TEACHERS' PERCEPTIONS OF GENDER BIAS IN THE CLASSROOM

by

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Abstract

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Teachers' Perceptions of Gender Bias in the Classroom

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There has been a significant amount of research conducted on students' perceptions of gender bias in the classroom, however there is little research available on teachers' perceptions of gender bias in the classroom. Therefore, perceptions of teachers, their educational training background, and their experiences regarding gender bias in the classroom were investigated. Teachers' perceptions were determined by using an informal unstandardized questionnaire developed by the author. Information gathered from responses was analyzed using percentiles and frequency counts. Results obtained from the current study are somewhat inconclusive and do not support what the most current literature suggests. Contrary to current literature, current findings suggest teachers are feel males and females are treated equally in the classroom and are generally satisfied with the amount of training received. However, it is important to acknowledge that 40.4% of the participants indicated they wished they had received more training, specifically in undergraduate courses.

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CHAPTER I

INTRODUCTION

The term gender equity is an issue that has been debated for a long time. Society continues to deal with gender discrimination issues such as salary gaps, occupations, athletics, media, literature, college admissions, medicine, etc. For many years gender equity in education has been a much-debated topic.

When an infant is born, one of the first things we do is look to see it's sex. Then we hear "it's a boy!" or "it's a girl!" This is the most influential statement about one's development as a human being that is announced at birth. Whether male or female, one's gender marks one's entire life from within and without (Weiss, 2001).

How our gender shapes the way we learn has been studied from two main perspectives. One is the examination of sex differences in biology and the cognitive processing approach used in current brain research. The other perspective is one taken by sociologists, psychologists, educators, and feminists. Many of them feel that although biology and hormones play a definite part in one's sense of gender identity, it's the way we are programmed culturally that matters the most (Weiss, 2001). The question becomes, does the way we learn and the way we are taught come in pink and blue?

Twenty-nine years after the passage of Title IX, girls and boys are still not on equal footing in our nation's classrooms (McGee Bailey, 1996). Reviews of curricular materials, data on achievement and persistence in science, research on teacher-to-student and student-to-student interaction patterns all point to school experiences that create significant barriers in education, especially in girl's education (McGee Bailey, 1996).

It's debated whether single-sex math and science classes are a solution to gaining the interest and confidence levels in girls. There is very little research completed on single-sex classes, however there is something of a consensus that girls in single-sex schools tend to perceive subjects such as math and physics as less "masculine" and thus may have stronger preferences for them than their co-educated peers (AAUW, 1998). Vockell and Lobonc (1981) (as cited in AAUW, 1998, p. 18), found that "non-coed girls," as a group, rated physical sciences as less masculine than the coed girls." Some studies report diminished achievement for girls, as a group, in single-sex classrooms. Girls' documented preferences for single-sex classes have not yet translated into corresponding gains in achievement (AAUW, 1998). When suggesting single-sex classes and/or schooling to girls we have to wonder what kinds of messages are being sent to them, as well as to the boys.

In the last twenty years it has become clear that parents and peers are not the entire story in gender role socialization (Beal, 1994). When children begin school their teachers are a major source of influence on them. According to David and Myra Sadker "sitting in the same classroom, reading the same textbooks, and listening to the same teacher, boys and girls receive very different educations" (Weiss, 2001, p. 44). Their research shows that teachers interact with males more frequently, ask them better questions, ask follow-up questions, and give them more precise and helpful feedback. Girls suffer the cumulative effect of their teachers' uneven distribution of energy, talent, and attention (Weiss, 2001).

One area where girls tend to be recognized more than boys is appearance. Teachers compliment their outfits and hairstyles. When teachers talk with boys about appearance, the exchanges are a brief recognition and then on to something else. When teachers talk to girls about their appearance, the conversations are usually longer, and the focus stays on how pretty the girl looks. Sometimes the emphasis moves from personal appearance to papers and work. When boys, as a group, are praised, it is most often for the intellectual quality of their ideas. Girls, as a group, are twice as likely to be praised for following the rules (Sadker & Sadker, 1994).

Subtle gender bias is often present in classrooms, but teachers and preservice teachers may not notice it, at least on a conscious level. Caught up in the many daily decisions regarding the curriculum and classroom management, teachers have little time to reflect on and analyze their interactions with girls and boys in their classrooms. Studies show that the teachers' personal communication with and informal instruction of students have a major impact on the achievement and future success of both girls and boys (Marshall & Reinhartz, 1997). Crawford and Macleod (1990) (as cited in Lundeburg, 1997), found that biased classroom interaction decreases women's confidence in their intellectual abilities. Many observational studies demonstrate that on average male students participate more in class than do female students and that teacher behaviors contribute to this pattern. Male students tend to receive more attention and more specific feedback from teachers; they are more likely to receive praise or correction for the intellectual content of their answers than females. Teachers rarely wait more than 5 seconds for a response and rarely call on student non-volunteers; both behaviors tend to create classroom inequities by favoring aggressive male students (Lundeburg, 1997). An

intervention study by Sadker and Sadker (1986) (as cited in McGee Bailey, 1996) provides evidence that teachers can alter discriminatory classroom behaviors. Many teachers are unaware of their own discriminatory behaviors until someone calls it to their attention. Yet training in gender equity is rarely a component of teacher education (Lundeberg, 1997).

Statement of the Problem

There is little research completed on teachers' perceptions of gender bias in the classroom. Therefore this study will focus on the current perceptions of teachers regarding gender bias. According to research, students continue to receive different educations, therefore it is important to know how prepared and educated teachers are to notice, prevent, reduce, and respond to gender bias.

Purpose of Study

The purpose of this study is to describe the perceptions of teachers and their educational background regarding gender bias as measured by a questionnaire. This study will focus on the following objectives:

I. To assess teachers' perceptions about gender bias.

II. To assess teachers' educational training regarding gender bias.

III. To assess teachers' experiences with gender bias.

Research Hypotheses

Hypothesis I:
Even if teachers do not report that they have been involved in gender bias in their own classrooms, they will report they have witnessed or heard of gender bias issues in their schools and/or district.

Hypothesis II:
Teachers will report they wish that they had received some or more educational training regarding gender bias.

Hypothesis III:
Teachers will report they have received little or no educational training regarding gender bias.

Definition of Terms

Curriculum
Courses of study provided by the school for students.

Gender
Male and female expectations and limitations.

Gender Bias
Conscious or unconscious differential treatment of females and males based on their sex.

Gender Identity
Own feelings of whether he or she is a woman or a man, a girl or a boy.

Pre-service Teacher
A person who is training to become a teacher.

Sex
Biological components making up males and females.

Title IX
A part of the Education Amendment Act passed into law in 1972 at a time when various groups demanded greater participation and recognition for themselves in American society and for their children in the schools and when substantial numbers of women and men recognized gender discrimination and bias as equal rights issues. Title IX forbids any discrimination or segregation by gender of students in school programs, courses, or activities.

CHAPTER II

LITERATURE REVIEW

Review of Literature and Relevant Research

There is a significant amount of literature regarding gender bias, however current research (within the last 10 years) regarding gender bias and teachers' perceptions are scant, thus limiting the author's availability of resources. The current literature review focuses on the most current leading researchers within the last ten years. Because the literature on gender issues is so broad, this review of literature begins by examining theories of gender role development including biological and social learning theories. Next, gender role expectations and the stereotypical male and female student will be examined. This information will then be brought together with research specific to the classroom experience involving student and teacher interactions and research specific to teacher training.

Theories of Gender Role Development

Through research many theories of gender role development have been suggested, however, there is no clear evidence shown that one gender theory over another is the sole contributing source. Although this papers' focus regards teacher and gender bias, it is important to note how gender role development occurs before children even enter school. Sources of gender role development that will be discussed in this section of the literature review include biological influences, social influences, parental influences, and peer influences. The influence of teachers on gender role development will be discussed later during this paper.

Biology and gender.

Differences in the understandings of girls and boys about gender behaviors and roles do not occur all at once, but begin very early in life and develop over time (Marshall & Reinhartz, 1997). When an infant is born we hear "it's a boy" or "it's a girl." This is the most influential statement about one's development as a human being. The interest in an infant's sex reflects the fact that gender is one of the main ways to determine where an individual belongs in the culture (Beal, 1994). Children learn to be boys and girls during development. Different behaviors are expected of them when boys and girls are growing up. Focusing on the socialization process does not exclude the possibility that differences in male and female behavior might also reflect biology (Beal, 1994). Children are born with a complex biological heritage that may well be expressed somewhat differently for the two sexes, but they always develop within a social environment. Thus we can never know precisely how much biology determines our behavior, since it never works independently of a social developmental context (Beal, 1994).

Social structure and gender.

In our society gender roles play a large part in how we as individuals come to identify ourselves and how society judges us (Streitmatter, 1994). Ideas about what boys and girls should do seem to be learned quickly at particular times, often during transitional points in development when new abilities first emerge (Beal, 1994). Much of the learning about gender roles occurs much earlier in the life span than previously realized. Children form most of their ideas about what the sexes are like during the toddler period, from about one and a half to three years old. Few parents have to tell their little boys not to wear pink pants to first grade (Beal, 1994).

The amount, timing, and intensity of socialization processes are not necessarily the same for the sexes. According to Beal (1994), boys, as a group, tend to receive earlier and more intense socialization than girls. Many female role models are available because many children are cared for by their mothers or other female caregivers. Mothers, fathers, peers, and teachers all expect similar sort of behavior from girls, giving them a constant message. Also, girls are able to cross gender role boundaries with relative freedom (Beal, 1994).

The socialization of boys into the male role tends to begin early, and the social costs of deviating from the expected roles are higher for boys, as a group, in terms of peer rejection and parental disapproval. Boys also tend to face a more difficult developmental task in learning the masculine gender role, because male role models are less accessible to young children (Beal, 1994). Beal (1994) noted that mothers and teachers would like boys to behave one way, well mannered and considerate, while fathers and male peers encourage other types of behavior, including rough physical play and independence.

Parents creating differences.

New parents are faced with a dilemma: On the one hand, the baby's gender is its most important social characteristic, but on the other hand, male and female babies are so similar that their sex cannot be easily distinguished (Beal, 1994). Gender distinctions are made even with the first step of naming the baby. First names are highly sex-typed. Girls as a group tend to have a wider selection of first names and they are more likely to be named for television characters or to be given unusual names (Beal, 1994). Parents are usually careful to dress the baby so that its gender is distinguishable to others.

Many infant clothes are highly sex-typed. A study by Shakin et al. (1985) (as cited in Beal, 1994) observed infants in shopping malls and other public areas. The study revealed that girls as a group are often dressed in pink and yellow, while boys tended to be dressed in blue and red. Gender distinctions are indicated in other ways in this study as well; female babies tended to wear jewelry, girls tended to be given pink pacifiers while boys received blue ones, and infant researchers found that parents will even sometimes bring their new born daughters into the laboratory with ribbon bows taped to their bare scalps (Beal, 1994).

Parents also create different physical environments for boys and girls. Studies of babies' rooms have found that pink, yellow, flowers, ruffles, and lace are used exclusively in girls' rooms, while boys' rooms tended to be blue or red, with transportation themes (Beal, 1994).

Parents also tend to provide different types of toys and play objects to boys and girls. This is an indicator of learned gender roles (Streitmatter, 1994). According to Bradbard (1985) and Pomerleau et al. (1990) (as cited in Beal, 1994), mothers tend to buy a wider variety of toys for boys, including more trucks and cars, tools, sports equipment, balls, and construction toys. Girls as a group tended to have more dolls, toy kitchen appliances and utensils, toy furniture, jewelry, and musical toys (Beal, 1994).

The process of constructing a gender-typed environment can now begin even before birth. Parents who know the sex of the fetus through prenatal tests refer to the fetus as "he" or "she," select the baby's name, and choose toys and nursery decorations in advance according to the baby's gender. Thus, gender distinctions are now even more

likely to be emphasized than in the past, when parents did not know until the birth whether they would have a son or daughter (Beal, 1994).

The influence of peers.

For many children, other children are an important source of information about gender roles. During the toddler and preschool period children's play is that boys like to play with other boys, while girls generally prefer other girls (Beal, 1994). According to Hartup (1983) (as cited in Beal, 1994), gender is one of the most salient characteristics in children's decisions about a potential playmate. According to Beal (1994), children's preference for their own sex does not seem to be due to adult influence. If a parent or teacher is present, boys and girls, as groups, are often quite willing to play or work with one another. Beal (1994) also noted that an adult's presence apparently frees children from the social consequences of appearing to have chosen freely to interact with the other sex.

Toddlers and preschoolers.

Beal (1994) suggests two reasons why there is gender segregation in children's play. First, children tend to prefer playmates of the same sex because of compatible styles and, second, their need to establish a gender identity tends to motivate them to want to be with others who are like them.

Beal (1994) notes several reasons why children prefer their own sex. One reason children tend to prefer their own sex is that they simply get along better, with similar styles of interaction and similar interests. It is further noted that girls, as a group, begin to avoid boys because they discover that boys, as a group, are often not very cooperative playmates. According to Beal (1994), although girls tend to be the first to seek same-sex

play partners, boys tend to show an even stronger preference for their own sex than girls as a group do. A second reason that Beal (1994) suggests why girls tend to play with the same sex is due to rough-and-tumble play, which tends to occur between boys. Beal (1994) reported that boys as a whole group do not initiate this type of play with girls, and girls tend to seem not to enjoy it very much, which again increases the division of the sexes into separate play groups. A third reason why girls and boys as groups separate into playgroups is because of the need to establish a gender identity (Beal, 1994).

Beal (1994) further notes that once children get the idea that they are members of one group they are motivated to stick to that group. Within their respective play groups, boys and girls tend to socialize one another into traditional gender role behavior by punishing those who deviate from gender role-appropriate activities through making critical remarks, abandoning play with the playmate, or trying to get the friend to do something else. According to Beal (1994), expressions of approval and disapproval of peer play according to gender appropriateness begins by the age of three.

Middle childhood.

Beal (1994) noted that avoidance of the other sex becomes quite pointed in the elementary school years. Children become less sympathetic to the other sex and less willing to help them in the classroom, and they often invent rules that prohibit contact with the other sex during this stage. When contact between the two groups does occur, it is often tinged with romantic or sexual overtones (Beal, 1994). By acting as though contact with the other sex is forbidden and dangerous, children emphasize that there are clear boundaries between the two groups. The excitement connected with the crossing into the forbidden territory also suggests that children are highly aware of the other sex

(Beal, 1994). Thorne suggests that this "border work" serves as a sort of rehearsal for romantic activity while minimizing any extended contact or emotional involvement between the sexes that would be premature before adolescence (Beal, 1994).

Boys' and Girls' Friendships

To understand further how peers influence gender roles, it is important to examine how boys and girls play and interact within their friendship groups. Within boys' and girls' peer groups, qualitative differences tend to emerge in the nature of their friendships and their preferred activities. Boys tend to become concerned with establishing status within a group of buddies, while girls, as a group, are likely to create and maintain intimate relationships with one or two close friends (Beal, 1994).

Boys.

According to Beal (1994), boys, as a group, tend to have larger friendship networks than girls do, meaning boys tend to play in groups rather than pairs. There will generally be an acknowledged leader, several of his close friends, and several peripheral members who are associated with the group through connections with one or two of the central group members, otherwise known as a dominance hierarchy. Because boys need to establish and maintain status within their peer group, their style of interaction tends to be "restrictive," meaning that their behavior shortens or interrupts a play episode rather than prolonging it. As a result, pairs of boys tend not to play together (Beal, 1994).

Girls.

According to Eder & Hamilton (1978) (as cited in Beal, 1994, p. 123), girls tend to play with one or two "best friends," and tend to try to maintain a relationship in which both parties have equal status (Beal, 1994). Because girls as a group tend to not want

status differences between friends, they try to avoid conflicts that create a clear winner or loser. When overt conflict does occur, girls tend to try to defuse the problem by suggesting a compromise, changing the topic, giving in, or trying to clarify what the other child wants, rather than standing their ground and forcing the issue. Beal (1994) further noted that girls as a group tend to avoid confrontations with friends because their priority is to maintain a relationship in which both partners are equally valued and of similar status.

Gender Role Expectations

Whether biological or parental influences, children have to figure out what it means to be a boy or girl within a particular society. No human culture that we know of has raised boys and girls identically. Some of the distinctions between male and female gender roles probably originates in biological differences between the sexes, yet the particular divisions that are made between male and female roles vary considerably over time and across culture, indicating that gender distinctions are at least in part social constructions (Beal, 1994). Although there are exceptions to gender role stereotypes, our gender role expectations for children are still strong: We expect boys, as a group, to dress in pants and shirts, play outdoors, ride bikes, get dirty, find their way when they get lost, and hold back their tears when they fall off their bikes. We expect girls, as a group, to dress in skirts, play close to home, stay neat and tidy, be nice to other children, and to be pretty (Beal, 1994). These shared assumptions about the sexes become stereotypes that influence how we perceive others, leading us to assume they will behave in the ways that we expect and unconsciously overlooking their unique characteristics as individuals (Beal, 1994).

Out of all our personal characteristics, gender stands out as most important and most prevalent. Others notice first if we are male or female before they see whether we are young or old. According to Beal (1994), gender stereotypes have several functions. First, they guide our behavior so that we fit into the expected roles. Second, gender stereotypes help shape children's development, leading children to master the skills that will be required as adults.

Stereotypic expectations about males and females have drawbacks as well as advantages. First, gender distinctions tend to become exaggerated; we think of being male or female as an either-or proposition. A second drawback to gender roles is that the developmental options for children of each sex become restricted, restrictions that come in both explicit and subtle forms (Beal, 1994).

The Stereotypical Male and Female Student

Throughout the literature review gender role stereotypes have been discussed in general terms, however there are also specific gender role stereotypes occurring in the classroom that deserve attention. (It is important to note that the stereotypes discussed below are not implied towards every student. Every student, male or female, does not fit into the stereotypical "mold" which is discussed below).

Gender-role expectations and the associated stereotypes affect male and female students differently in school. A common stereotypic description of male students, as a group, include: smart, a bit overactive, creative and tends to excel in math and science, has a passion for team sports, a leader, and tends to display traits of toughness, competitiveness, independence, and assertiveness or aggressiveness. Demonstration of

emotion, particularly of fear or sadness, tends not to be part of his personality. Males success, as a group, will be judged by the ability to achieve in terms of money and status. According to Sadker & Sadker (1982) (as cited in Stretmatter, 1994), the two primary means of instilling these characteristics in male students in our schools are pressure to achieve in the classroom and sports.

The stereotypic female student tends to be the polar opposite of boys. Female students, as a group, tend to be described as a good student, such as staying on task and demonstrating obedience. Feminine curricular areas tend to be considered language arts, social sciences and home arts. The girl may be a leader within a traditionally feminine arena, but generally not a leader of the entire group of students. According to Sadker & Sadker (1982) (as cited in Streitmatter, 1994), many female students tend to go throughout the grades and increasingly defers to male students in the classroom academically as they progress through the grades.

Instructional Materials

One important issue regarding the connection between school curriculum and gender are instructional materials. One of the primary means of implementing a curriculum is through the use of instructional materials. Scott and Schau (1985) (as cited in Streitmatter, 1994) found that students spend at least 90 percent of their learning time in the classroom using some sort of instructional material. What role do these materials play in the consideration of gender issues in the classroom? The illustrations and stories that provide the setting for instructional content send powerful, often subtle messages that the students incorporate into their understanding of life around them (Streitmatter, 1994). Gender is an obvious, easily categorized characteristic. The ability to classify facilitates

children's development of conceptions of gender roles. This influence may be so powerful that it overrides the direct experience of the child. Gender-specific images in instructional materials can have a cumulative effect on students by providing students' gender role expectations. When materials portray inaccurate or stereotypic situations or do not include groups of people in the learning material, students may often unconsciously develop distorted perceptions of their own capabilities or the capabilities of others (Streitmatter, 1994).

Invisibility.

Females tend to be portrayed in instructional materials at a far lower rate than males. This generalization is true in materials for younger children as well as books for older students. History books tend to rarely mention significant women and rarely speak of the lives and contributions of ordinary women (Streitmatter, 1994).

Many materials contain illustrations or text that shows males and females in situations according to traditional gender roles. Children's reading books frequently show girls in situations where they are afraid, concerned about dirt and their appearance, passive, and unimaginative. Boys tend to be depicted in situations where they take on active, leadership roles, and are heroic and strong, never afraid, and creative. Adult women tend to be assigned roles as mother and wife almost exclusively, while men tend to be found occupied in a wide variety of jobs and activities, but rarely in parenting roles (Streitmatter, 1994).

Unreality.

Issues of social significance are often treated briefly and superficially, if at all. Children reading about the "typical" American family (father as the breadwinner, mother as homemaker, and two children, usually a brother and a younger sister) as the prototype are placed in the position of questioning the value of their own situation if theirs differ from the families widely depicted in earlier readers (Streitmatter, 1994).

Fragmentation/Isolation.

In response to initial demands of women's rights groups to better represent females in instructional materials, publishers often retain the original text, adding information on females at the end of a section or chapter (Streitmatter, 1994). The message to the reader is that this information is supplementary to the major points.

Curriculum

An additional important issue regarding the connection between school curriculum and gender are academic subjects. There is substantial evidence that gender differentiation exists throughout the delivery of curriculum (Streitmatter, 1994). During the elementary years, schools tend to structure the curriculum in a fashion that appears to be gender neutral; that is, all content is taught to all learners. However, research that measures aspects of students' participation in schooling demonstrates that a significant gap in some subject areas of curriculum exists between the genders (Streitmatter, 1994). By the end of elementary school, boys and girls tend to perceive certain content areas as either "masculine" or "feminine."

Reading has long been regarded as something in which girls as a group are likely to surpass boys in ability and interest. Maccoby and Jacklin (1974) (as cited in

Streitmatter, 1994) reviewed numerous studies that examined this issue and found that females as a group tend to do better than males in reading after the ages of ten or eleven. However, it is unclear whether one gender group actually outperforms the other in reading skills across age and grade, there is some evidence that attitudes toward various reading material may be gender specific (Streitmatter, 1994).

Most people tend to perceive math as an area in which males tend to be more likely to succeed than females. Much research, particularly research done prior to the mid-1970's, reported that males as a group outperformed females in math almost from the beginning of schooling. Other studies reported that by early adolescence boys as a group excelled over girls in math (Streitmatter, 1994). Recent research shows that girls as a group tend to receive higher grades from their math teachers. This discrepancy seems to have implications for teachers as they consider their stereotypic beliefs about which gender is more capable in the classroom (Streitmatter, 1994). According to Fennema (1985) (as cited in Steitmatter, 1994), socialization, attitudinal, and affective factors all appear to play a role in explaining why females tend to participate less in upper level math courses than their male peers. However, none of the factors can be established as the primary cause of the problem, and certain factors may affect individual students more than other factors. Female students as a group tend to perceive the math curriculum differently than males and are less likely to pursue a career that calls for advanced training in math (Streitmatter, 1994).

Research tends to support the assumption that males as a group do better in science than females. The AAUW Report (1992) suggests that girls tend to be more influenced by encouragement from teachers in their pursuit of science courses and an

eventual career in science. Females as a group are more likely to attribute any success to external causes and failure to their own lack of ability. In general, females tend to express much less confidence in their ability to perform in the science classroom than males. Another factor affecting females' attitudes toward science may be societal expectations of females in general (Streitmatter, 1994).

Performance Data

Although it appears that there are gaps between male and female interests regarding subject areas in school, the Council of Chief State School Officers and the 1994 High School Transcript Study has found that the gap is diminishing in particular areas, such as in math and science, as noted by the performance data gathered below.

Mathematics.

The gap between girls and boys regarding mathematics is a much-discussed topic, however the gap between the sexes and mathematics appears to be diminishing. More girls are enrolling in algebra, geometry, pre-calculus, trigonometry, and calculus than in 1990 (AAUW, 1998). However, girls are more likely than boys to end their high school math careers with Algebra II (AAUW, 1998). In 1994, the most recent year for which data is available, both male and females averaged nearly 3.5 credits of math courses. The data from this study found that a significantly larger proportion of male than female high school graduates took the lowest level high school mathematics courses (basic mathematics and general mathematics). Girls outnumber boys in algebra and geometry and roughly equal proportions of girls and boys take pre-calculus or calculus prior to leaving high school (AAUW, 1998).

Science.

According to this study, a greater percentage of female high school graduates took science courses in 1994 than in 1990. Girls are more likely than their male counterparts to take both biology and chemistry. Roughly equal proportions of girls and boys enroll in engineering and geology. Physics, however, remains a largely male domain (AAUW, 1998).

Computer-related studies.

Data from this study suggests that enrollments in higher-skill computer courses show a puzzling drop for both boys and girls, although boys clearly outnumber girls. In comparison, girls tend to cluster in lower-end data entry and word processing classes that lead to less stimulating jobs (AAUW, 1998).

English.

Data from this study suggests that girls outnumber boys in all English classes except remedial English, earning more credits than boys. Girls as a group earned more than four credits of English in 1994, a slight rise from 1990. Boys as a population also score lower than girls on verbal skills on most standardized tests (AAUW, 1998).

Social studies.

Enrollment differences for males and females in social studies courses are not statistically significant, however according to the study more girls than boys tend to enroll in sociology and psychology. The pattern continues in higher education, where females are more likely to pursue college majors in certain social sciences (AAUW, 1998).

Foreign languages.

Data suggests that female high school graduates were significantly more likely than male high school graduates to have taken French or Spanish courses in both 1990 and 1994 (AAUW, 1998).

Fine arts.

In both 1990 and 1994, female high school graduates were significantly more likely than males to have taken courses in music, drama, and dance (AAUW, 1998). There is some evidence that girls' higher enrollments in fine arts and music may enhance their performance in other subject areas. The National Education Association noted in 1997 that students who took four years of high school art or music classes scored an average of 32 points higher on the verbal section of the SAT and an average of 23 points higher in math (AAUW, 1998).

Health and physical education.

Research links physical activity for girls to higher self-esteem, positive body image, and lifelong health. Young females are twice as likely to be inactive as young males. Male high school graduates were more likely than females to have taken at least one year of physical education (AAUW, 1998).

Advanced placement, gifted, and honors programs.

Educators and administrators generally identify girls as a group for gifted programs at equal or greater numbers than boys, yet students are identified for different kinds of programs, according to gender expectations (AAUW, 1998). "Schools do not identify girls for their mathematics and science talents in the same proportions as boys, who are not identified for their English, language, or arts abilities as the same proportions

as females" (AAUW, 1998, p. 22) Despite the early identification of special talent in girls, Carolyn Read found that there is an abrupt reversal of this pattern around the tenth grade. Something leads many girls, as a group, not to enroll or to drop out of gifted and talented programs early in high school; others are not identified for these programs. Ms. Read hypothesizes that when girls are in elementary school, educators identify them for gifted and talented programs because girls are more likely to meet the sex-role expectations, however as females get older and reach adolescence the focus changes from being the "good girl" in school to fitting in with peer groups (AAUW, 1998, p. 22).

Girls' advanced placement (AP) and honors courses enrollments are comparable to or greater than those of boys, except in physics. In AP and honors calculus and chemistry, girls' course enrollments improved relative to boys' (AAUW, 1998).

ACT, SAT, and PSAT.

The study further notes that girls score slightly higher than boys in English and lower in math. While girls as a group earn slightly higher grades than boys in English, they earn about the same grades in math (AAUW, 1992). Boys tend to score higher than girls in math even when both have taken four years of high school math. Once analysis found that female high school students had a much higher correlation between their Scholastic Assessment Test (SAT) and the American College Testing Program (ACT) scores than do males. The SAT-math score of girls with an ACT math score of 20 is predicted to be 470, while the SAT-Math score of a boy with an ACT score of 20 is predicted to be 540 (AAUW, 1992).

On the Preliminary Scholastic Assessment Test (PSAT), girls scored an average of 49.8 points on the writing section, which is 0.8 points higher than boys' scores on the

writing section (AAUW, 1998). Although a gap in math scores persists, a "dramatic" change has occurred in the overall scores: The overall score for girls is just 2.7 points lower than that of boys according to the Council of Chief State School Officers and the 1994 High School Transcript study (AAUW, 1998).

Single-Sex Education

The discrepancy between boys and girls in the various subject areas in school leads to the question; do boys and girls learn better in schools and classes that separate them by sexes? There is no evidence that single-sex education in general "works" or is "better" than coeducation (AAUW, 1998). We would do better to describe U.S. public elementary and secondary education as mixed-sex education rather than coeducation. Girls and boys are mixed together in our schools, but they are not receiving the same quality or quantity of education (McGee Bailey, 1996). The research on single-sex education at the elementary and secondary level has sought to measure the impact of single-sex classes and schools on student outcomes including academic performance, self-esteem, and attitudes toward academic subject matter, as well students' preferences for single sex or mixed-sex education (AAUW, 1998).

Few published studies have tested the idea that girls in single-sex schools have a higher self-concept. In a study by Cairns (1990) (as cited in AAUW, 1998) it was found that single-sex schools are associated with benefits in terms of self-esteem. However, Foon (1988) and Lee and Bryk (1986) (as cited in AAUW, 1998), found no significant differences in self-esteem between girls from mixed and single-sex schools.

There is something of a consensus that girls, as a group, in single-sex schools tend to perceive subjects such as math and physics as less "masculine" and may have stronger

preferences for them than their co-educated peers. Foon (1988) and Lee and Bryk (1986) (as cited in AAUW, 1998, p. 16), notes that students attending single-sex schools "seem to be less rigidly attached to traditional views about the appropriateness of subject areas by sex." A study by Mallam (1993) (as cited in AAUW, 1998) found that students in all-girls Nigerian schools favored math more than girls in coed Nigerian public boarding schools. Colley et al. (1994) (as cited in AAUW, 1998) found that girls from single-sex schools showed much stronger preferences than their coed peers for such stereotypically "masculine" subjects such as mathematics and science.

According to the AAUW, 1998, there is very little research regarding single-sex classes and their achievement outcome for girls. Girls' documented preferences for single-sex classes have not yet translated into corresponding gains in achievement. Studies that attempt to assess the effects of single-sex schools and classes on achievement have so far found few correlations between the two. Harvey (1985) (as cited in AAUW, 1998), found that there was no advantage to teaching students in single-sex science groups, that girls in coed schools perform better in science than girls in single-sex schools, and that no difference was apparent between boys in coed and boys in single-sex schools. Hildebrand (1996) (as cited in AAUW, 1998, p. 25), argues that single-sex classes often give the appearance that a school system is "doing something" about gender equity "without [changing] any of the ….. ways that gender is socially constructed in schools."

The "success" or "failure" of any K-12 single-sex education initiative is relative to a particular group of students in a particular setting and a given set of academic or social objectives. Claims that single-sex education is inherently "better" or "worse" than

coeducation beg the questions: What constitutes a "good" education? And for whom? (AAUW, 1998).

In a world where being labeled a "girl" tends to be the classic insult for boys as a group, single-sex environments for girls can provide a refuge from put-downs and stereotypes (McGee Bailey, 1996). But these environments may also send messages that can perpetuate rather than eliminate negative gender stereotyping. Removing girls from classes in order to provide better learning opportunities for them may imply that girls and boys, as groups, are so different that they must be taught in radically different ways. When all girl classes are set up specifically in science or math, an underlying, if unintended, message can be that girls are less capable in these subjects. Separating boys from girls in order to better control boys' behavior may indicate that boys as a group are "too wild" to control (McGee Bailey, 1996).

Teacher Interactions

Throughout this chapter many theories of gender role development have been discussed, such as parental and peer influences. Because the teacher has been the central and dominating figure of classroom research, teacher influence on gender role development deserves attention.

Sitting in the same classroom, reading the same textbook, listening to the same teacher, boys and girls, as whole groups, tend to receive very different educations. Studies show that the teacher's personal communication with and informal instruction of students have a major impact on the achievement and future successes of girls and boys (Marshall & Reinhartz, 1997).

In general, most teachers do not intentionally differentiate learning opportunities for their students by gender. Much of what constitutes gender inequity in classroom practices and interactions is subconscious and subtle. Teachers tend to interact differently with their students based on students' gender. One of the most powerful and subtle influences teachers exert with students is through the quality and quantity of interactions (Streitmatter, 1994). Several decades of research have documented that boys and girls have very different experiences within the same classroom (Beal, 1994). Much research has been directed towards the costs of being a female student in the classroom, however research has shown that are also costs to being a male student in the classroom.

Girls and Education

From grade school to graduate school female students as a group are more likely to be invisible members of the classroom (Sadker & Sadker, 1994). Studies show that the relative neglect of attention given to female students, as a group, constitutes to a loss of confidence by the end of high school and there is growing evidence that the increasing sense of discouragement for girls, as a group, may be due to the fact that a school serves as a setting in which boys, as a group, learn to feel superior to their female classmates (Beal, 1994).

Teachers' patterns of attention to girls are different to that of boys. Teachers' patterns of attention to girls tend to encourage girls, as a group, to be compliant and dependent. Carpenter and Huston-Stein (1980) (as cited in Beal, 1994) found teachers are most likely to pay attention to girls, as a group, when they play quietly indoors, which encourages girls to adopt quieter, more sedentary, and structured activities. According to Beal (1994), teachers tend to notice when a girl does something wrong more often than

when a boy does something wrong. Further, it is suggested that teachers' behavior with boys is quite different, such as they watch boys more closely and respond quickly to impending mischief in boys. This may suggest that "it is not the children that are so different, but that they are reacting to different patterns of adult attention" (Beal, 1994, p. 137).

Many observational studies demonstrate that female students, as a group, tend not to participate as much as boys do as a group and that teacher behaviors contribute to this pattern (Lundeberg, 1997). Studies show that when a girl is asked a question and she does not know the answer to a problem, teachers tend to move on, on the assumption that she must really not know the information or that perhaps she is not quite up to the work (Beal, 1994). Research suggests that teachers, as a group, often fail to give girls direct feedback or criticism because they don't want to hurt their feelings or discourage them (AAUW, 1998). Girls tend to be asked for simple facts or questions that can be answered with a "yes" or "no" (Beal, 1994). Girls, as a group, are more likely to receive an "accepted" response from teachers such as "okay" or "uh-huh" (Wellhousen, 1996). Sadker and Sadker (as cited in Weiss, 2001, p. 44) found that "when girls call out, there is a fascinating occurrence: Suddenly the teacher remembers the rule about raising your hand before you talk. And then the girl, who is usually not as assertive as the male students, is deftly and swiftly put back in her place."

Eynon Lark (1996) (as cited in Parents Magazine, 1996) reported that girls as a group receive more attention for their appearance and according to Sadker and Sadker (1994) (as cited in Wellhousen, 1996), girls as a group receive attention and compliments more often than boys do on their clothing, hairstyle, and overall appearance. This

emphasis on appearance may also influence how the schoolwork of females tend to be evaluated. Girls, as a group, tend to receive praise for neatness while boys tend to receive recognition for academic achievements. Wellhousen (1996) noted that with such different kinds of praise, teachers send implicit messages to students about what is important, valued and recognized.

When compared to boys, teachers as a group tend to rarely criticize girls, and their few negative comments tend to be focused almost exclusively on girls' schoolwork. However the criticism of girls as a group seems more pointed and forceful. Teachers, as a group, tend to assume that girls have already concentrated and done their best work, letting girls infer that their failures are due to lack of ability and that their performance probably could not be improved (Beal, 1994).

Boys and Education

Cultural messages.

Concepts of masculinity, which provide beliefs about how men ought to behave, are constructed at many different levels both in society and in the minds of individuals. A masculine ideology generated by news media, artists, teachers, historians, parents, priests, and public figures dominates how men think about themselves. Because men in any country tend to share cultural histories, they may receive similar notions about how to behave. These common understandings of masculinity constitute dominant cultural norms (Harris, 1995). Children who internalize social norms become cultural natives as members of particular social clans with traditions that define right and wrong. From these perspectives they construct complex gender identities full of idiosyncratic interpretations

of masculinity that contain common threads derived from dominant cultural norms. These identities contain complicated notions about male behavior (Harris, 1995).

Harris (1995) noted that gender-role messages men receive from their surroundings are like scripts an actor follows in a play, except here the drama is a man's life. Male messages set standards. By age 9 or 10, young boys develop identities that include goals they hope to accomplish.

Message sources.

According to Harris (1995) men learn male messages in many different ways. In constructing their gender identities, boys adopt messages that appeal to them and conform to cultural norms they think they should emulate. Some messages are directly taught and others are learned by example.

The fathers' role.

Many commentators about male behavior assume that men get their standards about how they ought to behave from the media and from their home environments which gets passed on to sons. For most boys their most powerful teacher about masculinity is their father, who plays an enormously important role in their development, modeling how men behave (Harris, 1995).

Boys who admire their fathers internalize their standards. Boys earn their fathers' approval for gender appropriate behavior. Sons learn masculine behavior from their dads because the father's constant presence provides a dominant image for masculinity. In some cases, boys are severely punished for not behaving in ways that meet father's approval. Boys often rebel against their fathers' stern injunctions to behave in a particular way (Harris, 1995).

When fathers aren't around.

Harris (1995) noted that with a rapid increase in the divorce rate today over one third of first marriages end in divorce. As a result, sons are likely to spend less time with their fathers. Some experts have estimated that as many as 12 million children in the United States do not live with their fathers (Harris, 1995).

According to Harris (1995), a father's absence can have a profound effect upon a son who feels rejected because his father does not choose to spend time with him. Harris (1995) also suggested that boys need a sense that it is okay to be a man and when they do not get that from their fathers, they tend to be confused about their masculine identity.

The mothers' role.

According to Harris (1995), women also influence the formation of a man's gender identity. Mothers teach their sons about masculinity by telling their sons how to behave, modeling certain behaviors, and rewarding sons for their actions. Harris (1995) also noted that women reinforce messages through the approval, love, and friendship they share with men. Boys are likely to take their cues about how they ought to behave from the mother who is often the only nurturing parent. Since most elementary teachers are female, women play extremely important roles in helping young boys adopt appropriate standards for their behavior (Harris, 1995).

The teachers' role.

Defining gender differences in research often occurs in groupings of males or females; however research tends to not indicate individual variation among gender groups. What may be true for an individual may not apply to a whole group and what is beneficial to one student may be another student's burden.

Research has shown that boys as a group tend to absorb the bulk of the attention and instruction from teachers (Beal, 1994). Teachers' patterns of attention to boys may tend to enhance boys' assertiveness. Males as a group also tend to receive more specific feedback from teachers; they are more likely to receive praise or correction for the intellectual content of their answers and (Lundeberg, 1997; Sadker & Sadker, 1994; AAUW, 1998) boys as a group are more often addressed by name (Peltz, 1990). Studies also suggest that boys as a group are often asked higher-order questions and are given more "wait-time" in answering questions (Shmurak & Ratliff, 1994). Also, boys as a group tend to receive more help than girls when they have trouble with a question. Teachers tend to give boys more hints and second tries if a male answers incorrectly. Research suggests that some teachers tend to analyze boys' failures in terms of controllable factors, such as not paying attention or not following instructions, and emphasize that if the boy tried harder, he would do better next time (Beal, 1994).

Although it may appear that being a male student has many benefits, research shows that there are also downfalls. Sadker and Sadker (1994) noted that few would consider boys "miseducated," but gender bias is a two-edged sword. Girls are shortchanged, but males pay a price as well (Sadker & Sadker, 1994).

Sadker and Sadker (1994) suggest that boys are often labeled as problems in need of special control or assistance; boys are more likely to fail a course, not be promoted, or drop out of school. They further suggest that because boys tend to be prone to taking risks, they jeopardize not only their academic future but also their lives as they dominate accidents, suicides, and homicide statistics. Sadker and Sadker (1994) suggest that

teachers tend to remember boys as their worst students – the discipline problems, the ones most likely to create a classroom disturbance or to flunk out of school.

Beal (1994) suggests that teachers as a group tend to always be watching boys, even if they are across the room, in anticipation of some misbehavior that could result in someone getting hurt, and they respond quickly to any hints of impending mischief in boys. An observational study by Matthews et al. (1997-1998) (as cited in Beal, 1994) found that boys' names were often on the behavioral chart and some teachers' tended to refer to all students as "guys."

By adolescence the pressure of conforming to the male role has become relentless (Sadker and Sadker, 1994). It appears to be much more acceptable for girls as a group to cross gender boundaries; however, this is not the case for boys. Sadker and Sadker (1994, p. 83) suggest that there is nothing more devastating to a boy than being called a "girl," "woman," "sissy,' "fag," or "queer." So boys tend to work hard to purge themselves of any hint of femininity. Parents, teachers, and other adults also draw gender lines, training boys to avoid toys, games, or behavior associated with girls. Studies show that adults worry about cross-sex behavior for both boys and girls, but parents and teachers believe girls will grow out of male behavior while boys will carry female traits into adulthood (Sadker & Sadker, 1994).

Boys' feelings of misogyny, if allowed to develop unchecked, can bear bitter fruit in adulthood. Men who view women as worthless or as objects of scorn and submission may act on those beliefs (Sadker & Sadker, 1994).

Statistics (Sadker & Sadker, 1994; Sadker & Sadker, 1989)

Academic.

- From elementary school through high school, boys tend to receive lower report card grades. By middle school they are far more likely to be grade repeaters and dropouts.
- Boys tend to experience more difficulty adjusting to school. They are nine times more likely to suffer from hyperactivity and higher levels of academic stress.
- The majority of students identified for special education programs tend to be boys. They represent 58 percent of those in classes for the cognitively disabled, 71 percent of the learning disabled, and 80 percent of those in programs for the emotionally disturbed.
- In school, boys' misbehavior tends to result in more frequent penalties, including corporal punishment. Boys comprise 71 percent of all school suspensions.

Psychosocial and physical.

- Society tends to socialize boys into active, independent and aggressive roles. Such behavior is incongruent with school norms and rituals that stress quiet behavior and impulse control. This results in a pattern of role conflict for boys as a group, particularly during elementary years.
- Hyperactivity is estimated to be nine times more prevalent in boys as a group than in girls. Boys are more likely to be identified as having school and social adjustment problems.

- Boys tend to be taught stereotyped behaviors earlier and than girls; there is a 20 percent greater probability that such stereotyped behavior will stay with them for life.
- Until recently, programs focusing on adolescent sexuality and teen pregnancy were directed almost exclusively at females. Lack of emphasis on the male role placed undue responsibility on females while seemingly condoning males' irresponsibility.
- In 1993, one-third of all 18-25 year-old fathers lived away from at least one of their children.

Psychological.

- Boys are three times more likely to become alcohol dependent and 50 percent more likely to use illicit drugs. Men account for more than 90 percent of alcohol- and drug-related arrests.
- Risk-taking behavior goes beyond drug and alcohol abuse. The leading cause of death among fifteen- to twenty-four-year-old white males is accidents. Teenage boys are more likely to die from gunshot wounds than from all natural causes combined.
- Many boys tend to be encouraged to pursue unrealistically high career goals. When these are not attained, males often feel like failures, and a lifelong sense of frustration may follow.
- Both at school and at home, boys as a group are taught to hide or suppress their emotions; as men, they may find it difficult or impossible to show feelings toward their family and friends (Sadker & Sadker, 1989).

- Males commit suicide two to three times more frequently than females.

Teacher Education

Teachers enter the field prepared, for the most part, to accomplish tasks such as classroom management, developing a pedagogical style, and compiling the core of a teachers' classroom strategies. However, they do not enter the field prepared to teach in an equitable manner (AAUW, 1998; Beal, 1994). Therefore, they are not prepared to make changes in school curriculum, interaction patterns, pedagogical strategies, or uses of resources such as technology that would advance equitable learning (AAUW, 1998).

Campbell and Sander (1993,1994) (as cited in AAUW, 1998) conducted a national survey of teacher educators asking about the teaching of gender equity in their methods course and found that while 72 percent of professors reported teaching gender equity in their methods courses, and another 15 percent said they would like to do so. The largest amount of time spent on gender equity was two hours per semester. Two-thirds (68%) spent two hours or less per semester, and a third spent one hour or less. Coverage centered on stereotypes, followed by teacher/student interaction patterns favoring boys, the under representation of girls in mathematics, science, and technology courses and activities, and the under representation of women in mathematics, science, and technological careers. Of those professors who spent time on gender equity, more that half (55 percent) reported being satisfied with the one or two hours they were including (AAUW, 1998).

Identical data was found between 1994 and 1996 from the Marymount Institute for the Education of Women and Girls (as cited in AAUW, 1998). In a survey of fifty colleges across the nation, the Marymount Institute found that not one offered a course in

gender equity as part of its teach training program; more than 90 percent of those questioned stated that gender equity was merely mentioned in their curricula, and that gender equity was the subject of a "one-hour lecture" during the semester in some programs.

Research has shown that teachers are both eager and able to change their teaching styles to advance classroom equity when given the chance and training. In 1997 Sherril Pryor (as cited in AAUW, 1998) found that after several viewings of videotapes of classrooms, teachers identified subtle habits. She reported that before any training, "fewer than 60 percent of the preservice teachers were aware of subtler forms of bias, such as the disparity in the number of reprimands of males and females, and the disparity of classroom task assignments between males and females" (AAUW, 1998, p. 57).

Bautz (1993) (as cited in Beal, 1994) conducted a survey of 125 "master teachers" (experienced teachers who supervise and train student teachers) and found that while they agreed it was important for boys and girls to receive equal treatment, overcoming gender biases in instructions was only sixth on their list of objectives, suggesting that many teachers still do not recognize the extent of differential treatment of students.

In 1998 the movement to incorporate equity into teacher education began. Sanders, Campbell, and Steinbrueck (as cited in AAUW, 1998) reported successful results from the Teacher Education Equity Project (TEEP). A program designed to "promote gender equity in mathematics, science, and technology education at the source," (AAUW, 1998, p. 57) TEEP worked with 61 professors in colleges of education across the U.S. As a result, 85 percent of the participants adopted more equitable

practices, and professors dramatically increased the specific gender equity activities they reported doing with their classes.

Scantlebury et al. (1996) (as cited in Bailey, B., Scantlebury., & Letts, W., 1997) report that the cooperating teacher is the key, that cooperating teachers educated in equitable teaching strategies influence their student teacher's teaching to be more equitable. After examining interaction patterns of cooperating teachers and student teacher's with high school students, they found that student teachers whose cooperating teachers had participated in seminars on gender equity and teaching interacted more equitably with their high school students in terms of quantity and quality of interactions than those whose cooperating teachers had not participated in equity-based education.

In summary, literature on gender issues is broad; however current literature specific to gender issues and teachers' perceptions is limited. There are several theories on gender role development, such as biological and peer influences, however one particular theory cannot be said to be the sole contributor of gender role factors. Gender role expectations distinguish differences between male and females and they influence us on how we perceive others. Gender role expectations coincide with gender role stereotypes, which can affect male and female students differently in school. Instructional materials and curriculum play a role in consideration to gender issues in the classroom. Single-sex education has been suggested to increase academic performance, self-esteem, and attitudes towards academic subjects, however there is no evidence that indicates single-sex education works.

Teachers are a major source of influence on students and their gender role development. The literature suggests that gender inequity in the classroom, such as

practices and interactions, are typically subconscious and subtle. Overall, the literature suggests that teachers enter the field prepared for the most part; however, they do not enter the field prepared to teacher in an equitable manner.

CHAPTER III

METHODOLOGY

Subject Selection

Approval was granted by the University of Wisconsin - Stout Human Subject Review Board to send surveys to all teachers in the Eau Claire School District in Eau Claire, Wisconsin and in the South Washington County School District in Cottage Grove, Woodbury, New Port, and St. Paul Park, Minnesota. The survey was initially sent out to all teachers in the Eau Claire District in January and April of 2002, however due to technical errors and a low response rate, all teachers in the South Washington School District were also asked to voluntarily complete the survey instrument in October, 2002.

Participants

All teachers, early childhood through twelfth grade, from the Eau Claire School District in Eau Claire, Wisconsin, and from the South Washington County School District in Minnesota were asked to participate in the study during January of 2002, April of 2002 (Eau Claire) and October of 2002 (South Washington School District). One-hundred and ten teachers participated in the study. Written permission was not obtained however informed consent was obtained by participant's completion and return of the questionnaire instrument.

Instrumentation

There is no known specific formal or informal instrumentation available at this time to measure teachers' perceptions of gender bias; however an informal unstandardized questionnaire was developed by the examiner. The questionnaire contained 22 questions. The first group of questions addressed demographic data, such as

grade level taught, age, gender, and educational training level(s). A second group of questions used a Likert scale to rate teacher perceptions on issues such as, feelings towards educational training, whether or not there should be a mandatory course on gender issues, measures taken to reduce gender bias, and feelings towards gender insensitivity in the classroom/school. (See Appendix A for questionnaire instrument).

Data Collection

The questionnaire was placed onto a URL Internet address through the University of Wisconsin - Stout's web browser. A request for all teachers to voluntarily participate in the study was sent via email with the survey URL attachment, to all teachers in the Eau Claire School District in January 2002 and April 2002. Technical errors and a low response rate were experienced during the initial survey run within the Eau Claire School District; therefore, the examiner surveyed all teachers in South Washington School District in October 2002 to obtain a larger sample group. Upon completion of the surveys, all information was submitted to a confidential anonymous database, meaning responses contained within the database did not include any identifying information, such as names and email addresses. It was impossible for the examiner to identify the respondents and determine which responses belonged to whom. Additionally, the examiner was the only person with access to the database information.

Data analysis

The survey data was analyzed with respect to the research questions and hypotheses outlined in Chapter I. The research objectives, hypotheses, and the method of analysis are provided below:

Objectives:

I. To assess teachers' perceptions about gender bias.
II. To assess teachers' educational training regarding gender bias.
III. To assess teachers' experiences with gender bias.

Hypotheses:

I. Teachers will report they have witnessed or heard of gender bias issues in their school and/or districts.
II. Teachers will report that they wish that they had received some or more educational training regarding gender bias.
III. Teachers will report they have received little or no educational training regarding gender bias.

The survey data were analyzed using several descriptive/informational indices including frequency counts and percentiles. Because of the informational content of the survey, results were gathered and interpreted by summing the responses and then dividing them to obtain percentiles. Questions that required participants to elaborate with more information were tallied based on response similarities and then placed into a group of three most common/frequent responses.

CHAPTER IV

RESULTS

Overview of Research Plan and Methodology

The purpose of this study was to describe the perceptions of teachers and their educational background regarding gender bias as measured by an informal unstandardized questionnaire. The study focused on the following objectives: to assess teachers' perceptions about gender bias, to assess teachers' educational training regarding gender bias, to assess teachers' experiences with gender bias. The objectives and type of questions asked, limited the range of statistical operations that could be utilized. Descriptive data, frequencies and percentiles were used to describe the survey results.

During January and April of 2002 all teachers in the Eau Claire School District were asked to voluntarily complete the survey. According to the survey database, no teachers responded during the January 2002 questionnaire trial period due to technical errors within the database structure. The database did not hold any responses from the participants. Therefore, upon the correction of the database errors, the survey was re-run in April of 2002. At this time, a total of eleven teachers responded to the survey. Due to the low response rate of the second trial, the survey was administered in the South Washington County School District in October 2002. The response rate was significantly higher, resulting in 99 teacher responses. Combining responses from the Eau Claire School District and the South Washington County School District resulted in 110 teacher participants which comprised the sample group.

Results

The 110 respondents consisted of 90 female (82%), and 18 male (16%), with two (2%) respondents not identifying their gender. The median age of the participants was 36 to 40 years old. Overall, all age groups tended to be somewhat evenly spread out and gave an adequate representation. The largest age group participating in the study was 26 years old to 30 years old, accounting for 21.8% of the responses. The smallest age group participating was 56 to 60 years old, accounting for 3.6% of the responses. Table 1 presents the frequency and percentages of the sample group by age.

Table 1

Frequency and Percentage of Sample Group by Age

Median Age = 36 - 40 years-old

	Respondents	
Age Groups	No. Responses	Percent
20-25	13	11.8%
26-30	24	21.8%
31-35	16	14.6%
36-40	12	10.9%
41-45	14	12.7%
46-50	9	8.1%
51-55	17	15.4%
56-60	4	3.6%
61+	0	0%
Unreported	1	.9%

Participants represented teachers from all grade levels, Pre-K through 12th. Table 2 presents the frequency and percentages of the sample group by grade level. Fifty-two (47.3%) respondents identified there teaching level as early childhood through elementary school (early childhood - 6th grade), 16 (14.5%) identified themselves as

junior high school teachers (7th - 8th grade), 42 (38.2 %) reported teaching at the high school level (10th - 12th grade), and 1 (1.0%) did not provide information regarding grade level taught.

Table 2

Frequency and Percentage of Sample Group by Grade Level

	Respondents	
Grade	No. Responses	Percent
Early Childhood - Elementary		
Pre K	1	.9%
1st & 2nd	15	13.6%
3rd & 4th	15	13.6%
5th & 6th	21	19.1%
Total	**52**	**47.3%**
Junior High School		
7th - 8th	16	14.5%
Total	**16**	**14.5%**
High School		
9th & 10th	14	12.7%
11th & 12th	28	25.5%
Total	**42**	**38.2%**

Respondents were asked to explain the extent of their educational training background regarding issues of gender sensitivity. All participants responded, however some participants chose more than one answer when selecting the extent of educational training background level, resulting in 267 responses of the 110 participants. As shown by Table 3, a total of 267 responses were obtained regarding the extent of educational training background regarding issues of gender sensitivity. Training types include the following: 50 respondents (18.7%) have attended undergraduate level courses, 68

respondents (25.5%) have attended Master's level courses, and 2 respondents (.7%) have attended doctoral level courses regarding issues of gender sensitivity.

Additionally, 39 respondents (14.6%) have attended lectures, 33 respondents (12.4%) have attended seminars, 58 respondents (21.7%) have attended workshops, and 17 respondents (6.4%) have attended "other" events for educational training on gender sensitivity issues. Participants who responded to "other" were asked to elaborate. Responses included, but are not limited to, the following: articles, books, personal reading, diversity training, coaching clinics, attendance at a women's college, teacher of gender studies, staff development programs and inservices, conferences, and a member of a gender equity group.

Table 3

Extent of Educational Training of Gender Sensitivity Issues

	Respondents	
Training Type	No. Responses	Percent
Undergraduate Level Courses	50	18.7%
Master's Level Courses	68	25.5%
Doctorate Level Courses	2	.7%
Lectures	39	14.6%
Seminars	33	12.4%
Workshops	58	21.7%
Other	17	6.4%

Participants were asked to rate the following question, "Do you wish that you had received more educational training regarding gender sensitivity than the training you have received?" One hundred and nine of 110 (99.1%) participants responded to the

above question. Forty-one or 37.6% of the respondents agreed, 33 or 30.3% felt neutral or undecided, and 26 or 23.8% disagreed. Only 3 or 2.8% strongly agreed and 6 or 5.5% of respondents strongly disagreed. Overall, 41 of 109 (37.6%) participants indicated they wished they had received more training regarding gender sensitivity issues, however it is important to note 33 of 109 (30.3%) participants felt neutral, meaning they are not certain one way or another, and 26 of 109 (23.8%) of participants disagreed, meaning teachers felt they have received enough training regarding gender sensitivity, thus suggesting there is somewhat of an equal split between teachers who feel the need for more training and those that feel they have had enough educational training.

Table 4

Teachers' Feelings Regarding a Need for More Educational Training for Gender Issues

	Respondents	
Training Needs	No. responses	Percent
Strongly Agree	3	2.8%
Agree	41	37.6%
Neutral	33	30.3%
Disagree	26	23.8%
Strongly Disagree	6	5.5%

A total of 105 of 109 (96.3%) participants elaborated on why they agreed, disagreed, or felt neutral about wishing they had received more educational training regarding gender sensitivity. Thirty-eight participants elaborated on why they agreed with the above statement. Below are the three most common reasons for agreement:

1. Thirteen of 38 respondents (34.2%) felt they received little or no undergraduate training and the issue of gender sensitivity was not discussed. Some respondents wished they had received more training during their early teaching career and others felt they received most of their educational training during graduate versus undergraduate school.
2. Four of 38 respondents (10.5%) felt they needed to know more about the new and recent research regarding gender issues, as well as know the specific facts.
3. Three of 38 respondents (7.8%) felt not enough emphasis has been given through diversity courses specifically to gender issues. Respondents felt as though more emphasis was given to racial and ethnic bias and gender issues were only touched upon.

Of 105 participants, 26 (24.8%) participants elaborated on why they disagreed suggesting that they felt they had received sufficient educational training regarding gender sensitivity. Below are the three most common reasons for disagreement:

1. Fifteen of 26 respondents (57.7%) felt they have received adequate and/or enough training regarding gender sensitivity issues.
2. Four of 26 respondents (15.4%) felt they are adequately sensitive to gender issues, are aware of research and issues, and understand the sensitivity towards gender issues.
3. Two of 26 participants (7.7%) felt gender has not been an issue in the classroom and gender bias has never been noticed in the classroom.

Of 105 responses, 33 participants (30.3%) felt neutral towards wishing they had received more educational training regarding gender sensitivity. Below are the three common reasons for feeling neutral:

1. Fourteen of 32 participants (43.8%) felt as though they had received enough/adequate training on gender issues.
2. Eleven of 32 respondents (34.4%) responded with miscellaneous answers such as, gender sensitivity is not an issue with an urgent need, there is a need for more conversation rather than training due to time involvement, has not experienced any gender issues however there is always more information to learn, feels he/she can be sensitive to genders equally, and it is necessary to treat all students the same.
3. Four of 32 respondents (12.5%) felt they are aware of gender sensitivity issues. Some participants indicated they can always use more/new information and some

participants responded that no new information was needed beyond participants' awareness.

Of 105 total responses, 3 (2.9%) participants elaborated why they strongly agreed that they wished they had received more educational training regarding gender sensitivity. Responses included: educational training would add an appreciation and understanding of the importance of the feminist movement, had not received any college training, and unintentional mistakes had been made in the classroom without prior gender sensitivity knowledge.

Finally, of 105 total responses, 5 (4.8%) participants elaborated on why they strongly disagreed for the following reasons: they did not feel a need for further educational training regarding gender sensitivity; they felt they had enough training and felt it was not necessary for formal training to figure out gender issues, and when we focus on differences we cheat other students.

Participants were asked their opinion on whether they feel there should be a mandatory course for teacher certification regarding gender sensitivity. Seventy-three of 110 (66.4%) participants responded to this question. Of the 73 respondents, 26 (35.6%) responses disagreed, 26 (35.6%) felt neutral, and 21 (28.8%) strongly agreed.

Although only 66.4% responded to the above statement, 93.6% of participants elaborated beyond what the above question asked. The majority of respondents who disagreed that there should be a mandatory course for teacher certification regarding gender sensitivity indicated there should not be a whole mandatory course; rather the topic should be covered as a unit(s) in other classes. Suggested classes included human

relations, human awareness, educational psychology, diversity, learning styles, child development and child psychology.

Approximately 35.6% respondents felt neutral about requiring a mandatory course regarding gender sensitivity. As mentioned above, the majority of neutral respondents indicated the information would be beneficial; however they felt and/or were unsure about whether a mandatory course was necessary. Participants suggested that courses, such as human relations and diversity classes, could incorporate gender issues into them. Other participants indicated they were unsure and/or unaware of how big the gender sensitivity issue was and that they were unsure if there was enough research available to support a mandatory course. Participants indicated teachers already have many important classes that are required during their teacher preparation and that it would be difficult to add another required class.

Approximately 21 (28.8%) participants strongly agreed that there should be a mandatory course for teacher certification regarding gender sensitivity. The majority of respondents felt that a mandatory course would initiate awareness needed in the classroom. Respondents felt that everyone needs to be aware and know about gender insensitivity and many areas of gender bias are subtle therefore teachers need to be aware and sensitive to their own biases. Other respondents suggested the topic is important, but just as the participants who felt neutral and disagreed; they felt the topic could be taught as a unit(s) in other courses.

Teachers were asked to describe any typical patterns that they see in their male students such as behaviors, attitudes, and performance abilities. Some participants responded that they do not notice any typical patterns and that each student is an

individual with individual differences. However, other respondents suggested a wide range of behaviors, attitudes, and performance abilities among their male students. Although the majority of respondents gave more than one example of typical patterns they see in male students, the three most common teacher responses regarding typical male behaviors, attitudes, and performance abilities are listed below:

1. Males tend to be physically active (22 respondents).
2. Males tend to not put forth their best effort, not as hard of workers, experience lower grades and underachievement, not as concerned with school, and do not turn in homework as often (17 respondents).
3. There is not a typical male pattern and their behaviors, attitudes, and performance varies (17 respondents).

Other frequent and consistent responses among raters include the following: vocal, talkative, blurts out answers, aggressive, attention issues, less organized, acts out, competitive, hands on tasks, and enjoys math.

Participants were also asked to describe typical patterns they see in their female students' behaviors, attitudes, and performance abilities. Respondents suggested more than one example and a wide range of female attributes, however, below are listed the top three most common teacher responses regarding female students' behaviors, attitudes, and performance abilities:

1. Females tend to be hard workers, concerned about school and schoolwork, and are high academic achievers (15 responses).
2. Females tend to be eager to please teachers and peers (14 responses).
3. There are no typical patterns or differences among females (8 responses).

Other frequent responses included the following: self-conscious and concerned about looks, behaves appropriately, talkative, and does not answer and/or ask questions as often.

Participants were asked whether they see any areas where boys tend to do better than girls do. Of 110 respondents, 67 (60.9%) replied no, 37 (33.6%) replied yes, and 6 (5.5%) did not answer that they do or do not see any areas where boys do better than girls do. Those who answered yes that they do see some areas where boys do better than girls do were asked to explain further. Some common responses included strength and physical activities, science classes, and competitive activities. Below are the three most common responses from participants for areas where they see boys doing better than girls:

1. Hand's on and motor skills (6 responses).
2. Athletics and sports in general (5 responses).
3. Math classes (5 responses).

Teachers were also asked whether they see any areas where boys tend to do worse than girls do. Of 110 respondents, 48 or 43.6% replied no, 56 or 50.9% responded yes, and 6 or 5.5% did not answer that they do or do not see some areas where boys do worse than girls do. Those who replied yes were asked to elaborate. Below are the three most common responses from participants for the areas they see boys doing worse than girls in:

1. Writing in general, written work, and fine motor skills (15 responses).
2. Less organized, such as study skills and completion of daily work (9 responses).
3. Reading skills in general (9 responses).

Participants were asked to respond to whether they have witnessed gender insensitivity in their school or within classrooms. Out of 110 responses, 54 (49%) of participants responded no, 50 (45.5%) responded yes, and 6 (5.5%) did not respond. According to those who responded yes, consistent responses included: comments and disrespect between students, teachers favoring one gender over the other, and teachers

calling on one gender more than the other. Other responses regarding what teachers have witnessed included boys placed in front of the classroom for management reasons more often than girls, referring to a male as having female attributes, classroom imbalance, the expectation that boys do better in math and science and girls do better in reading, writing and English, and teachers call on boys who volunteer and do not wait for girls to volunteer or ask them to.

When participants were asked to respond to ways their school and/or district are insensitive to girls' needs, 16 (21.3%) of respondents indicated they have not noticed any insensitivity to females and felt their districts and/or schools are fair and sensitive. Additionally, participants responded they are not sure about whether their district/schools are insensitive to girls' needs. Finally, participants' felt there are too few bathrooms, lack of feminine products sold in bathrooms and no soap available to females (Please see Appendix D for additional responses).

In regards to males, the majority of respondents (22 participants) felt unsure or felt that males are treated equally within their schools and/or districts. Some respondents felt boys tend to be stereotyped as having behavioral problems and being the troublemakers in the classroom. Others felt that boys are expected to sit still all day and that schools/districts do not consider the emotional needs of boys as much as they should (Please see Appendix E for additional responses).

Finally, participants were asked to list all measures they, their colleagues, and/or their school districts take to reduce gender bias in the classroom and/or school. Below are the top three consistent strategies according to participants (Please see Appendix F for additional responses):

1. Teachers call on students equally, alternatively, and randomly (28 responses).
2. Teachers draw names, shuffle cards, draw sticks, and check names off a master list (5 responses).
3. Teachers hold class discussions regarding gender issues to create awareness (5 responses).

Summary of Research Results

The intent of this study is to improve upon the little research that has been done in the past regarding teacher perceptions of and educational training about gender bias. The results of this chapter will now be summarized in terms of the research hypotheses outlined in Chapter I.

Hypothesis I: Even if teachers do not report that they have been involved in gender bias in their own classrooms, they will report they have witnessed or heard of gender bias issues in their schools and/or district.

> Of 110 responses, it was determined that 54 or 49% of participants had not witnessed and 50 or 45.5% had witnessed gender insensitivity in their school or classrooms. Therefore, there appears to be an even split between those that have witnessed gender insensitivity and those who have not witnessed gender insensitivity. A plurality of respondents noted they have not noticed any insensitivity to females and felt their districts and/or schools were fair and sensitive. In regards to insensitivities towards boys' needs, the majority of respondents felt unsure and/or felt males and females were treated equally.

Hypothesis II: Teachers will report they wish that they had received some or more educational training regarding gender bias.

According to participant responses, 41 or 37.6 % agreed, 3 or 2.8% strongly agreed, 33 or 30.3% felt neutral/undecided, 26 or 23.8% disagreed, and 6 or 5.5% strongly disagreed that they wished they had received more educational training regarding gender sensitivity. Overall, slightly more respondents wished they had received more training. However, an almost equal number were undecided and a slightly smaller number disagreed. Responses suggest somewhat of an even split of opinion as to whether or not participants thought they should have or did not need more educational training on gender sensitivity issues. However, using the percentage of respondents who were neutral and those who disagreed, it seems safe to say respondents leaned more towards teachers feeling satisfied with the amount of training they have had. However, it is important to acknowledge that 40.4% of respondents felt they wished they did receive more training. This information may be beneficial to trainers of teacher college and university undergraduate programs.

Hypothesis III: Teachers will report they have received little or no educational training regarding gender sensitivities.

Participant responses indicated that teachers are receiving and reporting they have received educational training regarding gender sensitivities. Participants indicated the top three arenas of training included Master's level courses, workshops, and undergraduate courses. According to the 105 participants who elaborated, only 13 or 12.3% of participants felt as though they received most of their educational training during graduate versus undergraduate school, felt they received little or

no undergraduate training and the issue of gender sensitivity was not discussed, and wished they had received more training during their early teaching careers. Surprisingly, 29 or 44.7% of participants felt they had received adequate and/or enough training regarding gender sensitivity issues. Thus, overall respondents felt as though they have received an adequate amount of training and did not feel as though they needed more.

CHAPTER V

SUMMARY AND DISCUSSION

Summary of the Study

There is little research completed on teachers' perceptions of gender bias in the classroom. According to research, students continue to receive different educations, therefore it is important to know how prepared and educated teachers are to notice, prevent, reduce, and respond to gender bias.

The purpose of this study was to describe the perceptions of teachers and their educational background regarding gender bias as measured by a questionnaire. This study focused on the following objectives: to assess teachers' perceptions about gender bias, to assess teachers' educational training regarding gender bias, to assess teachers' experiences with gender bias, and to determine teachers' suggestions to alleviate gender bias.

Because of a low response rate in the Eau Claire School District, the survey was sent to all teachers in the South Washington School District (Minnesota) on October 2002. A total of 110 teachers from both school districts and from a variety of grade levels participated in study.

Discussion of Findings

The survey asked respondents to explain the extent of their educational training background regarding issues of gender sensitivity. Overall, respondents indicated they have received the most training in Master's level courses (56.6%), workshops (52.7%), and undergraduate classes (41.6%). These percentage rates indicate many participants have received more than one type of gender sensitivity training. It was expected that

teachers would report they have received little or no educational training regarding gender bias. However, the results suggest participants have had more educational training than expected.

Respondents were also asked to rate whether they wished they had received more educational training regarding gender sensitivity than the training they had already received. Overall 37.6% of participants agreed, 30.3% felt neutral, and 23.8% disagreed. Of those who agreed, the majority of respondents (12.3%) felt they received little or no undergraduate training and/or the issue of gender sensitivity was not discussed. The majority of participants who felt neutral and disagreed (44.7%) with the question, suggested they felt as though they had received enough training on gender issues and that they felt aware of gender issues and are adequately sensitive. Therefore, overall, the results obtained suggest participants are generally satisfied with the amount of training they have received regarding gender issues. Additionally, participants felt they are aware of gender issues and no new information was needed.

In general, respondents felt as though a mandatory course in gender sensitivity was not necessary, but the information should be included as unit(s) in other courses, such as Diversity and Human Relations classes.

Teachers were asked to describe any typical patterns they see in their male and female students, such as behaviors, attitudes, and performance abilities. The following are the three common responses for males: physically active, tend not to put forth their best effort towards school and experience lower grades and underachievement, and that there is not a typical male pattern and their behaviors, attitudes, and performance varies. The three common responses for typical female patterns include females tend to be hard

workers and are concerned about school and school-work; eager to please teachers and peers; and there are no typical patterns or differences among females. Overall, according to all responses of the difference between male and female attributes, responses appear to describe less desirable characteristics for males and more desirable traits for females.

Overall, 67 or 60.9% of participants indicated they do not see any areas where boys tend to do better than girls. Some participants, 37 or 33.6%, felt there are areas where boys do better than girls. The three common responses for areas where they see boys doing better than girls in include hand's on and motor skills; athletics and sports in general; and math classes. However when participants were asked if there are any areas were boys tend to do worse than girls, 48 or 43.6% responded that they did not see any areas were boys tend to do worse than girls do. The three common responses from participants for areas where they see boys doing worse than girls includes written work and fine motor skills, organization (study skills and daily work completion), and reading skills. The above results suggest that the majority of respondents feel there are no areas where boys tend to do better than girls, however feel there are areas where boys do worse than girls do.

Respondents indicated an equal amount of experience in whether or not they have witnessed gender insensitivity in their school or classrooms. According to results, 49% have not and 45.5% of participants have witnessed gender insensitivity in their school or classrooms. The three most consistent responses include disrespect between students; teachers favoring one gender over the other; and teachers calling on one gender more than the other. In general, participants indicated they felt their school and/or district was fair and sensitive to need of both girls and boys.

Lastly, participants were asked to list all measures they, their colleagues, and/or their school district takes to reduce gender bias in the classroom and/or school. The three frequent strategies included calling on students equally, alternatively, and randomly; drawing names, shuffling cards, drawing sticks, and checking names off a master list; and holding class discussions regarding gender issues to create awareness.

Limitations of the study

One of the foremost limitations of the current study was the questionnaire instrument. Specific questionnaire items presented problems which included how the questions were presented, such as some items could be considered leading questions and others did not allow the opportunity for all grade levels to respond and/or respond accurately.

For example, when participants were asked what grade level they taught, they only had grade level choices from 1st to 12th grade. This question did not provide the opportunity for teachers in pre-kindergarten and kindergarten to respond accurately to the demographic information, thus skewing the results. Additionally, pre-kindergarten and kindergarten teachers may have thought they were not allowed to participate in the study, which may have reduced the response rate. This demographic item did not provide an accurate representation of grade levels based on how they were broken into grade level pairs, such as 1-2 and 3-4. This item not only left out those who taught early childhood and the Alternative Learning Schools, but it did not provide a realistic grade breakdown based on the districts surveyed. Instead, the question could have been broken into larger levels, such as early childhood, elementary, middle, high school, and the Alternative Learning Center/School. Those respondents who teach high school often teach more than

one grade level, therefore making them choose between 9-10 or 11-12 did not provide an accurate representation. Lastly, the question did not consider that some districts include or do not include 9th grade into the high school level, thus further not providing an accurate depiction.

Another limitation regarding how questions were asked is that some could be considered leading questions. For example, please describe typical patterns that you see in your male/female students behaviors, attitudes, and performance, do you see any areas where boys tend to do better than girls do, and do you see any areas where boys tend to do worse than girls do. Overall, wording of the survey may have resulted in confusion or misrepresentation by the readers on particular items, therefore leading to skewed responses. This leads to the next limitation of validity.

An additional major limitation is the validity of the questionnaire. The author can not be certain the survey instrument measured what it was supposed to, meaning it can not be assumed that participants interpreted the questions in the manner the examiner had intended. The sample group is a small representation of all teachers and therefore their responses can not be assumed to represent the general population of educators.

The research method of the study and technical errors leads to another limitation. The survey was placed on a URL Internet address and was sent via email. Sending a questionnaire through email is a relatively new idea, which can pose many limitations. The ability to easily delete an email is a limitation to the study, thus reducing the response rate. Additionally, the examiner experienced a zero response rate during the first trial in January 2002. The survey was sent out to all teachers, however when teachers submitted their responses, the database would not let them submit and retain the data. The

examiner failed to give the survey a trial run prior to officially sending out the questionnaire. It is unknown to how many teachers actually responded to the first trial. The survey was re-run during April of 2002 to the same group of teachers. The examiner obtained only 10 responses. The poor response rate is likely attributable to the fact that those teachers who participated in the first trial run did not participate again during the second trial run.

Implications and Recommendations for Future Research

The current study generates many questions to be answered in future research. Determining what, if any, difference in viewpoints of gender bias between teacher and student perspectives would be an interesting aspect to pursue in future research. Several group comparisons could be made between the perspectives of each group.

Because some respondents indicated they had received little or no training in undergraduate teacher preparation courses, a point of interest for future research is to obtain information by surveying local and/or statewide educators from our colleges and universities to determine how much emphasis gender differences receive in teacher preparation courses.

Additional research could compare the results of this survey with a similar survey and/or topic of research from another state. Such a comparison could provide useful information regarding how other states are or are not providing training regarding gender bias in the classroom and to determine if this is an issue that is of more concern than the respondents in the current study suggested.

Finally, because formal research on this topic is scant and lacking scientific data, it would be difficult to move forth with such teacher preparation programming without

further proof of need. Therefore, any additional data and information beyond the current study would be beneficial.

Conclusions

The present study investigated and examined the perceptions of teachers and their educational background regarding gender bias. Overall, results appear somewhat inconclusive, yet yielded more positive results of teacher preparation and level of training than what was hypothesized by the researcher. In general, results indicate teachers feel satisfied with the amount of education received regarding gender bias in the classroom. Teachers indicated a variety of sources where they have received their education, the most common being, master's level courses, workshops, and undergraduate courses. However, although respondents have experienced a wide variety of training methods, results indicate inconclusiveness regarding whether or not they wished they had received more education training; meaning 37.6% agreed, 30.3% felt neutral, and 23.8% disagreed. Those who agreed that they wished they had received more training suggested a lack of undergraduate training as the most frequent response. Those who felt neutral or disagreed, felt they had received an adequate amount of training and indicated they did not feel the need for more. Perhaps some colleges/universities do a better job of encompassing gender material into their courses, however some colleges/universities, as well as students, may benefit from having more available undergraduate coverage of gender issues.

In general, most teachers did not feel that a mandatory course for teacher certification was necessary, but could be implemented as a part of other teacher

preparation courses. Overall, teachers felt satisfied with how their schools and districts are sensitive to gender issues.

A comparison of information obtained through the review of literature/research in Chapter II and data from respondents perceptions in Chapter IV, consequently may suggest a discrepancy between teachers and researchers viewpoints, meaning researchers in the field may observe things that teachers do not and/or observe them differently. The idea of social approval arises from teacher responses and leads to a question of whether or not teachers may or may not want to perceive themselves or their peers as doing something that is politically considered erroneous.

From a philosophical standpoint, the notion of feminism may arise when we hear the word gender sensitivity. In general, feminism has been thought of as biased and deviated by some people. Philosophical differences may have arisen between respondents who thought gender is an area of concern and those who thought programs on gender may be the problematic. The idea of feminism may have affected some respondents' true feelings towards gender issues.

REFERENCES

American Association of University Women Educational Foundation. (1992*). How Schools Shortchange Girls.* New York: Marlowe & Company

American Association of University Women Educational Foundation. (1998). *Gender Gaps: Where Schools Still Fail Our Children.* Washington D.C.: American Association of University Women Educational Foundation.

American Association of University Women Educational Foundation. (1998). *Separated by Sex: A Critical Look at Single-Sex Education For Girls.* Washington D.C.: American Association of University Women Educational Foundation.

Bailey, B., Scantlebury, K., Letts, W. (January – February, 1997). It's Not My Style: Using Disclaimers to Ignore Gender Issues in Science, *Journal of Teacher Education, 48 (1)*, 29-35.

Beal, C. (1994). *Boys and Girls: The Development of Gender Roles.* McGraw-Hill, Inc.

Gender Bias in Preschool. (November 1996). *Parents*, 71 (11), 180.

Harris, I. (1995). *Messages Men Hear: Constructing Masculinities.* Pennsylvania: Taylor & Francis Inc.

Lundeberg, M. (January – February, 1997). You Guys Are Overreacting: Teaching Prospective Teachers About Subtle Gender Bias, *Journal of Teacher Education*, 48 (1), 55-61.

Marshall, C., Reinhartz, J. (July/August, 1997). Gender Issues in the Classroom. *The Clearing House,* 70 (6), 333-337.

Matthews, C., Binkley, W., Crisp, A., Gregg, K. (December 1997 – January 1998). Challenging Gender Bias in the 5th Grade. *Educational Leadership*, 55 (4), 54.

McGee Bailey, S. (May, 1996). Shortchanging Girls and Boys. *Educational Leadership*, 53 (8), 75-79.

Peltz, W. (1990). Can Girls + Science- Stereotypes = Success. *The Science Teacher*, 51, 44-49.

Sadker, D., Sadker, M. (1994). *Failing at Fairness: How Our Schools Cheat Girls*. New York: Simon & Schuester.

Sadker, D., Sadker,M. (1989). The Report Card #1: The Cost of Sex Bias in Schools and Society (Report No. RIEJUL91). East Lansing, MI: National Center for Research on Teacher Learning. (ERIC Document Reproduction Services No. ED329473).

Shmurak, C., Ratliff, T. (1994). Gender Equity & Gender Bias: Issues for the Middle School Teacher. *Middle School Journal*, 25 (5), 63

Streitmatter, J. (1994). *Toward Gender Equity in the Classroom: Everyday Teachers Beliefs' and Practices.* New York: State University of New York Press.

Weiss, R. (2001). Gender-Biased Learning. *Training & Development*, 55 (1), 42-48.

Wellhousen, K. (1996). Do's and Don'ts for Eliminating Hidden Bias. *Childhood Education*, 73 (1), 36-39.

APPENDIX A

QUESTIONNAIRE INSTRUMENT

1. What grade level do you teach?
   - ❑ 1-2
   - ❑ 3-4
   - ❑ 5-6
   - ❑ 7-8
   - ❑ 9-10
   - ❑ 11-12

2. What is your gender?
   - ❑ Male
   - ❑ Female

3. What is your age?

   - ❑ 20-25
   - ❑ 26-30
   - ❑ 31-35
   - ❑ 36-40
   - ❑ 41-45
   - ❑ 46-50
   - ❑ 51-55
   - ❑ 56-60
   - ❑ 61+

4. Please select the box(s) that would explain the extent of your educational training background regarding issues of gender sensitivity. Please check all that apply.

   - ❑ Undergraduate level courses
     - o Mentioned in a course
     - o 1 full course
     - o 2 full courses
     - o 3+ full courses
   - ❑ Master's level courses
     - o Mentioned in a course
     - o 1 full course
     - o 2 full courses
     - o 3+ full courses

- Doctorate level courses
  - Mentioned in a course
  - 1 full course
  - 2 full courses
  - 3+ full courses
- Lectures
  - Mentioned in a lecture
  - 1 full lecture
  - 2 full lectures
  - 3 full lectures
- Seminars
  - Mentioned in a seminar
  - 1 full seminar
  - 2 full seminars
  - 3+ full seminars
- Workshops
  - Mentioned at a workshop
  - 1 full workshop
  - 2 full workshops
  - 3 +full workshops
- Other

5. If you selected "Other" as one of your answers to question number 4, please explain further.

6. Please indicate how strongly you agree or disagree with to the following question by selecting the box with the appropriate number following the question. Do you wish that you had received more educational training regarding gender sensitivity than the training you have received?

- 1 - Strongly Disagree
- 2 - Disagree
- 3 - Neutral
- 4 - Agree
- 5 - Strongly Agree

7. Please explain your answer to questions 6.

8. Please indicate how strongly you agree or disagree with the following question by circling the appropriate number following the question. Do you feel that there should be a mandatory course for teacher certification regarding gender sensitivity?

- 1 - Strongly Disagree
- 2 - Disagree
- 3 - Neutral
- 4 - Agree
- 5 - Strongly Agree

9. Please explain your answer to question 8.

10. Please describe typical patterns that you see in your male students' behaviors, attitudes, and performance.

11. Please describe typical patterns that you see in you female students' behaviors, attitudes, and performance.

12. Do you see any areas where boys tend to do better than girls do?
- Yes
- No

13. If you answered yes to number 12, please explain further.

14. Do you see any areas where boys tend to do worse than girls do?.
- Yes
- No

15. If you answered yes to number 14, please explain further.

16. Have you seen or witnessed gender insensitivity in your school or in classrooms?
- Yes
- No

17. If you answered yes to question 16, please explain further.

18. In what ways are your school and/or district insensitive to **girls** needs?

19. In what ways are your school and/or district insensitive to **boys** needs?

20. Please list all measures that you, your colleagues, and/or school takes to reduce gender bias in the classroom and/or school.

21. Please add any additional comments related to gender issues in the classroom that you wish to add.

APPENDIX B

Appendix B includes further responses from questions 11: Please describe typical patterns that you see in your male students' behaviors, attitudes, and performance.

- Not sure what is typically male or female
- Distracted
- Aggressive
- Will not do homework
- Completing work and not always doing their best, not concerned with school; work not as neat
- Lower grades; perform poorer academically
- Slightly defiant
- Some act out
- Competitive
- All over the spectrum
- More physical in their behaviors and attitudes
- Notice girls more; aware of more sexual and societal gender items
- Physical; hitting, pushing
- Blurts answers
- Skill levels and performance are equal
- Boys often feel they are not as good at reading and writing
- Heard more in class
- Enjoy hand's on activities
- Felt strongly about recess and P.E.
- More vocal, energetic, and disruptive
- Confident and capable
- Excited about rewards
- Extroverted
- Focused on high interest tasks
- Enjoy reading, writing, and math
- Speak out of turn and command attention
- Visual learners
- Responds well with structure, patterns, routines
- Strength and size
- More difficult to motivate if you talk to a group as a whole
- Ask fewer questions
- Respond well to male role models
- Impulsivity
- Risk takers
- Noisier
- Recover from conflict faster

- Sloppier handwriting, poor fine motor skills
- Interested
- Wanting to please
- Interrupt each other
- Forget past grievances more easily
- Like to play sports and draw
- Good at math
- Varies from person to person
- Likes to answer questions
- More likely to be in trouble
- Likes to be first
- Active
- Lazier
- More likely to use "put-down" language towards each other
- Need a lot of movement and interaction with others
- More immature and outspoken
- Positive attitude and self-esteem
- Less organized
- Give up more easily
- More likely to drop out
- Sensitive
- Enthusiastic
- Status seeking behaviors
- Dominate discussions
- No typical patterns

APPENDIX C

Appendix C includes additional responses from participants in regard to question 12: Please describe typical patterns that you see in your female students' behaviors, attitudes, and performance.

- There are no typical patterns and no differences
- More sensitive to criticism
- Friendly
- Creative
- Neater on papers; stronger fine-motor skills
- Concerned about looks; self-conscious
- Eager to please teachers
- Better developed study habits
- Notice boys
- Eager to please peers
- Act more mature
- More discrete behaviors
- Positive attitude
- Quieter
- More focused
- More inclined towards language activities – spelling, reading, writing, arts
- Calmer behaviors
- Less inclined to speak up in front of a group
- Better organized
- Better social interactions
- Caring
- Motivated
- Hard-working
- Emotional
- Need support
- Higher academic performance
- More on task
- Hold onto things that are upsetting
- Care more about work, but are often not confident they are doing well and need more affirmation.
- More driven
- Keep up with daily assignments
- Higher average scores
- Better behaviors

- Tend to look at school and performance more positively
- Comfortable disagreeing with an opinion on a topic
- Converse a lot
- Sit in one place
- Enjoy reading, writing, and math
- Follow directions better
- More arguments regarding social issues
- Verbal communicators
- Like coloring more
- Spend more time on tasks
- More passive
- Better listeners
- Hold back, rarely answer first
- No differences seen
- Varies
- Takes more time to process the question and answer
- Think before act
- Write notes in class
- Respectful of each other

APPENDIX D

Below are additional responses given for question 19: In what ways are your school and/or district insensitive to girls' needs?

- We are very fair and sensitive
- Unsure
- Activities available at the higher grade levels
- Not seen at the primary level
- By believing that there are classes that are not suited for girls
- Counselors- girls need women, boys need men
- Do not address enough "social" issues self-esteem etc
- Girls more often attacked for their clothing choices
- Girls are stereotyped as the primary cheerleaders
- Insensitive to the "roller coaster" emotions
- Needs to do more to address the number of teenage pregnancies
- Not enough equity in all sporting events
- Insensitive to the needs of female teachers; men tend to be the leaders/bullies in the school with few vocal female staff.
- Assumptions are made that girls are less able academically
- Discourage coloring and playing with dolls sooner than should
- Would like to have separate science and math classes for girls
- No feminine products sold in vending machines in bathrooms; privacy issues
- No soap in bathrooms
- Too few bathrooms for the number of girls and passing time allowed
- Classes are not balanced with equal numbers of boys and girls
- Girls need to go to the nurse's office if they need a feminine product

APPENDIX E

Below are additional responses to question 20: In what ways are your school and/or district insensitive to boys' needs?

- Unsure
- Too much attention given to athletic boys
- All students are treated equally
- As a whole we are not insensitive
- Stereotyped as the primary troublemakers; behavior problems
- The expectation to sit still all day
- Girls are allowed to play boy sports, boys are not allowed to play girl sports
- Not enough male role models in the primary schools, as teachers or any other capacity
- An overrepresentation of boys in after school detention
- Subjected more to the sink or swim method
- Viewed as emotionally tougher
- Boys need to sing and dance
- Emotional needs of boys are often overlooked
- Boys choice of a more "feminine" instrument (flute, clarinet) is often dismissed
- Many teachers are concerned about meeting the needs of girls and minority students that boys often feel left out
- Push boys too hard to achieve in reading and writing at an early age before they are ready for it
- Not enough anger management
- See more prejudice against boys who are not involved and quiet
- Teachers are often hard on boys
- Tend to be identified as hyperactive
- Classes are not balanced with equal numbers of boys an girls

APPENDIX F

Below are additional responses from question 21: Please list all measures that you, your colleagues, and/or school takes to reduce gender bias in the classroom and/or school.

- Encourage students to raise hands and not blurt answers
- Arrange partners so they cannot have the boy do the experiment and the girl write
- Address it, live the core values, do not tolerate bias, respect all
- Avoid boys and girls teams
- Believe all students are capable of the highest level of learning
- Be fair to all
- Calling on boys/girls equally
- Showing each gender excelling in gender traditional activities
- Class discussion
- Balanced classrooms
- Do not allow put downs of the opposite sex
- Alternate calling on boys and girls
- Encourage both genders to participate
- Educate about individual differences
- Everyone gets to be a squad leader
- Teams include equal number of boys and girls
- Do not think of a student just as a boy or as a girl
- Randomly draw names
- Gender studies class
- General monitoring in the classroom and hallways
- Give equal chances to demonstrate in class
- Allow both genders to take chances and allow for creativity
- Do things by chance
- Do not pay attention to what gender is being called on
- Ask for peers to observe in my classroom and make note of gender fairness/bias
- Study group mixture
- Call on students by shuffling cards with students' names on them
- We do a women's study course but not a male study course
- Sign on the overhead to remind to not call on the loudest student
- Try not to make gender specific comments
- Encourage all students to choose an instrument that is interesting to them

- Letting kids openly share their feelings in morning meetings or in journals
- Check names off of a master list
- Allow equal opportunity for both genders
- Avoid boys and girls lines
- Call on the quiet girls and boys to answer questions
- Call students on language issues
- Our school has a strong harassment and bullying policies
- Mixing groups for subjects as well as other activities
- Paying similar attention to all students
- Past training, ongoing discussions, curriculum review, informal observation, district policy
- Model appropriate behaviors