



## Gender Differences in Learning Style

Differences in academic achievement between genders is often discussed in terms of math and science courses or test scores. Sometimes behavior and discipline is highlighted as part of gender norms. Another way of looking at the differences between boys and girls is in the varying learning styles that each tends to utilize and the theories of how those styles are innate to each.

### How Girls' Brains Work

Research published by the Association for Supervision and Curriculum Development focuses on the physical difference in brain structure between boys and girls. One difference is the presence of a larger *corpus callosum* in girls, which means there is an increased communication between the brain's hemispheres. This can result in increased memory and listening skills. Writing and reading also benefit from the learning strengths of girls' brains.

### How Boys' Brains Work

The structure of the male brain includes more cortical areas associated with spatial-mechanical function. That makes boys want to play with movement through the space around them. Additionally, boys only use half the brain space girls use for verbal-emotive functions. Boys' brains compartmentalize learning, which affects the ability to multitask and transition between activities. A boy's brain also produces less serotonin and oxytocin, which makes them more physically impulsive and less likely to be able to sit still in a classroom.

### Differences with Words and Details

With the difference in girls' perceptions of information and creation of connections between ideas, girls are more likely to include sensory details in their writing. They often write with more words than boys and include more emotional details. On the other hand, boys learn better with pictures and moving objects. Boys are often better served by creating visual representations of their ideas prior to writing (this engages the spatial-mechanical functions in their brains).

### Differences in Math and Technology

Research shows that the style in which boys and girls understand math differs. As a result, different teaching methods are necessary. Drawing figures and formulas on a board support boys' brain structures and learning styles. Integration of words and group activities support girls' learning styles.