevens.

So what are the Pros and Cons of same gender schools?

The [National Association for Single-Sex Public Education](#) estimates that approximately 400 public schools now offer some form of single-sex education.

Pros

Those who advocate for single-sex education in public schools argue that:

Some parents don't want their children to be in mixed-gender classrooms because, especially at

certain ages, students of the opposite sex can be a distraction.

Leonard Sax and others agree that merely placing boys in separate classrooms from girls accomplishes little. But single-sex education enhances student success when teachers use techniques geared toward the gender of their students.

Some research indicates that girls learn better when classroom temperature is warm, while boys perform better in cooler classrooms. If that's true, then the temperature in a single-sex classroom could be set to optimize the learning of either male or female students.

Some research and reports from educators suggest that single-sex education can broaden the educational prospects for both girls and boys. Advocates claim co-ed schools tend to reinforce gender stereotypes, while single-sex schools can break down gender stereotypes. Federal law supports the option of single-sex education. In 2006, Education Secretary Margaret Spellings eased federal regulations, allowing schools to offer single-sex classrooms and schools, as long as such options are completely voluntary. This move gives parents and school districts greater flexibility.

Cons

Those who claim single-sex education is ineffective and/or undesirable make the following claims:

Few educators are formally trained to use gender-specific teaching techniques. However, it's no secret that experienced teachers usually understand gender differences and are adept at accommodating a variety of learning styles within their mixed-gender classrooms.

Gender differences in learning aren't the same across the board; they vary along a continuum of

what is considered normal.

Students in single-sex classrooms will one day live and work side-by-side with members of the opposite sex. Educating students in single-sex schools limits their opportunity to work cooperatively and co-exist successfully with members of the opposite sex.

At least one study found that the higher the percentage of girls in a co-ed classroom, the better the academic performance for all students (both male and female). In high school, the classrooms with the best academic achievement were consistently those that had a higher percentage of girls.

The American Council on Education reports that there is less academic disparity between male and female students overall and a **far greater achievement gap between students in different racial, ethnic and socioeconomic groups, with poor and minority students children faring poorly. Bridging that academic chasm, they argue, deserves more attention than does the gender divide.**

Single-sex education is illegal and discriminatory, or so states the American Civil Liberties Union (ACLU) . In May 2008, the ACLU filed suit in federal court, arguing that Breckinridge County Middle School's (Kentucky) practice of offering single-sex classrooms in their public school is illegal and discriminatory. The school doesn't require any child to attend a single-sex class, yet the suit argues that the practice violates several state and federal laws, including Title IX and the equal Educational Opportunities Act.

What can teachers do?

While the experts debate the issue, children need to be educated. Here are some tips for teachers to implement in the classroom to meet all of the needs of their students.

For Elementary Boys

Use beadwork and other manipulatives to promote fine motor development. Boys are behind girls in this area when they start school.

Place books on shelves all around the room so boys get used to their omnipresence.

Make lessons experiential and kinesthetic.

Keep verbal instructions to no more than one minute.

Personalize the student's desk, coat rack, and cubby to increase his sense of attachment.

Use male mentors and role models, such as fathers, grandfathers, or other male volunteers.

Let boys nurture one another through healthy aggression and direct empathy.

For Elementary Girls

Play physical games to promote gross motor skills. Girls are behind boys in this area when they start school.

Have portable/digital cameras around and take pictures of girls being successful at tasks.

Use water and sand tables to promote science in a spatial venue.

Use lots of puzzles to foster perceptual learning.

Form working groups and teams to promote leadership roles and negotiation skills.

Use manipulatives to teach math.

Verbally encourage the hidden high energy of the quieter girls.

Visit www.connectforkids.org , [www.singlesexschools.org/ research -learning.htm](http://www.singlesexschools.org/research-learning.htm) , [w
www.unicef.org/teachers/learner/gender.htm](http://www.unicef.org/teachers/learner/gender.htm)

,
www.amazon.com/Boys-Girls-Learn-Differently-Teachers

and
www.nytimes.com/2008/03/02/magazine/02sex3-t.htm

for more information.

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