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Gender Equity in the Classroom: The Unfinished Agenda

"In my science class the teacher never calls on me, and I feel like I don't exist. The other night I had a dream that I vanished."

Our interviews with female students have taught us that it is not just in science class that girls report the "disappearing syndrome" referred to above. Female voices are also less likely to be heard in history and math classes, girls' names are less likely to be seen on lists of national merit finalists, and women's contributions infrequently appear in school textbooks. Twenty years after the passage of Title IX, the law prohibiting gender discrimination in U.S. schools, it is clear that most girls continue to receive a second-class education.

The very notion that women should be educated at all is a relatively recent development in U.S. history. It was not until late in the last century that the concept of educating girls beyond elementary school took hold. Even as women were gradually allowed to enter high school and college, the guiding principle in education was separate and unequal. Well into the twentieth century, boys and girls were assigned to sex-segregated classes and prepared for very different roles in life.

In 1833 Oberlin became the first college in the United States to admit women; but these early female college students were offered less rigorous courses and required to wait on male students and wash their clothes. Over the next several decades, only a few colleges followed suit in opening their doors to women. During the nineteenth century, a number of forward-thinking philanthropists and educators founded postsecondary schools for women—Mount Holyoke, Vassar, and the other seven-sister colleges. It was only in the aftermath of the Civil War that coeducation became more prevalent on campuses across the country, but even here economics and not equity was the driving force. Since the casualties of war meant the loss of male students and their tuition dollars, many universities turned to women to fill classrooms and replace lost revenues. In 1870 two-thirds of all universities still barred women. By 1900 more than two-thirds admitted them. But the spread of coeducation did not occur without a struggle. Consider that as late as the 1970s the all-male Ivy League colleges did not admit women, and even now state-supported Virginia Military Institute fights to maintain both its all-male status and its state funding.

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CYCLE OF LOSS

Today, most female and male students attend the same schools, sit in the same classrooms, and read the same books; but the legacy of inequity continues beneath the veneer of equal access. Although the school door is finally open and girls are inside the building, they remain second-class citizens.

In the early elementary school years, girls are ahead of boys academically, achieving higher standardized test scores in every area but science. By middle school, however, the test scores of female students begin a downward spiral that continues through high school, college, and even graduate school. Women consistently score lower than men on the Graduate Record Exams as well as on entrance tests for law; business, and medical schools. As a group, women are the only students who actually lose ground the longer they stay in school.

Ironically, falling female performance on tests is not mirrored by lower grades. Some have argued that women's grade-point averages are inflated because they tend not to take the allegedly more rigorous courses, such as advanced mathematics and physics. Another hypothesis suggests that female students get better grades in secondary school and college as a reward for effort and better behavior rather than a mastery of the material. Another possibility is that the standardized tests do not adequately measure that female students know and what they are really able to do. Whatever the reason, course grades and test grades paint very different academic pictures.

Lower test scores handicap girls in the competition for places at elite colleges. On average, girls score 50 to 60 points less than boys on the Scholastic Aptitude Test (SAT), recently renamed the Scholastic Assessment Test, which is required for admission to most colleges. Test scores also unlock scholarship money at 85 percent of private colleges and 90 percent of the public ones. For example, in 1991, boys scored so much higher on the Preliminary SAT/National Merit Scholarship Qualifying Test (PSAT/NMSQT) that they were nominated for two-thirds of the Merit Scholarships—18 thousand boys compared to 8 thousand girls in 1991.

The drop in test scores begins around the same time that another deeply troubling loss occurs in the lives of girls: self-esteem. There is a precipitous decline from elementary school to high school. Entering middle school, girls begin what is often the most turbulent period in their young lives. According to a national survey sponsored by the American Association of University Women, 60 percent of elementary school girls agreed with the statement "I'm happy the way I am," while only 37 percent still agreed in middle school. By high school, the level had dropped an astonishing 31 points to 29 percent, with fewer than three out of every 10 girls feeling good about themselves. According to the survey, the decline is far less dramatic for boys: 67 percent report being happy with themselves in elementary school, and this drops to 46 percent in high school.

Recent research points to the relationship between academic achievement and self-esteem. Students who do well in school feel better about themselves; and in turn, they then feel more capable. For most female students, this connection has a negative twist and a cycle of loss is put into motion. As girls feel less good about

themselves, their academic performance declines, and this poor performance further erodes their confidence. This pattern is particularly powerful in math and science classes, with only 18 percent of middle school girls describing themselves as good in these subjects, down from 31 percent in elementary school. It is not surprising that the testing gap between boys and girls is particularly wide in math and science.

INEQUITY IN INSTRUCTION

During the past decade, Myra and David Sadker have investigated verbal interaction patterns in elementary, secondary, and college classrooms in a variety of settings and subject areas. In addition, they have interviewed students and teachers across the country. In their new book, *Failing at Fairness: How America's Schools Cheat Girls*, they expose the microinequities that occur daily in classrooms across the United States—and they show how this imbalance in attention results in the lowering of girls' achievement and self-esteem. Consider the following:

- From grade school to graduate school, girls receive less teacher attention and less useful teacher feedback.
- Girls talk significantly less than boys do in class. In elementary and secondary school, they are eight times less likely to call out comments. When they do, they are often reminded to raise their hands while similar behavior by boys is accepted.
- Girls rarely see mention of the contributions of women in the curricula; most textbooks continue to report male worlds.
- Too frequently female students become targets of unwanted sexual attention from male peers and sometimes even from administrators and teachers.

From omission in textbooks to inappropriate sexual comments to bias in teacher behavior, girls experience a powerful and often disabling education climate. A high school student from an affluent Northeastern high school describes her own painful experience:

My English teacher asks the class, "What is the purpose of the visit to Johannesburg?" . . . I know the answer, but I contemplate whether I should answer the question. The boys in the back are going to tease me like they harass all the other girls in our class . . . I want to tell them to shut up. But I stand alone. All of the other girls don't even let themselves be bold. Perhaps they are all content to be molded into society's image of what a girl should be like—submissive, sweet, feminine . . . In my ninth period class, I am actually afraid—of what [the boys] might say . . . As my frustration builds, I promise myself that I will yell back at them. I say that everyday . . . and I never do it.²

Teachers not only call on male students more frequently than on females; they also allow boys to call out more often. This imbalance in instructional attention *is* greatest at the college level. Our research shows that approximately one-half of the students in college classrooms are silent, having no interaction whatsoever

with the professor. Two-thirds of these silent students are women. This verbal domination is further heightened by the gender segregation of many of today's classes. Sometimes teachers seat girls and boys in different sections of the room, but more often students segregate themselves. Approximately one-half of the elementary and high school classrooms and one-third of the coeducational college classrooms that the Sadkers visited are sex-segregated. As male students talk and call out more, teachers are drawn to the noisier male sections of the class, a development that further silences girls.

Not only do male students interact more with the teacher but at all levels of schooling they receive a higher quality of interaction. Using four categories of teacher responses to student participation—praise, acceptance, remediation, and criticism—the Sadkers' studies found that more than 50 percent of all teacher responses are mere acceptances, such as "O.K." and "uh huh." These nonspecific reactions offer little instructional feedback. Teachers use remediation more than 30 percent of the time, helping students correct or improve answers by asking probing questions or by phrases such as "Try again." Only 10 percent of the time do teachers actually praise students, and they criticize them even less. Although praise, remediation, and criticism provide more useful information to students than the neutral acknowledgment of an "O.K." these clearer, more precise teacher comments are more often directed to boys.

Who gets taught—and how—has profound consequences. Student participation in the classroom enhances learning and self-esteem. Thus, boys gain an educational advantage over girls by claiming a greater share of the teacher's time and attention. This is particularly noteworthy in science classes, where, according to the AAUW report, *How Schools Shortchange Girls*, boys perform 79 percent of all student-assisted demonstrations. When girls talk less and do less, it is little wonder that they learn less. Even when directing their attention to girls, teachers sometimes short-circuit the learning process. For example, teachers frequently explain how to focus a microscope to boys but simply adjust the microscope for the girls. Boys learn the skill; girls learn to ask for assistance.

When female students do speak in class, they often preface their statements with self-deprecating remarks such as, "I'm not sure this is right," or "This probably isn't what you're looking for." Even when offering excellent responses, female students may begin with this self-criticism. Such tentative forms of speech project a sense of academic uncertainty and self-doubt—almost a tacit admission of lesser status in the classroom.

Women are not only quiet in classrooms; they are also missing from the pages of textbooks. For example, history textbooks currently in use at middle and high schools offer little more than 2 percent of their space to women. Studies of music textbooks have found that 70 percent of the figures shown are male. A recent content analysis of five secondary school science textbooks revealed that more than two-thirds of all drawings were of male figures and that not a single female scientist was depicted. Furthermore, all five books used the male body as the model for the human body, a practice that continues even in medical school texts. At the college level, too, women rarely see themselves reflected in what they study. For example, the two-volume *Norton Anthology of English Literature* devotes less than 15

percent of its pages to the works of women. Interestingly, there was greater representation of women in the first edition of the anthology in 1962 than in the fifth edition published in 1986.

PRESENCE AND POWER

Not only are women hidden in the curriculum and quiet in the classroom, they are also less visible in other school locations. Even as early as the elementary grades, considered by some to be a distinctly feminine environment, boys tend to take over the territory. At recess time on playgrounds across the country, boys grab bats and balls as they fan out over the school yard for their games. Girls are likely to be left on the sideline—watching. In secondary school, male students become an even more powerful presence. In *Failing at Fairness*, high school teachers and students tell these stories:

A rural school district in Wisconsin still has the practice of having the cheerleaders (all girls, of course) clean the mats for the wrestling team before each meet. They are called the "Mat Maidens."

In our local high school, boys' sports teams received much more support from the school system and the community. The boys' team got shoes, jackets, and played on the best-maintained grounds. The girls' Softball team received no clothes and nobody took care of our fields. Cheerleaders did not cheer for us. When we played, the bleachers were mostly empty.

Sports are not the only fields where women lose ground. In many secondary schools, mathematics, science, and computer technology remain male domains. In the past, girls were actively discouraged or even prohibited from taking the advanced courses in these fields. One woman, now a college professor, recalls her high school physics class:

I was the only girl in the class. The teacher often told off-color jokes and when he did he would tell me to leave the room. My great regret today is that I actually did it.

Today, we hope such explicitly offensive behavior is rare, yet counselors and teachers continue to harbor lower expectations for girls and are less likely to encourage them to take advanced classes in math and science. It is only later in life that women realize the price they paid for avoiding these courses as they are screened out of lucrative careers in science and technology.

By the time they reach college, male students' control of the environment is visible. Male students are more likely to hold positions of student leadership on campus and to play in heavily funded sports programs. College presidents and deans are usually men, as are most tenured professors. In a sense, a "glass wall" divides today's college campus. On one side of the glass wall are men, comprising 70 percent of all students majoring in chemistry, physics, and computer science. The percentage is even higher in engineering. While the "hard sciences" flourish on the men's side of the campus, the women's side of the glass wall is where edu-

cation, psychology, and foreign languages are taught. These gender walls not only separate programs, they also indicate social standing. Departments with higher male enrollment carry greater campus prestige and their faculty are often paid higher salaries.

These gender differences can be seen outside academic programs, in peer relationships both at college and in high school. In 1993 a national survey sponsored by the AAUW and reported in *Hostile Hallways* found that 76 percent of male students and 85 percent of female students in the typical high school had experienced sexual harassment. What differed dramatically for girls and boys was not the occurrence of unwanted touching or profane remarks but their reaction to them. Only 28 percent of the boys, compared to 70 percent of the girls, said they were upset by these experiences. For 33 percent of the girls, the encounters were so troubling that they did not want to talk in class or even go to school. On college campuses problems range from sexist comments and sexual propositions to physical assault. Consider the following incidents:

- A UCLA fraternity manual found its way into a campus magazine. Along with the history and bylaws were songs the pledges were supposed to memorize. The lyrics described sexual scenes that were bizarre, graphic, and sadistic.
- One fraternity on a New England campus hosted "pig parties" where the man bringing the female date voted the ugliest wins.
- A toga party on the campus of another elite liberal arts college used for decoration the torso of a female mannequin hung from the balcony and splattered with paint to look like blood. A sign below suggested the female body was available for sex.

When one gender is consistently treated as less important and less valuable, the seeds of contempt take root and violence can be the result.

STRATEGIES FOR CHANGE

One of the ironies of gender bias in schools is that so much of it goes unnoticed by educators. While personally committed to fairness, many are unable to see the microinequities that surround them. The research on student-teacher interactions led the Sadkers to develop training programs to enable teachers and administrators to detect this bias and create equitable teaching methods. Program evaluations indicate that biased teaching patterns can be changed, and teachers can achieve equity in verbal interactions with their students. Research shows that for elementary and secondary school teachers, as well as college professors, this training leads not only to more equitable teaching but to more effective teaching as well.

During the 1970s, content analysis research showed women missing from schoolbooks. Publishers issued guidelines for equity and vowed to reform. But recent studies show that not all publishing companies have lived up to the promise of their guidelines. The curriculum continues to present a predominately male

model of the world. Once again publishers and authors must be urged to incorporate women into school texts. Teachers and students need to become aware of the vast amount of excellent children's literature, including biographies that feature resourceful girls and strong women. *Failing at Fairness* includes an extensive list of these resources for both elementary and secondary schools.

In postsecondary education, faculty members typically select instructional materials on the basis of individual preference. Many instructors would benefit from programs that alert them to well-written, gender-fair books in their academic fields. And individual professors can enhance their own lectures and discussions by including works by and about women.

Education institutions at every level have a responsibility for students in and beyond the classroom. Harassing and intimidating behaviors that formerly might have been excused with the comment "boys will be boys" are now often seen as less excusable and less acceptable. Many schools offer workshops for students and faculty to help eliminate sexual harassment. While controversy surrounds the exact definition of sexual harassment, the education community must take this issue seriously and devise strategies to keep the learning environment open to all.

After centuries of struggle, women have finally made their way into our colleges and graduate schools, only to discover that access does not guarantee equity. Walls of subtle bias continue to create different education environments, channeling women and men toward separate and unequal futures. To complete the agenda for equity, we must transform our education institutions and empower female students for full participation in society.

Notes

1. M. Sadker and D. Sadker, *Failing at Fairness: How America's Schools Cheat Girls* (New York: Charles Scribner's Sons, 1994). The research for this article as well as the anecdotes are drawn from this book.
2. L. Kim, "Boys Will Be Boys . . . Right?" *The Lance*, Livingston High School (June 1993), 32:5.