

Building Boy-Friendly Learning Environments

International Boys' Schools Coalition

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Do Girls and Boys Learn In the Same Ways?

- Girls are more verbal
 - Fluency not intelligence or vocabulary
 - Boys slower in attaining spelling and grammar skills
- Boys are better at spatial relations
 - Connection to math skills possible
- Are boys really more active?
 - Activity linked to space available
 - Expectations and biology
- Boys are more aggressive
 - Need for roughhousing
 - Need for competition

Left-Right Brain Differences

	Left Girls develop first	Right Boys develop first
Hippocampus Girls develop first	Memory of Nouns	Memory of pictures and topography
Amygdala Boys develop first	Spelling, word reading, verbal intellect, vocabulary	Mathematical calculation and performance

(Papanicolaou *et al.*, 2002; Yurglen-Todd *et al.*, 2003)

Physical and Sensory Differences between girls and boys

- Physical – up to two years difference in middle school
- Hearing – Girls more sensitive to sound than boys
- Vision – Boys have more acute vision than girls and see objects in motion better; color differences: pink v. blue
- Touch – boys are hands-on, girls observe

Cognitive Differences between girls and boys

- Verbal – girls more fluent in both speaking and writing
- Spatial – boys better at rotation and spatial-temporal
- Visual – girls better at perceptual speed and memory for placement of objects, boys better at remembering pictures
- Learning modalities – verbal/auditory v. iconic/kinesthetic

Differences in Learning Issues

- ADHD
 - More males due to social bias?
 - Cause of inattention may be something other than learning problem
- Dyslexia
 - More males – but is it a developmental problem?
- Dysgraphia
 - more males – but is it due to social expectations?
- Dyscalculia
 - Girls give up too easily because of social beliefs
 - Boys will avoid math

Emotional Differences

- Fight or Flight vs. Tend and Befriend
 - Girls need to be taught how to manage stress
 - Teach students how to address the issues in a fight, not to sink to personal attacks
- Gazing Differences
 - Girls focus on faces, boys on objects
- Frontal Lobe Development – delayed in males
 - Impulsivity
- Amygdala vs. Hippocampus
 - Emotional decision making
 - Girls use verbal skills to convey their feelings
 - Teachers are key for boys to like school

Discipline for Boys

- Lectures don't work
- Reference specific behaviors and specific solutions
- Discipline should be firm, clear, direct

What boys need in the classroom

- Sound
 - Low, slow, and loud
- Visual Information
 - Pictures, charts, tables
 - Graphics as key to memory
- Touch
 - Hands on learning environment
 - Colder classrooms
- Learning modalities – Iconic/kinesthetic v. visual/verbal

Classroom Strategies

- Reading too passive for boys as memory is based on pictures not words
 - Graphic novels
- Focus on the action in the material first, characters second
 - Battles before politics
 - Start with the facts, then reasons, finally people involved
- Help students learn to separate examples from concepts
 - Underlining/highlighting skills

Non Academic Courses

- Art
 - Representational, 3-D, photography
- Music
 - Groups and loud instruments
- Drama
 - Use in classroom as part of reading instruction
- Sports
 - Every day
 - Competitive even if intramural

Examples from a school for boys



Friendly, focused, funny, & fair



Boys respond to role models



Every boy is known and loved



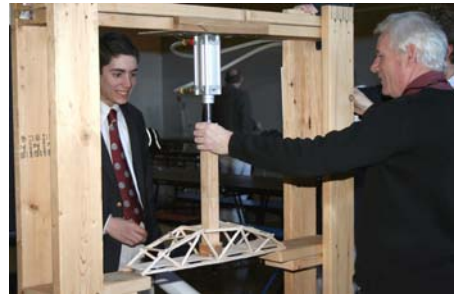
Boys are social



Boys are competitive



Boys are active



Boys are great leaders



Lower school is active



Middle school involved with arts



Upper school learns to care



In a boys' school, boys LIKE school



Conclusion

- Boys learn well when the environment is responsive to cognitive gender differences
- Learning opportunities which are designed to provide visual information in a hands-on fashion work best
- Remember that learning disabilities may be an indication of developmental differences