This paper argues that sexism and gender discrimination remain a significant problem in elementary, secondary, and higher education, and offers specific educational strategies and solutions to help overcome such inequalities. The paper explores female socialization and stereotyping, along with the real physiological and psychological differences between males and females that affect learning and academic performance. It examines research on discrimination in elementary schools, secondary schools, and institutions of higher education, along with the effects of such discrimination. The paper then offers 70 specific strategies and solutions to curricular, cultural, methodological, evaluation, counseling, and staff development problems faced by schools and colleges. (MDM)
WHAT DO WOMEN STUDENTS WANT? (AND NEED!)  
STRATEGIES AND SOLUTIONS FOR GENDER EQUITY

Carole Funk, Professor  
Department of Educational Leadership  
Texas Woman's University

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Introduction 

When Freud asked, "What do women want," he revealed the depth of his lack of understanding of the needs of women based on the unique differences between the sexes. In the time span since Freud first posed this question, it has remained largely unaddressed and unanswered because males have been the sole focus of most research studies concerning human health, psychology, and development, leaving the "dark continent" of the female psyche relatively unexplored.

Recent sociological, developmental, and physiological research conducted with females as subjects, however, reveals that girls and young women experience a different set of social expectations than do boys and young men, speak in a "different voice", and learn in ways that are distinct from the males in their classrooms. Although males and females are more alike than they are different, the differences that have been discovered could prove to be instructive to educators since these findings have implications for ways in which schools and colleges design and plan appropriate learning environments and experiences within these contexts for their female students.

Socialization and Sexism 

Sex role socialization and sex stereotyping begins at birth when parents attribute infant girls in their hospital cribs as softer, finer featured, smaller, and less attentive than infant boys although hospital records showed no significant differences between the infants of both sexes. Parents, consciously or subconsciously, continue this differential treatment as girls develop into young women by expecting them to be friendly, quiet, obedient, careful, and to appreciate protection from boys, who are encouraged to initiate, take risks, experiment, and explore unknown territories. Because boys are taught early in life that girls are no competitive match for them, girls who are competitive threaten a boy's masculinity. The price that girls have to pay for excellence could be loneliness; for most girls, it is too high a price to pay (Josefowitz, 1980).

Approval for "acceptable" feminine behavior" begins at home but is continued and reinforced at school. Thus, the old poem stating that" little girls are made of sugar and spice and everything nice" appears to remain the social standard for
the generation of females leaving our schools and universities and entering the
21st century. The role expectation for girls to be passive, weak, and obedient
begun in their early lives appears to be continued by their teachers and professors
in their educational environments (Sadker & Sadker, 1985; Allen & Niss, 1990).

The Different Voice

Interacting with the differential socialization of girls is their psychological and
moral development explored in her research by Gilligan (1982), who provides
the first female psychological developmental model. Prior to Gilligan's research,
these models from Freud to Kohlberg were based on studies of boys and men.
As a result of her research findings, Gilligan attributes a "different voice" to
females and suggests that innate differences between males and females make
the female voice only "different" from that of males and not "wrong or
abnormal."

In her landmark work of female development, In a Different Voice, Gilligan
states that female identity is defined by relationships, while male identity is
defined by independence. Her findings indicate that femininity is defined
through attachments and threatened by separation. Masculinity, in contrast, is
defined by separation from mother and threatened by intimacy. She concludes
from her research that empathy is "built in" to the female definition of self and
that further training refines this trait.

Further research by Brown and Gilligan (1992) with students at a girls' private
school continued the exploration of the fate of the "voice" of female students,
even when provided with a single-sex school environment. As a result of this
study, these researchers found that girls before the age of eleven are outspoken,
claiming their own authority in the world, are morally articulate, and honest
about relationships and things that hurt them.

In contrast, the research study revealed that girls after eleven years of age appear
to reach a psychological impasse when they first determine that their "intimacy"
orientation is not highly prized in the male-dominated culture (Brown &
Gilligan, 1992). After this discovery, they enter a period of self doubt, ambivalence, and panic, perhaps evident in the depression and eating disorders of teenage girls. These researchers concluded that this dilemma requires that in
order for girls to remain responsive to themselves, they must resist the
conventions of feminine goodness; to remain responsive to others, they must
resist the value placed on self-sufficiency and independence. Presented with a
choice that makes them appear either selfish or selfless, many silence their
distinctive voices. The substitute voice, is breathy, apologetic, and hesitant.
Thus, research presented in this study of women's psychology and girls'
development indicates that the confident eleven year-old becomes scared and
confused at sixteen.

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The Different Brain

In conjunction with socialization and developmental differences between the sexes, physical and biological differences exist as a result of "nature" rather than "nurture." These physiological differences between females and males result from the hormones that "sex" the brains of fetuses in unique ways, affecting both activity and performance. Christine deLacoste in her study of brain physiology at Southwestern Medical Center Forensics Institute found actual physical differences between male and female brains and suggested that the female and male brains are actually "wired" in distinctly different ways. Further research supports deLacoste's findings, indicating that male and female brains have not only different circuitry but also different physiology, chemistry, and information processing (deSimone & Durden-Smith, 1983; Hopson, 1987).

The corpus collosum is the thick bundles of fibers connecting the right and left hemispheres of the brain. According to deLacoste in her original research and confirmed in later studies, the corpus collosum is twice as large in females than it is in males. With this larger link between the two hemispheres, females appear to have a stronger connection between their logical left hemispheres and their creative, affective right hemisphere, allowing females to switch back and forth between the hemispheres more easily than can males. These and similar studies indicate that males have more specialization in the function of their brain hemispheres and that the male brain seems to be more lateralized in the left hemisphere. Accordingly, language skill sites appear to be more localized in the left hemisphere of males; however, in females, the language ability appears to be evenly divided between the hemispheres with no lateralization.

Differing brain chemistries and physiologies suggest that males have more difficulty with reading, more dyslexia, more stuttering, hyperactivity, and autism, while females are superior in language skills. Females also appear to have better verbal access to their emotional world in their right hemispheres. In contrast, males appear to be better at math and computational skills than are females who tend to apply verbal strategies to math problems. Problem-solving is accomplished in different ways for the sexes. Males visualize problems and problem solve with images, using their right hemisphere's penchant for visual-spatial relations to mentally rotate three-dimensional figures. Females, however, problem-solve with words, reinforcing the larger connection between the left and right hemispheres but respond more to people and context (perhaps reflective of Gilligan's findings). Males seem to have less access to feelings because of their brain lateralization and appear to be more rule-bound and single-minded as a result.

The female brain appears to be more "intuitive," integrating both verbal and non-verbal information; it also is more sensitive to sound and to tone of voice.
Females have finer finger-hand movement, while males have faster overall reaction times. Males, because of a "burst" of testosterone, react to stress with aggression; females, influenced by estrogen and progesterone respond to stress with depression.

**Discrimination in Elementary and Secondary Schools**

As a result of the influence and interaction of the different voice and the different brain within a societal context that involves both overt and subtle discrimination, sex stereotyping occurs in a myriad of ways for girls in this culture. The limiting role expectations that result from these factors continue to plague girls and young women through their elementary, secondary, and college educational experiences (Sadker & Sadker, 1986).

Research results taken from classroom observations in the public schools show that boys receive more praise, cues, criticism, encouragement, eye contact, questions, and attention than do their female classmates. Boys also get more detailed help and assistance from teachers, while teachers do the work for girls who ask for help (Sadker & Sadker).

Boys call for and get more attention from elementary and secondary teachers; therefore, earlier attention is given to them for learning and behavior disorders. Reinforcement is given to the more assertive and aggressive behaviors of male students by teachers who accept their answer "out of turn", while girls are told, by these same teachers, to raise their hands. Additional favoritism is shown by teachers who not only allow students to be segregated by sex in classroom seating but also stand nearer the male section of the classroom.

Surprisingly, the Sadkers show that both female and male teachers are guilty of these behaviors that lead to bias and discrimination against girls in their classrooms. These findings are very troublesome when one considers that the majority of school teachers in both elementary and secondary schools are female and are continuing to perpetuate lowered expectations for students of their own sex. Many teachers, however, whether male or female, are not conscious of their discriminatory practices nor are they aware of the impact of these practices on the professional and personal futures of the "quiet, well-behaved" girls in their classrooms. Subtle discrimination is hard to detect and even harder to fight.

The effects of this inequitable treatment in our elementary and secondary classrooms on girls is clear; according to Sadker and Sadker (1986), girls actually lose ground as a result of their schooling. They start school with higher test scores than boys but trail them by fifty-seven points when they take the SAT in high school. Girls lag in mathematics and science scores, and even those who do well in these subjects tend not to choose math and science careers. These researchers ask, "What other group starts out ahead in reading, writing, even in math, and 12 years later finds itself behind?" (Sadker and Sadker, 1986, p. 515).
Sexism in Higher Education

The patterns of discrimination and bias that exist in elementary and secondary schools continue at the college and university levels (Sadker & Sadker, 1986; Allen & Niss, 1985). Adding insult to injury, professors of both sexes in institutions of higher education give even less attention to female students than did their public or private school teachers. These instructors also allow them to be set apart from male students since seating segregation by sex continues to be the norm in college classrooms.

In university classes young women are interrupted more often by their professors, are asked fewer questions, coached less, and given less time to respond to questions than are the male students. Overall, the interaction of university faculty with females decreases another twenty-five percent from the already low level of interaction they had with their 4th, 6th, and 8th grade teachers. Female college students experience the "ok" classroom, in which they get more acceptance than praise, criticism, or remediation. Professors make more eye contact with male students and ask them "higher-level" questions while female students are asked "lower-order" questions.

Effects of Sexism and Discrimination

The combined effects of sexism and discrimination, both knowingly and unknowingly, by society, the family, and the school have limited the minds and the lives of girls and young women by "binding their minds" instead of their feet. The effects of narrowed expectations and differential treatment have had the following results on the developing female:

- Permanent damage to self-confidence and self-esteem
- Silencing of the distinctive "female voice"
- Hesitancy to take risks and learn independence
- Acceptance of spectator role but not participant
- Underestimation of academic ability
- Lowered career aspirations
- Experience limited choices in all aspects of life.

Advantages for Females at Single-sex Institutions

In stark contrast, research conducted by the National Coalition of Girls Schools (Fisher, 1990) indicates that education for girls at single-sex institutions allow their students to achieve academic excellence, succeed in college, become more
ambitious, accomplish more in their lives, gain a competitive edge, and be more satisfied with their careers. These findings are supported by studies of women's universities, where studies show that students in these colleges:

- Participate more fully in and out of class
- Develop measurably high levels of self-esteem
- Score higher on standardized tests than co-eds
- Choose more majors in traditionally male disciplines
- Are more successful in careers and earn more money
- Are happier in their lives and have lower divorce rates.

Students in women's colleges also are two to three times more likely to be high achievers than those from coed schools and are represented in Congress and on boards of Fortune 500 companies at a rate six times greater than expected by chance. They are twice as likely to earn doctoral degrees than coed graduates and appear on Business Week’s list of top corporate women six times beyond their numbers in the population.

Strategies and Solutions

What Do Women Students Want and Need from Academe?

The main focus of America’s schools and universities should be academic excellence for all students, male and female, including curricular and teaching excellence, that will allow students of both sexes to set and reach their professional and personal goals and acquire the skills of creative thinking and problem solving along with the development of rational judgment and a broad sense of perspective. For female students, whether in coed or single-sex institutions, this excellence should include curricula, texts, materials, projects and activities that reflect the contributions, concerns, and issues related to women and their unique characteristics and needs.

Beyond the basic elements that serve as the foundation for academic excellence, education for female students can be specifically adapted through supplementing and complementing existing educational experiences in schools and universities. The school and university curricula should provide inclusion through infusion throughout the curriculum of experiences that can better serve the unmet needs of female students who have been continually shortchanged in the educational process. The following strategies and solutions are proposed on the basis of the needs implied in the literature to allow the “different voice” of female students to become an integral and valued part of the school culture.
Curriculum strategies:

1. Assess and redesign curricula, programs, and courses to reflect women's contributions, concerns, and issues.

2. Provide curricular and co-curricular experiences that encourage and enhance the leadership skills of female students.

3. Ensure that the informal and formal curriculum includes experiences for girls, especially those between the ages of 10 and 16, that allow their voices to be heard, valued, and rewarded in social as well as academic settings.

4. Assess course textbooks and materials to provide a baseline concerning the extent to which curricular materials reflect the contributions, concerns, and issues related to women and correct inequities that exist.

5. Use inclusion and infusion throughout the curricular planning process to ensure that curricular and instructional goals and objectives address content and methodology, both affective and cognitive, that provide experiences in the educational setting that will allow female students to maximize their life potentials.

6. Implement after-school or summer programs to increase girls' interest and experience in science and mathematics in elementary and secondary schools; teacher encouragement in the classroom should supplement these efforts.

7. Offer university summer programs in mathematics and science for female university and high school students.

8. Model and teach assertive behavior as an integral part of the curriculum.

9. Develop curriculum goals and instructional objectives that will allow female students to feel important and valued and practice and internalize the behaviors that will allow all students to know that they are valued.

10. Include collaborative leadership models as a part of the school curriculum, using female school leaders as role models to establish school cultures that are webs of inclusion.

11. Give girls and young women leadership roles in curricular and co-curricular activities in order to allow them to test, refine, and internalize leadership skills and models learned in the classroom.

12. Utilize the curriculum to broaden and enrich the experiences of female students in real world, practical experiences to overcome experiential limitations of girls who have been more sheltered than have their male counterparts.
13. Include more attention to family and developmental studies as components of core curricula in schools and universities.

14. Provide interdisciplinary projects and assignments to allow female students to learn through the context of their own life experiences or political, social, and cultural realities.

Strategies to Change Educational Cultures

1. Review the "culture" of the school or university through the "eyes" of female students to identify sexism in school practices, policies, and behaviors; make needed changes a priority of school administrators and school boards as well as professors, university administrators, and boards of regents.

2. Change school and university cultures, including norms, mores, expectations, and values in ways that include, involve, honor and reward their female students.

3. Raise cultural norms of schools and universities to include valuing of ideas and contributions of female students and to raise expectations of administrators and teachers concerning the career and personal potentials of girls and young women.

4. Establish new traditions and school mores that are inclusive of the interests, values, and needs of female students.

5. Provide "school communities" that include and model decent, responsible behavior and nonviolent conflict resolution as a part of citizenship training.

6. Devise seating patterns and group membership to ensure that classrooms and other school groupings are not sex-segregated.

7. Assess and change school cultures to encourage active, not passive, participation of girls and young women in all types of school activities.

8. Establish student networks; stress the need for female students to know how to be team players and the importance of networking and support systems.

9. Have teachers and students identify and examine stereotypes and stereotyping behaviors; reframe stereotyping into positive approaches in working with students who have different characteristics.

10. In order to make the role expectation of "player" not "spectator" a reality for female students, they should learn, observe, and practice leadership skills and fulfill significant leadership roles in and out of the classroom.

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11. Give female students the opportunity to use their distinctive voices in all aspects of the school culture and be reinforced for voicing their opinions, being assured that their opinions count and are valued.

12. Appoint more female leaders to serve as positive role models in schools and universities.

Methodological Strategies

1. Design learning experiences that take into account the physiological brain differences between males and females.

2. Expand teaching methodologies to include instructional techniques that are aligned with learning styles of female students as indicated in the brain research literature.

3. Teach female students to develop better spatial relations skills through concrete experiences in classroom activities involving kinesthetic methods and hands-on materials, especially in math and science courses.

4. Use right-hemisphere approaches to teaching math along with left-hemisphere approaches that favor male students.

5. Provide learning experiences that integrate theory with experience and utilize cognitive processes that include feeling and empathy as well as thought in order to reward female learning preferences and modes of thinking.

6. Individualize reading assignments for female students, allowing them to read about the thoughts and insights of other women.

7. Shape the behavior of girls and young women to allow them to experience success by encouraging and rewarding risk-taking behaviors in order to bolster self-confidence and self-esteem.

8. Provide individual attention and assistance to female students, easing into more self-direction under a situational leadership model.

9. Establish procedures to provide a positive, supportive classroom climate with a high level of involvement of all students with balanced teacher to student and student to student interaction.

11. Use more small group activities in classrooms; train students in appropriate small group roles; encourage girls to learn in non-competitive ways. Consider occasional use of all-girl work groups in coed classrooms.

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12. Use more cooperative learning strategies in classrooms, stressing collaboration rather than competition in our schools and universities.

13. Evaluate questioning techniques used in classrooms; ensure that higher-order questions are asked of both female and male students and that wait-time and cues are not inequitably distributed by gender.

14. Increase classroom participation by all; use name cards to ensure that all students, male and female, are required to respond to questions.

15. Encourage female students to challenge ideas and disagree; teach critical analysis, not the simple acceptance of ideas or "right answers."

16. Teach female students to accept feedback (criticism) and not to personalize it.

17. Make every effort to identify and reduce the levels of "achievement anxiety" in female students.

18. Ensure that teachers and male students do not interrupt female students when they are speaking, discounting or ignoring their input in class, or accepting the ideas put forth by female students as their own.

19. Provide supportiveness and student involvement, the two characteristics inherent in the non-biased classroom.

20. Set high expectations for female students and use shaping reinforcers to let them know they are moving in the right direction.

21. Avoid the use of maternalistic or paternalistic teaching or leadership styles with female students; teachers and professors should not reinforce and perpetuate sex stereotyping begun in the nuclear family.

22. Give frequent opportunities for female students to achieve success; then praise and recognize their achievements.

Strategies for Assessment and Evaluation

1. Give earlier and more frequent feedback on student performance to reduce achievement anxiety of female students.

2. Use more portfolio type assessment to supplement the use of teacher-made and standardized testing to reflect a broader range of student achievement.

3. Give female students opportunities to take practice "tests" so they may practice at the cognitive levels required on tests in classroom problem-solving activities.

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4. Provide female students with meaningful, specific feedback and fair and accurate assessments and evaluations of their performance.

5. Show the value of self-assessment by allowing students to evaluate their own work as individuals and members of work groups.

Strategies for Counseling and Advising

1. Provide early career counseling in schools so that female students can build on a foundation of learning about and observing career options throughout the elementary school years.

2. Retrain school counselors to encourage and support the interest and enrollment of females in mathematics and science courses so that the career and life options of girls and young women will not be permanently limited.

3. Teach and advise female students to be independent through situational leadership, beginning with more structure and direction, allowing experiences for success, reinforcing that success, and allowing dependence to evolve into self-direction.

4. Teach female students to identify their own negative self-talk and to "tame their internal gremlins" by learning about and practicing positive self-talk.

5. Encourage risk-taking by stimulating female students to voice their opinions in class, learning how to confront teachers and other students positively.

6. Teach female students to identify and respond appropriately to sexual harassment, building on a strong value of self and self-esteem as a base for handling these incidents.

7. Ensure that female students have mentors (teachers), sponsors (door-openers), and support systems (networks) throughout the educational process.

8. Teach female students how to broker the system and how to handle the politics of the public school and the university.

9. Seek active ways of strengthening healthy resistance and courage in girls and allow them to bring their voices out into the public.

10. Encourage female students to keep journals, to "amplify their voices for themselves" before their voices are silenced forever.

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Strategies for Staff Development and Retraining

1. Provide staff development for school and university instructors so they may be aware of their subconscious sexual biases and inequitable treatment of female students.

2. Retrain school counselors along with teachers as well as university advisors and professors to open up and expand the horizons of female students regarding their abilities and their options.

3. Eliminate sexist language and behaviors in the classroom through teacher awareness and retraining.

4. Have teachers assess their teaching, using videotaping, peer observations, and data collection on classroom interaction; use data and reports from students to identify and remove sexually discriminatory teaching practices.

5. Study and refine responses to male and female students through data collection on type, style, and frequency of verbal and non-verbal reinforcement.

6. Train teachers to identify and eliminate sexual harassment of female students in school/university settings.

7. Ensure that teachers recognize and remove intimidation and sarcasm from the classroom so that learning environments are more personal, intimate, and caring.

Summary

In American schools and universities today, females are truly a gender at risk (Shakeshaft, 1986). As educators at all levels of education in the United States plan for reforms needed to prepare all students for life in the 21st century, steps must be taken to ensure that these reform efforts address the inequities that exist for female students in our nation's schools.

Strategies and solutions designed to produce gender equity in schools and colleges must involve changes in school cultures, climates, curricula, teaching methodologies, counseling and advising, and retraining of school and university personnel. Without critical changes in schools that reform the covertly sexist curriculum and culture of America's educational institutions that limit the nation's female student population, women of the 21st century will never be able to "hold up their half of the sky."
References


