An Examination of Gender Discrimination in Education

An Honors Thesis (HONRS 499)

By

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Representation of the world, like the world itself, is the work of men; they describe it from their own point of view, which they confuse with absolute truth.

-Simone de Beauvoir
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acknowledgements</td>
<td>4</td>
</tr>
<tr>
<td>Abstract</td>
<td>5</td>
</tr>
<tr>
<td>My Story</td>
<td>7</td>
</tr>
<tr>
<td>Introduction to Literature Review</td>
<td>13</td>
</tr>
<tr>
<td>Literature Review</td>
<td>16</td>
</tr>
<tr>
<td>Classroom Observations</td>
<td>31</td>
</tr>
<tr>
<td>Conclusion and Solutions</td>
<td>38</td>
</tr>
<tr>
<td>References</td>
<td>47</td>
</tr>
</tbody>
</table>
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Abstract

I have divided this study of gender discrimination in education into four main areas. First, I relate my own story of my educational experience and some of the discrimination I noticed from it. Next, I examine some of the literature from the 1960s and 1970s when the women's movement was well underway and people began to notice some of the inequities present in education. This section will more specifically look at gendered curriculum, teachers paying more attention to male students, and gendered socialization. Then, I recount my experiences observing a first grade classroom for five weeks and what I noticed about the treatment of boys and girls in the classroom. Finally, I look at improvements in gender discrimination in the past 30 years, as well as offer some suggestions for improvement in the future.
Doonesbury

BY GARRY TRUDEAU

DON'T WE HAVE A PARENTS' OPEN CLASS TODAY?

IT WAS YESTERDAY, DURING YOUR SHIFT. DON'T WORRY, ALEX IS DOING FINE.

A GIRL'S EDUCATION?


YEAH, WELL, I'D LIKE TO SEE FOR MYSELF. I WANT TO MAKE SURE OUR DAUGHTER ISN'T GETTING A GIRL'S EDUCATION!

MAYBE IF I MORE BRIGHTER COLORS...
My Story: Diary of a Smart Girl

One of the main reasons I chose this topic for my project is because of its personal relevance. I am still a student as I write this, and my time in elementary and secondary school is not so far removed from those years in the 1960s and 1970s when the women's movement was in full swing. Because of this, the topic of gender discrimination has a very personal relevance for me. The following section details my own experiences with gender issues in education.

When I was in kindergarten in 1985, at the end of the year we all sat on the floor as a class to compose a list of sentences to describe our classmates. I remember this so clearly. The teacher was sitting in a chair and would say things like what are some things that describe Lisa? “She's pretty.” “She likes boys” (giggle). And what do we think of Arlen? “He's strong.” “He's funny” “He's so romantic” (this was said by Lisa, who really did seem to like the boys). Then we got to me. And what are some things that describe Carrie? “She's smart.” “She likes to work.” “She likes school.”

I was devastated. Even at six years old, the social structure had been set. The smart girls were not cool—perhaps the smart boys, but never the smart girls. And maybe I had only guessed it then, but I was destined to always be that smart girl. The smart girl is one of the worst types of girl to be during school. No wonder I wasn’t the most popular girl in the class: The smart girls never are. The girl who dresses nicely and giggles about the boys is popular. As I mentioned before, this is the girl who makes herself out to be smart, but not too smart. This was Lisa and Lisa was popular. Since then, I’ve thought that maybe these girls are the real smart girls; they knew from the start what it would take for them to fit in.
I brushed my already established smart-girl stigma aside and charged through the beginning of elementary school. I ignored my smart-girl status and went happily along raising my hand enthusiastically right along with the boys and honestly thinking I could compete with them for the attention of the teacher. After all, my mother had always told me that I could do anything boys could do, and I believed her: After all, I was less than ten years old. My teachers usually recognized my aptitude for learning and encouraged me, and I thrived on this praise from my teachers. But my parents had drilled good manners into me from day one, and I remember countless times waiting patiently with my hand in the air, knowing the answer to a question, while a boy would blurt out the answer before the teacher had a chance to call on anyone—strictly against class sanctions—but they rarely got reprimanded; after all, boys will be boys. Still, for several years, I persisted undaunted in my eagerness for learning.

However, I began to realize that competing for “class know-it-all” with a group of boys didn’t exactly make me fit in. It occurred to me that the boys got ahead by being competitive and the girls got ahead by being passive. As early as the third grade, I can remember starting the process of dummying myself down and silencing myself. It was around this time that I remember consciously making my voice softer, becoming aware of the way I dressed, and beginning to gossip with the other girls about the boys in the class. This was also when I remember developing the horrible habit so many other girls have of prefacing answers to the teacher’s questions with statements such as “I’m not sure this is right, but...” I guess it took me a little longer than the other girls to realize that this is what it took to fit in at the time.
For years, I kept up my charade of trying to fit in with the other girls. Looking back, I wonder how many of them were putting on an act as well so they could be accepted. I even started to get comments from my teachers about being “pretty” or “silly” rather than the “she likes to do work” comments of my kindergarten days. Other girls in the class began to tease me for “liking boys.” I was Lisa (or so I thought). I was thrilled.

I used to be the comic in my group of friends, and until junior high, I could be counted on to be outgoing and make funny comments in class. For such an intelligent person, it took me a while to learn that girls don’t make funny comments; girls laugh at funny comments made by boys. I had a good male friend all throughout junior high and high school, and when we’d sit near each other in class and something amusing would happen, I’d usually make a snide remark under my breath, which he would then repeat, only louder, and the class would laugh. Suddenly, I wasn’t the funny one in the class; Zach was. Maybe people were more comfortable with that. I know I was. I’d learned that I couldn’t be smart or funny, so just what did it take for a girl to fit in? By this time, any inkling of my former competitiveness and eagerness to be a part of discussions was gone. It was around this time that teachers had to pull teeth to get me to participate in class, and that habit has continued to today.

Even now, I’m 22 years old, I’m a senior in college, and I still catch myself not answering questions for fear of looking “too smart” and prefacing the questions I do answer with uncertainty. Maybe I shouldn’t say that I catch myself, because mostly I don’t--I’ve been socialized into such a habit, that it’s close to a non-conscious process for me. When I first stopped raising my hand to answer questions during class, I know I still
thought about what my response would be and formulated an answer in my head. I rarely even do that anymore. I’ve just stopped trying. And now, I’m ashamed of myself for it.

Even in college, when I get a test back with a high grade, rather than being proud, I’m reluctant to show it to my friends because of the inevitable comments of “I hate you” and “You suck.” And still, I watch the smart boys be (rightfully) thrilled about their high grades and hear the praise for them. Still, in a college classroom, I occasionally feel the need to hide my intelligence behind giggles and uncertainty. Yet again, I’m ashamed of myself.

Not that my entire educational career has been one experience after another of being beaten down by the man, so to speak. I was Marc Anthony in my fifth grade production of *Julius Caesar* and loved orating over the “dead” body of a male Caesar who had only recently been assassinated by two females and a male. And the year before that I was Banquo in my class production of *Macbeth*, thanks to the encouragement of a teacher who was far ahead of her time in terms of gender equality.

I’ve also come to realize that my quest to be the Lisa of my kindergarten class was rather transparent. It’s hard to hide being the smart girl (or the talkative girl, or the boy who’s good at art) and sooner or later each person’s real identity comes through. And while I’m still struggling with my introversion in class behavior and fear of ridicule if people find out my test grades or GPA, I’m a lot more comfortable in my smart-girl shoes. During my junior year of high school, I was the only girl in advanced chemistry, and this was maybe the one time in my life that I truly became a member of that elusive boys club and unafraid of my aptitude for science.
Even though the issue of gender discrimination in schools is on a very personal level for me, it is certainly not a problem that only I have. This issue affects people on all levels, all over the world. While it may feel quite personal when a person is experiencing it for herself, it is in fact a problem on a much larger societal and political scale. In this paper, I attempt to capture the scale of this dilemma and how much has affected people over the years. However, the main idea of my study is that, while there have been improvements made in this issue over the past 30 years, there is still a ways to go before equality is reached.
OKAY, QUIET DOWN, EVERYONE! WHO KNOWS WHAT SEASON IT IS NOW? TEDDY?

SPRING!

VERY GOOD, TEDDY! WHAT MONTH IS IT? MICHAEL?

IT'S APRIL!

RIGHT! OKAY, WHO KNOWS WHAT DAY OF THE WEEK IT IS?

I DO! JULY!

NOPE. ANYONE ELSE? ROB, WE HAVEN'T HEARD FROM YOU! ALBERT? KEVIN?

WHAT'S THE DEAL HERE? MAYBE I NEED TO LOSE SOME WEIGHT.
Most recent literature on the subject of gender issues in education has focused on the discrimination faced by girls in the elementary and secondary school classrooms of the mid-20th century (Frazier & Sadker, 1973; Gough, 1976; Sadker & Sadker, 1994; Streitmatter, 1994; Stromquist, 1990). The basic premise of the research is that sitting in the same classroom, listening to the same lessons, boys and girls were receiving much different educations. Boys were taught to be assertive, curious leaders, while girls were taught to be passive, feminine, second-class citizens. Research has shown that girls were placed at a disadvantage through gendered curriculum, teachers who favored boys in their classroom, and the overall male-dominated socialization that was implicitly taught. This forced girls to face the problems of loss of self-esteem, decline in achievement, and elimination of career options, which made girls in a way “lost” to society (Sadker & Sadker, 1994). Students spend, on average, six hours a day for 180 days a year in school. This means that students spend about 1,000 hours a year under the supervision of teachers (Frazier, 1973). Indeed, there is no single activity besides sleeping that engages more of a student’s time. This all adds up to schools playing a tremendously powerful role in the socialization and development of children.

One thing that has been done to improve gender issues in schools is Title IX. Title IX of the Education Amendments is a 1972 federal mandate that outlawed gender discrimination in education. Basically, Congress dictated that gender could no longer influence educational opportunity (Title IX, 1997). This year is the 30th anniversary of Title IX, and clearly it has opened up many opportunities for girls that were unheard of before its inception. However, even though so many years have passed, there is still much improvement that needs to be made. One possible reason for this is that parents
and teachers continue to socialize their children according to gender stereotypes (Streitmatter, 1994).

Although with Title IX sex bias was outlawed in school athletics, career counseling, medical services, financial aid, admissions practices and the treatment of students from elementary school through the university level, many schools were still in violation (Sadker & Sadker, 1994). For example, the Sadkers gave students at the American University the assignment of going to local schools and determining if they were compliant with the guidelines set forth in Title IX. They offered a free lunch to the student who found a school not violating the law, and at the time of the publication of their book, their lunch fund had not been touched (1994).

But are students still socialized the same way? As a result of the powerful women’s movement of the 1960s and 1970s, might teachers today be more careful of how and what they teach their students? Perhaps a teacher in a classroom in the year 2002 might try so hard not to favor boys that he or she would overcompensate and, in fact, favor girls. Or perhaps the sexist lessons of decades ago are so ingrained in our society that they still haunt classrooms of today. Education is certainly one of the most salient issues in our country today, as well it should be. Allowing children the chance for a rewarding and non-discriminatory education ensures that the future of our country will lie in wise and competent hands. But will those hands continue to be the hands of men? This paper will examine existing research on gender discrimination in education, and then relate it to observations of classrooms today to see if sexism still exists. It will then examine possible solutions for the future to achieve gender equality in our school systems.
Doonesbury

BY GARRY TRUDEAU

1. How's nursery school going, honey?

2. Okay, I guess. Except I never get to say anything.

3. The dorky boys get all the attention, Mrs. Jasper isn't fair about letting the girls answer questions.

4. Hmm...

5. Maybe I should have a little talk with her.

6. Mom, she'll never call on you! Send Daddy.
The next part of this paper will examine existing research on gender issues in education, in particular the work of Myra and David Sadker, who were two of the leading researchers in this area. However, this portion of the paper is essentially historical content. Most of the research used by the Sadkers and other sources cited comes from studies done in the 1960s and 1970s, at the height of the second wave of the women’s liberation movement. These findings are certainly relevant, but really only as history—a look at where gender issues in education have been and a building block for improvement for the future. This section of the paper will examine three main areas of the research at this time: gendered curriculum, teachers paying more attention to male students, and overall gendered socialization.

Gendered Curriculum

According to Sadker and Sadker (1994), one way that gender inequality has been noted in the school systems is in gendered curriculum. In the 1970s, analyses were done on high school American history books that found that more space was dedicated to the six-shooter than the entire women’s suffrage movement. In fact, the typical history book of the time dedicated only two sentences related to women’s contributions to history. Science texts of the time were not much better, with the exception of picturing Marie Curie, who was generally shown to be peering over her husband’s shoulder as he looked into a microscope (Sadker & Sadker, 1994, p.7). This could have made young girls believe that no matter how important the contribution of a woman is, as it certainly was in the case of Marie Curie, her importance can only be shown in relationship to men.

As a result of textbooks such as these, girls in school were shown few role models to look up to. By opening a textbook and seeing that all the important figures in it were
male, a girl may have begun to wonder about what contributions women have made to our society, and even wonder if there are any women who have made an impact on where our world is today. Because of this, they learned to believe that women played no role in the development of our nation, and instead were invisible members of the population, standing in the shadows of men.

A few decades ago, the Sadkers used to go into high school senior history classes and give the students five minutes to name five famous U.S. women, excluding sports figures, entertainers, or president’s wives who were not famous for their own accomplishments. On average, out of the thousands of students they gave the test to, students could list only four or five famous women from the entire history of the United States (1994). This finding relates directly to the idea that girls may have been led to wonder if there were in fact any women who have made a significant contribution to history. As a result of there being no famous women to learn about in school at the time, female students may have failed to identify with the material and grown bored and frustrated and as a result were less likely to make an effort to learn and do their best work.

This sexism in schoolbooks was not limited to high school textbooks, but it extended to elementary school as well. In 1970, the Feminist Collective on Children’s Media confronted 160 authors and publishers with the findings of a six-month study of basal readers from fifteen major series which found that “boys turned up in these readers as energetic, active, and resourceful, while girls were depicted as passive, intellectually limited, and fearful” (Gough, 1976). In a similar study conducted by Pauline Gough in 1972 and 1973, men were shown in 37 different occupations while women were depicted
in only six outside the traditional homemaker, nurse, teacher, etc. (1976). In addition, a 1975 study called *Dick and Jane as Victims* by The Women on Words and Images found the following ratios regarding 134 elementary school readers: There were five boy-centered stories for every two girl-centered stories, three adult male characters for every one adult female character, and six male biographies for every one female biography (Gough, 1976).

Realities like this made it so that children who wanted to learn about people who make up half of the population had nowhere to turn but to accept the male-dominated reality with which they were presented. This shows that the gendered socialization of children began even when they were first learning to read. This could be a reason that strong ideas of gender identity and what it means to be a male or a female can be so ingrained in people. Even at the time of the study, much of the country’s labor force was made up of women, but girls in the classroom were still being taught that the working world was a man’s world and women were merely there to support the men.

Another area where women were traditionally discriminated against is the world of mathematics and science (Sadker & Sadker, 1994). These areas were traditionally thought of as male-dominated areas with few if any historical female role models for young girls who may have been interested in studying these things. Also, and perhaps even more insidiously, teachers may have been consciously or unconsciously deterring girls from achieving in math classes. Because of things such as this, boys continued to be better than girls on math tests, and girls were more likely than boys to drop out of math-related classes. This lack of achievement and dropping out could have been because of
things such as confidence in math skills or how useful the student perceives mathematics to be (Chapman, 1988).

In addition, research has found that boys have higher expectations of success in their math courses as well as of success in future math-related careers. If this were true several decades ago, that could be a large contributor to the fact that areas such as engineering and actuarial science are still largely male-dominated careers that are only now beginning to be infiltrated with females. Also, girls whose teachers had high expectations for them have less confidence in their math ability than boys whose teachers have high expectations for them, even though they had had done equally well in previous math courses. Perhaps even more disturbing is that this difference in belief of ability was even greater in the ninth grade than in the seventh grade, and by this time, girls also thought math was less useful than did boys (Wilkinson, 1985). This decrease in girls' confidence in ability shows that as girls went through school, their interest and belief in their academic abilities were being discouraged rather than encouraged, which is an unsettling trend not just in the areas of math and science, but overall.

Unfortunately, this discrimination was not only shown in the primary and secondary school levels, but in some cases on the college level as well. Take for example this story from DePauw University:

I registered for a calculus course my first year at DePauw. Even twenty years ago I was not timid, so on the very first day I raised my hand and asked a question. I still have a vivid memory of the professor rolling his eyes, hitting this head with his hand in frustration, and announcing to everyone, “Why do they expect me to teach calculus to girls?” I never asked another question.

The woman who experienced this discrimination is Patricia Ireland, former president of the National Organization for Women (Sadker and Sadker, 1994). Her
experience is certainly not unique. The areas of math and science are traditionally a man's world. For example, a recent analysis of five science textbooks found that all the books used an outline of the human body to show the location of the organs, and in four of the books the outline was of a male body, sending the message to all the students who read it that the male body is the norm (Sadker & Sadker, 1994).

Teachers pay more attention to male students

Another way that females were shown to face discrimination in schools is as a result of teachers paying more attention to male students than to females students (Askew & Ross, 1988; Sadker & Sadker, 1994; Streitmatter, 1994; Wilkinson, 1985). The results of studies have not always been exactly consistent, but the general finding is that in grades kindergarten through 12, male students spoke more often than female students, sometimes at a ratio of 3 to 1 (Wolfe, 2000). As teachers were more likely to speak and respond to male students, female students may have felt devalued in the classroom and lost interest in what was being taught because the teacher was directing less attention to them. This notion was demonstrated in a 1985 study by Jacquelynne S. Eccles and Phyllis Blumenfeld (as cited in Wilkinson, 1985). They found that in first and fifth grade classrooms, 39 percent of teacher communication was directed at boys while only 29 percent was directed at girls. The remaining communication was directed at mixed groups. However, this study also found that girls received an appreciably higher proportion of direction about academic performance and communication while the direction boys received was based more on procedure.

However, this type of communication pattern is not limited to elementary schools. For example, a 1981 study of high school geometry classes found that boys had more
opportunities to communicate with the teacher because they were more likely than girls to be called on as volunteers and to work out problems for the class (Wilkinson, 1985). This study also found that teachers directed more disciplinary communication as well as more praise and joking to boys than to girls which shows that teachers were relating to these boys more as adults and treating them as people on their level rather than keeping the boundary up between teacher and student. It also touched on another very important point, that teachers were likely to allow boys to disrupt response patterns by shouting out answers out of turn (Wilkinson, 1985). This suggests that teachers were more likely to encourage boys to be independent and free-thinking and more likely to encourage girls to follow socially mandated norms. If a girl were to speak out of turn in a classroom, it would violate the stereotype of a girl being more passive and self-disciplined.

There were reasons that teachers gave for paying more attention to boys when their sexist behavior was pointed out to them. For example, teachers argued that boys were more difficult to control and to settle down to do their work while girls generally had more self control. In addition, it was more important to keep boys' attention than girls' because if they did not, then the boys would lose interest and become disruptive (Askew & Ross, 1988). However, these explanations concentrate on disciplinary issues and fail to address the loss of self worth that girls felt when the lessons are not directed to them. These reasons also do not address the fact that not only did boys generally demand a greater quantity of teacher's attention, but they also generally received a better quality of interaction (1988).

In addition to receiving more of a teacher's time, boys were also more likely to be asked questions by teachers that required a higher degree of thinking and to be shown
how to do a task by a teacher, while teachers were more likely to do the task for girls. For example, if a girl answered a question incorrectly, the teacher was likely to simply move on to the next student to look for the correct answer. Conversely, when a boy answered a question incorrectly, the teacher was more likely to give them additional information to help them find the right answer or explain why their answer was wrong (Sadker & Sadker, 1994; Streitmatter, 1994). Additionally, if males were considered to be high achieving academically, they were likely to receive more teacher instruction than girls who are high achievers (Streitmatter, 1994).

These points can be particularly damaging because challenging students with difficult questions, particularly those who have shown an aptitude for learning, as well as giving students a chance to learn for themselves, are integral parts of the learning process. Without this type of learning and teacher interaction, students will likely not progress at the level they should be able to. However, these findings also show that most gender discrimination displayed by teachers was subtle, and perhaps even below the level of the teacher’s consciousness, as most teachers did not intentionally discriminate on the basis of sex.

The fact that Good, Sikes, and Brophy (as cited in Wilkinson, 1985) also found that boys received more high quality interaction from teachers in a 1973 study further emphasized the fact that teachers gave more instruction to high-achieving boys than girls. Research has also found that teachers would interact more with boys who are high ability and show high confidence in learning math than with girls of the same type. All students should be encouraged in education, but particularly those of high or low ability need
extra encouragement in order to reach their full potential, and according to this research, this was not being done, at least for girls on the high end of the scale.

This may have helped in leading to the common belief among students that being a bright, academic-minded girl is to conflict with being a popular girl (Sadker & Sadker, 1994). The assertiveness and intellectual mind required to succeed academically come in to conflict with the stereotype of the passive, non-confrontational girl to whom the boys will be attracted. This also may be a reason that girls opt out of higher-level math and science courses for fear of looking too smart in front of the boys in the class and therefore not being popular. This belief clearly correlates with my own educational experiences that are much of the justification for this paper.

Gendered Socialization

These issues of gendered curriculum and boys receiving more of the teacher’s attention stem from the larger issue of the overall gender socialization that most children received. Children begin to pick up on gender labels from their preschool years. About the age that males and females are beginning to notice how they are biologically different, or their sex, they are also beginning to learn about the social construction of what it means to be a boy or girl, or their gender. From the moment the child leaves the hospital wrapped in a blue or pink blanket, their socialization has begun. From then on, the girl is likely put in a dress and given dolls, tea sets, and play-makeup to play with and complimented on her beauty and kindness. On the other hand, the boy is more likely to be dressed in sport-themed clothing, given action figures and trucks to play with and complimented on being tough or strong. From the time they are babies, “boys are taught to demand attention and to control situations to get what they want; whereas girls are
being taught to be passive and wait before reacting” (Askew & Ross, 1988, p. 6). And while there is no solid evidence that males and females are born with a psychological predisposition to behave in different ways, by the time a child is three or four, it would be nearly impossible to “reverse” a child’s sex identity without severe psychological repercussions (Gough, 1976). In fact, according to a 1978 study, at the age of four, children of both sexes believed that when they grew up, boys would be mow the lawn and be the boss while girls would clean the house (Chapman, 1988).

As the child grew a little older, his or her mother or father may have asked them to act like a “big boy” or “big girl” as a sign of maturity and no longer being a baby (Thorne, 1993). If the child attended preschool, the teacher would most likely use similar terms as sanctioning terms and a sign of growing up, and this pattern was usually continued through early elementary school. By the time a child entered upper elementary school, the terms “big boy” and “big girl” were most likely no longer used, but they would have been replaced by another gender dichotomy, “ladies and gentlemen.” Thus, even before the child enters school, their gender has been made a central part of their identity, and it can be rendered in their mind at any time as a sign of difference and an arbitrary social marker (1993).

As children continued on through their school career, they found that this difference they had learned through socialization divided them into unequal groups. “Whenever educational opportunities are segregated because of a distinction such as race or sex, superior facilities are awarded to the group to which society award superior status” (Frazier & Sadker, 1973, p. 131). All throughout elementary school, there was at one time arbitrary segregation, and in some cases this still persists. This segregation
consists of things such as lining up in a line of boys and a line of girls to walk to lunch, where the sex segregation may continue into boys' tables and girls' tables. From lunch the children are sent off to the playground, where the segregation may or may not continue. Either due to school rules or the socialization the children have learned, in general, boys dominated the play area playing kickball or football or engaged in some other active pastime while the girls were confined to the perimeter, playing jump rope or hopscotch, or simply talking (Askew & Ross, 1988).

This gender segregation and stereotyping was continued through the middle school and high school years. This was the time when, as mentioned in the section on teachers devoting more attention to boys, girls began to dumb themselves down—or at least pretend to. This is the time when girls begin to be interested in boys, and at the time of these studies, may have begun to realize that being too smart and successful would not get them anywhere in the popularity circles. However, it was important not to appear to be an idiot; just not to appear to be too smart. As anthropologist Margaret Mead said, “throughout her education and her development of vocational expectance, the girl is faced with the dilemma that she must display enough of her abilities to be considered successful, but not too successful” (Frazier & Sadker, 1973, p. 126). In other words, girls were socialized to strive for mediocrity.

This striving for mediocrity was cited in two similar studies at Stanford University. In a 1949 study, 46 percent of women interviewed admitted to pretending to be intellectually inferior when talking to men. When the study was repeated in 1969, the number had improved only slightly to 40 percent (Frazier & Sadker, 1973). It’s troubling that girls at the time were led to believe that in order to gain acceptance, they needed to
make themselves out to be less than they were. While it was certainly essentially their choice to pretend to be less intelligent than men, this was not an easy choice to make because of the powerful socialization forces at the time. Each of these women was striving for acceptance from her peers, and in so doing, presented herself to be less of a person than she really was.

This pattern extended beyond simply speaking to boys to speaking up in the classroom itself. Part of this may be due to the overall gendered socialization of girls. A study by Eccles and Blumenfeld found that girls are more likely to feel worse about violating moral and procedural norms in the classroom as compared to boys. Therefore, girls would be less likely than boys to speak out of turn or disagree with the teacher in order to display their knowledge. Furthermore, the authors believe that this sex difference is not one learned in the classroom, but in everyday life (Wilkinson, 1985). It has been shown that girls are rewarded in the classroom for neatness, conformity, and being quiet; therefore, they may avoid situations of intellectual challenge. Related to this, it has been shown that girls are more likely than boys to avoid situations where there is a possibility of failure (Frazier & Sadker, 1973). Given that failing at something at first is a great way to learn from mistakes and broaden intellectual capabilities, these girls were missing out on learning opportunities because of their programmed fear of looking foolish and their need for positive rewards from their teacher.

This "dummying down" and silencing in the classroom may also have been self-imposed by girls for fear of looking either too smart or too unintelligent. Being called on in class, for a girl at this time, was a no-win situation. If she answered correctly, she risked being seen as too smart, but if she answered incorrectly, she risked being seen as
dumb. According to Sadker and Sadker, girls had even developed strategies to avoid being called on by the teacher. Girls would do things such as sitting in the back of the classroom or off to the side where the teacher was likely to overlook them. They would also do things such as raising their hand half way, and if it looked as though the teacher would call on them, they would yawn and stretch, or fix their hair so it would not look like they had actually been raising their hand to answer the question (1994, p. 91).

Whether self-imposed or learned through socialization, this process that girls went through of silencing themselves and trying to make themselves look as ordinary as possible took a harsh toll on their self esteem. By trying to make others believe that they were conformists who were not too intelligent, yet not too unintelligent and whose opinions do not count, they may have begun to believe it themselves. Fewer females in high school than males rated themselves as above average on leadership, popularity, and intellectual and social self-confidence. In addition, while a girl may have made better grades in school than a boy, she was less likely to believe that she had the ability to succeed in college. Related to this, of the students who graduated from high school with high grades and do not go to college, anywhere from 75 to 90 percent are female (Frazier & Sadker, 1973). Finally, according to a 1968 study by Robert Katz (as cited in Frazier & Sadker, 1973), 55 percent of women at Stanford and 40 percent of women at Berkeley agreed that there was a time when they wished they had been born a member of the opposite sex while only one in seven males agreed with the statement. Wishing to be something that they are not and never could be is quite a sad situation for girls at that time.
Essentially, while getting an education about traditional subjects in school, students were also learning that being male is worth more than being female. The combined effects of a gendered curriculum, teachers traditionally paying more attention to boys than girls, and the overall gendered socialization of girls that occurred not too many years ago could be thought to be training young women of the time to fear success and discouraging them from seeking out challenges in life (Stromquist, 1990). They had been taught all through school and even before that being male was the norm and anything different from this norm was inferior, which took a heavy toll on their self confidence and sense of self worth. Growing up learning this way may have caused women not to seek out challenging careers or not to follow the goals they had set for themselves as young girls because they had learned that a part of being successful and getting where a person wants to go in life is being male.

Related to this loss of confidence, there was a survey conducted in 1966 in Washington state that found that 66.7 percent of boys and 59 percent of girls wished to have a career in a professional occupation; however, 57 percent of the boys surveyed and only 31.9 percent of the girls surveyed thought they would actually achieve this goal (Frazier & Sadker, 1973). Although times have changed since then and more and more women are working outside the home, some gender differences in the type of work done and the workplace still persist. Women still tend to hold lower-paying occupations with less status and leadership recognition (Chapman, 1988). This could be due to the stereotype that still exists to some degree that a woman’s place is in the home; consequently, young girls usually have a narrower range of options they consider for future employment before they are adolescents (Chapman, 1988). In a 1962 study, fourth
grade girls limited the occupations open to them to four: teacher, nurse, secretary, or mother (Frazier and Sadker, 1973). While things have improved since then, some of these detrimental stereotypes still hang over the heads of young girls.

Unfortunately, girls who found themselves with lowered self esteem due to this gendered socialization and consequent lack of self confidence most likely got caught up in a downward spiral. Self esteem and academic achievement are clearly connected, but unfortunately the type of gendered academic environment described in this paper does not promote self-esteem in young girls. As girls lose self confidence in their ability, this leads to loss of mental ability, which leads to a further drop in self confidence as well as self esteem, and so the cycle continues. It is important to note that the drop in self confidence comes before the loss of achievement (Sadker & Sadker, 1994). Clearly, the kind of gendered schooling that has been described causes harmful and sometimes permanent effects on the young girls that went through it. The sexist, stereotyped lessons that girls learned in schools of the 1960s and 1970s has made them believe they are second-class citizens and taught them that only half of the people in the world are truly worthwhile.
MRS. DOONESBURY! HOW NICE TO SEE YOU HERE!

I'M SORRY TO DISTURB YOU, MS. JASPER, BUT ALEX HAS COME TO ME WITH A PROBLEM.

MS. JASPER! WHAT SORT OF PROBLEM, MRS. DOONESBURY? SHE FEELS THE BOYS GET MOST OF YOUR ATTENTION. SHE'S FEELING SHORT-CHANGED.

JUST A MINUTE, ERNIE. MRS. DOONESBURY, THAT'S JUST CRAZY. AFTER ALL, I'M A FEMALE MYSELF. IF ANYTHING, I FAVOR THE GIRLS!

MS. JASPER! WHAT IS IT, ERNIE? YES, BY ALL MEANS, LET'S FIND OUT.

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Classroom observations

In order to react to the literature about gender issues in education that concentrated on discrimination, I spent one day a week for five weeks observing a first grade classroom at Royerton Elementary School in Muncie, Indiana. Through these observations, I hoped to determine if sexism still existed in the classroom and see if sex role stereotypes were still being perpetuated. When I first began my observations, I must admit I was a little lost. I was not quite sure what to look for and I was worried that I wouldn't find anything relevant. However, once I became immersed in the culture of the classroom, themes and ideas began to emerge, and I began to see more subtle things that I would not have ordinarily have found. Overall, the experience was quite telling, and I am pleased to say that the classroom I observed was much different from the classrooms that I had read about in some of the literature.

This class was made up of 19 students, ten boys and nine girls. All of these students were white, most likely middle to upper middle class. This is important because if there were discrimination present, it rules out the chance of this being based on race or social economic status. The class was taught by Lisa Stewart, who was recommended to me as a good teacher to observe because, according to a former elementary school principal in the area, she is one of the best teachers in Muncie. She has been teaching for 21 years, all of those in Delaware County and most of them at Royerton. She told me in an interview that she makes a conscious effort to keep gender discrimination out of her classroom by doing things such as calling on an equal number of boys and girls.

When I walked into the classroom on the first day, one of the first things that struck me was how full the walls were. Every available inch of space was covered with a
poster or letters of the alphabet or projects that the students had made. I realize that this is not much different from the classrooms of a few decades ago; however, the decorations in this classroom were of a much more empowering nature. For example, displayed prominently at the front of the classroom were signs that were much more adult and encouraging than one would expect to find in a room full of six and seven year olds. These said things such as “We respect the rights of others,” “It’s intelligent to ask for help,” and “It takes courage to be willing to risk.” These signs send a positive and reinforcing message to all the students in the class that they are capable people who deserve equality and respect. I found as I continued to observe that this theme of equality, respect, and being willing to take risks and make mistakes was a large part of the everyday classroom interaction.

From the very first day I realized that Mrs. Stewart treats her students as adults as much as possible. The first thing they do in the morning after announcements is to have their “morning meeting.” This is when they do things such as check the weather outside and practice counting money. This is also when Mrs. Stewart chooses the day’s helper who will be responsible for ringing a bell every half hour and announcing the time to the class. This is done randomly from a deck of index cards so there is no chance for discrimination. The first thing Mrs. Stewart does when the helper is chosen is have him or her come to the front of the classroom and shake her hand. This is clearly a sign of respect and treating the student as as much of an equal as possible.

After the morning meeting, the students return to their desks and are assigned their “jobs” for the day. These jobs are usually two or three worksheets practicing something like reading comprehension or contractions. Once the students have their
names on their worksheets, they can then go take a restroom and drink break. The way Mrs. Stewart handled this is clearly different from the classrooms of a few years ago. There was no lining up and walking to the restroom together in a line of boys and a line of girls. She trusted her students to go down on their own time and merely stood outside her door and watched until the last student was back in the classroom. This also facilitated boys and girls interacting with each other in the classroom rather than staying in same sex pairs. There were many times that Mrs. Stewart would tell her students to “go find a friend” to help with an assignment, and during my time there I observed many opposite sex pairs. She has clearly taken a very forward-thinking approach to this aspect of school life; however, she may not be joined by all her fellow teachers. On my last day there, as I was walking down the hall leaving the school, I saw another first grade teacher leading her students down the hall, in separate lines of boys and girls.

The final example I found of Mrs. Stewart's treating her students like adults was that she was constantly reminding them that it was ok to make mistakes, and if they did make a mistake to learn from it and not be upset about it. For example, one day I was there for the weekly spelling test, and she reminded her students that they had been studying all week and they knew the words; however, she asked them, “If there is one you don't know, is that ok?” And the class answered in unison, "Yes.” Then she asked if they made a mistake were they going to “scream and cry and stomp their feet about it?” And the class answered in unison, “No.” She then explained to them that it was ok to make mistakes and important not to cry about it because they were almost second graders and practically grown up. I never heard her sanction the class with words such as “big
boys and girls," as was found in the literature; however, she simply empowered them by treating them all equally.

One observation I found that directly contrasted with findings from earlier research is that Mrs. Stewart provided both boys and girls with additional information if they answered a question incorrectly. For example, on my first day of observation, she was asking her students for size words and a girl gave the answer of "round." Rather than just telling her she was wrong and moving on to the next person, she explained to the girl that round is a shape and how size is different from shape. This is quite different from the report in the literature that found that teachers provided boys with information to work problems out on their own while completely ignoring girls. I found this to be quite consistent all the times I observed there, and I feel this is not only a mark of improvement in the area of gender bias but also of the teacher's having more respect for all students and treating them as individuals capable of learning and with as much equality as possible.

However, as far as gender equality has clearly come, at least in this classroom, there was one thing that I found that was very consistent with the literature. Boys in her classroom clearly received a larger quantity of verbal discipline than the girls. Each day I kept track of how many reprimands were received by boys and how many were received by girls during the time I was there, and each day the boys outnumbered the girls. According to findings by Askew and Ross (1988), teachers may have felt that boys were more difficult to control than girls and also had shorter attention spans. It is difficult to determine in this one case why there would have been more negative attention directed at the boys in the class. In order to understand better, it would be necessary to observe the same teacher interact with different classes over the years to determine if it is in fact
gender bias or simply the nature of the class. However, to Mrs. Stewart’s credit, she was very discreet in her reprimands. She would usually simply whisper to the student to correct his or her behavior and then went right back into the lesson. During my time there, I never heard her raise her voice or saw her take a great deal of time in discipline.

A thought that came to me during my observations was that perhaps in a classroom in the year 2002, treating males and females equally in the classroom is more a reflection of good teaching than of socialization. During the time of the literature review, when differences in the treatment of boys and girls was just beginning to be an issue, it was a much different world. Far fewer women worked outside the home, there was not a great deal of emphasis on equality between the sexes, and many of the prevailing gender stereotypes were quite firmly in place. However, today our society is much different and those things have started to change. Therefore, we no longer live in a time when sexism is an acceptable and understood part of society. Because of the recent push for equal treatment of boys and girls in the classroom, I believe that teachers who are truly dedicated and conscientious, as Mrs. Stewart clearly is, will make a conscious effort to treat all students equally and keep gender bias out of their classroom.

Finally, one of the most important things I noticed during my time at Royerton is that most all the students were always eager to participate, answer questions, and learn. Whenever Mrs. Stewart asked a question or needed a volunteer, an equal number of boys and girls would be holding their hands in the air, eager to speak their minds and contribute. This makes the future of these students look quite promising. One of the most disturbing themes I noticed in the literature, as well as from my own experience, is that gender bias in the classroom quickly serves to silence girls. By Mrs. Stewart's
concentrating on equal treatment and empowering all her students to be willing to take risks and make mistakes, she is taking a great step towards seeing that none of her students are silenced as they continue through school.
I SPOKE TO ALEX'S TEACHER ABOUT GENDER BIAS TODAY...

A CHAT SHE WELCOMED, NO DOUBT. ACTUALLY, SHE WAS PRETTY COOL ABOUT IT, CONSIDERING.

I MEAN, BIAS IS A PRETTY HARD THING TO TALK ABOUT, MUCH LESS ADMIT TO...

DOES ANYONE THINK I IGNORE THE GIRLS, TEDDY?

SIGH...

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As clearly seen in the distinction between my personal experience, the literature review, and my classroom observations, massive strides have been made in putting gender equality into the classroom. This is good news for the students of today, especially those students with progressive teachers like Mrs. Stewart. However, things are not yet where they should be. In this final section of the paper, I will examine what changes have been made in gender differences in the classroom, in particular as related to Title IX and the areas of math and science. Finally, I will give my suggestions and recommendations for things that could be done to get today's classrooms even closer to the goal of equality.

One example of an area in which there have been positive changes is that of the learning environment (Title IX, 1997). According to the current literature, in the years before Title IX the classroom environment did not facilitate the learning opportunities of female students. For example, textbooks and other books read in school often reinforced stereotypes about boys and girls, if girls were featured in the stories at all. However, since 1972, some textbook selection committees have begun to analyze textbooks for gender stereotypes, as well as for bias according to race, ethnicity, and social class (Title IX, 1997). According to the American Association of University Women (AAUW), female students still get less positive and negative attention in the classroom than do boys (1997). This pattern contrasts from my findings in my own classroom observation, where the teacher gave her students equal attention, except in the area of discipline.

However, from my own experience I remember many instances of gender stereotypes in books in the classroom, but not necessarily textbooks. For example, in my late elementary school days and early junior high days, all the girls would read series
such as *The Baby Sitters Club* and *Sweet Valley High*, while the boys read books about wars and sports heroes. While these books were not required reading, the girls in my class read them and discussed them religiously. These series dealt with things we cared about at the time, or were supposed to care about, such as looking good to fit in and going on dates with boys. These books and others similar to them are still around, being read by the adolescent girls of today and perpetuating the stereotypes that in order to be a worthwhile person, a girl needs to have the right clothes and hang out with the right people.

One area that still needs improvement in order to obtain gender equality is math and science. While, since the inception of Title IX, girls are more evenly represented in participation in elementary and secondary school math classes, the participation rate of female students declined as they reached higher grade levels. This is clearly evidenced in that, as of 1997, the gender gap on SAT math scores had only decreased from 44 to 35 points (Title IX, 1997). Additionally, “according the U.S Census Bureau’s 1990 census, 85 percent of architects, 87 percent of physicists and astronomers, 92 percent of aerospace engineers, and 94 percent of nuclear engineers were men” (Helwig, Anderson, & Tindal, 2001). However, it is important to note that the people who currently occupy these jobs were most likely educated in the gender-biased schools of the 1950s-1970s. It will be interesting to see the percentages of males in these jobs in the next 10 to 20 years when new employees will most likely have gone through a much more liberated and accepting school system.

Today there are more and more women succeeding in math and science, and it is no longer a purely male world. However, there are still setbacks that must be overcome.
In 1992 Mattel came out with the “Teen Talk Barbie,” who was meant to say phrases that coincided with how girls of the time felt. One of the phrases was, “Math class is tough.” However, since there had been such a push in the preceding years for equality in education, there was a national uprising declaring that this Barbie was pushing the women’s movement a step backwards, and the *Washington Post* even called the doll “Foot-in-Mouth Barbie” (Sadker & Sadker, 1994). Clearly, while there have been advancements in tailoring curriculum in subjects such as math and science to be more equitable to women, there are still strong social forces that perpetuate discrimination.

However, the information regarding girls performance in math and science is not all pessimistic. In fact, some studies have found quite the opposite. A promising example of this new liberated school system was found in a 2001 study of third and fifth grade classrooms. This study found that test scores, achievement, and effort, not sex, play a role in teachers assessing the math skills of their students (Helwig, et al., 2001). Behavior was also found to be a contributing factor in how teachers assess their students in the third grade classrooms. This finding could be important because teachers who tend to discipline boys more than girls could assess the boys’ skills less favorably than those of the girls (Helwig, et al., 2001). This same study also analyzed 26 individual classrooms and found only one where gender was correlated significantly with the teacher’s ratings of the student’s ability. The results of this study are quite encouraging indeed. So much of the past literature focused on the discrepancy in math and science achievement based on gender, whereas this study found that teachers disregarded gender in favor of more appropriate measures such a ability and improvement.
Even such an optimistic study for gender equality noted that there is still much room for improvement. The authors reported that males still tend to outperform females on standardized math tests, such as the SAT. Also, they agreed with much of the literature that the gap in achievement is much greater at higher levels of education (Helwig, et al., 2001). If a study with such hopeful findings still admits that a large gender gap exists, then clearly something more must be done in order to reach equality between the genders in schools. For example, during my senior year in high school, I was the only female out of ten students in my advanced placement chemistry class. This of course led me to be constantly singled out, both by the students as well as the teacher. This experience led me to believe completely that girls need extra encouragement in the fields of math and science. They have been in a “man’s world” for so long that breaking into these fields, at least from my experience is difficult and even next to impossible. I believe that this will be one of the most difficult barriers to break through for equality to be achieved.

Additionally, the AAUW gives only a “C” average to the progress Title IX had made in its first 25 years. This means that some gender barriers have been addressed, but more improvement is necessary (Title IX, 1997). Based on my observations and review of the literature, I would say that there really is no one magic answer to the problem of gender discrimination. Even if teachers grew more enlightened and more updated federal laws were passed and enforced, it seems unlikely that true and complete gender equality would really be reached. I believe it will take many years before the residual effects of so many years of stereotyped and inequitable socialization fade into the background.
With that being said, there are steps that can be taken to ensure that students in the classroom today have as fair and unbiased an education as possible. One obvious step is to make a conscious effort not to group students by gender. Teachers need to take it upon themselves to put students in mixed sex groups in the classroom, at lunch, and even walking down the hall to the restrooms (Thorne, 1993). This is an area where Mrs. Stewart excelled during my observations of her classroom. In all my time there, I never saw the students grouped together by their sex for any reason. The seating in the classroom was random and changed often, and I never saw it to have a majority of boys or girls in one area of the room, nor was it ever “boy-girl-boy-girl.” However, this policy of encouraging students to be in mixed gender groups may not be universal. There are still those teachers who walk their students to the restrooms in a line of girls and a line of boys and do not encourage the two to interact. One possible way to ensure that teachers are more apt not to group their students by gender is to provide them with continuous training to overcome bias and discrimination (Title IX, 1997). This could come in the form of workshops, required reading, or simply a time set aside to address the issue at their regular staff meeting.

However, even if the teacher were to intervene and always have his or her students in mixed sex groups, the students do still have some freedom of choice. If their socialization experiences involved rigid sex role stereotypes, they may have a tendency to drift back into their same sex groups. For example, from my own experience, I remember an instance in junior high when, as punishment for being too loud, the entire lunchroom was seated alternating girls and boys. I have never eaten a more silent lunch.
Therefore, the teacher must not only make an effort to place his or her students into mixed sex groups, but also continuously place a value on this mixed sex interaction (Thorne, 1993). For example, the teacher should use mixed sex names in the examples he or she uses, such as “Bill and Ann worked hard together on the project and did a good job.” Also, if the children have been socialized to hold stereotyped images of gender roles in their minds, it is sometimes necessary for the teacher to directly confront this (Thorne, 1993). The teacher must put this on a level the students can understand. For example, in an elementary classroom, one place to start would be to explain to the students that women can be doctors and men can be nurses. Mrs. Stewart did a good job addressing this issue when the class was having a discussion about gardens. This is obviously an area where gender bias could come out, since girls are stereotypically associated with planting flowers; however, when talking to her students, she would always say “when boys and girls plant gardens” or “when boys and girls plant flowers.”

Nonetheless, even before a student gets into the classroom for the first time, it is important that they begin to learn to have ideas of non-stereotyped gender roles. One way to do this is through the adult role models that children have in their lives. An obvious example of this is parents. Any bias or expectation a parent has, no matter how subtle or how much they try to cover it up, may still be expressed to their child and therefore affect their development (Sadker & Sadker, 1994). Even small things like parents encouraging their son to play football and their daughter to take dance classes can have an impact. It is important for parents to take a step back and look at the ways they relate to their children, everything from the toys their children play with to the language they use with them. Even with my sometimes discriminatory experiences in the
classroom, my parents, especially my mother, always encouraged me not to be bound by my gender and to pursue whatever endeavors I chose, which I think went a long way towards making me conscious of and willing to confront gender stereotypes. It is also important that parents confront stereotyped language they hear their children using and explain to them why it is incorrect. This does not apply only to parents; all adults who come into contact with children must do their best to confront and challenge gender stereotypes (Sadker & Sadker, 1994).

Based on my own observations and the findings of Helwig et al’s 2001 study, it is clear that there have been gains made in improving gender bias in the areas of math and science. However, as also noted, there is still a great deal of improvement needed. In addition to making sure to assign students to mixed sex groups and confront stereotypes, teachers should also ensure that girls actively participate in math and science classes. Related to this, if a girl should express an interest in pursuing a career in one of these areas, everything possible should be done to encourage her. Additionally, the federal government should make an effort above and beyond Title IX to examine the reasons why girls’ participation rates in math and science decline as they move to higher levels of education (Title IX, 1997).

Another area where improvement needs to be made is in discipline. Even in Mrs. Stewart’s classroom, where she is obviously a very enlightened and conscientious teacher, it was still very evident that she reprimands the boys in the classroom more so than she does the girls. This shows that even teachers who are committed to equality in the classroom may discipline their students in a biased way. Also, this is an interesting area because it is an area where boys tend to feel the effects of gender bias more than
girls. Traits that are thought to be stereotypically masculine such as aggression and independence are not usually sanctioned as typically “good” school behavior (Streitmatter, 1994). Because of this, it is important for teachers to very carefully monitor their discipline style. If they are conditioned to look for “boy” misbehaviors, they may ignore the same misbehaviors in girls. I believe that this is a problem that will be improved once teachers and parents teach more gender equality to their children. This will in turn diminish the belief in “boy” and “girl” behaviors, which may even change the definition of what it means to be a good, well-behaved student.

From my own experiences, I learned that part of overcoming gender inequality is learning who we truly are and being comfortable in our own shoes and our own bodies, be it male or female. Gender discrimination was certainly present in school and society when I was growing up in the 1980s. However, I was very encouraged by my observations in a modern classroom. The last remnants of differentiation because of gender seem to be fading farther and farther into the past. Based on the literature I’ve reviewed in this paper, my classrooms growing up were much different from those of the beginning of the gender equality movement in the 1960s and 1970s, and it’s good to see that things have continued to change for the better.

Clearly, although there is a long history of gender discrimination in schools, improvement has been made and there is much hope for the future. My parents’ generation was unfortunately bound to the confines of a gender biased education. Fortunately, things had improved slightly for my educational experience, and now, thanks to the conscientiousness of teachers like Mrs. Stewart, even more gains are being made for today’s students on the road to equality. However, things have been slow to change.
over the past forty years, and without people raising their consciousness and uniting, things will continue to change much too slowly. Research has proven that through positive teachers, federal mandates, and the work of people who place a value on equality in education, changes can be made. If more people recognize this as an important issue that affects every one of us, than perhaps the goal of equality in schools is not as far off as it may seem.
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