

About Kelley King

Kelley King is a twenty-seven year veteran educator, an international speaker, an author, and a mother of both a son and a daughter. As a Master Certified Trainer and online instructor for the Gurian Institute, Kelley travels widely to deliver keynotes, teach workshops, and provide consultation to educators and parents. Additionally, Kelley develops and facilitates cutting-edge training curricula for online teacher education.

Kelley has worked at the elementary, middle and high school levels in regular education, special education and gifted and talented programs. She has served schools with diverse racial, linguistic and socioeconomic student populations, as well as schools ranging from rural, one-room schoolhouses to large suburban schools. Kelley provides professional development in a wide range of private and public schools, including inner-city and Title I schools across the United States. She has also had the privilege of working with teachers from Asia, the Middle East, Iceland, Canada and Jamaica.

As a school administrator, Kelley led her staff to close the gender gap in reading and writing in just one year and, in doing so, gained national media attention. Kelley's work has been featured on The Today Show, National Public Radio, and National Health Journal, as well as in *Newsweek* magazine and in *Educational Leadership*.

Kelley is the author of *Writing the Playbook: A Practitioner's Guide to Creating a Boy-Friendly School*, published by Corwin Press in 2013. Kelley has also co-authored (with Michael Gurian and Kathy Stevens) two previous books in the education field: *Strategies for Teaching Boys and Girls: Elementary Level* and *Strategies for Teaching Boys and Girls: Secondary Level*.

www.boyfriendlyschoools.com

FIND A PROGRAM TO MEET YOUR NEEDS

All presentations (schedule, content, etc) are customized to best meet the needs of the client

Keynotes:

1.5 to 2.0 hour keynotes provide parents, community members and educators with the essential information about hard-wired brain differences between boys and girls and the implications for improving motivation, behavior & achievement.

Kelley's keynotes will give your event the high-energy opener or closer that you are looking for. Humorous, fast-paced, and eye-opening, Kelley's keynote will provide an introduction to the brain science and will equip attendees with some key strategies that they can immediately implement. Unlike most keynotes, Kelley's participants will be actively engaged, interacting with one another, and on the edge of their seats! Kelley's highly-relatable style helps participants engage with both Kelley and with the content through laughter, reflection, and a renewed sense of empowerment to help students thrive.

Full-Day or Multi-Day Workshops:

This is not your typical professional development workshop. Teachers can be a tough audience because they are not used to sitting all day and listening! This workshop will surprise your audience because the time will literally fly. Kelley's workshops involve plenty of interaction, collaboration and movement. By practicing what she preaches, Kelley paces the workshop to keep participants alert and engaged. Lecture portions are enhanced through the use of multi-media and frequent opportunities for dyad and triad discussion and processing. Participants will regularly take part in fun activities that model effective strategies that can be immediately applied at the school and classroom levels. By the end of the workshop, educators will be pumped up, empowered, and overflowing with the most effective strategies to immediately improve the engagement and achievement of students!

Participants will:

- Analyze and discuss data regarding achievement trends in K-12 school, higher ed, and beyond;
- Explore attitudes, knowledge and beliefs about boys/girls and education;
- Understand key male/female brain differences that influence boys'/girls' behavior and learning;
- Acquire practical strategies that can be immediately implemented to increase achievement and engagement, while decreasing behavior problems, across all content areas; and,
- Develop a classroom and/or school Action Plan to ensure a high-level of implementation.

“Late Start” Workshops:

For schools without full professional development days, the “late start” format is an excellent option. We start the day with a full staff workshop for 1.5 to 2.0 hours (whatever your schedule allows) followed by grade-level or department workshops for another 1.5 hours each. Substitute teachers rotate to release teachers from class to come to their small group workshop. In this way, all teachers receive 3 hours of intensive professional development in a format that is specially customized for their grade-level or content area. Here is a sample schedule:

7:30 – 9:00am:	Workshop: Part I (all staff)
9:15-10:45am:	Workshop: Part II (teacher team 1)
11:00-12:30pm:	Workshop: Part II (teacher team 2)
1:00 – 2:30pm:	Workshop: Part II (teacher team 3)
2:45 – 4:15pm:	Workshop: Part II (teacher team 4)

Online Classes:

Six-week online courses, developed and facilitated by Kelley, are available at any time of the year and are the perfect solution for many schools. The online option works well for schools that are unable to schedule an on-site workshop and for those who want follow-up training after Kelley’s visit. Additionally, the online classes get your “new hires” up-to-speed on the gender work that they may have missed. Think of the online classes as an enhanced book study where the author is part of the group! Participants log-in and participate on their own schedule (no set class times) so it is extremely convenient and a high-level of participation is ensured through Kelley’s facilitation.

The classes utilize either Kelley’s *Strategies for Teaching Boys and Girls* books (elementary and secondary levels) or her new book, *Writing the Playbook*. Online discussions are rich with new ideas for implementation, reflection and support and allow teachers to learn and collaborate with and from educators around the world. At the end of the class, all teachers receive copies of all of the discussion threads from the class to support their ongoing implementation. The development of an Implementation Plan is one of the course requirements.

Consultation Services:

Consultation services can be invaluable for those wishing to extend upon the workshop days or who have different scheduling needs. Kelley can provide support in the form of before/after school workshops, classroom observations with feedback, one-on-one teacher or principal coaching, and grade-level team/departmental coaching, as well as the development of an in-house cadre of trainer-of-trainers. This support can be provided on-site or via a real-time video Webinar session.

In addition to providing the gender science and the strategies, Kelley has expertise in facilitating discussions in the areas of data analysis, school improvement planning, and child studies. Kelley can support your school improvement work at every stage of the process.

WORKSHOP DESCRIPTIONS

Organization-wide “Boy Friendly School” Initiative:

Writing the Playbook: A Game Plan for a Boy-Friendly School

You've seen it too often in schools: Boys struggling to master basic literacy skills, sitting outside the principal's office, collecting labels like “hyperactive,” getting failing grades. Checked out, kicked out, or dropped out, they're benched when they should be scoring goals on the academic playing field.

Based on Kelley's newly-released book *Writing the Playbook: A Practitioner's Guide to Creating a Boy-Friendly School*, **this workshop provides educators with a step-by-step plan for increasing boys' achievement and reducing discipline problems.** For both school leaders and classroom teachers, this workshop equips participants with:

- The science behind how the male brain learns;
- The data you need to make the case with your stakeholders;
- Professional development tools to sustain learning;
- A close look at revising school policies that may be squeezing boys out;
- Relationship-building strategies that help boys feel like they belong;
- Instructional strategies that keep active boys engaged, motivated and learning at optimal levels.

If your school is ready for a boy-friendly transformation – that helps girls as well – this one-of-a-kind workshop will help you get a game plan... Because not a single boy should have to wait.

Social & Emotional Needs & Strategies for Boys:

Lost Boys: Re-Engaging Males in Learning & Life

We are losing our boys – not only academically, but also behaviorally and attitudinally – and too often we fail to see the vulnerable young man who is hiding behind that tough-guy exterior. Boys' under-performance – especially for boys of color and poverty – is one of this country's biggest barriers to school improvement and it is tied, at a very basic level, to the disconnect between boys' sense of who they are and what school has to offer them. **Turnaround for boys in school starts with understanding their inner lives – the social, emotional and biochemical drivers of boys' motivation and engagement.**

Kelley King has helped schools across the nation close gender gaps and re-engage boys and young men through creating a supportive school culture and climate that embraces the very nature of boys and young men. Kelley’s workshop provides the building blocks of success through a **powerful examination of male-female brain differences**. Learn the practical strengths-based strategies for increasing boys’ sense of connectedness, competency, and confidence in school.

Closing Boys’ Academic Achievement Gaps:

Doing School: Helping Boys Make the Grade

If girls epitomize the “gold standard” for what it means to be a good student, where does that leave our boys? In our high-stakes accountability-driven system, we are losing the boys at an unprecedented rate: Boys’ test scores in reading and writing lag far behind girls’ and boys are getting most of the Ds and Fs. Some colleges are even resorting to lowering their admission standards because, increasingly, boys can’t compete. **As educators, we need to understand what is driving this continuing downward academic trend for boys and what we can do about it.** Veteran educator, author and international consultant Kelley King will share her extensive knowledge regarding **brain-based differences between boys and girls** and the strategies for creating a “brain-friendly” classroom for all students, with a special focus on high-impact academic strategies for boys. Kelley's own school closed the gender gap in literacy in one year. Students with disabilities made gains so significant that their state scores are now commensurate with the scores of non-disabled students in the school district. **This workshop will engage participants in professional dialogue and hands-on activities that will profoundly affect their understanding of “what makes boys tick” and will empower educators with classroom strategies that engage even the most reluctant male learner.**

Writing and the Male Brain

Do you have boys who can’t think of anything to write? Who can’t get their ideas on paper? Or, who are unwilling to edit and revise? **This in-depth workshop focuses specifically on improving boys’ quantity and quality of written work, as well as their performance on writing assessments.** Our focus on boys and writing will address ways to increase boys’ engagement in literacy and ways to support boys’ verbal expression of their writing ideas based on an **understanding of the biology of the male brain**. Specific brain-based classroom strategies will show teachers how to incorporate movement, art, music and visual-spatial tools to support and motivate boys in all aspects of writing development. Additionally, the training will explore ways to increase boys’ engagement in writing through changing the culture of the classroom by giving boys more choice and a greater sense of purpose. And we couldn’t wrap up this workshop without some brain-friendly and boy-friendly test-taking tips for attacking those wonderful writing prompts with gusto!

Supporting Both Boys and Girls through a Brain-Based Approach:

Teaching to the Minds of Boys & Girls

It comes as no surprise to anyone that has taught children that boys and girls are different. While environment and culture play a part in socializing children into gender roles, the very nature of a child—including gender—requires us to look at boys and girls differently in the classroom; absolutely equal—but different. **Scientific advances in the past few decades allow us to look inside the brains of males and females and see where actual biological differences occur.**

This workshop will allow participants to examine:

- The differences in the male and female brain to better understand and respond to the needs of both boys and girls.
- The developmental milestones that affect the brain, including hard-wiring for gender.
- How to address the challenges that you face when teaching boys and girls
- How stress and social/emotional factors affect children’s brain development and how we can support them more effectively.
- How to create a boy-friendly and a girl-friendly brain-based classroom, with lots of practical classroom strategies to implement immediately.

This informative session will help answer these and other fascinating questions about how boys and girls learn differently—and you’ll have fun in the process!

Single-Gender Classroom and School Initiatives:

Strategies for Successful Single-Gender Classrooms

The number one mistake that educators make in launching a single-gender initiative is separating the boys from the girls and continuing to teach the students in the same ways that they always have. Time and time again, this approach has been proven to fail – especially in the all-boys classes. **If the single-gender initiative is to be successful for all, educators must have the skills, knowledge and practical tools to teach in the all-boys or all-girls environments – and that includes an understanding of the hardwiring of gender in the brain.** From the classroom’s social/emotional milieu to its classroom management and academic strategies, classrooms must be designed and instruction must be crafted to target to what motivates males and females and what helps them learn. Whether you have a coed school with single-gender classes or you have a single-gender school, **this workshop hones in on the instructional and logistical needs of your school and your students.** Communicate with confidence to parents and the broader community about your school’s philosophy or initiative. Set your school apart from others as the one that applies the most current brain research to teaching the men and women of tomorrow!

Parent & Community Workshop:

Boys & Girls Learn Differently!

1.5 – 2 hours

It comes as no surprise to anyone that has raised children that boys and girls are different. While environment and culture play a part in socializing children into gender roles, the very nature of a child—including the gender—requires us to look at boys and girls differently at home (as well as in the classroom). Absolutely equal—but different.

How can you get your son to stop tapping his fingers on the table or jiggling his foot and look you in the eye while you talk to him? How can you get the attention of a boy who spends too much time gazing out the window when he's supposed to be doing homework? How can you get your daughter to stop worrying about all the social drama and focus on learning math?

Boys account for up to 70% of failing grades and 80% of the children diagnosed with ADD and ADHD. Girls outperform boys across the board in verbal skills, but often when they hit middle school their math performance takes a dive. Why is that? **Scientific advances in the past couple of decades allow us to look inside the brains of males and females and see where actual biological differences occur.**

- What are the brain differences and what are the implications for parents when it comes to discipline and academic support?
- How can parents make sure they are providing the kind of home environment that helps their boys and girls reach their fullest potential?
- How can parents work with their child's school to help a struggling boy or girl?

This informative session will help answer these and other fascinating questions about how boys and girls learn differently—and you'll have some fun in the process!

*All speaking topics are customized to fit the needs of the individual school and can be delivered as a 1-2 hour keynote, a full-day workshop, or as a multi-day workshop. As a Master Trainer for the Gurian Institute and veteran school principal, Kelley is experienced in working with a wide range of organizations, including preK - 12, higher ed, private, public, coed, and single-gender.

Follow-up services are also available, including online classes, classroom observations & coaching, and consultation with individual teachers and teacher teams. Kelley also provides consultation to administrative teams in the analysis of school data, school improvement planning, and building their internal capacity to deliver their own professional development.

What Educators are saying about Kelley King's Workshops & Classes

“Relevant research and real world ideas and connections to use in my classroom—as well as at home with my own two children. This was the best workshop/training I’ve been to in twenty years!”

—3rd grade teacher, St. Louis MO

“Terrific information—Kelley knows it well, and it was presented in an interesting way. I loved that we tried things we can use.”

—Kindergarten teacher, Panama City FL

“Presenter is very knowledgeable of her topic, and highly entertaining!”

—High school social studies teacher, Hope AR

“I was drawn to this seminar by the fact that you included girls—as the mother of a daughter I don’t want her education to take a back seat!”

—Middle school language arts teacher, Buffalo NY

“Kelley was an amazing speaker, always keeping me engaged in the useful information she had to offer. She was a clear speaker and her slides were relevant to the text we were given.”

—5th grade teacher, Duluth MN

“Kelley, I absolutely loved the topic and the understanding I gained through your questions. There were many times I felt so enlightened by the process of examining my experiences and digging deeper into the content.”

—High school math teacher in the online class

“The subject matter is part of what made this offering such an excellent choice. As a current classroom teacher, I cannot afford to miss a chance to better reach all learners in my class. This workshop provided down-to-earth, real-life information that I can use immediately.”

—High school teacher, San Antonio TX

“I find myself thinking about and talking about things learned during your training. What a terrific way to frame the teaching I do to ALL my kids, boys and girls. It was the perfect energy boost as we start a new school year.”

—Middle school teacher, Centennial CO

"I wanted to thank you also for the great breakout session you led at NSDC. I took a great deal from your session --- information and practical applications that I can use in my own teaching and in my coaching. The session was informative, interactive, and motivating. I was so pleased, too, to see you -- a principal -- who has her finger right on the pulse of quality instruction. All too often, I see principals who have lost touch (or perhaps never had it!) or who seem to no longer have the time to give to understanding what best instruction is all about. I came home and told my husband (he's also in education), 'I'd work for that principal!'"

—Student Achievement Coach, Denver CO

"Thank you again for such a wonderful presentation! You energized me to think about brain research around gender again and have caused me to think critically about some areas around this topic. I have already used many of your ideas into writing training that I have been conducting and it has made it that much stronger - thank you again!"

—Literacy & Social Studies Coordinator, Greeley CO

"I wanted to thank you for the excellent presentation. I found it to be one of the most useful seminars I have attended in my 38 year career. Great job! How worthwhile! Regardless of how long I have taught, I keep on trying to do it better. Your seminar has already impacted the way I teach boys. I went right back to school and taught the helping verbs by making my kids march the helping verbs outside to a military-style cadence. The kids loved it and learned them quickly as a result."

—2nd grade teacher, Colorado Springs CO

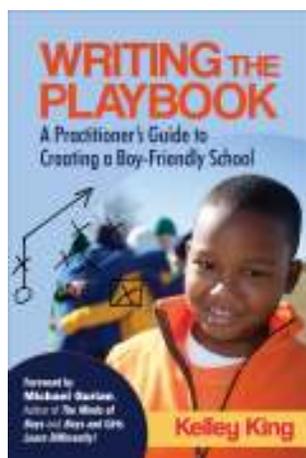
"I think this was a class that had a really great rapport with each other -especially the 'die-hards'....the ones that gave support to each other as the 'bad days' were shared. It's good to know that we are not isolated across this country and the issues we deal with are felt over all. ...and 'Thank you, Kelley' for always steering us in the right direction."

—5th grade teacher, Ft. Lauderdale FL

"This course was awesome! I loved the book and the weekly discussions were great. I received a lot of excellent tools that I can use immediately. I will highly recommend this course to my colleagues. Thank you."

—High school teacher, Cherokee NC

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Advance Praise for *Writing the Playbook*

“This is a highly practical and highly relevant book. Two thumbs up!”

—Eric Jensen, author, *Teaching with the Brain in Mind*

“Finally, some practical advice from an experienced educator on how to make boys into successful students. King's credentials - mother of both a son and daughter, as well as a principal who successfully addressed gender gaps at her school - are unbeatable.”

—Richard Whitmire, author, *Why Boys Fail: Saving Our Sons from an Educational System That's Leaving Them Behind*

“This is a must-read for school leaders and teachers. Based on both research and “wisdom of practice,” it offers a wealth of strategies to boost the achievement and happiness of boys in school. If you can only read one book about how to reach boys, this is it.”

—Judith Kleinfeld, Director of the Boys Project & Professor of Psychology Emeritus, University of Alaska

“As a lifelong feminist and the grandmother of three boys just starting school, I am passionately interested in boys being taken 'as they are' and taught in ways that will help them develop. In school, too many boys are falling behind. For a strong America, we need both genders to thrive and to lead. And King's book will help us get to that America.”

—Dottie Lamm MSW, Denver Post Columnist & Former First Lady of Colorado

“Kelley King's both impassioned and level-headed, and she starts a conversation that we desperately need to have in our country.”

—Michael Kimmel, author, *Guyland: The Perilous World Where Boys Become Men* & SUNY Distinguished Professor, Department of Sociology

“This book should be required reading for every teaching credential candidate and educator. It neurobiological approach to learning and behavior is not rocket science; it's long overdue common sense. Bravo!”

—Joe Manthey, educational consultant

“This is a must-read for school leaders. King, an expert on bridging the gender gap in schools, asks educators to see things through “the boy lens,” which is absolutely necessary today when so many boys aren't coming close to reaching their full educational potential. She offers practical advice for making schools boy friendly, which works just fine for girls too. I applaud her passion, dedication, and expertise. Here's a book that can truly make a positive difference for our society and its future.”

—Mark Sherman PhD, Emeritus professor of psychology at SUNY New Paltz & Editor of *Boys and Young Men: Attention Must Be Paid*

“Writing the Playbook provides the solutions that school systems globally are desperately searching for regarding the behavior and academic performance of boys. It is written in a way that is engaging, empowering, and inspiring to those at all levels of education. If you've ever desired a positive educational atmosphere, this book provides the blueprint!”

—Chris Cannon, author, *Winning Back our Boys: The ultimate game plan for teachers and parents*

“Boys and girls can differ vastly in how they most effectively learn. As educational leaders it is critical that we create school environments that clearly reflect and demonstrates this understanding. This insightful book will inform, guide, and transform the way you lead in schools. This is a great resource that will definitely produce results!”

—Don Haddad, Ed.D., Superintendent, St. Vrain Valley School District

“As a lifetime feminist and the grandmother of three boys just starting school, I am passionately interested in boys being taken ‘as they are’ and taught in ways that will help them develop. In school, many boys are falling behind. For a strong America, we need both genders to thrive and to lead. And King's book will help us get to that America.”

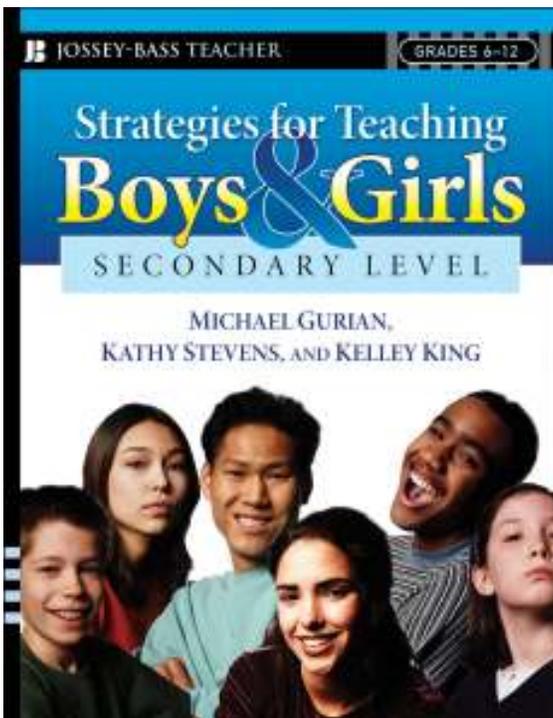
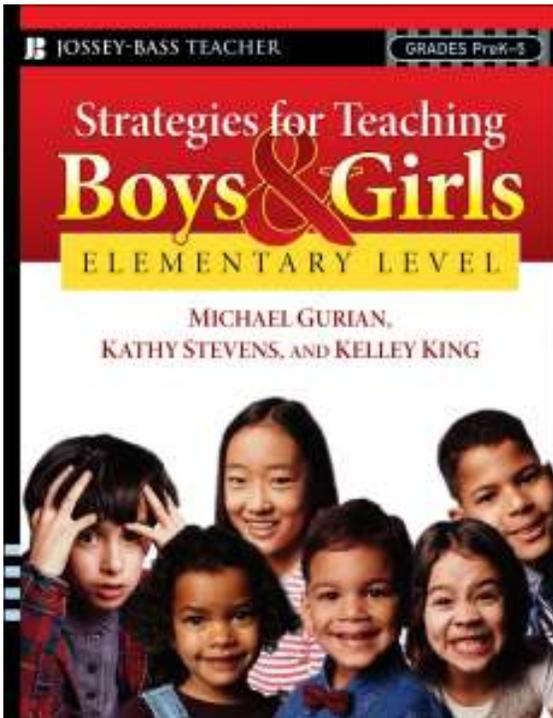
—Dottie Lamm, MSW, *Denver Post* Columnist, Former First Lady of Colorado

“Kelley's book is a guide to support all educators in making high achievement for all a reality. If we collaborate as educators and as parents, we can make sure that both boys and girls are challenged and supported in schools.”

—Cynthia Stevenson, Ph. D., Superintendent, Jeffco Public Schools

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Other Books Written by Kelley King



“Research-based, classroom-tested, instantly applicable strategies will wake up, motivate and excite you and your students.”

—Dawn Ryan, literacy teacher, Boulder Valley School District

“The authors have created a vital resource for teachers and administrators who are striving to conquer the gender gap in their schools.”

—Dr. Joseph Porto, superintendent, Avoca School District
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“Unique and practical strategies to differentiate for gender differences and help teachers to create personalized learning experiences for all youngsters.”

—Dr. Linda Karges-Bone, professor of education, Charleston Southern University and author of *“More Than Pink and Blue”*

“The natural question when teachers become aware of the brain research on gender differences is: ‘What can I do in my classroom?’ This book provides the answers.”

—Karen Boyk, retired school administrator and Gurian Institute trainer

“(A) wealth of practical ideas on how to change classrooms from places where mostly girls ‘sit and git’ to places where both boys and girls ‘engage and range’ in authentic education.”

—Judith Kleinfeld, professor, University of Alaska and director of the Boys Project

“This book...provides us with powerful research put in practical form that will do amazing things in our classrooms and in our students’ lives.”

—Renee Parker, assistant principal, Hope High School

Kelley King's Clients

Public Schools:

Niwot Elementary School	Lyons Middle/Senior High School
Erie Elementary School	Windermere Park Charter High School
Hygiene Elementary School	West Seneca High School
Red Hawk Elementary School	Salinas High School
Black Rock Elementary School	Delta-Schoolcraft Intermediate School District
Blue Mountain Elementary School	Kent Independent School District
Fox Hollow Elementary School	Columbia Public Schools
Mark Hopkins Elementary School	Santa Fe Public Schools
Desert Heights Elementary School	Douglas County School District
Greenwood Village Elementary School	Bethel School District
Millside Elementary School	Cherry Creek School District
Winona Elementary School	Jeffco County Public Schools
Woerner Elementary School	Bay City School District
Wamsley Elementary School	Pueblo D-70 School District
Thomas Jefferson Elementary School	Hope School District
North End Elementary School	Telluride R-1 School District
Creekside Elementary School	Pottsville School District
Hazelwood Elementary School	Bellingham School District
Buffalo Trails Elementary School	Nederland Middle/Senior High School
Sunset Elementary School	Center Line Wolfe Middle School
Douglass Elementary School	Battle Creek Middle School
Louisville Elementary School	Roncalli Middle School
Gold Camp Elementary School	Silver Creek Middle School
Broadmoor Elementary School	Manhattan School of the Arts
Pine Tree Elementary School	Louisville Middle School
Slavens Elementary School	Barton Junior High School
North Shore Community Charter	All Tribes K-12 Charter School
Aspen Creek K-8 School	Ross K-8 School
Monarch K-8 School	Palma High School

Boards of Cooperative Education Services (BOCES):

Southwest Educational Cooperative
Ventura County Cooperative Education
Grant Wood Education Association
Lincoln Intermediate Unit
Arch Ford Education Services Cooperative
Uncompahgre Board of Cooperative Education Services

Private Schools:

Jacksonville Country Day School	Central Catholic High School
Resurrection Episcopal Day School	St. John Vianney High School
Calvin Christian School	Bethesda Home for Boys
Ecole Bilingue de Berkeley	St. Clements School
Kirk o' the Valley K-8 School	Lovett Middle School
Immaculate Conception Catholic School	Cross Road Christian Academy
Denver Academy Middle/Senior High	Sacred Heart K-8 School
Edmund Rice Christian Brothers Schools	St. Mary's Academy

Foundations/Other:

Parent Engagement Network
Every Kind of Mind Foundation
Colorado Principals' Center
North Mexico State Legislature
McGill University
Mind Edge
Phi Delta Kappa
Naropa

Conferences:

Learning and the Brain
National Title I Conference
National Association of Elementary School Principals
Association of Supervision and Curriculum Development
Colorado Association of School Executives
Denver Academy Learning Symposium
Excellence in Education Symposium
National Staff Development Council

International:

Ministry of Education & Mind Edge (Singapore)
Near East South Asia Independent Schools Conference (Thailand)
Nathans Helping Hands Foundation (Jamaica)
Akureyri K-12 Schools (Iceland)
Breidholtsskoli (Iceland)
McGill University (Canada)
Calvin Christian School (Canada)



Gender-Friendly Schools

Kelley King, Michael Gurian and Kathy Stevens, November 2010

Boys are in crisis in many academic areas. But to turn things around, schools must implement instruction that is both boy- and girl-friendly.

Diane Cotner had been teaching "forever," so she was confident in her teaching abilities. In 2007, however, confronted with an extraordinarily wiggly group of 2nd grade boys in a chronically low-performing school, Diane told her principal, "I can't even get the boys to sit still for a short phonics lesson. I have to do something."

Desha Bierbaum, her principal, responded with a new possibility. "I've been learning about the differences in how boys and girls learn. Why don't you try letting the fidgety boys stand up and move around while you teach? That helps some boys' brains focus and learn better."

That conversation marked the beginning of the success story we became involved in at Wamsley Elementary School in Rifle, Colorado.

School Improvement Through Gender Equality

Fifty percent of Wamsley's students qualify for free or reduced-price lunch, 30 percent are English language learners, and the mobility rate is 43 percent. In fall 2007, Wamsley was on academic watch for not making adequate yearly progress (AYP).

Because boys underperformed girls by a significant margin at Wamsley, Principal Bierbaum decided to target her school's improvement efforts at achieving gender equality. The school staff acknowledged that it had a better understanding of how to teach girls than boys, but it resolved that any professional development approach the school implemented to give boys more opportunity must also be girl-friendly. Wamsley applied for and received a grant to provide whole-school online classes and strategies-oriented summer institute training for Wamsley's teachers, along with on-site professional development and coaching on the different learning needs of boys and girls. By the end of the first year of the initiative, student performance jumped markedly, and the school was taken off the AYP watch list. Wamsley became a national success story.

A year earlier, the Atlanta Public Schools in Georgia had embarked on a similar effort. In 2006, many Atlanta schools were not meeting AYP, and previous school reform initiatives had failed. When the district staff disaggregated data for gender, they noticed that gender gaps reflecting lower achievement for boys were present across all subgroups and were largest for boys of color and those living in poverty.

In fall 2007, the school district launched two single-sex middle school academies—the Business Engineering Science Technology Academy for Boys (the B.E.S.T. Academy), and the Coretta Scott King Young Women's Leadership Academy. We became involved at that point. Faculty and staff at the pilot schools received professional development (including coaching, online courses, on-site training, and summer institutes) on how boys and girls learn differently and how to strategically implement gender-friendly teaching strategies into all aspects of the school, from teaching to counseling services to athletics.

Like Wamsley, these schools are now success stories. Within two years, both made AYP. Grades and test scores improved, student attendance increased, discipline referrals decreased, and teachers felt more effective. The district is moving forward with plans to expand their two single-sex middle schools through grade 12.

Looking Through the Gender Lens

In the last two decades, we have supported efforts to close opportunity gaps in more than 2,000 schools across the United States. When educators look closely at test scores, grades, discipline referrals, homework completion rates, special education placements, and student motivation, they consistently realize how gender-related issues intersect and interfere with their ability to achieve school improvement goals. They notice the following areas of difficulty for girls:

- Lower learning and engagement in science and technology classes.
- Relational aggression in school and in cyberspace.
- Problems with self-esteem development in adolescence.

They notice a different set of core areas of difficulty for boys:

- Lower achievement scores in most classes—especially among low-income and racially/ethnically diverse students—with particular problems in literacy.
- Lagging learning skills in such areas as note taking and listening.
- More struggles with homework.
- Lower grades in all classes, except some math and most science classes.
- Less motivation to learn and lower perception that the curriculum is relevant.

Both boys and girls tend to need help in specific areas. But data show that schools are now failing boys, as a group, in more areas than girls (see "A Snapshot: Boys in School," p. 42). More and more teachers are expressing the need for assistance in learning to teach boys effectively.

In March 2010, the Center on Education Policy echoed teachers' instincts when it released the report *Are There Gender Differences in Achievement Between Boys and Girls?* In preparing the report, the center examined state test data from all age groups in all 50 states, finding good news for girls but bad news for boys. In math, girls are doing roughly as well as boys, and the differences that do exist in some states are small and show no clear national pattern favoring boys or girls. But in reading, boys are lagging behind girls in all states with adequate data, and these gaps are greater than 10 percentage points in some states. (Chudowsky&Chudowsky, 2010, p. 1)

Dealing with this reality is an important challenge for all of us who care about education reform. If we do not recognize it and work to close the opportunity gaps boys are experiencing, millions of boys and men will lose out over the next decades.

The Elephant in the Room

Boys and girls, like men and women, are not stereotypes; they fall along a wide spectrum of learning preferences and styles. In fact, there is a great deal of overlap. Every day, teachers work with boys who are verbal, collaborative, and more emotive and with girls who are visual, competitive, and less emotive.

As a group, however, boys are much more likely than girls to be graphic thinkers and kinesthetic learners and to thrive under competitive learning structures. Some of the gender differences we observe in the classroom (see a summary at www.ascd.org/ASCD/pdf/journals/ed_lead/el_201011_gurian_figure.pdf) are undoubtedly linked to societal influences, but some also stem from physical differences in the brain identified by neuroscientists (see "How Boys and Girls Learn Differently").

Most of the teachers we work with realize that the preparation they received in graduate school and teacher certification programs to teach "all students" was in fact training for verbal and sedentary learning. This presents a large elephant in the room for teachers and schools. Given the structures, expectations, and teaching styles in today's classrooms, teachers generally have more difficulty teaching boys than girls (Gurian & Stevens, 2005; Whitmire, 2010). In a classroom of 25 students, we may notice that five to seven boys are having difficulties, whether these are overt issues or a tendency to check out of the learning process. They need a kind of instruction teachers have not been trained to provide, and the lack of such teaching profoundly affects the overall grades, test scores, and behavior of the class, as well as a teacher's sense of whether he or she is teaching effectively.

Strategies for Teaching Boys and Girls Effectively

Here are some examples of strategies that teachers we have worked with are using to close opportunity gaps between boys and girls.

Strategy 1: Add Movement

Chris Zust of Wellington School in Columbus, Ohio, gets her 1st grade boys and girls to stand up for reading group. I play a game when the children have finished reading. I let them spread out around the room, and I throw a beach ball to them that has eight prompts written on it. Each time a student catches the ball, he or she has to answer a prompt. My boys are far more engaged with this activity than they are when I have them sitting at the reading table.

Pairing learning with movement is especially important for many boys because it helps them stay out of the *neural rest* (boredom) state. But because it increases brain activity, movement can also help girls learn.

In addition to infusing movement into learning activities, teachers might also include regular brain breaks—frequent, brief opportunities to simply get up and move, such as doing jumping jacks, jogging in place, stretching, doing the wave from one side of the room to the other, or dancing in place with music.

Strategy 2: Build on the Visual

Fifth grade teacher Debbie Mathis and her teammates at Edith Wolford Elementary in Colorado Springs, Colorado, noticed that during traditional writing activities, boys were much slower getting started, wrote fewer words, used fewer sensory details, and got lower grades. After learning how graphically oriented boys' brains tend to be, Debbie and her teammates decided to use comic-strip pictures as prompts. "That really got the kids' imaginations flowing," Debbie shares. "The entire class was jazzed and wrote like crazy! Honestly, I was thrilled when even my most reluctant boys were eager to share."

Karen Combs, another teacher at Wolford, echoes this approach:

When I explained to my students that they were going to draw pictures as a way to plan their writing content, two of my boys looked at each other and said, "Sweet!" After about 30 minutes of writing, my most reluctant writer came toward me. I expected him to ask, "How much do I have to write?" Instead, he asked, "What if an hour isn't enough time to write everything that I've planned?"

Heather Peter, a language arts teacher at Broomfield High School in Broomfield, Colorado, notes that although boys are vocal about their enthusiasm for visual-spatial projects, girls also flourish when given the opportunity to create visual products to demonstrate their comprehension. Heather shares, "We recently finished a unit on *Hamlet* in which students had the choice to make a video, create a talk show, do a choral reading, or write a screenplay. Of the 38 female students, 35 chose a visual-spatial project."

Visual-spatial activities reach a broader spectrum of learners, harness learner strengths, help to stimulate and develop more neural pathways, and help close gaps for both boys and girls. They can be absolutely essential for some learners.

Strategy 3: Incorporate Student Interests and Choices

Tenth grader Will was like many of the boys struggling in Atlanta Public Schools. Will was not motivated in school, and it required superhuman effort to get him to do his schoolwork. But Will had a passion for sports. His teachers began to identify this passion in his classes and made sure to integrate it into his learning. English, social studies, and other teachers stocked classrooms with sports-relevant reading material, from graphic novels and technical magazines to sports magazines and biographies of football and basketball players.

His teachers reported consistent findings, which we've summarized here:

Since incorporating boys' interests into the curriculum, we have seen a measurable change in Will's body language. He comes in with his head up and is cheerful and making eye contact now. He has something he cares about to focus on in class and homework. Boys like him see school differently when their interests and passions are integrated into classes.

Broomfield's Heather Peter has also used strategies revolving around student interests to close opportunity gaps. She says, "I've had several students over the years tell me that they like literature more now because of all the projects that they were able to do. This is true not just for boys but also for girls. My student Alice told me, "I'll never forget *Hamlet* because I will always remember making my music video."

By bringing in novelty and topics of outside interest, these teachers are boosting all their students' motivation. For both boys and girls, motivation to learn can be the difference between success and failure.

Closing Gaps Now and in the Future

As districts, schools, and teachers close opportunity gaps, teach more effectively, and turn around low-performing schools, they explore and learn solutions they can apply right away—solutions inherent in the boys and girls they teach.

After 20 years of training teachers in both how to help boys and girls learn and strategies for teaching them effectively, we believe the next decade will open greater opportunities for teachers and schools to use the wisdom of the gender lens. This lens is an essential tool for education reform—one that not only enables schools to meet accountability goals in terms of higher test scores for all groups, but also reflects the deep humanity and love of all children that each of us brings to the schoolhouse.

How Boys and Girls Learn Differently

Verbal/graphic differences. Boys' brains tend to have more cortical areas, mainly in the right hemisphere, wired for spatial/mechanical processing than do girls' brains; girls' brains generally have greater cortical emphasis on verbal processing (Baron-Cohen, 2003; Halpern et al., 2007).

Frontal lobe development. A girl's prefrontal cortex is generally more active than a boy's of the same age, and her frontal lobe generally develops earlier. These are the decision-making areas of the brain, as well as the reading/writing/word production areas (Baron-Cohen, 2003; Brizendine, 2010; Halpern et al., 2007).

Neural rest states. Boys' brains tend to go into a more notable *rest state* than girls' brains do. Because the brain's first priority is survival, it scans its environment for information that would alert it to any threat, challenge, or information crucial to its survival (D. Amen, personal interview with M. Gurian, July 15, 2008). If the classroom is not providing any stimuli that the brain perceives as important, the male brain tends to more quickly slip into a rest state (which manifests itself as boredom, or "zoning out"). In the classroom, boys often try to avoid these natural male rest states by engaging in activities like tapping their pencils or poking at classmates (de Munck et al., 2008).

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A Snapshot: Boys in School

On the most recent National Assessment of Educational Progress (NAEP) writing test, 26 percent of 12th grade males scored *below basic*, compared with 11 percent of females. Just 16 percent of males achieved at the *proficient/advanced* levels, compared with 31 percent of females (Kleinfeld, 2009).

In reading, one-third of 12th grade males scored *below basic* on NAEP, compared with 22 percent of females; fewer than one-third of males (29 percent) were reading at the *proficient/advanced* levels, compared with 41 percent of females (Kleinfeld, 2009).

Boys receive two-thirds of the *Ds* and *Fs* in schools, but fewer than one-half of the *As* (Kauchak&Eggen, 2005).

Girls are more likely to attend and graduate from college. In 2003, there were 1.35 females for every male who graduated from a four-year college and 1.30 females for every male undergraduate (Goldin, Katz, &Kuziemko, 2006).

These and many other gender gaps for boys have been widening over the last decade (Cataldi, Laird, &KewalRamani, 2009; Chudowsky&Chudowsy, 2010).

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With Boys in Mind / Teaching to the Minds of Boys

Kelley King and Michael Gurian, September 2006

Is something wrong with the way we're teaching boys? One elementary school thought so and decided to implement boy-friendly strategies that produced remarkable results.

Boys who don't read or write as well as we'd like come in all kinds. There's Garrett, who's perpetually in motion, his fingers drumming the desk. He's not focusing on his reading and pokes the student in front of him. He's becoming a discipline problem. There's Jared, who stares into space, failing to fill more than a few short lines with words. There's Dan, who turns in rushed and sloppy work and receives failing grades. When it comes to fulfilling the kinds of assignments that we call “literacy,” boys are often out of their chairs rather than in them.

At Douglass Elementary School, in Boulder, Colorado, a significant literacy gap existed among the 470 students. On the 2005 Colorado State Assessment Program (CSAP), boys attending Douglass underperformed the girls in grades 3–5 (the boys' scores ranged from 6–21 points lower, with a 13-point gap overall). Because boys represented at least half the student population at every grade level—and 75 percent of the special education population—it was clear that the gender gap had powerful implications for the school as a whole and for the futures of the students.

In looking closely at these statistics, the staff suspected that Douglass was not alone in facing classrooms full of boys who were not learning to read and write as well as the girls were. In fact, all over the world boys are struggling in school, with lower grades, more discipline problems, more learning disabilities, and more behavior disorders than girls (Gurian & Stevens, 2005). As experienced teachers of boys, as parents of sons, and as professionals charged with solving a specific and compelling problem, the educators at Douglass went to work. They discovered that recent brain research backed up many of their intuitions about gender and learning styles (see Gurian, Henley, & Trueman, 2001).

By introducing more boy-friendly teaching strategies in the classroom, the school was able to close the gender gap in just one year. At the same time, girls' reading and writing performance improved. On the Colorado State Assessment Program, Douglass Elementary students experienced an overall net percentage gain of 21.9, which was the highest achievement gain of any school in the Boulder Valley School District. Moreover, Douglass reversed the typical trend of girls outperforming boys: The boys experienced a 24.4 percentage point gain in reading and writing; the girls a 19 percentage point gain, which constituted three times the gain of girls in other district elementary schools. Most remarkably, Douglass special education students achieved 7.5 times the average gain for this population of students in the district, coming in with a 50-point gain.

A Look into Boy-Friendly Classrooms

How did Douglass manage these successes? Using a theory developed by one of the authors (Gurian et al., 2001; Gurian & Stevens, 2005), the school analyzed the natural assets that both girls and boys bring to learning (see “The Brain: His and Hers,” p. 59). Douglass realized that its classrooms were generally a better fit for the verbal-emotive, sit-still, take-notes, listen-carefully, multitasking girl. Teachers tended to view the natural assets that boys bring to learning—impulsivity, single-task focus, spatial-kinesthetic learning, and physical aggression—as problems. By altering strategies to accommodate these more typically male assets, Douglass helped its students succeed, as the following vignettes illustrate.

Increasing Experiential and Kinesthetic Learning Opportunities

Today's assignment in Mrs. Hill's 4th grade class is to arrange words and punctuation marks into a sentence that makes sense and is grammatically correct. Instead of relying on worksheets or the overhead, which might have bored students like Alexander, the teacher directs the students to arrange cards representing the sentence parts across the classroom floor. The task-oriented discussion and interaction, the physical movement, and the orientation in space access the boys' neurological strengths, keeping them energized and attentive. Alexander and his group are working hard to complete their grammatical challenge before the other groups do.

These male-friendly elements have also energized the girls. Many of them like a good debate, competition, and moving around.

Supporting Literacy Through Spatial-Visual Representations

Across the hall in Mrs. Johnston's 3rd grade classroom, the students are writing. Timothy has great ideas and is always trying to please, but at the beginning of the year, he had great difficulty writing even a single paragraph. Formulating his ideas into well-organized thoughts, coupled with sitting still and the fine-motor task of writing, often overwhelmed him. His mother testified to his frequent meltdowns at home.

Realizing the need for nonverbal planning tools, especially in males, to help bridge the gap between what students are thinking and what they're able to put down on paper, Mrs. Johnston now asks Timothy and his classmates to create storyboards, a series of pictures with or without words that graphically depict a story line. The pictures on the storyboard prompt the brain to remember relevant words, functioning for these learners as first-stage brainstorming. Now when Timothy writes, he describes what he has previously drawn and then adds to that foundation. His spatial-visual assets are helping him to write.

Letting Boys Choose Topics That Appeal to Them

Although parents and educators are quick to point out to students the more practical relevance of reading—you need to read to get through high school and college so you can get a job—this kind of reasoning works more readily for girls than for boys. Said one 6th grade boy, “The only reading that's a *must* is reading what's on the computer or in a football manual. There's no point to reading a book for pleasure.”

Many teachers are familiar with this kind of response. Boys often seem to think that what they read in language arts class is irrelevant. Mrs. Vaneer decided to innovate in this area. In her 2nd grade classroom, most of the boys read and write about such topics as NASCAR racing, atomic bombs, and football or about such situations as a parrot biting a dad through the lip. Many of the girls write about best friends, books, mermaids, and unicorns.

When asked why he thought he was writing about superheroes whereas Brittany was writing about her best friend, 8-year-old Luke replied, “Because boys have more R-rated minds than girls do,” with “R-rated” referring to a preference for aggression scenarios, competition, action, and superhero journeys. Brittany concurred as she rolled her eyes in a “Yes.”

Although Mrs. Vaneer is aware of the potential for excess here, she now understands how relevant this focus on action and heroism is to males, and she sees that letting boys write on these topics has improved their papers. It has also provided her with numerous opportunities to teach lessons on character, nonviolence, and civility. Moreover, giving students greater choice in what they read and write has improved writing among both boys and girls.

Helping Boys with Homework

One of the primary reasons that some boys get *Ds* and *Fs* in school is their inattention to homework. This was true for 5th grader Todd, who generally did his homework in a shoddy way—or not at all. Douglass teachers now request that parents sign homework assignments. Homework with no signature requires an explanation. This way, the school gets parents involved, encouraging them to supervise homework and cut out distractions that their children may be experiencing, such as TV and video games, until the homework is completed. This policy also keeps parents apprised of the quality of the homework that their child is turning in.

Todd's grades have improved since this policy was started. He's now getting *Bs* instead of *Ds* on his language arts assignments. His teacher, Mrs. Steposki, is especially vigilant, meeting with him regularly to see whether he's gotten his homework signed and supporting his parents in keeping him focused. Although Todd still doesn't enjoy a lot of his homework—much of it feels like busywork to him—he does feel pride in getting a *B*. “Things are better now,” he says.

Offering Single-Gender Learning Environments

One of the innovations that teachers can use in targeted ways in coeducational classes is single-gender grouping. Mrs. Holsted has decided to divide her 2nd grade class today to give the students a choice in reading material. The girls choose several *American Girls* doll books; the boys choose Lynne Reid Banks's *The Indian in the Cupboard* (HarperTrophy, 1999).

Soon the girls are on the floor with a giant piece of chart paper and markers. They label each of three circles of a Venn diagram with the name of a female book character and then they write down adjectives to describe that character. Meanwhile, in the boys' group, Ryan and David are writing lines for a play about the novel they've chosen, happy to be able to act out the battle scene. A lot of what these students need to learn “sticks” because of this approach. Tomorrow, the students will return to their coed groupings, and some will note that they like being back together.

Making Reading and Writing Purposeful

Quite often, boys do their best work when teachers establish authentic purpose and meaningful, real-life connections. In his 4th grade classroom, Mr. Hoyt talks to 10-year-old Clayton about his narrative fiction piece. Clayton doesn't feel the need to do any more work on his *D+* paper. When Mr. Hoyt asks who his audience is, Clayton replies, "Just the class and you." "What if you were reading this to someone else?" asks Mr. Hoyt. "Say, a high school basketball player you like?" Clayton ponders this. "Think about an older guy you respect," Mr. Hoyt suggests. "Write this for him to read." Clayton thinks of just the right person—his older brother—and starts the paper over again.

Garrett sits across the room. His real-life project is to draw to scale a map of the school and playground and then annotate it. From there, he'll develop a proposal for a new playground layout and present it to the school's landscape design architect and the playground revitalization committee.

Meanwhile, Greg is designing a Web site on which students can post their writing projects for others to read. In fact, to create a greater sense of the importance of writing, Mr. Hoyt suggested that Douglass Elementary start providing opportunities for all students to share their writing in front of large audiences—at monthly school assemblies, for example. Competition and the opportunity to earn public respect have helped motivate many undermotivated students—especially the boys.

Seeking Out Male Role Models

Douglass Elementary recognizes the special insight and impact of teachers like Mr. Hoyt, who serve as valuable role models for boys. The school actively encourages men to visit classrooms to share their own writing and speak about their favorite books. This is an area in which the school successfully partnered with parents. Several of the students' fathers write professionally as journalists, screenwriters, authors, or lyricists. Appealing to fathers to be role models for literacy has yielded many special guest speakers and several weekly "regulars" in the classroom.

Getting Serious About Gender Learning

There's nothing revolutionary about the strategies that we have suggested. Teachers have already used many of them in their classrooms, but perhaps they haven't used them in an organized and scientific way. Teacher training at Douglass, which focused on the gender learning work conducted by the Gurian Institute, connected brain science to classroom practice. Teachers learned that good science supported many of their personal observations about how boys and girls learn.

By incorporating new theories from gender science into classroom practice, teachers *can* close gender gaps and significantly improve learning. Douglass Elementary school provided the action research that proves just that. But to bring about these improvements, teachers need to ask themselves some key questions:

- As teachers, do we fully understand the challenges that boys face in education today?
- Do we realize that there is a scientific basis for innovating on behalf of both girls and boys as disaggregated groups?
- Does my school incorporate boy-friendly and girl-friendly learning innovations in full knowledge of how essential they are in accommodating the structural and chemical gender differences built into the human brain?

- Do the educators in my school realize that many behaviors typical of either boys or girls are neurologically based?

Although tackling these questions is challenging, acting on what we have learned can lead to rewards for everyone—for teachers, parents, communities, and especially our students.

The Brain—His and Hers

Researchers have identified more than 100 structural differences between the male and female brain. These differences are both genetic and socialized and include some of the following:

Verbal/spatial differences. Boys' brains generally have more cortical areas dedicated to spatial-mechanical functioning than girls' brains do, whereas girls' brains generally have greater cortical emphasis on verbal-emotive processing (Blum, 1997). Girls use more words on average than boys do, and they tend to think more verbally.

P cells and M cells. The male visual system (optical and neural) relies more heavily on type M ganglion cells, which detect movement. Girls generally have more type P ganglion cells, which are sensitive to color variety and other fine sensory activity (Sax, 2005). As a result, boys tend to rely more on pictures and moving objects when they write, whereas girls tend to excel in using words that reference color and other fine sensory information.

Frontal lobe development. A girl's prefrontal cortex is generally more active than a boy's, and her frontal lobe generally develops at an earlier age (Rich, 2000). These are the decision-making areas of the brain (as well as the reading/writing/word production areas). These factors can lead to girls being less impulsive than boys are. Girls are usually better able to sit still and read, able to read and write earlier, and better at literacy in general. When teachers are unaware of these brain differences, they may misdiagnose normal boys as having learning disabilities and conduct disorders.

Neural rest states. Boys' brains go into what neurologists call a rest state many times each day. You'll notice this when you look at who's drifting off, zoning out, or sleeping through class. You'll also notice that some boys will try to avoid these rest states by engaging in such activities as tapping their pencils or hitting a classmate with a spitball. For some boys—especially those with behavioral issues—these self-stimulating and disruptive behaviors are symptomatic of emotional or psychological problems. But for many boys these disruptions simply reflect male brains trying to stay awake in a classroom that is not well suited for their kind of learning. Single Photon Emission Computed Tomography (SPECT) scans have enabled us to better understand the rest states of male and female brains (Gurian & Stevens, 2005). When the male's brain gets bored, some of his brain functioning shuts down. There is a drift into a brain state that negates learning and performance. When the female brain gets bored, however, more of her brain functioning stays active. Even when she's bored, a girl is more likely to retain the ability to take notes, write words down, and listen carefully.

Cross talk between hemispheres. Structural differences in girls' brains generate more cross talk between hemispheres, leading to better multitasking. Boys' brains, on the other hand, tend to lateralize and compartmentalize brain activity (Rich, 2000). Thus, girls tend to pay attention to more information on more subjects at any given time, whereas boys tend to heap a lot of information into a single-task focus. They concentrate best, in general, when they follow steps A to Z without distraction. Boys also take more time than girls to transition between tasks (Havers, 1995). They tend to become more irritable (and to underperform in learning and classroom behavior) when teachers move them continually between tasks. Multitasking is, of course, crucial to life performance, but boys

are better served by balancing multitasking with project-driven and depth-driven learning.

Natural aggression. For a number of neural and chemical reasons, boys are more naturally aggressive and competitive than girls are (Gurian, 1996). Girls generally gravitate less toward competitive learning and relationships characterized by *aggression nurturance* (the hitting and playful “dissing” that boys continually engage in to support one another). The bonding chemical oxytocin greatly affects this male/female difference. With less oxytocin in the male neural and physiological system, boys tend toward greater impulsivity, more aggression, and less reliance on *bonding malleability* (Taylor, 2002). They have less desire than girls to comply to please others, including teachers.

—Kelley King and Michael Gurian

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