

Teaching the Male Brain

*How Boys Think, Feel,
and Learn in School*

Second Edition

Abigail Norfleet James

Foreword by Bradley Adams



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Foreword

For many years now there has been persistent concern that, in nearly all Western countries, boys are faltering in school. On average, girls outshine boys by almost every metric of achievement and school connectedness. The relative success of girls in nearly all realms of formal education, is still a work in progress and with many barriers still to be overcome, is one of the most profound social revolutions of our era. But a concern remains that too many boys are leaving our schools ill-prepared to enter full participation in the modern economy and to do their part in creating a just and equitable world. Why this is so and what can be done about it are questions not easily answered, and the debate is often intemperate and misplaced. But surely all of us aspire to a world where all young people—boys and girls—can optimize their learning and potential, and reap the full benefit of schooling. This newly updated and expanded book by Abigail Norfleet James, a leading world expert on gendered education, helps us to reach that goal.

The first edition of *Teaching the Male Brain: How Boys Think, Feel, and Learn in School* came out in 2007, the product of many years of harvesting the research literature on gendered education and reflection on a long, varied teaching career. Since its publication, Abigail Norfleet James has had occasion to test, refine, and build upon this important and well-respected work. She has visited 13 countries, 21 states, and hundreds of schools around the world, doing workshops and consultations and speaking to thousands of educators. She has written a companion volume, *Teaching the Female Brain*, and a book on parenting boys. It's hard to think of another expert in the field of boys' education as passionately committed to the well-being of children and to boys' success in the classroom.

For this new edition of *Teaching the Male Brain*, Abigail Norfleet James considerably updates the research since 2007, revisits and tweaks her main arguments, adds new thoughts and direction for pedagogy, and includes a significant chapter on teaching boys in co-educational settings. She is again that very rare educational expert: a scholar steeped in the research literature and a committed and gifted classroom teacher. And this new ver-

sion of *Teaching the Male Brain* is again a masterful work, combining research from many disciplines, especially the most recent neuroscience, with advice for teaching honed during a lifetime of working with boys in schools. It is this ability to bring research and practice together—to make possible a dialogue between them—that marks off her approach from that of many other writers. She is careful and sure-footed in canvassing the research on the physical, sensory, socioemotional, and cognitive differences between girls and boys—or more accurately between the female brain and the male brain—and mines the significance of these differences for appropriate pedagogical response. She applies wise and considered judgment, following up on the implications of research that seems compelling and productive for the practice of teaching boys. Always critical of stereotypes or simplifications, she paints a nuanced picture of the interplay of “nature” and “nurture.” The proof, as they say, is in the pudding: The bulk of the book provides teachers with a plethora of strategies, lessons, and resources for teaching boys. Throughout the book, she engages in a high-level professional discussion with teachers, and there is a spirit of respect for how teachers think and go about the business of developing curriculum and honing their pedagogical craft.

Not surprisingly, much of this warranting of good practice is drawn from the author’s own experience in boys’ schools and from some of the remarkable teaching she has witnessed, and fostered, in boys’ schools around the world. The author is appreciative of the special expertise that can flourish in boys’ schools, and of the ways in which single-gender education, with intentional teaching and school leadership, can be transformational for boys as well as girls. Anyone who has observed brilliant teaching in boys’ schools or the powerful ways in which these schools can connect boys to learning will know what this means. At the same time, if honest with themselves, those in co-ed schools would admit that they struggle with the performance of many boys in their classrooms and that they need a more positive, sensitive, and comprehensive way to reach them and help them succeed. The truth is that co-ed schools can and should benefit from the knowledge of expert teachers of boys—and from exactly the expertise and advice on offer in *Teaching the Male Brain*.

All teachers who care about the well-being and success of boys, along with all educators interested in building bridges between research and practice in gendered education, will find *Teaching the Male Brain* a stimulating, insightful, and hugely important resource.

—Bradley Adams

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The ninth-grade physical science class was hard at it one day. They heated thin strips of wood in a test tube and found that when they were finished, the wood had shrunk and turned a dark gray. A thick, dark brown smelly substance was stuck to the walls of the test tube, and a colorless, odorless gas had been produced. There were lots of giggles when they discovered that the gas was methane, and that it did indeed burn, but there was some discussion in the back of the room as to whether methane was actually odorless. The dark smelly substance turned out to be tar, and that started a conversation about where tar on the roads came from and whether it was the same tar as in cigarettes. The gray wood was charcoal, and a debate ensued about the relative merits of charcoal versus wood for barbecuing. At the end of the lab period, the classroom stunk, most of the boys had a bit of tar on them somewhere, and they had used open flames. One boy turned to me as he left and said, "Mrs. James, this has been more fun than I have ever had in class in my life."

This lab is part of a science course that was designed expressly for boys. Each day the students find a bin with materials and a lab sheet. The teacher spends no more than five minutes helping the boys set up the exercise before they begin. The lab sheet helps structure the collection of data and provides some direction about what the boys are to do. The teacher helps with troubleshooting by asking questions to help the boys figure out what they are doing. At the end of the lab, with prompts from the teacher, the class discusses the findings and figures out what happened and why. For most lab exercises, a written lab report is required.

This course works because boys in the ninth grade learn best by being active, by putting their hands on the materials, and by talking about the material once they have some context to work with; they like doing something in class, and they can better grasp concepts when they have a concrete visual reference. When I developed the course, I didn't know why this approach worked with my students. I knew what worked with boys, but I wasn't always sure why. Consequently, it was hard for me to convince other teachers to try this course because I couldn't explain to them the reasons for the way the course was constructed. I can now explain why this course works for boys.

Would this method work for you? How does your brain work?

To determine how you best process information, read the following statements and select the choice that most nearly describes you.

1. When putting something together, you are more likely to
 - A. Read the directions first
 - B. Look at the diagrams first

2. When working together with others, you are more likely to
 - A. Choose to work with people you know you get along with
 - B. Choose to work with people who know a lot about the subject
3. When you have to learn a skill, you are more likely to
 - A. Read about how to do it
 - B. Ask someone to show you how to do it
4. How important is the teacher in how well you do in a course?
 - A. I work hard regardless of the teacher
 - B. I am more likely to do well if the teacher and I get along
5. When you are bored in class or in a meeting, you are more likely to
 - A. Daydream
 - B. Doodle
6. When watching TV with other people, you are likely to find that the sound is
 - A. Too loud
 - B. Not loud enough
7. If you had a choice you would rather
 - A. Write a poem to be given to everyone to read
 - B. Recite a poem in front of a group
8. If you give directions, you are more likely to describe the route
 - A. Using landmarks
 - B. Using mileage and compass directions
9. You are more likely to select a book to read that is
 - A. A sensitive treatment of family relationships in turmoil
 - B. A thriller about daring exploits
10. How easy is it for you to understand how someone feels by looking at their facial expression and body language?
 - A. Easy
 - B. Difficult

If you select more A choices, you are likely to be a reflective learner whose auditory/hearing and verbal/reading skills make experiential/hands-on learning a problem, but who will shine in a traditional classroom where reading and writing are important.

If you select more B choices, you are likely to be an active learner whose kinesthetic/physical and iconic/visual skills make learning in a

traditional classroom more difficult, but who will shine in laboratory exercises and other hands-on tasks.

The “B” brain is usually described as the Male Brain because more men appear to think and reason in this fashion. There are women who think this way as well, although not nearly as many as men. As a female with a male brain, I had a hard time in school because my teachers assumed that I should be able to work like my female classmates. What helped me realize how I learned best was working with my male students, especially when I taught them in coed environments. It was there that I began to understand how the methods I had learned in a single-sex environment—both boys’ schools and girls’ schools—could make a difference for my “B” brain students in a coed environment. From this point on, I’ll refer to the “B” brain as a male brain even though the methods will work just as well with girls who learn this way.

What follows is a discussion of the unique ways that most boys learn, together with some applications for schools and classrooms. This book addresses the belief that boys and girls do not always learn in the same way, and different approaches to teaching benefit both. As schools are presently configured, girls appear more successful in school settings. In 1990, the results from the reading portion of the National Assessment of Educational Progress (NAEP) indicated that at ages 9, 13, and 17, girls had an 11 to 12 point advantage over boys. In 2012, the same test showed that boys had made some progress but primarily among 9-year-olds. In the same years on the mathematics test, there were essentially no differences between boys and girls at ages 9 and 13, and that did not change from 1990 to 2012. At age 17, the three-point difference which boys enjoyed in mathematics in 1990 had only grown by one point in 2012 (National Assessment of Educational Progress [NAEP], 2012). Since it is verbal skills that are used to indicate the success of students in schools, these scores indicate that boys continue to fall behind girls in academic proficiency.

Some boys have no trouble in school, but others are failing, dropping out, or not continuing in education past high school. Data from the National Center for Education Statistics (NCES) showed that in 2012, 57 percent of those receiving bachelor’s degrees, 59 percent of those receiving master’s degrees, and 51 percent of those receiving doctorate degrees were women (National Center for Education Statistics [NCES], 2014). Colleges are concerned with the lack of male applicants (Gose, 1997). It is for the boys who are having trouble that this book is written, or rather, for their teachers and families. Boys who are not succeeding in an educational setting are not necessarily unable to learn, but it is likely that they learn in very different ways than those for which classrooms are now structured.

One caveat. Not all boys will fit the model used for this work. More important, cognitive differences within gender—girls compared to girls and boys to boys—are far greater than differences between the two genders (Halpern, 2012). These differences in how children process information are

largest at birth and shrink over time but never really disappear. However, differences in other areas, such as hearing and smell, are large and remain that way throughout life. Additionally, differences between genders can be magnified in a school setting. Stereotyping, peer pressure, social expectations, and environmental influences from families, peers, and teachers, as well as the media and entertainment industry, all work together to intensify the importance placed on gender differences. Students enter your classroom with beliefs about gender-appropriate behavior for them and for their classmates and for you. Understanding those beliefs and helping children cope with how those beliefs affect classroom performance is preferable to pretending that the beliefs don't exist.

All of those influences are what makes it hard to determine exactly which differences are due to biology and which are due to environment. We will begin with biological factors that are the source of gender attributes and then show how those factors are influenced by the world. For example, it is generally thought that boys, ages 20 to 36 months, are more active than girls. Research has shown that when children are very young, the difference in activity level is related more to the amount of space allowed each child than to the child's gender (Maccoby, 1998). Boys may be noisier and more active than girls because of expectations and not biology, but most are still noisier and that can have a deleterious effect on their classroom experience.

Certain terms are used extensively in this book, and what follows are brief definitions of how those terms are used here.

Cognition refers to all of our mental functions, such as thinking, remembering, dreaming, and problem solving. If a child's cognitive skills are not a good fit for the academic activity at hand, the child may appear to be learning disabled. For example, if a child does not learn well from auditory information, the child is going to have trouble in a conversational Spanish class. However, the same child may have little trouble learning Spanish when the material is presented in written form. Some cognitive abilities and weaknesses are typical of boys, but you will find girls with the same cognitive patterns, and the information presented here will help them as well. Remember, the information included here is typical for most boys but not necessarily for all boys.

Stereotype refers to beliefs that we have about the way people behave as a result of their membership in a group. What facts those beliefs are based on and where they begin is the subject of much speculation. Many stereotypical beliefs have no basis in fact; for example, blondes are not thought to be academically capable in spite of many examples to the contrary. Other stereotypical beliefs do have some factual basis—for example, the view that males don't like to read. In fact, many men do like to read, but the learning curve for reading is different for girls and boys. In general, girls learn to read earlier than boys, and the stereotype of males not liking to read begins there, even though most boys will catch up to girls later.