# AWARENESS IN THE ELEMENTARY 

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# REACHING BEYOND TITLE IX: GENDER 

 AWARENESS IN THE ELEMENTARY
## SCHOOL SETTING



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## CHAPTER I

## DESIGN OF THE STUDY

Oberlin College, founded in 1833, was the first college to serve the educational needs of males and females. The excitement the female students experienced at the anticipation of a co-education and equal environment can only be imagined. However, as female students were assigned domestic work including the laundry of their male associates it became apparent that their education was going to take on a supportive role (Greene, 1978).

Gerda Lerner (1986) explains the existence of a patriarchal history of education that can be compared with a theater production. The play requires both genders in order to be successful with men and women appearing on the stage with their separate roles. Yet the production has been created and defined by men. "Men have written the play, have directed the show, interpreted the meanings of the action. They have assigned themselves the most interesting, most heroic parts, giving the women the supporting roles" (p. 12).

As females realize their inequitable involvement in the "production" of education, there is a need to tear down the set and create one that is not gender-centered but contains both men and women as the focus. When girls do not see themselves in history and
teachers do not point out the reasons for the exclusion, they become the absent partners in education and the development of our nation (Sadker \& Sadker, 1994).

The subtle behavior of teachers in their roles of maintaining sex-differentiated achievement patterns (Eccles \& Blumenfeld, 1985) contributes to the "production" remaining male focused. Picture books containing fewer female main characters acting in passive roles (Weitzman, Eifler, Hokada, \& Ross, 1972; Williams, Vernon, Williams, \& Malecha, 1987) and gender bias in textbooks (Sadker \& Sadker, 1994) contribute to the deficient view of females. The lack of emphasis on gender education in preservice teachers' textbooks (Titus, 1993) completes the historical cycle of the female role as the inferior player as seen at Oberlin College in 1883.

## Background of the Problem

Throughout the late 1960s and early 1970s, the women's civil rights movement was a national focus. Title IX was passed in 1972 after congressional hearings recorded that sex discrimination affected the education of American female students. Title IX, Education Amendment of 1972 (Title 20 U.S.C. Section 1681) the preamble states:

No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subject to discrimination under any education program or activity receiving Federal financial assistance. (www.dol.gov/dol/oasam/public/regs/statutes/titleix.htm, p. 1)

In its 1997 report on Title IX, the U.S. Department of Education states, "On the $25^{\text {th }}$ anniversary of Title IX it seems fitting to suggest that America is a more equal, more
educated and more prosperous nation because of the far reaching effects of this legislation" (www.ed.gov.pubs/TitleIX/partl.html, p. 1). This report shares the accomplishments made since the passage of Title IX. The progress includes:

1. Title IX supports the education rights of pregnant students who wish to continue their education thus lowering the dropout rate. From 1980 to 1990 the dropout rate declined 30 percent (www.ed.gov.pubs/TitleIX/part4.html).
2. Enrollment in Algebra I, Algebra II, geometry, calculus and trigonometry increased for girls during the 1990s (AAUW, 1998).
3. Girls' enrollments in advanced placement courses is relative to that of boys' enrollments (AAUW, 1998).
4. Title IX increased the number of athletic programs for females (Valian, 1998).
5. In 1971, 18 percent of female high school graduates were completing at least fours years of college compared to 26 percent of their male peers . . . Women now make up the majority of students in America's colleges and universities in addition to making up the majority of those receiving master's degrees. Women are also entering business and law schools in record numbers. Indeed, the United States stands alone and is a world leader in opening the doors of higher education to women.
(www.ed.gov/pubs/TitleIX/part3.html, p. 1)
6. The number of women in the United States earning doctorates almost doubled from 1977 to 1994 (www.ed.gov/pubs/TitleIX/part4.html).
7. Approximately half of all medical and law students are female (Sadker, 1999).

When looking at the examples of the progress that Title IX has supported, it is noted that females have made immense gains as compared with demographics prior to its passage. Educators are proud of efforts to close the gender gap. They believe that the battle is won and that gender is no longer an issue needing to be addressed. "Gender equity? Oh, yes, that was big a few years ago. Today, girls' home economics and boys' shop are gone" (Sadker, 1999, p. 22).

At the same time successes gained through Title IX are recognized, others have critiqued the inclusiveness of these successes. For example, Tetreault and Schmuck (1985), investigating gender issues in their review of eight reform reports, indicate the urgent need for change in both elementary and secondary education. They found that these reports assume boys and girls receive equal education when interacting in the same classroom using the same materials. As Feminist critics they argue,

This blindness to questions of gender ignores the topic of women's education and effectively ignores female students' experience. It also ignores the need for an education which integrates preparation for the public and private processes of society for both males and females. (Tetreault \& Schmuck, 1985, p. 51)

And, in 1992 the American Association of University Women (AAUW, 1992) published an extensive national report on gender issues titled How Schools Shortchange Girls. Their report indicated that in spite of all of the changes for females, schools are failing girls. Examples of findings, representative of hundreds of researchers, include:

1. Boys are the focus of teacher attention calling out answers eight times more often than girls.
2. Girls do not emerge from classrooms with same amount of self-esteem as do boys.
3. As early as preschool, educators choose activities that appeal to and allow excellence for boys.
4. Teachers assume that girls have done well in school due to hard work. They believe that boys are successful due to their ability.
5. Sexual harassment directed at females is increasing in schools.
6. Contributions of females to our history continue to be ignored in textbooks.
7. Boys outperform girls when being tested. When scholarships are given based on the SAT scores, girls receive fewer even though they have higher grade point averages.
8. Girls are less likely to take advanced classes in math and science than are boys.

In sum, girls continue to fall into traditional patterns of low-self esteem that silence them in classrooms thus limiting their creativity and potential (Orenstein, 1994).

The research reveals that even with the passage of Title IX, girls continue to experience a gender-biased education not equal to their male peers.

To be successful in our nations schools risks must be taken. How Schools Shortchange Girls (1992) made the daily newspapers and brought into focus the realization that females lack confidence and that much has not changed in education for the betterment of female students. Girls continue to miss the mark in meeting their potential. The information revealed the need to continue the equalization of the playing field in the classroom.

As a follow-up to How Schools Shortchange Girls (1992), AAUW commissioned researchers to investigate education for girls in grades K-12 and in 1998 Gender Gaps: Where Schools Still Fail Our Children was published. AAUW appraises the progress made since 1992 in the arena of gender equity. It confirms that schools are making progress but also indicates new issues:

1. High school boys take more core science courses - biology, chemistry, and physics than do girls.
2. Boys take more advanced math and science classes than do girls.
3. Caucasian boys receive higher scores on the National Assessment of Education Progress test than do Caucasian girls. This test is given in grades four, eight and 12 evaluating subject knowledge.
4. A gap in math according to gender is evident using scores from the Third International Mathematics and Science Study (TIMSS) given to students
in grades four, eight and 12. The gap increases with age as boys in grade 12 substantially outscore girls.
5. Although girls are taking more Advanced Placement (AP) classes, they continue to receive lower test scores on the AP exam.
6. Girls make up a small percentage of computer science courses. They use the computer for more female-oriented skills such as clerical classes.
7. Boys manifest a greater amount of self-confidence in computer technology than do girls.
8. There is an absence or marginality of information presented to teachers regarding gender equity in the classroom.
9. Boys outscore girls on the SAT.
10. Textbooks present females in stereotypical roles.
11. School software often reinforces gender bias.
12. Teachers receive minimal or no gender equity training while attending schools of education.

When examining gender equity in relationship to the intent of the legislative act Title IX enacted over 25 years ago, why does gender inequity continue to abound in our classrooms and our society? One explanation is that gender bias within the classroom setting in which male and female students create separate cultures is not always associated with the assumed curriculum focus.

The official agenda is that all children should acquire the same skills and knowledge through their participation in the classroom tasks. The teacher
and children, however, have their own cultural perspectives shared by their gender, class, and race . . The outcomes for children include not only how much they are able to learn from the official curriculum, but also what they learn about their own identity, value and capability. (Alton-Lee, Nuthall, \& Patrick, 1993, pp. 59-60)

Traditional thought is that children learn similarly in an educational environment. Much of what the teacher does is unconscious and educators are unaware of gender bias. By asking questions, teachers realize that they construct the learning environment based on a "worldwide view that legitimates White male power and their own subordination" (Alton-Lee, Nuthall, \& Patrick, 1993, p. 81). To change, an educator must be made aware of the need to question and construct learning that has meaning for the individual child.

Most teachers have little knowledge of gender bias (Avery \& Walker, 1993). There remains a lack of this awareness in educational foundation programs and textbooks for student teachers. In his research of five teacher preparation textbook publishers, Jordan Titus (1993) reviews explicit content and implicit messages of the texts. His findings mirror that of earlier studies with the treatment of gender issues being dealt with superficially or not being addressed in the foundation textbooks. "Girls and boys are simplistically portrayed as occupying 'sex roles' and obliged to behave in conformity to them" (Titus, 1993, p. 39). The research of Sadker and Sadker (1994) reports similar findings. Classroom textbooks and picture books lack the representation of females in assertive roles. They stereotype passive feminine qualities as defined within a gender-
biased setting (Weitzman, Eifler, Hokada, \& Ross, 1972; Williams, Vernon, Williams, \& Malecha, 1987).
"Women have been educationally disadvantaged systematically and deliberately since the creation of Western civilization and the invention of writing" (Lerner, 1984, p. 42). There is an absence of thought among educators regarding gender bias due to the perpetuation of thinking within a male-defined framework. Only when the human holistic experience is understood rather than a dualistic view will there be a true understanding of equity (Tetreault, 1985).

Statement of the Problem

Despite the gains made as a result of Title IX (www.ed.gov/pubs/TitleIX/part1. html) schoolgirls continue to experience education differently than elementary schoolboys. The logic of Feminist Phase Theory (Tetreault, 1985) would explain this exception in terms of the underdevelopment of the discipline of elementary education and those who deliver this discipline in terms of their levels of gender awareness. Elementary school professionals who instruct are not aware of the gendered experiences of students in those settings. This lack of cognizance results in the continuation of schooling, which favors boys and impedes girls (Sadker \& Sadker, 1994).

Purpose of the Study

Using the lens of the Feminist Phase Theory (Tetreault, 1985), a gender awareness classification schema, the purpose of the study was:

1. to document the levels of awareness of elementary teachers in their classrooms in regards to gender;
2. to analyze the levels of awareness through the Feminist Phase Theory lens;
3. to evaluate the usefulness of Feminist Phase Theory for understanding the realities of gender awareness in elementary classrooms; and
4. to describe other realities about gender that may be revealed.

## Theoretical Framework

Feminist Phase Theory as developed by Tetreault (1985) is a five-phase model that identifies and classifies thinking about women. It provides "a classification schema of the evolution in thought . . . about the incorporation of women's traditions, history, and experiences into selected disciplines" (Tetreault, 1985, p. 364).

The five phases identified by Tetreault (1985) are Male, Compensatory, Bifocal, Feminist and Multifocal or Relational. When thinking of the phases, a non-linear construct is needed. Conjecturing the phases as "intersecting circles, patches on a quilt, or patterns in a tapestry that interact and undergo changes in relation to one another" is suggested by Tetreault (1987, p. 170).

The first phase, Male, does not note that there is an absence of women. There is a lack of awareness that the male viewpoint molds the thoughts and patterns of existence. This male model is accepted as the norm. All assumptions are made using a male lens. "The male experience is assumed to be universal and . . . knowledge about the male experience is unquestioned" (Twombly, 1993, p. 196). Schuster and Van Dyne (1985)
refer to this phase as invisible women with their model, which runs in a direct fashion with Tetreault's archetype.

The second phase, Compensatory, demonstrates an awareness that women are missing and that only a few are included within the male framework of thinking about what merits greatness and notoriety (Tetreault, 1985, 1987). Within the curriculum, teachers may note that women are missing from history and make efforts to search for them. The measure by which prominence is defined remains male yet unexamined. The missing women are understood to resemble the men already present in the traditional curriculum (Nielsen \& Abromeit, 1989).

Within the third phase, Bifocal, there are three themes (Twombly, 1991). Men and women are thought of as separate and viewed within a dualistic model that emphasizes the differences between gender and personal and private history. Truths are held for women and separate truths belong to men (Tetreault, 1987). Sexual stereotypes can develop using this analysis and "there is a tendency to slip back into thinking of women as inferior and subordinate" (Tetreault, 1985, p. 373).

A second theme running through the third phase of the Feminist Phase Theory is the oppression of women (Tetreault, 1985). The realization of this oppression points to disadvantaging factors for women (Twombly, 1993). Schuster and Van Dyne (1985) note that anger may occur within this phase as females resist the existing paradigms noticing their subordination.

The final theme within the Bifocal phase is the woman's awareness that she must make a change to fit into a patriarchal system. In response, females create strategies to
overcome the oppression (Twombly, 1991). A significant lesson that has been learned when reviewing bifocal history is the "danger of generalizing too much, of longing for Women's History instead of writing histories of women" (Tetreault, 1987, p. 175).

The Feminist phase recognizes the diversity among women and an attempt is made to create a knowledge base that incorporates the female experience (Nielsen \& Abromeit, 1993). The activities of women, not men, are viewed as critical. The experience of women speaks for itself (Tetreault, 1985). This phase is pivotal in the transformation of classroom interactions and content. Within this phase there is a move from traditional to feminist scholarship where women decide the premise of what is relevant (Schuster \& Van Dyne, 1985). Diversity is recognized not only by gender, but by race and class, which contribute to historical and sociological experiences (Twombly, 1991).

The Multifocal or Relational phase moves to an intersection of male and female experiences to create a human perspective. There is an understanding for both the private and public conditions of life (Tetreault, 1985). The view is holistic rather than dualistic. The human experience is the basis of understanding. It is within this phase that feminist phase theorists agree curriculum can be transformed. However, this transformation would entail such a tremendous paradigm shift, that this phase is too complex to describe (Twombly, 1991). There is "a loss of old certainties, but the gains are the recovery of meaningful historical and social context, the discovery of previously invisible dimensions of the old subjects" (Schuster \& Van Dyne, 1985, p. 26).

Schuster and Van Dyne (1985) used Feminist Phase Theory to study curricular change. Paralleling Tetreault's phases are their six stages considered for transformation in course content: (1) Invisible women; (2) Search for missing women; (3) Women as disadvantaged, subordinate group; (4) Women studied on own terms; (5) Women as challenge to disciplines and (6) Transformed, balanced curriculum. The last phase characterizes elements within a transformed course (Schuster \& Van Dyne, 1985).

Feminist Phase Theory is a beginning point in research of teachers, students and administrators' understanding of gender. It provides a means of "analyzing knowledge about women and guiding its advance into disciplines and curricula" (Twombly, 1991, p. 10). This lens was used as the orienting frame for analysis in this study.

## Procedures

Using the lens of Feminist Phase Theory, this study used qualitative methods to examine the themes that appear when investigating the attitudes held, classroom practices used and operational environments of elementary teachers in relation to gender. The case study method incorporated a rich description of these attitudes. Interviews, observations and documents provided data for analysis.

## Researcher

As the researcher in this study, a brief indication of my beliefs and experiences is essential in revealing my biases and expertise. I have been an educator for 25 years. My background varies from elementary teacher, gifted and talented teacher to currently being
an elementary school principal. Title IX became a reality when I was a university student. The memories of the bra burning jokes and statements that women wanted to be men remain vivid in my mind from those years.

I was a teenage mother having my son in 1970, my sophomore year of high school. Without Title IX, I was suspended from school for two weeks, striped of my honors to include class officer, membership in academic organizations and extracurricular activities. The ridicule that I endured when I returned after my suspension was more than I could brave as a teenager attempting to handle an adult situation. I was forced to travel daily a long distance to complete my high school education in another county where no one knew me.

Once I began my studies at the University of North Carolina, Chapel Hill in 1973, I joined the National Organization of Women. Gender issues have been a concern of mine since that time. My life has been directly affected by living within a society that values the male perspective. Through exposure and study, I have been made aware of the discrepancies and consider myself to be a Feminist.

As an elementary school principal, I believe that it is my responsibility to act in a leadership role that incorporates equity as a focus. As a researcher investigating gender issues, I am improving my awareness and increasing my knowledge in order to share this with teachers, administrators, students and parents.

With extremely strong feelings toward gender inequity within our schools, I attempted to guard against my biases as I conducted my research. I believe that educators remain unaware of issues of gender equity. They daily enter their classrooms and teach
without analyzing the methods and materials used. There is no malicious intent, only a lack of knowledge.

## Data Sources

Purposeful sampling was used to gain an understanding from a select group in order for the greatest amount of learning to take place. Elementary teachers in kindergarten through sixth grade were used as a typical sample (Merriam, 1998). One teacher from each grade level was a part of the study to gain a broad-based understanding within an elementary school setting. The school has a population of approximately 500 students.

## Data Collection

Data collection used three qualitative methods: interviews, observations and documents. Approval to conduct this study using these techniques was given by the Oklahoma State University Institutional Review Board. A copy of that approval is included in Appendix A. Prior to data collection, each participant met with the researcher to discuss the research project. An introductory letter was given as written explanation of data collection, and the willing participants signed a consent authorization form. These are included in Appendix B.

Interviews. Each participant was interviewed prior to the observation. Merriam's
(1998) Interview Structure Continuum was used combining semistructured and unstructured/informal questions. The questions were structured around the concepts
within the Feminist Phase Theory in order to gain an understanding of how elementary faculty conceptualize females in their classrooms (Tetreault, 1985). Additionally, all teachers were given a demographics form to complete, and the entire group was given a follow-up written interview question, which they completed after the initial interview. The fourth grade teacher was also given a follow-up interview question form that clarified and expounded a portion of her initial interview. These four interview instruments are included in Appendix C.

Observations. The observation stance was that of observer as participant where "participation in the group is definitely secondary to the role of information gatherer" (Merriam, 1998, p. 101). As the school principal, it was impossible not to participate in classroom activities with a history of joining in the fun. However, to gain specific information, my primary role was that of observer. A combination of two tools was used to record data. Teachers provided seating charts, which assisted with the investigation as to how the children were segregated and the teacher's proximity to children around the room as a lesson was conducted (Sadker \& Sadker, 1994).

Portions of The Teacher-Child Dyadic Interaction: A Manual for Coding Classroom Behavior (Brophy \& Good, 1969), a structured instrument, was used during the observation process. This instrument is included in Appendix D. It coded a variety of interactions to include:

1. Response opportunities in which the teacher publicly poses a question for the child to answer.
2. Procedural contacts in which the teacher-child interface relates to procedural matters such as supplies, permission and equipment or other management matters concerned with the child's individual needs.
3. Work-related contacts in which the teacher-child interaction relates to seatwork activities such as written work.
4. Behavioral contacts in which the teacher disciplines the child making remarks related to classroom behavior (Brophy \& Good, 1969).

Documents. Reading textbooks, classroom library books and displays within the classroom environment were examined to determine the representation of females within each grade level. Books were reviewed with the focus of gender representation as depicted in illustrations and as main characters in stories (Weitzman, Eifler, Hokada, \& Ross 1972; Williams, Vernon, Williams, \& Malecha, 1987).

## Data Analysis

A key to effective data analysis is the analysis of data being made during the data collection. I derived categories from terms and concepts presented in the data as collected.

Analysis of the data was organized moving from the broad to the specific in interviews, observations and documents by discovering categories and subcategories (Merriam, 1998) using the Feminist Phase Theory phases (Tetreault, 1985). Additional concepts relative to the data were established as needed during data collection.

Classroom seating charts were provided by the teachers, which indicated the students' location in the classroom. "Dead zones" were to be identified to indicate the places where students can hide and be overlooked. Interactions between students and the teacher were considered to determine patterns of dominance within the classroom setting and seating arrangements according to gender (Sadker, \& Sadker, 1994, p. 268).

Four broad categories of The Teacher-Child Dyadic Interaction (Good \& Brophy, 1969) were used to present and analyze data collected during observation periods. This analysis is based on creating categories based on the type of interactions between the teacher and student to include response opportunities and procedural, work-related and behavioral contacts.

Feminist Phase Theory (Tetreault, 1985) was used as a lens to interpret the data. The themes that emerged from the data were compared with the five phases in order to gain an understanding of the elementary teacher's gender perspective and the expression of these attitudes as demonstrated in the classroom environment.

## Significance of the Study

The findings of this study may increase the knowledge in the areas of theory, research and practice.

Theory. Theoretically, this study used Feminist Phase Theory to document the levels of awareness of elementary teachers and their classrooms in regards to gender. This theory provided a means to investigate this awareness with the hope of making effective changes in the classroom setting.

Tetreault asserts that "feminist scholarship has not only affected the way [I] think about the content of social studies but also the way [I] think about teaching" (Tetreault, 1987, p. 176). As a researcher using Feminist Phase Theory as the analytic lens, I believe that positive changes are possible in classrooms. Tetreault (1987) feels that there is a need to present curriculum to students that has individual meaning and not a preconceived definition attached to the learning. This study should illustrate the usefulness of Feminist Phase Theory in studying levels of gender awareness in elementary classrooms.

Research. This study adds information to the knowledge base on the issue of gender differential treatment within the educational setting. The implications of the research influence the areas of gender awareness in classroom practices, textbook and picture book gender bias with the depiction of stereotypical gender roles and other teacher perceptions concerning gender.

Practice. Educators are tasked with meeting the challenges of a diverse population. The majority of that population is female. The interaction between teacher and student is crucial to student achievement. The findings from this study provide additional knowledge to practice in the area of gender equity that affects not only our female students but also our male population. By providing additional knowledge, equity may be provided for students, not rooted in gender, but on individual needs based on humanness.

It is possible for teachers to establish ineffective instructional practices. By analyzing their interactions with students, teachers are able to equitably question and praise students for their academic work and to provide work criticism. Through the attainment of knowledge, teachers are capable of holding high expectations for all students regardless of gender or ethnicity (Grant, 1985).

## Summary

Despite the enactment of Title IX, which prohibits exclusion based on gender, classrooms are different for boys and girls. Female students continue to receive unfair treatment, which is supported by their teachers. There is a subtlety to this bias that is hardly noticed by teachers, administrators, students and parents. These subtle behaviors exist despite legislative action due to the fact that "all the systems of ideas of Western civilization, the explanations of the world and the cosmos, philosophies, and science have literally been shaped by male thought" (Lerner, 1984, p. 45).

The purpose of this study was to use the Feminist Phase Theory as a lens to examine the levels of gender awareness of elementary teachers. The study investigated the attitudes, practices and classroom environments of elementary teachers. It created a comparison to the five phases in the Feminist Phase Theory (Tetreault, 1985). Teachers were interviewed to determine their gender awareness. Observations were performed to triangulate the interviews. Additionally, documents were scrutinized to organize data adding to the knowledge on gender equity within the educational setting.

## Reporting

Chapter II reviews the literature concerning gender awareness and Feminist Phase Theory. Chapter III presents the collected data. Chapter IV presents the analysis and interpretation of the data collected within this study. A summary, conclusions, recommendations, implications and commentary are included within Chapter V.

## CHAPTER II

## REVIEW OF THE LITERATURE

In theory, every school day provides an equitable situation for all students. The reality is that classroom settings fail to afford for differences according to gender. "The conceptualization of our educational purposes, students, curricula, pedagogy, and the profession of education all rested on a paradigm in which men, in most instance dominant white men, and traditional male activities were the norm" (Tetreault, 1986, p. 227). Related literature will assist with this case study of gender awareness in the elementary school setting. Within this chapter, the focus will be specifically (1) history of maledefined education, (2) effects of Title IX, (3) subtlety and impact of gender bias and (4) Feminist Phase Theory.

Male-Defined Education

Gender has long been an organizing standard for education. Schools act as socializing agents that place males and females in specific roles. Historically, there has been a gender imbalance embedded in the educational setting (Bailey \& Campbell, 1992).

Within the Colonial American setting, education was seen as a priority for male students. Sharp gender distinctions were clear. Male students were expected to become keen scholars in order to continue the greatness of liberty. Females were to concentrate
on gentility and those domestic qualities preparing them for matrimony (Green, 1978). If females were allowed by their fathers to attend school, they appeared at the doorsteps of the town's grammar school either early in the morning, before the male students arrived, or later in the afternoon, following the male students' instruction. The price for this discommoding education was $\$ 2.50$ (Earle, 1899).

Coeducation in the United States first occurred in the first half of the nineteenth century in the elementary setting. The Revolutionary War had set the tone for debate over the educational rights of females. Reformers from the revolution insisted that young females had the right to an equal education. School crusaders such as Horace Mann and Edward D. Mansfield declared that females had the same rights as males under the new republic (Tyack \& Hansot, 1990). The transition of females into the educational setting was a milestone for gender equality within the American educational system. However, the limitations remained, as the focus of education was to make females more competent for marriage.

During this same timeframe, American communities also experimented with the idea of females in the high school setting. Some smaller communities could not afford separate high schools and built one for both genders. The female and male students entered through separate doors, and they studied on different floors or in divided rooms. Critics worried that ill effects would occur by mixing the genders. It was clear that the paths of males and females were dissimilar although proponents argued that female students could refine the male students' rough behavior (Sadker \& Sadker, 1994).

Oberlin College, founded in 1833, was the first college to serve the educational needs of males and females. As female students were assigned domestic work including the laundry of their male associates, it became apparent that their education was going to take on a supportive role (Greene, 1978). The opportunities provided for females by colleges such as Oberlin and in the co-education elementary and high school settings were overshadowed by the confining nature of sexism, which limited the choices of women and the degrees they could aspire to obtain. While males were receiving Bachelor's degrees, females earned degrees such as "M.P.M. for Mistress of Pudding Making, M.D.N. for Mistress of Darning Needles, and the M.C.S. for Mistress of Common Sense" (Sadker \& Sadker, 1994, p. 21).

As the number of female students began to increase in the educational setting so did the number of females as teachers. In a very short period of time the ascent of females in the teaching workforce was astounding. In New York City 10 percent of schoolteachers were female at the beginning of the nineteenth century. By 1920 this figure had grown to 86 percent. As females became the majority of the teaching workforce, the salaries decreased (Bailey \& Campbell, 1992).

The Progressive Era of the early twentieth century was a time for major change in the lives of women particularly with the 1920 passage of the right to vote. However, the social choices women were offered were limited with the major job for a woman being that of wife and mother. Only briefly would it be appropriate for a female to work and that would be a "woman's job" (Tyack \& Hansot, 1990, p. 169).

As the century continued, the goals for educating females remained distinguished from that of males. The socialization of gender roles was well ingrained. During the 1960s, when asked what they wanted to be when they grew up, female youth answered with one of the four choices teacher, secretary, nurse or mother (Sadker \& Sadker, 1994). However, things began to change as the gender equity revolution of the 1970 s focused on the discrepancy within the American educational system (DeMarrais \& LeCompte, 1999).

## Effects of Title IX

In 1970 the United States Congress held hearings and reviewed the effects of sex discrimination. Title IX was passed in 1972 as a response. The Department of Health, Education and Welfare took more than three years to develop a plan. More than 10,000 comments were reviewed, which were more than that agency had ever received for any other single issue (www.geocities.com/Wellesley/6628/backgrou.htm). Title IX creates a legal protection for female students against sexist practices such as segregation of courses and extracurricular opportunities by gender. It is illegal for any school receiving federal funds to overtly ostracize a student based on gender (Sadker \& Sadker, 1994). Title IX is a landmark law that has impacted our understanding of limited educational opportunities for females. Its effects include the lowering of the dropout rate due to the inclusion of pregnant female students. There are increased opportunities for females in math and science, and more females are attending university and entering more professional occupations (www.ed.gov/pubs/TitleLX/part4.html).

When looking at the examples of progress that Title IX has supported, it is noted that females have made immense gains as compared with demographics prior to its passage. However, despite the legal implications of Title IX, the subtle exclusion based on gender remains (Sadker \& Sadker, 1994). The opportunity to talk about sex discrimination has been afforded by Title IX, but more insight is needed. "Even today as we acknowledge the many advances women have made in academics, employment and athletics, we still need to recognize some dismaying facts in our efforts to achieve equity" (www.ed.gov/pubs/TitleIX/part6.html, p.1).

Gender is a term that is broader than the physically different characteristics of males and females. Gender is an inclusive term that refers to "not only the physiological characteristics but to learned cultural behaviors and understandings" (DeMarrais \& LeCompte, 1999, p. 289). There is a set of unknowing assumptions about gender that play a primary role in the lives of males and females. "Gender schemas affect our expectations of men and women, our evaluations of their work, and their performance ... Both men and women hold the same gender schemas and begin acquiring them in early childhood" (Valian, 1998, p. 2). Gender equity is much more than equality in education. It is defined by moving beyond what has been established as the norms for the educational setting, which have been within the framework of strict social concern. Equity occurs when the significance of the person is based on the human aspect and is not limited by the gender role stereotypes embedded in society (DeMarrais \& LeCompte, 1999).

Gender issues continue to be misunderstood. A 1990 study of 25 rural school districts within 21 states found that administrators felt that Title IX opportunities for girls and boys were obtuse or frivolous. Thirty-seven percent of the administrators were not concerned with compliance issues related to Title IX (Schmuck \& Schmuck, 1992). It appears that although Title IX is a federal regulation, the Office of Civil Rights has failed to attempt to seek compliance by educational districts (AAUW [report], 1992).

Why does federally mandated law continue to be ignored? With the vast improvement created by Title IX, why do American schools continue to deliver a system that is inequitable based on gender? An understanding of the perpetuation of a maledefined society contributes to the continuation of gender bias within schools. Emphasis on those traits that society associates with males are the backbone of the educational institution. "Social forces influence schools to transmit values which directly correspond with dominant values of society" and comprehensive change does not come without immense effort (Shamai, 1994, p. 679). The experiences of women have been forgotten or devalued (Tetreault, 1986). "Women's struggles are not just against the silence imposed from within and without: they are also against the silence created by our failure to make explicit men's experience of the practice of domination" (Lewis \& Simon, 1986, p. 470).

## Subtlety and Impact of Gender Bias

From the moment of birth, discrepancies occur based upon gender. Data verify stereotypes based on visual characteristics and messages contained in congratulatory birth
cards. Pink is associated with female infant cards and blue with male infant greeting cards. Girls are often shown dressed in frilly clothing in more passive roles such as lying down or sitting. Boys are dressed in clothing allowing movement and are shown with objects displaying activity such as a baseball bat and ball (Bridges, 1993). Thus, at the time of birth strong visual stereotypes are assumed. These societal artifacts promote the differential treatment of males and females.

From the beginning of life, children begin to develop a sense of self, which is based upon gender. From color-coded blankets to gender specific gifts, as soon as a newborn's sex is known, gender specific treatment begins. "Trying to understand all they see and hear, they begin to form categories that help organize the flood of information . that inundates them" (Fagot \& Leinbach, 1993, p. 205).

During the first two years of life, children's toys are differentiated according to gender. Before a child can express a preference, adults provide toys varied by type. The differences are based on traditionally held ideas of toys, which are grounded on gender with girls owning more dolls and soft toys and boys more sports equipment, blocks and vehicles. Boys more often own toys for manipulation and those that elicit boisterous type play. From an early age, children's environments are controlled according to inconsistency by gender. Mothers purchase the majority of sex-typed toys creating a difference in the environment of children based on gender (Pomeleau, Bolduc, Malcuit, \& Cossette, 1990).

Fathers' interactions with male and female preschoolers have been found to differ based on gender (Snow, Jacklin, \& Maccoby, 1983). Fathers equally give trucks to their
preschool female and male children. However, they avoid giving dolls to their male preschoolers. Fathers interact with their sons in a more direct physical manner than with their daughters. Fathers reveal sex-typed behaviors toward their children based on parental contributions to socialization. Fathers socialize their sons and daughters in an opposite manner. "It appears that fathers may perpetuate sex-role differentiation and much more so than mothers and other female caregivers" (Langlois \& Downs, 1980, p. 1245).

Parents tend to reinforce the motor behaviors of boys more than they do girls. They tend to promote dependency through their interactions with girls (Valian, 1998). It is not only the parents demonstrating a difference in behavior according to gender interactions but also children at an early age. "Boys and girls already differ from one another in terms of the sex-typed behavior they exhibit in the presence of their fathers" early in the life of the child (Snow, Jacklin \& Maccoby, 1983, p. 231). Gender labeling occurs when children become aware of self within the definition of male and female. Their perceived awareness of identity is acquired through "sex-typical behaviors and attitudes" (Fagot \& Leinbach, 1993, p. 211). Children attempt to make sense of their environment to establish acceptable behaviors for themselves and to have the skills to interpret the behaviors of others. By assigning labeled gender behaviors, the toddler creates the establishment of self and others scrupulously (Fagot \& Leinbach, 1993).

Thus, a child enters kindergarten with fixed sex-stereotypes. Play activities are distinguished based upon gender (Lytton \& Romney, 1991) and students are well aware of gender-specific conceptions of roles (Stroeher, 1994). Patterns set in the early years of
school continue in the secondary setting. Access to curriculum is crucial to equitable opportunities. Many voluntary activities in the early childhood setting, such as those in the block center, build skills in spatial awareness. Most girls do not attend these, however boys primarily frequent them (Bendixen-Noe \& Hall, 1996). Girls' play establishes the pattern for adulthood as they interact in the housekeeping center subtlety setting their roles as housekeepers (Valian, 1998).

An assumption could be made that the educational system would focus on gender equity based on research and the educational practices, which are protected under Title IX. This is not the case. "The fact is that in most educational settings, girls' ideas and contributions are undervalued and given less credence" (Lee, 1997, p. 140). Strong and energetic females become quiet and disconcerted. "Women's psychological development within patriarchal societies and male-voiced cultures is inherently traumatic" (Brown \& Gilligan, 1992, p. 216). To ignore the voices of female students through the continuation of differential gender treatment is to continue in practice that legitimates an inequitable education for females.

It seems that schools and teachers continue in a blind existence when considering gender issues within the elementary setting. Picture books containing fewer female main characters acting in passive roles (Weitzman, Eifler, Hokada, \& Ross, 1972; Williams, Vernon, Williams, \& Malecha, 1987) and gender bias in textbooks (Sadker \& Sadker, 1994) contribute to a different view of females. At a young age female students realize that the playing field is not the same for them and the males. Females learn their place in society and what is considered to be socially acceptable sex-role behavior. They assume
a less aggressive role than their male counterparts and often miss opportunities needed for success. Teachers are "unaware of some influential aspects of their behavior" (Hendrick \& Stange, 1991, p. 574).

Assumptions of sex-appropriate behaviors affect the judgment of teachers concerning female students (Gold, Crombie, \& Noble, 1987). Males are expected to be active in the classroom setting and girls more compliant to the needs of the teacher. Females are often interrupted and made to stop self-directed activities while their male peers are not (Bendixen-Noe \& Hall, 1996). There is a pattern of gender differences when considering perceptions of behavior. Girls report feeling worse than boys do about violating procedural and moral norms. "Evidence from the student perception measures supports a relatively 'sugar and spice' picture of girls" (Eccles \& Blumenfeld, 1985, p. 87).

Teachers expect boys to be more active than girls leaving a deficiency for female students. More active and initiating students are "more likely to be perceived accurately by the teacher," and less salient students have less contact with the teacher causing inappropriate expectations leaving the teacher without adequate knowledge about the student (Irvine, 1986, p. 14). "Each time the teacher passes over a girl to elicit the ideas and opinions of boys, that girl is conditioned to be silent and to defer" (Sadker \& Sadker, 1994, p. 13). This complicates the female's understanding of self. The notion that goodness and self-sacrifice are morally correct for females is in direct conflict with questions of rights and choice (Gilligan, 1993). Thus, a teacher's understanding of gender is crucial to the education of females.

As early as second grade standardized tests indicate that female students lack in the ability to reason in mathematics when compared with their male peers. This is critical information considering that this young generation represents our future scientists and mathematicians (Mills, Ablard, \& Stumpf, 1993). By third grade gender differences are found when investigating how females rate their abilities compared with males. "Girls are more likely than boys to attribute success to external causes and they attribute failure to internal causes" (Stipek \& Gralinski, 1991, p. 361).

As early as middle school, girls' interest in science is defined with a preference for biology as opposed to the physical sciences. Middle school students express their gender stereotypical views of occupations when naming traditional female professions as "kindergarten teacher, child caregiver, stewardess, secretary, model, and social worker" as feminine (Shamai, 1994, p. 670). "Professions such as mechanic, pilot, sailor, technician, farmer, soldier, policeman, driver, and engineer were still considered masculine" (Shamai, 1994, p. 670). By the time these middle school students reach college, the females are less likely to major in math and science fields than male students. The dropout rate for females is higher in these fields as well. Women continue to be underrepresented in science professions such as engineering (Campbell, 1992). "Male and female student preferences of courses are directly related to a gender-segregated labor market" (Fouts, 1990, p. 418). This clearly indicates that training of teachers is vital in order for all students to have confidence and interest in particular subject matter (Woodward \& Woodward, 1998).

Computers have revolutionized our society and the importance of this technology has astounding implications for education. However, research indicates that there is a gender difference in the access to and ability of students in reference to computers. As early as preschool, males use and develop higher skills on the computer than their female peers. By third or fourth grade girls have a diminished technological motivation and have less interest in computers. This trend increases by high school (Nelson \& Watson, 1995). Females realize that they are absent from computer software as in mathematics computer programs where 87 percent of the main characters are male (Hodes, 1995). Thus, female students make up a small percentage of computer science courses with the use of computers being stereotypically viewed for females such as clerical classes (AAUW, 1998).

Teachers need to be aware of effective practices that increase student learning and create positive student attitudes. There is a substantial need for teachers to understand the importance of science activities that include participation in inquiry activities that increase enjoyment and the ease with science for all students. It is critical for teachers to grasp that one method of teaching does not effectively reach all students (Kahle \& Damnjanovic, 1994).

The perceptions of teachers are pivotal in the effects concerning student attitudes and performance as well. Many female teachers have apprehensions concerning science, and they hand down these views of science, which are incompatible with females as they find themselves being overwhelmed by science within the classroom setting. Thus, they "call on girls less often than boys for hands-on demonstrations, don't ask girls many
questions that require integration and critical thinking and are more interactive with boys" (Brownlow \& Durham, 1997, p. 104). Teachers also perceive male students as being "brighter, better at science and math, and more likely to become the nation's future leaders" (Sadker \& Sadker, 1994, p. 198).
'"The lack of attention to Title IX is a serious shortcoming because teachers cannot be expected to obey laws of which they are ignorant" (Campbell \& Sanders, 1997, p. 74). "The low level of awareness of gender equity among classroom teachers is astonishing" (Sanders, 1996, p. 214). The most widely used preservice teacher education textbooks continue to ignore gender equity (Titus, 1993). "Both newly prepared and experienced teachers lack the skills needed to alter their gender-biased behaviors" (Jones, 1989, p. 37). Preservice teachers are leaving universities with insignificant knowledge concerning classroom practices to equalize the playing field based on gender (Pryor, 1997). Many teachers are unaware of their particular practices unless directed by someone. The absence of gender equity within the preservice teacher education programs continues the subtlety of gender biased practices.

Through educational awareness training, preservice teachers are able to become cognizant of individual biases that have never been addressed (Lundenberg, 1997). It is sound reasoning to assume that addressing gender bias during preservice education is more affective than waiting until a teacher's career begins, which is not guaranteed to include an inservice workshop on gender equity (Campbell \& Sanders, 1997).

With the hit-or-miss inservice opportunities for education staff, and the lack of attention concerning gender issues, teachers do little to provide information to students
both male and female that causes reevaluation of gender-based stereotypes. "Most of the workshops are the 'quick-fix' type of an hour or two . . A one-shot workshop on gender equity . . . tends, before too long, to recede into the background with new issues taking its place in the foreground" (Sanders, 1994, p. 215). Due to the gender unawareness of teachers, they "passively reinforce the sex-typed academic and career decisions made by their students, thus contributing to sex inequity in children's educational attainment" (Eccles \& Blumenfeld, 1985, p. 80).

Teachers believe that their students behave differently in school and that students expect to be treated differently according to gender (Jones, 1989). Teachers continue in the inequitable treatment of students unsuspecting of their differential attitudes and practices based on gender (Jones \& Wheatley, 1990). It is indeed a truth that:

There have been only minimal attempts of any sort to develop, monitor, and evaluate truly equitable classroom environments, and to analyze how equity and excellence are linked with respect to opportunity, treatment, and outcome in these settings. (Campbell \& Wahl, 1998, p. 67)

Girls enter school with the same ambition as boys, but by the age of 12 there is a loss of self-esteem and a lack of interest in math and science (Bendixen-Noe \& Hall, 1996). Educators should examine if this is a result of gender bias. Even though female students make it clear the reasons they are dissatisfied with mathematics, relating "pace, pressure, closed approaches which do not allow them to think and a competitive environment" (Boaler, 1997, p. 302), teachers continue to deliver lessons in a maledefined manner. "Mathematics, as it is currently and widely taught, is not equally
accessible to girls and boys and this appears to relate to preferences of pedagogy" (Boaler, 1997, p. 303).

Not only do teachers fail to provide mathematics lessons in an equitable manner; parents of students have their own gender-biased views of their children. Parents of junior high students credit their son's achievement to talent and their daughter's successes are seen as being aligned to the female's effort in regards to math successes (Yee \& Eccles, 1988). Girls receive the stereotypical messages from their parents, which adversely affect their attitudes toward their ability in mathematics. Thus, females are surrounded by gender bias attitudes that are perpetuated by subtle understandings concerning gender expectations (Jacobs, 1991).

Research testifies that girls are complimented on appearance and boys on their achievements (Bendixen-Noe \& Hall, 1996). There is gender correlation in the reaction to failure. It is more probable for girls to blame failure on a lack of ability. Boys attribute failure to a lack of effort (Dweck, Goetz, \& Strauss, 1980). "Girls display disrupted performance, decreased persistence, and avoidance of the tasks they failed. Boys ... often show improved performance or increased persistence under failure, as well as an approach to tasks that present a challenge" (Dweck, Goetz, \& Strauss, 1980, p. 441).

Boys receive more communication opportunities with their teachers when compared with girls. Teachers spend up to 60 percent of their time with males compared with 40 percent with females (Jones, 1989). And, Eccles and Blumenfeld's research (1985) reveals that:

Boys are the recipients of more teacher talk than are girls: $39 \%$ of all communications was directed at boys, only $29 \%$ was directed at girls . . . this imbalance is even more pronounced in looking at informatives: $39 \%$ of which were directed at boys compared to $21 \%$ directed at girls. (p. 84) In research of more than 100 classrooms Sadker and Sadker (1994) discloses that boys receive more teacher attention than girls do. The greatest gap is in the areas of feedback such as academic praise and criticism. These interactions advance student achievement. Girls tend to receive surface feedback such as being told "okay" when they respond to questions. "When boys are praised, it is most often for the intellectual quality of their ideas. Girls are twice as likely to be praised for following the rules of form" (Sadker \& Sadker, 1994, p. 57).

In 1992 the American Association of University Women (AAUW, 1992) published an extensive national report on gender issues titled How Schools Shortchange Girls. In spite of all of the changes for females, they report that schools are failing girls. This 1992 report cites research findings from hundreds of studies. The research reveals that even with the passage of Title IX, girls continue to experience a gender-biased education not equal to their male peers. The 1998 report, Gender Gaps: Where Schools Still Fail Our Children (AAUW, 1998), confirms that gaps are closing but that gender inequities continue particularly in math, science and technology.

Gender equity is defined as the "set of behaviors and knowledge that permits educators to recognize inequality in education opportunities, to carry out specific interventions that constitute equal education treatment, and to ensure equal educational
outcomes" (Sanders, 1997, p. 3). Even though gender equity is defined and research continues to establish the discrepancy of education based on gender, this inequity continues in our nation's schools.

## Feminist Phase Theory

Female students' experiences are unique in U.S. schools. They begin school ahead in reading, writing and math, yet 12 years later they are behind (Sadker \& Sadker, 1986). Information and awareness of research on gender subject matter are vital for teachers to ensure student success. Why is the educational system and society as a whole not addressing the research, which indicates the need for gender awareness in the teaching profession? Feminist Phase Theory (Tetreault, 1985) explains the subtlety of this phenomenon.

Feminist Phase Theory provides a conceptual framework for thinking about women (Twombly, 1991). As developed by Tetreault (1985), it is a five-phase model that identifies and classifies thinking about women. "The classification schema was developed by reviewing the literature in anthropology, history, literature, and psychology; by identifying five common phases of thinking about women; and by providing examples of questions commonly asked about women in each discipline" (Tetreault, 1985, p. 366). Feminist Phase Theory provides a framework "by drawing attention to the status and nature of gender in research about students, administrators, and faculty, [feminist phase theory] provides a beginning point" (Twombly, 1991, p. 11).

The five phases identified by Tetreault (1985) are Male, Compensatory, Bifocal, Feminist and Multifocal or Relational. Thinking of the phases as "intersecting circles, patches on a quilt, or patterns in a tapestry that interact and undergo changes in relation to one another" is suggested by Tetreault (1987, p. 170).

The Male phase, the first of five, does not acknowledge the absence of women (Nielsen \& Abromeit, 1989). There is a lack of awareness that the male viewpoint molds the thoughts and patterns of existence. There is meager or no consciousness that women are missing (Tetreault, 1985). Schuster and Van Dyne (1985) refer to this phase as invisible women with their model, which runs in a direct fashion with Tetreault's archetype. They further express that a female may "erroneously assume that malederived definitions of 'the good, the true, and the beautiful' actually describe her own experience" (Schuster \& Van Dyne, 1985, p. 18).

Within the second phase, Compensatory, "there is a consciousness that women are missing; however, males are still perceived as the norm, the representative, the paradigmatic human being" (Tetreault, 1985, p. 367). The Compensatory phase includes the few women who fit the norm that men have established. The majorities of women do not fit the image and are considered to be different or inferior. Female experiences do not measure up to that of the male (Schuster \& Van Dyne, 1985). However, questions are asked concerning the absence of women. "There is a search for missing women according to a male norm of greatness, excellence or humanness" (Tetreault, 1987, p. 172).

The Bifocal phase contains three collective aspects (Twombly, 1991). The first attitude is dualistic where the "human experience is conceptualized primarily in dualistic categories" (Tetreault, 1985, p. 369). Males and females are generalized with their differences emphasized. Women are seen as equal but complementary to men (Tetreault, 1985). Men and women tend to be compared within this phase. They are "conceptualized as generalized, separate, and complementary groups" (Twombly, 1991, p. 12).

A second aspect within the Bifocal phase is the oppression of women (Tetreault, 1985). Schuster and Van Dyne (1985) note that anger may occur within this phase as females resist the existing paradigms noticing their subordination. Women perceive themselves as disadvantaged. Questions are posed as to the reason for the lack of representation and value of females within societal realms and power (Twombly, 1991).

Within the final theme of the Bifocal phase is women's creation of strategies to overcome the oppression (Twombly, 1991). Women understand that in order to succeed they must change to compete in a male-centered society. "Efforts to include women lead to the insight that the traditional content, structure, and methodology of the disciplines are more appropriate to the male experience" (Tetreault, 1987, p. 172).

The Feminist phase advances the idea that "women's activities, not men's are the measure of significance" (Tetreault, 1985, p. 374). Efforts are made to include women's experiences as that which is valued. Questions are asked concerning the diversity of women (Nielsen \& Abromeit, 1989). Women's status is investigated with the analysis of women's experiences both personal and contextual (Tetreault, 1985). Women are viewed
within a pluralistic concept with a "change from a patriarchal to an egalitarian structure and perspective" (Tetreault, 1987, p. 175).

Twombly (1991) describes the Multifocal or Relational phase as uncommon and thus difficult to describe. The perspective is relational to the human experience, which is viewed holistically. The formation of knowledge and understandings are pursued with the variables such as gender, class, ethnicity and sexual orientation considered (Nielsen \& Abromeit, 1989). Thinking is multi-disciplinary and the male and female perspective intersects (Tetreault, 1985).

Schuster and Van Dyne (1985) are included among the group of Feminist Phase theorists. Their arguments have minor deviations from that of Tetreault with their emphasis focusing on the study of curricular change. Paralleling Tetreault's phases are their six stages considered for transformation in course content: (1) Invisible women; (2) Search for missing women; (3) Women as disadvantaged, subordinate group; (4) Women studied on own terms; (5) Women as challenge to disciplines and (6) Transformed, balanced curriculum. Schuster and Van Dyne's model exclusively studies women. It is useful to compare these models of Feminist Phase Theory to understand teachers as they experience the different stages (Nielsen \& Abromeit, 1989). Schuster and Van Dyne perceive teachers as moving "through a sequence of stages, trying a variety of strategies to represent women and minorities adequately in their courses" (1985, p. 14). The curriculum change process can be charted by analyzing the obstacles that teachers and students face as they experience the stages. "Underneath the wide variety of expressions of resistance is a residual fear of loss, a reluctance to give up
what had seemed most stable, efficient, authoritative, transcendent of contexts, and free of ideological or personal values" (Schuster \& Van Dyne, 1985, p. 25).

Feminist Phase Theory assists with the explanation of why schools continue to fall short in providing all students the opportunity of reaching full potential. It is possible for a faculty to represent various conceptualizations from the five phases of Feminist Phase Theory from Male to Multifocal. "It enables an evaluator to check curricula, syllabi, or faculty conceptualizations against the various phases of feminist scholarship in order to determine the content, structure and methodology of a discipline in relation to gender" (Tetreault, 1985, p. 380).

## Summary

Chapter II reviewed the history of male-defined education establishing the differential treatment of males and females within America's educational institutions. The intent of Title IX, enacted in 1972, was to assure that the federal government would not tolerate the exclusion from equitable educational opportunities based on gender. In reality, this legislation has fallen short of its intent. This chapter explained these gender discrepancies and the reason they exist as described by Feminist Phase Theory.

## CHAPTER III

## DATA PRESENTATION

Using the lens of the Feminist Phase Theory (Tetreault, 1985) the purpose of this study was to document the gender awareness of elementary teachers in their classrooms. Descriptions of other realities about gender were also revealed. Purposeful sampling was used to gain an understanding from a select group in order for the greatest amount of learning to take place. Seven elementary teachers in kindergarten through sixth grade were used as a typical sample (Merriam, 1998). One teacher from each grade level was chosen as a part of the study to gain broad-based understanding within an elementary school setting. In an attempt to provide anonymity, pseudonyms were used for individuals and for the school site.

## Case Study Procedures

Qualitative methods were used to examine the themes that appeared when investigating the levels of gender awareness reflected in the attitudes held, and classroom practices used, by elementary teachers at one school site. The case study method was incorporated to provide a rich description of these attitudes. Case study procedures included interviewing, observing and reviewing gathered documents.

## Case Study Site

The study was conducted in a Department of Defense Dependents School (DoDDS) operating on a Middle East military base. The elementary school, which will be referred to as Sandy Elementary, has a student population of approximately 500 in preschool through sixth grade. Three hundred seventy-six families were represented at Sandy Elementary at the time of the study with 318 being enlisted, 34 officers and 24 civilians. Two hundred seventy-three students were Caucasian, 89 Black, 27 Asian, 27 Hispanic, and 10 American Indian with the remaining families representing mixed ethnicity. Students at Sandy Elementary receive a variety of services in addition to the standard curriculum including Special Education (45 students), English as a Second Language (33 students) and Compensatory Education services for Language, Math and Reading (132 students).

The school context is important to describe for two reasons. The first is that the school serves a community of predominately military families. These individuals live in an environment that is potentially culturally different from that of the non-military. The demands upon and traditions of military life have been considered conservative despite recent moves to provide equity across the ranks (Garrett, 1990; Keegan, 2001). The second is that the school personnel working in Department of Defense Dependents Schools may not be like that typically employed in schools. This group lives and works overseas. They are self-described as adventuresome and flexible. Living away from family and in foreign countries is reported to require these characteristics (Keegan, 2001).

## Respondents

The respondents included seven teachers from Sandy Elementary. They represented each grade level from kindergarten through sixth grade. Each teacher was contacted in person and a meeting was held in order for each teacher to receive an introductory letter. After reviewing the letter and conversing with the researcher, the teachers signed the consent authorization, which provided written permission to conduct an interview, observation and to collect data from grade level documents. All participants were informed that the information collected would be held confidentially and that pseudonyms would be assigned to each participant. Both the introductory letter and the consent authorization form are included in Appendix B.

## Interviews

Each teacher was interviewed prior to the observation. All seven teachers opted to be interviewed at school in the office area where interruptions were less likely to occur than in their classrooms. Teachers were interviewed after school hours or during a teacher workday when students were not in attendance. The interviews began informally with the collection of background information followed by a more structured discussion. Merriam's (1998) Interview Structure Continuum was used combining semistructured and unstructured/informal questions. The questions were structured around the concepts within Feminist Phase Theory in order to gain an understanding of how elementary faculty conceptualize females in their classrooms (Tetreault, 1985). Interviews ranged from 25 to 129 minutes. A demographic inventory was given to gain detailed
information on the respondents' background. Teachers were also contacted to complete a written follow-up interview question. The fourth grade teacher was interviewed one supplementary time in addition to the initial interview in order to clarify her gender awareness concerning her exemplary students. The interview protocol, demographic inventory and follow-up interview questions are included in Appendix C.

## Observations

A combination of two tools was used to record observation data. Teachers provided a seating chart, which was used to determine the teachers' proximate location to students during a lesson and to access the distribution of students according to gender as assigned for seating purposes (Sadker \& Sadker, 1994). The Teacher-Child Dyadic Interaction: A Manual for Coding Classroom Behavior (Brophy \& Good, 1969) was used to code a variety of interactions between the teacher and individual students including response opportunities, procedural contacts, work-related contacts and behavioral contacts (Appendix D). Observations lasted from 50 to 122 minutes.

## Documents

The physical materials investigated within the seven teachers' classrooms to include bulletin boards, posters, textbooks and trade books used as tools by elementary school teachers in their everyday lives (Merriam, 1998). Commercially bought and teacher-made materials were examined as well as student work.

Classroom library trade books were examined in regards to the gender of the main characters. Reading textbooks were investigated for the gender of the reading stories' main characters as well as the passive and active illustrations of males and females in the portions of the textbooks such as poetry, mentor and story introductory sections. Passive was recorded if the illustration depicted the character as watching without physical action or if a photograph was shown such as the author of the story. Active characters were recorded as those physically performing such as sport's performance or conducting a science experiment. The investigation record was based on the earlier work of Weitzman, Eifler, Hokada and Ross (1972) and the follow-up research of Williams, Vernon, Williams and Malecha (1987) that examined the presence of females in children's books.

## Teacher Interview Data

This section reports the empirical information from each of the teachers interviewed. Teachers were selected from each grade level with an attempt to gather data from teachers with a full range of school experiences. Teachers were referred to by the grade level taught to maintain anonymity. The interview data present (1) teachers' demographics, (2) gender awareness as defined by their attitudes and practices and (3) teacher awareness in relation to modifications made of materials or for students.

## Demographics

Purposeful sampling (Merriam, 1998) was used in order to have a broad-based understanding according to the teachers' age, highest degree held and number of years
experience. Each grade level was represented kindergarten through sixth grade. The sole male classroom teacher of Sandy Elementary participated in the study. Demographics are presented individually and then collectively to provide an overview of the typical sample used within the case study.

## Teacher K's Demographics

Teacher K is 25 years old and a native of Georgia. Her father was a superintendent and her mother is a special education teacher. She is the oldest child with one younger sister. She has been married less than a year, and her husband is a native of the country where she resides. He is a computer specialist. Teacher K graduated with a BA in 1997. She has been teaching for three years with two of those years being at her current location and grade level. Her first year of teaching was in 1998 where she taught fourth grade in Maryland after receiving her Bachelor's degree. Her current location is her first DoDDS overseas assignment.

## Teacher One's Demographics

Teacher One is 27 years old and a native of Illinois. Her father was a manager of a machine shop and her mother is a teacher. She has two brothers, and she is the middle child. She is married to an officer in the United States Air Force. They have no children. This is her fifth year teaching with her last two years being at her current overseas station teaching first grade. Her first teaching job was in 1996 after receiving her Bachelor's

# degree in 1995. She taught fifth and third grades in the United States before moving overseas with her husband. 

## Teacher Two's Demographics

Teacher Two is 32 and a native of Missouri. Her father was an auto worker and her mother a housewife. She has 10 brothers and sisters; she is number nine of the 11 children in her family. She is married and has two children ages 12 and 14. Her husband is an officer in the United States Air Force. Teacher Two graduated in 1995 with a Bachelor's degree. The current school year is her first teaching experience.

## Teacher Three's Demographics

Teacher Three is 48 years old and is a native of Indiana where her father was a farmer and businessman and her mother a housewife. She grew up the third child of five with two brothers and two sisters. Teacher Three is married and has no children. She earned her Bachelor's degree in 1974 and holds a Master's degree as well. She has 26 years of experience and has been working at Sandy Elementary 18 months teaching third grade the entire time. Her background is mainly in third grade with three years as a fourth grade teacher and one year in special education. She began her overseas assignment in 1977 teaching in Germany. Her other assignment was Japan previous to her arrival in the Middle East location.

## Teacher Four's Demographics

Teacher Four is 47 and is a native of West Virginia. Her father was a businessman and her mother a housewife. She has two brothers and two sisters. She is the second oldest of the five. Teacher Four is married with no children. Her husband is a retired computer expert. She graduated in 1975 with a Bachelor's degree. She began her teaching career in 1978. Her main experience has been teaching fifth and sixth graders. She began her overseas teaching in 1984. Teacher Four has been at Sandy Elementary for four years. She had been a sixth grade teacher and a computer specialist previous to teaching fourth grade.

## Teacher Five's Demographics

Teacher Five is 58 and a native of Alabama. Both of his parents were teachers and immigrants from Germany. He has three brothers and four sisters. He is fifth of the eight children. Teacher Five is single. He has been teaching 34 years. He earned his Bachelor's degree in 1964, and he also holds a Master's degree. He began teaching in 1966. His experience has been with fourth and fifth graders. He has taught fifth grade at Sandy Elementary for 10 years. He began his overseas teaching in 1968 in Italy. He previously has taught in Turkey and Greece as well.

## Teacher Six's Demographics

Teacher Six is 49 years old and a native of Virginia. Her father had a Navy career and her mother was a homemaker. She is the oldest of two with a younger sister.

Teacher Six is married and has no children. Her husband is retired from the Navy and is currently teaching high school. Teacher Six has been teaching 27 years. She earned her Bachelor's degree in 1973 and holds a Master's degree. Teacher Six began teaching in 1973 and has taught a variety of ages to include grades three, four, seven, eight and nine. She also has been a building administrator. The bulk of her teaching career occurred in Florida. She taught two years in the Philippines and four years in Japan before returning to the United States for four years before rejoining DoDDS in August 2000 to begin teaching at Sandy Elementary.

## Demographics Collective Summary

Table 1 provides a collective summary according to teacher gender, age, highest degree held and teaching experience.

TABLE 1
COLLECTIVE DEMOGRAPHICS SUMMARY

| Teacher | Gender | Age | Highest Degree Held | Years of Experience |
| :---: | :---: | :---: | :---: | :---: |
| K | Female | 25 | BA | 3 |
| 1 | Female | 27 | BA | 5 |
| 2 | Female | 32 | BA | 1 |
| 3 | Female | 48 | MA | 26 |
| 4 | Female | 47 | BA | 23 |
| 5 | Male | 58 | MA | 34 |
| 6 | Female | 49 | MA | 27 |

## Teacher Attitudes and Modifications

Empirical information was characterized using the scope of teacher defined attitudes that identified (1) at-risk students, (2) exemplary students, (3) student leaders and risk takers and (4) general concerns for students. These dimensions of understanding were communicated by the teachers as they told their stories as expressed in their daily classroom experiences with students (Merriam, 1998). Modifications were investigated through the categories of (1) written materials and (2) student modifications. Empirical information was arranged to verify attitudes and beliefs of the teachers in relation to gender awareness in the elementary setting. These categories "reflect the purpose of the research" and are the answers to this study's research questions (Merriam, 1998, p. 183).

## Kindergarten Teacher

Teacher K was at ease and eager to share about her students during the interview process. As she shared she demonstrated an excitement concerning her students. When she spoke of them, she smiled and used hand gestures indicating a strong sense of achievement and commitment to her students. She spoke in a fast manner during the $35-$ minute interview.

At-Risk Students. Teacher K considered at-risk students within a socialemotional context. When examining her choices of what she considered to be at-risk students, Teacher K described three males with either emotional-social difficulties or
physical impairments. She began by describing a male student who hit others and appeared to enjoy upsetting his classmates. She referred to him as the "hitter." Teacher K shared that she and her educational aide had spent a great amount of time working with this student, but she felt that they had a long way to go.

Teacher K characterized her second at-risk student as a male who was vocal with screaming or throwing things as his means of coping. She felt that she had to tailor his environment in order for him to be successful at school. She further explained that she had to make the student aware of changes before they occurred in order to keep him calm and to circumvent any outbursts.

Teacher K's third at-risk student was pictured as a student with speech and hearing problems. He talked in a loud manner and often misinterpreted directions due to his hearing difficulties. Teacher K allowed this student a greater amount of one-on-one attention than other students in her group. She did not perceive him to have difficulties with his peers. She stated,

He doesn't feel ostracized by his speech problem . . . so many kids at his age of
five have a little speech problem . . . with one or two sounds . . . it's not odd for the other kids to see it. They don't know they even think about it.

Exemplary. Teacher K 's consideration of exemplary students began with her choice of a male who was conscientious when completing projects. She further explained that he wrote about his projects without her requesting this, which she usually had to do for other students. This student was considered to be self-motivated, and he created a multitude of products. She described him as being product oriented and referred to him
as the "creative one" and that the process of what he accomplished was "nice to see" as well.

Her second exemplary student was a female who was consistently interested in reading or writing. She told how this student always chose language arts type engagements and that she acted out the stories with her friends. She referred to her as the "reader."

The third exemplary student was a male who was creative and thought "outside the box." For instance, when he worked in the block center, he built rockets. He had built ones large enough to sit in as he pretended to drive it. This student built control panels and allowed other students to take rides in his rocket. She explained that he built things that were usable rather than a decoration as the other students tended to build. She described this student as the "builder" and considered him to be an outstanding student.

Risk Takers. Teacher K perceived all five-year-old students as risk takers and had difficulty expressing this in terms of individual students. Upon reflection, she described a student who she considered to take risks with writing. This was a female student who wanted everything to be perfect. This student did not want Teacher K to write for her like most other students at this age did. This student wanted to write for herself. She continued by saying that this student was independent and one who did not become upset but "keeps going and just keeps trying something new." After describing this risk taker, Teacher K said she could not think of any other specific children and asked to come back to this inquiry. At the end of the interview the question was redirected. Teacher K
reiterated that all of her students were risk takers and solely gave the specific description of the one student.

Concerns. Teacher K shared concerns for her students that were of emotionalsocial development.

I don't want them to feel like they're just there to fulfill the demand and desires that I spew forth. Socially, I want them to be able to work together and to understand that human relationships are about caring at all ages and between all ages and [socially] there's no boundary.

Teacher K stated that student personal and interpersonal relationships were important. Her concern was for them to be able to understand themselves and then to relate that understanding to others.

Modifications. Teacher K described herself as a diligent worker who wanted to create a safe environment for her students. She created modifications for certain students to ensure this, as with her hearing-impaired student and those having adjustment problems. She described student modifications for behavior in general terms not specifying particular students.

She expressed that she saw a problem with the effectiveness of the adopted books and materials DoDDS provided for kindergarten students. She would like to see an umbrella of all subjects with a common theme. She explained that she saw a disjointed system that attempted to have a theme, which she could not see. For instance, the math series supposedly had themes but Teacher K found it hard to relate these to the students.

This was also true she felt in the reading series although she considered the literature selections to be "pretty good."

Teacher K used science kits but found the social studies materials to be "antiquated three-inch full of dust . . . stuff." Her social studies lessons consisted of sharing about everyday social events in the students' lives. They talked about how they felt and about their actions. She stated that the focus of kindergarten was the family.

Modifications were for student behavior with Teacher K manipulating the environment in order for students to be successful. Teacher K explained her classroom management system that she used. She also shared about her opinion of adopted materials. Although Teacher K did not mention supplementing the materials at length, she had a concern that the subject areas were not thematic and lacked relationship. Materials in social studies were considered to be outdated and Teacher K focused on family events and feelings with her students rather than using the DoDDS adopted materials.

## First Grade Teacher

Teacher One was enthusiastic and excited to share about her students. She described her 11 boys and 10 girls as mature and generally happy. "Their eyes sparkle and they're smiling and they're happy at school ... it's just exciting to work with a really happy nice group of kids ... They're a very smart group." Throughout the interview, Teacher One showed a caring expression when speaking of her students. She easily
shared when posed questions with a sense of self-assuredness during the 42 -minute interview.

At-Risk Students. Teacher One shared about two males and one female at-risk students. The female was characterized as having language problems, but her parents did not consider her to have difficulties. She explained that in her opinion the parents were not supportive. The child shared that her mother was always sick and couldn't help her with her homework. The child didn't know her letters and numbers.

The second at-risk child was depicted as immature and having social trouble partially due to his high intelligence. He had difficulty making friends. Teacher One considered him as babied by his parents causing him to have problems getting along with 20 other children in the classroom. The third at-risk student was described as having problems in reading and math. He did have supportive parents that Teacher One collaborated with to assist him.

Exemplary. In describing her exemplary students, Teacher One shared about one male and two female students. The first exemplary student was illustrated as being excited about learning. His excitement often overflowed. He was described as performing experiments at home with a great deal of interaction with his parents. He searched on the Internet for information and was considered by Teacher One to possess a great deal of self-confidence. This student was depicted as popular with other students even though he often pushed others when attempting to reach the teacher first to be a student helper. Teacher One shared that this exemplary student played with boys and
girls. He played with the girls if they played "boy type games, the running ... not the jumping rope and that kind of stuff but the things, the basketball the kickball he'll play with those girls."

The second exemplary student was an excellent writer who created books with themes. She was also described by Teacher One as being good in math with a sense of self-confidence in that area. When describing her as a problem solver, Teacher One shared that this student organized other students when they were not cooperating with the teacher. "She'll look around and notice that there's a problem and then she'll start, you know, trying to organize everybody to be quiet or to sit or whatever the problem is she tries to solve it." This student was understood as exemplary from the attribute of being compliant. Teacher One depicted the third exemplary student as someone who liked to write and read. This child was described as painfully shy although the parents considered her to be less shy than last school year.

Risk Takers. In continuing to reflect on the two female exemplary students, Teacher One stated that they were not risk takers. Logically, she shared that most people feel that in order to be successful, a person must take risks. However, she considered both of these females to be successful without taking risks. She perceived the male exemplary student in another light. In describing the two females, Teacher One shared the girls' reluctance to attempt tasks, but the male had no hesitations. She explained, "They don't want to do anything that they're not sure is going to be right. The little boy, it doesn't matter he's going to try it whether it's right or not."

Concerns. Teacher One shared two major concerns for her students. The first one focused on her noting that the children didn't feel bonded. Teacher One worried about the lack of parental care the children received at home. She described many of her children as not having rituals at home such as bedtime stories. Her other major concern was having her students ready for second grade. Understanding that the second grade teachers expected the children to arrive reading, Teacher One was concerned that all of her students learn to read during this school year. During the current school year, Teacher One had transformed her classroom from a more traditional setting to one that was more student-centered. She had concerns about what her parents thought. She shared,

I really feel like I'm doing right for the kids. I just wish I had a little globe that I could look into the future and . . . see them in the future right now . . . to validate me on the days when I'm feeling nervous or when I've had a parent say something to me that rocks my confidence.

Modifications. Teacher One described herself as loving the reading series and considered the DoDDS adopted series as having plenty of support materials. She also appreciated the math series adopted this school year. In reading Teacher One used other stories that she had on tape and a collection of trade books to supplement the reading series. She did not supplement math.

Teacher One described the social studies series as "pitiful." She supplemented social studies throughout the school year by having celebrations such as Columbus Day. She attempted to make social studies "real." During the current school year, she had
received a new science kit and felt that the series influenced the students' learning. There was no need to modify the science materials.

Teacher One described student modifications in several veins. She had changed her room arrangement this year to allow for student interests. In describing the changes, Teacher One addressed that the boys wanted a section of the room for investigation of jets and geography. The students created places in the room for exploration and movement. She considered many of her students to be functioning above grade level and attempted to assist them when their interests sparked. She also shared about student modifications based on behavior. Teacher One had two boys and two girls unable to get along. The students worked and played together under Teacher One's direction. However, they were not allowed to stand in line together and other organizational realms. This was enforced to prevent them from failing. Teacher One saw this behavior as immature and it concerned her.

Teacher One did not see a great need to modify the adopted DoDEA written materials. She shared her pleasure with the reading, math and science series. She did not care for the social studies materials and created celebrations of special events such as Columbus Day.

Teacher One created student modifications by allowing the students to rearrange the room based on their needs. In describing those students interested in exploring and requiring a change in furniture arrangement, Teacher One solely described the male students as desiring a map and jet center. Female students were not mentioned according
to needs of modification. Teacher One also modified for students based on the behavior of two males and two females.

## Second Grade Teacher

Teacher Two stated a feeling of anxiousness being interviewed. As a first year teacher she was unsure that she'd present the correct responses. She was reassured that there were no right or wrong answers in a dissertation interview setting. Teacher Two appeared calm and poised during the interview. She had a sense of seriousness in her demeanor concerning her profession and the responsibilities of being a teacher. She described her students as a cooperative and talkative as a group. Her voice resounded with a caring and proud tone as she shared during the 27 -minute interview.

At-Risk Students. When describing her three at-risk students, she shared information concerning two males and one female. Her perception of at-risk students was in the area of academics. The first student she characterized as being easily distracted with his work piling up. She had contacted his parents and was in the process of modifying the amount of work that he was to complete. The second student that she described was defined as "not quite as noticeable as the first student" although she shared the exact difficulties as the male student. Teacher Two described the third student as having difficulty with writing assignments. He sat and did nothing when given a writing assignment. Teacher Two had spoken with his parents about motivational ideas for his writing. She had encouraged them to assist her with fixing the problem.

Exemplary/Risk Takers. In defining her exemplary students Teacher Two identified one male and two females. She described the first female student as being an excellent reader. She was concerned about this student being bored in the classroom. She further described her as loving attention and being intelligent. Teacher Two's idea of exemplary was explicated as "students who have no problems with their work who have very high reading skills." Teacher Two described the second talented female as being outgoing and one who wrote wonderful stories. However, this child had problems with math. The third talented student Teacher Two described was a male who was described as intelligent and being a leader. She stated that he liked to be the center of attention and that the other children followed him. This child was the only risk taker in her classroom. He stuck out as the leader and risk taker of the class enjoying the attention he received from the other students according to Teacher Two.

Concerns. Teacher Two's concerns for her students stemmed from her lack of experience. "My greatest concern right now . . . is teaching them what they're suppose to learn. I have this fear that, and I have to get rid of this concept . . . that if I don't teach it to them they will never learn it." She expounded on the need to build her confidence in understanding the standards and curriculum. Teacher Two had a deep desire to learn more about center and project-based classrooms. Her hope was to develop a greater understanding of the basics in order to delve into learning how to be a facilitator rather than the giver of information to her students. Teacher Two's desire for her students was for them to work as a team. Her concern for them was for them to get along well with others in the future.

Teacher Two's concerns focused on her insecurities as a first year teacher. She had a desire to learn more and to be a leading teacher in the future. She stated, I'd love to be one of those mentor teachers . . . that people think wow, she was a wonderful teacher . . It's going to take me several years to get there. But, my goal right now is to get more confidence in my teaching; to try to integrate centers so students can learn on their own and try to get my thinking away from being up there teaching them . . And step back from there and realize they are going to learn best by doing it on their own.

Modifications. When reflecting on the written materials Teacher Two expressed that she thought the DoDDS adopted reading series had great stories. However, she thought that there were too many worksheets and a lack of phonics materials within the series. She used a supplemental phonics program for her students. She had supplemented the DoDDS materials in science and social studies as well having developed units of study for both subject areas. In science she created a spider unit, and in social studies the students had recently studied Australia to coordinate with the Olympics. Teacher Two stated that she enjoyed the math program and did not use supplemental materials.

Concerning student modifications, Teacher Two often changed her room set up. As a first year teacher she was figuring out what worked best. She had changed the table set up and the main work area. She addressed modifying student work by diminishing the amount of work for certain students.

In investigating her awareness in the written materials and student modifications, Teacher Two focused on the need to supplement DoDDS materials in reading, social studies and science. She stated that she thought that the reading stories were great, but that there was a need to supplement phonics. Her physical modifications for her students in the classroom were based on her inexperience as a teacher and the need to meet her students' needs.

## Third Grade Teacher

During the interview, Teacher Three was relaxed and pleasant. She smiled throughout the time and appeared to enjoy talking about teaching and her students. She demonstrated a sense of confidence when she spoke of her teaching experience and practices. The initial interview lasted 55 minutes.

Following a period of time of gathering demographic information, Teacher Three expounded on her university background. She felt prepared for DoDDS having taken classes in ethnicity. She then spoke of this year's students and how thankful she was to have a lower number of students. With 17 students she felt that she could better meet their needs. She felt more comfortable not being pulled in so many directions as in the past when she has had more students in her classroom.

At-Risk Students. In describing her at-risk students, Teacher Three named three males. One male had come from a difficult environment and Teacher Three was working on finding his strengths and building his confidence. This male student was described as being socially and academically delayed. The second male was illustrated as having
learning difficulty and social delays. Teacher Three felt that he liked to watch others rather than being a part of the group's activities. The third at-risk male was described as having autistic characteristics. Teacher Three stated, "It's interesting that most of my LI [learning impaired] kids are boys . . . I have some girls who are low but they seem to be better balanced."

Exemplary/Leaders. The exemplary students comprised two males and one female. The two males were pictured as "incredible, super, super." They both talked about being the President of the United States. One of the boys was described as having incredible leadership skills. He looked to see where there was a problem and he solved it. Teacher Three described the other students as letting their emotions get in the way. This exemplary male listened to what everyone said and processed information in a less emotional manner.

The second exemplary male was depicted as a little boy who always knew the answer. He expressed that he knew the answer with enthusiasm. Teacher Three described the exemplary female as being artistic and a good writer. She stated that the "boys tend to overpower her." Teacher Three further stated,

I can already start to see a lot of the little girls are letting those boys just overpower them. I try to do a lot with wait time. I talk to them about that . . It's interesting how they let those other dominate kids just overpower them. Teacher Three further explained that if she didn't allow wait time for the exemplary female student during questioning interactions, that the two exemplary males would overwhelm her. She continued describing how she had taught the children to be aware of
waiting on others to answer. Her wish was for the children to be more aware of their own behavior.

Concerns. When describing her concerns for her students, Teacher Three addressed a desire for her students to have a sense of security. She wanted them to take risks and to feel safe so that others would not make fun of them. She talked about building a community of learners within her classroom. Teacher Three stated, More of my boys are more risk takers than the girls . . I think they do all those studies now with the girl-boy gender thing. I did fourth grade for a while you know and you could really see those girls in fourth grade just kind of start to shrivel . . . not wanting to take those risks like the boys. I don't know if it's just boys tend to be that's their nature, you know they're rough and tough.

Teacher Three indicated her concern for the females noting the difference at the upper grade levels. She explained that she noticed that as the female students grow older that they become less active in discussions with a more withdrawn approach to learning and interacting in the classroom setting.

Teacher Three also described a former female student she had while teaching in Japan. She stated, "She would try everything and nothing would stop her, but I think she was unusual in that respect. I never quite had a little girl like her where just nothing would stop her. You couldn't put her down." She went on to describe her current female students as "quieter more manageable" and the males as "much louder."

Modifications. In reflecting on written materials Teacher Three felt that the expectations should be higher with DoDDS materials. She considered that she greatly supplemented the adopted materials. She supplemented the language arts program in the area of grammar. In math she provided a greater amount of manipulative materials than rendered by the adopted series. She considered the science materials to be weak and she supplemented with daily oral science that provided concepts. She also supplemented in social studies adding overseas geography since the students were living in an overseas environment. Teacher Three voiced a concern with social studies since it focused on communities in the United States. It was difficult for the students to have a point of reference living overseas.

In her discussion of student modifications Teacher Three shared how she gave extra credit for project work in the different subject areas. This assisted her students who were having difficulty improving their grades. She further shared about assisting students with fine motor skills such as in writing and allowing more time for practice. Teacher Three attempted to focus on the strengths of students rather than their deficiencies. Her students with special needs were given preferential seating.

Teacher Three modified the DoDDS adopted written materials. She felt that the materials were inadequate supplementing in the subjects of reading, science, social studies and math. She created modifications for her students by preferential seating and allowing extra credit projects and practice opportunities.

## Fourth Grade Teacher

Teacher Four was poised and confident throughout the interview. This initial interview lasted 30 minutes. An additional interview was held to clarify and expound upon the teacher's understanding of exemplary students. This interview lasted 15 minutes. During both interviews, Teacher Four shared her enthusiasm for her students describing them as a "very charmed group of kids." During the current school year she had been teaching a lower pupil-teacher ratio with 21 students as opposed to former years where she had up to 31 students. The lower number of students had greatly improved her classroom environment according to Teacher Four. She was able to provide more direct instruction and the lower number lessens behavior problems as well.

## At-Risk Students. Teacher Four described her three at-risk students as

 functioning at the $25^{\text {hh }}$ percentile or below according to standardized test scores. She shared about one particular child that was her greatest concern. He had been placed on an Individual Education Plan within the special education department. He had difficulty with reading and writing. His frustration level was low, and he became angry easily. Another at-risk student had low scores, and he needed a greater amount of time to think. Her third at-risk student was described as being medicated incorrectly. His medication had been adjusted, and he was currently enjoying a great deal of success as described by Teacher Four.Teacher Four modified the at-risk students' academic environment by allowing them a greater amount of time to complete tasks and often lessening the amount of work.

She also taught points that they missed when tested and provided a retest for them as well.

Exemplary. In examining exemplary Teacher Four used general terms as she described four students considered by her to be gifted. Teacher Four described three females and one male student. She ascribed the same attributes defining exemplary for all of the children. They were depicted as self-motivated, organized, able to build consensus with classmates and as students who went beyond what was expected. One female was also described as being a self-directed learner. This female student was considered by Teacher Four to be the most exemplary student of the four.

Risk Takers. Teacher Four described leaders/risk takers in her classroom general terms as having the ability to persuade other students to follow them. "Some of it has to do with charisma, some of it has to do with that assertive feeling that they have when they're able to come into a group . . . and take command." These students were described by Teacher Four as one Caucasian female and two Black males. Teacher Four also considered these three leaders to be the risk takers in her classroom as well. She described them as not being intimidated by others.

Concerns. Teacher Four's greatest concern for her students was technology. She believed that education does not use technology in an efficient manner. Her goal was for her students to be able to find information in research and to apply what they had learned and then to use that information in a meaningful way. She expressed a desire for her
students to be able to compare and contrast rather than only giving information they found. Teacher Four believed that in 10 to 15 years there will be no textbooks.

Modifications. When examining Teacher Four's modifications for students, her at-risk students were referred to in that particular interview section. Teacher Four also made modifications for her students within her physical classroom environment. During the current school year, she had moved from a more traditional setting to one that was project based. She had worked with the students to arrange the room to blocked sections with specific learning areas rather than having everything against the wall. Students created a meeting area where they could discuss class problems. The students were able to write the word "meeting" on the board indicating that there was a need to meet.

Teacher Four ensured that they met that day.
When speaking about adopted written materials, Teacher Four stated, "They hit what's required but as far as being cutting edge, they're not." She shared at length concerning the social studies series. Teacher Four stated that the series focused on the regions of the United States thus having little meaning to students in an overseas setting. She has supplemented the materials by teaching the children to examine information in a broader sense such as investigating the attributes of a region and then applying them to another. She supplemented by assigning homework where students examined worldwide events and geography. They also made cultural inquires such as dress of a region. Teacher Four's desire was for her students to be able to apply knowledge.

Teacher Four was concerned by the lack of technological understanding in education. She believed that her students needed to perform at a higher standard than just
gathering information. Her endeavor had been to teach her students to apply the knowledge that they gained from electronic sources.

In summarizing her need to create student modifications, Teacher Four's discernment was based on academic and environmental needs within the classroom setting. Teacher Four shared the academic modifications she provided for her at-risk students. She further explained that she worked with her students modifying the physical classroom setting for their project-based learning needs.

Teacher Four believed that the adopted DoDDS written materials were sufficient but not "cutting edge." She supplemented by requiring higher level thinking assignments for her students. Her area of focus was social studies, which centered on regions in the United States in fourth grade. Teacher Four revealed a more global cognition of the needs of her students to include cultural understandings. These were discussed in broad general terms.

## Fifth Grade Teacher

Teacher Five was polite and cordial during the interview. He appeared pleased to share about his career and smiled when speaking of his students. The initial interview lasted 25 minutes.

At-Risk Students. Teacher Five discussed his three male at-risk students. He described the three males as "almost illiterate as far as reading is concerned." Teacher Five believed that if these students could read that they could do almost anything, but without reading skills, they were severely disadvantaged. It was clear during the
interview that Teacher Five was distressed concerning the poor reading abilities of these students. Teacher Five noted that the reading difficulties within his classroom were exclusively male. "Out of 20 kids I have 14 that are male and six that are female, but the percentage of the males having reading difficulties is greater."

Exemplary. Teacher Five depicted his two exemplary male students as "really exceptional, and they're just all around good in every subject." He further shared that the two males always made the highest test scores in all subjects. In describing his exemplary female, Teacher Five expressed, "I have one girl that is very exceptional and fits right in there with them."

Risk Takers. Teacher Five considered many children in his class to be risk takers. He believed that risk taking was very important in the learning environment. "I like to see them jump into something, and say 'yes, I can do this' even though they may not be able to, they come out with something." He believed that risk takers were usually at the top of the class. Teacher Five shared that he had two students who did not take risks from his class of 20. He had discussed this with the parents of these two children. One was identified as a male and one a female who sat back and watched. In further questioning Teacher Five about his most vivid risk takers he identified two males and two females. They were honor students with nothing to lose in his opinion.

Concerns. Teacher Five began his discussion of classroom practices by sharing about his concerns for his students. He considered a large number of his 20 students to have reading difficulties. His daily lesson plans were of a combative mode against low
reading scores. He further shared that his boys were immature adding difficulty to his task of teaching. He had supportive parents, which pleased him.

Teacher Five's concern for reading was further discussed. This was his greatest concern for students. He shared,

I think if a student can read, they will be able to do anything in this society. It is so essential and is so necessary. It's my greatest fear that children are not going to read well and understand what they read.

Teacher Five's remark was expressed with a deep sigh and a notable concern for his students. He further expressed his concern for all students to achieve well on standardized tests believing that these judge students. By doing well on standardized tests, Teacher Five believed that the students would follow a process of pursuing an occupation and being successful in a career.

Modifications. Teacher Five shared about the DoDDS adopted written materials. He believed that the math series was very difficult for the students, and it "causes them a lot of headaches." The reading and language arts materials were not sufficient in Teacher Five's opinion so he created modifications when necessary. The grammar skills needed greater emphasis according to him. Teacher Five reinforced the grammar by using other programs. He believed that social studies materials were adequate. Teacher Five used additional materials in science as well adding from other programs.

Teacher Five created modifications for his students. He placed the students in teams with a lower academically achieving student matched with a higher one when completing certain assignments. Teacher Five allowed students to complete additional
work for extra credit. He also modified his grading system when examining the work of the various students according to ability. Teacher Five shared that he had certain skills that everyone should know but that some of his students would not be able to achieve at the same level as his greater ability students.

Modifications were made within Teacher Five's classroom based on materials and students. Teacher Five regularly supplemented the DoDDS adopted materials in science and reading. He believed that a greater amount of grammar was needed in the reading series and that the science materials were inadequate within the adopted series as well. Teacher Five supplemented through the use of other programs.

Teacher Five created student modifications based on academics. He paired students by abilities for class assignments and set different expectations of student performance based on abilities.

## Sixth Grade Teacher

Teacher Six appeared excited to share about her students. She expressed how happy she was to be in DoDDS after going stateside for a time. She was thrilled with her new location and declared adoration for her students. She was talkative and demonstrative during the 129 minute interview.

Teacher Six described her class as being a blessing with a range of skills from low to high. Even though she had a large group of 29 students, she explained that they were wonderful to work with due to their behavior. Teacher Six shared, "It's been a wonderful year so far."

At-Risk Students. In defining her at-risk students Teacher Six described two males and one female. The first male was considered at risk due to his weak English skills. This student had lived in the host nation since first grade and was fluent in the country's language. He often played with host nation children relating to them in a more positive fashion than his American peers at school. "This is a child who chooses to talk to the teacher and the aides on the playground rather than play with the children." This student had been identified as having an Attention Deficit with Hyperactivity and had been on medication. He could not sit for long periods of time when attempting to do seat work. Teacher Six allowed him to sit on his knees or stand when needed. She had suggested that this child be retained due to his immaturity and lack of skills. The family was moving to the United States at the end of the school year, and Teacher Six felt this was an excellent opportunity for the child to be retained without stigma. She believed that the child would gain an additional year to progress before entering the middle school setting.

The second at-risk male was described as learning impaired. This student was new to the school, and the parents failed to notify the school that this student was in special education and diagnosed with Attention Deficit and Hyperactivity. He had an inability to keep his hands to himself. He was described as bright but completely disorganized. Teacher Six further explained, "This child is at risk I think because the parents don't want to admit that their child has a problem, and the family itself is not an organized unit."

Teacher Six shared that the female at-risk student was living alone with her father, a single parent. The child was expected to wash all of her clothes and to do the cooking for dad and her. Teacher Six stated that the dad spent a great amount of time on the computer. She described the student as bright but with no female role model. Teacher Six further explained that this student had weak small motor skills, and that she had been working with the student on cursive writing.

Exemplary. Teacher Six characterized three males as being exemplary students. The first male was described as being the most obvious with traits such as being bright, inquisitive, able to connect information, as knowing the big picture and asking phenomenal questions. Teacher Six expressed ebullience when she spoke of this student. She further stated that this student was polite and considerate. She continued by stating, He's all boy. He plays hard when he plays, he works hard when he works, but he knows what the boundaries are. He can deal with the most obstinate child in my class and can deal with the most pleasant child in my class diplomatically, which I think is a skill in itself.

The second male exemplary student was described as having all the characteristics of the first exemplary student. These two males interacted extensively throughout the school day as observed by Teacher Six. The second student possessed a more easy going personality than the first exemplary student. Teacher Six stated that the second child giggled. He was also depicted as knowledgeable in a lot of areas.

The third exemplary male was described as wanting everyone to know that he was bright. Teacher Six further shared that this student was extremely polite and respectful.

He was depicted as more competitive than the other exemplary males she described. All three exemplary males had cooperative parents according to Teacher Six.

Teacher Six also shared about top-notch students in science. She described five males as having top-notch science skills. One male student was described as phenomenal. She considered another male as having an excellent interest in science. Teacher Six stated that one female had "suddenly awoken to science and can make sense out of it." Another female's name was given in reference to science ability but Teacher Six did not list any attributes. In grammar, she gave one female's name as being a topnotch student, but she did not describe any attributes.

Risk Takers. When describing her risk takers/leaders, Teacher Six expressed that the exemplary students were definitely her leaders. The more competitive male was depicted as the more obvious leader due to his more assertive nature. The second exemplary male was a leader by example as observed by Teacher Six. Three additional males were described by Teacher Six as also being leaders. One possessed the traits of being a "good, honest, hardworking child" who led the class.

Concerns. Teacher Six had a single concern for her students. She shared that her concerns were not academic in nature. Working with an ethnically diverse group of children, her concern was that DoDDS students would face difficulty when they returned stateside. Teacher Six felt that DoDDS students didn't interact along racial lines. She believed that these distinctions were greater and more negative in America.

They're used to playing with whoever they want to play with, and I'm afraid they'll go back to the States and be criticized or hurt because they're not friends with the right people. And I hate that they would have to learn that lesson in life and be subjected to any danger or criticism.

Teacher Six believed that her students worked and played together regardless of the parent's military rank or status.

Modifications. Teacher Six shared extensively about modifications that she made for her students. "I think as the teacher if you've got 29 students you probably have 29 modifications." She described how she and the students solved the problem on assignment folders. Instead of having four separate ones, they decided on one folder. Sixth grade students exchanged for class so Teacher Six was attempting to modify the folder situation to assist the children with homework and class exchange. She further shared about a student who had difficulty copying. Rather than insisting that this student copy everything, Teacher Six asked other students to copy for him, and she took dictation from him for tests and assignments.

Teacher Six described physical modifications that she made with the students. They were originally in a u-shape for seating arrangements. Teacher Six placed the students in revolving teams. The students wanted to experiment with moving their desks in to sets of four or five to enable teamwork. They tried this arrangement for a week and the final conclusion was to return to the $u$-shape. When teaming, the students arranged their chairs in a manner to share.

In discussing the written materials modifications needed for DoDDS adopted series, Teacher Six shared that she thought materials were wonderful. Teacher Six was teaching two sections of language arts and science. The other sixth grade educator was teaching social studies and math. Teacher Six enjoyed the language arts series, but shared that she felt it lacked grammar skills needed by the students. She supplemented with teacher-created or commercially made materials in grammar. Teacher Six also liked the science materials although she felt that the science text was too difficult. The text provided was limited in her opinion. Teacher Six found science references and pulled together science readings to supplement the adopted written materials.

Concerning modifications, Teacher Six considered all of her students. She specifically described creating student modifications within the physical setting of the classroom. In describing academic modifications, she stated a need for one male student. In examining DoDDS adopted written materials, Teacher Six addressed science and language arts. Her understanding was that the materials were sufficient with her supplementing in a limited manner in both subject areas.

## Collective Interview Summary

The subcategories that explained the dimensions of teacher defined attitudes were identified as (1) at-risk students, (2) exemplary students, (3) student leaders and risk takers and (4) general concerns for students. Information was categorized for modifications through the themes of (1) written materials and (2) student modifications.

At-Risk. The seven teachers interviewed defined at-risk students by characterizing 18 males and three females. The attributes for at-risk were understood from an academic and social-emotional perspective. Only one female was defined as being at-risk from an academic understanding. She was described as "less noticeable" than the males (Teacher Two). The other two females were defined as at-risk from a social-emotional position. Males were further sub-categorized with two being solely described as socially immature, one being a combination of socially and academically delayed, one having a speech impairment and 11 males being considered at risk for academic reasons. These elementary school teachers understood at-risk students predominately from a male-defined academic perspective. Males were acutely represented with 18 male students being identified. Females were underrepresented with three females identified.

Exemplary. Six of the seven teachers postulated similar understandings concerning gender when examining exemplary students. These were understood in a similar manner as the at-risk students with the exception of Teacher Four who exhibited an understanding of exemplary behaviors through her description of the three females and one male in general terms rather than individual definitions. She referred to the small group of students assigning the same attributes of being self-motivated, organized, able to build consensus with classmates and as students who went beyond what is expected. One female was also described as being a self-directed learner. This female student was considered by Teacher Four to be the most exemplary student of the four.

The other six teachers within this investigation measured exemplary behaviors with specific attributes assigned to males and females. Eleven males and seven females were named as being exemplary students. Teachers in this study, excluding Teacher Four, understood exemplary males as being defined as builders, creators, explorers, leaders, risk-takers, exceptional learners and one was described as exemplary from an "all boy" perspective referring to this student playing hard and working hard (Teacher Six).

The six teachers defined the seven exemplary females as being strong readers, writers, artists, and attentive. One female was compared with the two exemplary males from her class as fitting "right in there with them" when referring to the males (Teacher Five). Teacher Two described one female as outgoing but this was in reference to academic interactions as she was depicted as writing wonderful stories. There was a clear distinction between the attributes of exemplary for males and females as described by these six elementary teachers.

Risk Takers. Teacher Four considered leaders/risk takers without a distinction by gender. She used general statements describing all three students. She described her one female and two male leaders as being charismatic and as having a sense of selfawareness. They were also pictured as being students who are not intimidated by others.

The remaining six teachers in this investigation segregated by gender their understanding of risk-taking students and leaders. Fourteen males and five females were considered to be either risk takers and/or leaders in their classrooms with an under representation of females within this understanding. The five females were considered to be leaders exclusively through an academic perspective. The 14 males were defined by
their academic abilities such as being honor roll students. They were also captured by various other descriptors such as being loud, excitable, enthusiastic, overpowering, needing to be the center of attention, able to solve problems, hard-working, outgoing, always wanting to answer, comfortable with themselves and being able to have everyone follow what they modeled. None of these various concepts of leadership were ascribed to females. The summation of this category was best described by Teacher Three when she stated, "More of my boys are risk takers than the girls. The girls kind of sit back more."

Concerns. When connecting attitudes and practices to gender, general teacher concerns evolved from the investigation. Teacher Three exclusively voiced a gender concern for her students. She shared that she understood that her males overpowered her females and the female students did not tend to take risks as freely as the males. Teacher Three described how she wanted to create a community of learners where all students felt comfortable. She described her understanding of why her males tended to take more risks than her females from a gender viewpoint. "I don't know if it's just boys tend to be that's their nature, you know they're rough and tough ... This group of girls tend to be quieter more manageable where as the boys they're much louder."

The additional six teachers did not list concerns from a gender understanding. They had concerns based on their abilities as teachers to make sure the children were prepared for the next grade level. They shared concerns about academics to include technology along with social maturity and the well being of their students in the future.

Modifications. In summarizing the concepts discovered according to modifications made by the teachers for students or with written materials, the seven teachers did not place gender within this paradigm with the exception of Teacher One. Student modifications were made both through adjusting academic expectations and the physical setting of the room for academic reasons. The only reference to gender was made by Teacher One when she described the movement of furniture to create a jet and geography center for her male students.

Written modifications of DoDDS adopted materials were primarily categorized through the need to supplement certain subjects particulariy grammar and science. Social studies was also referred to as outdated. No comments were shared by any of the teachers in reference to females being absent or inactive in the literature selections or missing from the social studies as explorers or contributors in history.

When examining the interview portion of this study, the following findings were collectively summarized for presentation:

1. Male students were overwhelmingly considered to be at risk compared to female students. The participating teachers understood these at-risk males from an academic concern.
2. Males were considered to be exemplary more often than females. These males were understood as exemplary according to specific attributes such as being creative, organized, motivated and a class leader. Females were solely considered exemplary for academic reasons.
3. Males were considered to be risk takers approximately three times more often than females.
4. Teachers did not voice overall concern for students according to gender for written materials or student modifications.

Teacher Observation Data

This aspect of the study reported the empirical observation information from each of the seven teachers categorized using teacher-defined practices, which were used and then related to gender awareness. This understanding was experienced through the subcategories of (1) student seating, (2) response opportunities and (3) procedural, work and behavioral contacts.

Each teacher provided a seating chart prior to the observation with the exception of kindergarten and first grade where children sat on the floor and then moved to areas of the room for seatwork, sitting where they desired. Field notes were compiled to report placement of the children and the teacher's proximity to children as a lesson was conducted (Sadker \& Sadker, 1994).

The Teacher-Child Dyadic Interaction: A Manual for Coding Classroom Behavior (Brophy \& Good, 1969) was used to code a variety of interactions between the child and teacher. Although the tool was originally designed to record the interaction between a specific child and the teacher, the instrument was modified to record the interactions based on male and female students' interactions with the teacher. "The system . . . should not be conceived as a finished, closed system to be used without modification. Different
research questions may require the coding of different variables and/or a different approach to coding some for the same variables" (Brophy \& Good, 1969, p. 4). The modified Teacher-Child Dyadic Interaction instrument is included in Appendix D.

The Teacher-Child Dyadic Interaction instrument provided a coding system for a selection of interactions to include:

1. Response opportunities in which the child attempts to answer a question that has been publicly posed by the teacher.
2. Procedural contacts in which the teacher-child interface relates to procedural matters such as supplies, equipment, permission or other management matters concerned with the child's individual needs.
3. Work-related contacts in which the teacher-child interaction relates to seatwork, activities such as written work to be completed by the child.
4. Behavioral contacts in which the teacher disciplines the child making remarks related to classroom behavior (Brophy \& Good, 1969).

Response opportunities were recorded in four categories based on: (1) the type of question delivered by the teacher to the child, (2) the level of the question, (3) the student response and (4) the teacher feedback to the child. The questions presented by the teacher were categorized as:

1. Discipline which is asked by a teacher as a disciplinarian means to gain a child's attention.
2. Direct which is asked of a child without the child indicating a desire to answer such as the raising of the hand.
3. Open that occurs when a teacher waits on a child to raise a hand indicating that the child wants to answer the question posed.
4. Call Outs that refers to a child who calls an answer without the teacher directing the question to that child (Good \& Brophy, 1969).

The second category under Response Opportunities is the level of the question asked by the teacher. These are:

1. Process question which "requires the child to specify the cognitive and/or behavioral steps that must be gone through in order to solve a problem or come up with in answer" (Brophy \& Good, 1969, p. 15).
2. Product question where a single answer is given that does not require higher level thinking. Student only needs factual knowledge to answer.
3. Choice question in which the child knows that one answer is correct from two given such as yes/no and either/or.
4. Self-Referenced question which is non-academic (Good \& Brophy, 1969).

The student responses were recorded as either correct, partially correct, incorrect, or no response. Teacher feedback reaction was divided into twelve categories to include: (1) praise, (2) affirmation, (3) no feedback response, (4) negative feedback, (5) criticism, (6) process feedback, (7) giving the correct answer, (8) asking another student to give the answer, (9) another student calls out the answer, (10) repeating the question, (11) rephrasing or giving a clue and (12) teacher asks a new question (Brophy \& Good, 1969). Emphasis was given to teacher reactions rather than student with the focus being the awareness of elementary teachers in regards to gender.

Procedural and work-related contacts included those created by the child and those afforded by the teacher while students were performing seatwork. These were recorded as those students requiring work feedback, process feedback and procedural information. Also recorded were teachers giving praise or criticism of student work. Behavioral contacts were categorized as praise, a warning or criticism (Brophy \& Good, 1969).

## Kindergarten Observation

Teacher K was observed on two occasions for a total time of 80 minutes. During both periods there were nine female and 10 male students present. Students in kindergarten received center-based activities and did not have assigned seats. They could sit where they wished on the floor during group time. They also had free choice of seating when completing work or participating in center activities. During both visits, the children were taught while sitting on the floor. Teacher K sat in a rocking chair at the front of the group of children during the questioning time of both observation periods. The first lesson focused on patterning in mathematics and the second visit focused on a literature story.

During the first observation, Teacher K shared that the children were use to answering in a chorale manner, and that it was difficult for her to ask them questions with the expectation of only one child answering. Most of the responses were chorale during the first observation. The children were practicing patterning. Teacher K asked the
children to identity the different patterns. Then the students worked with math manipulative materials to create patterns.

Since their teacher did not assign seats to the children in this age group, their choice of seating was observed. During the first observation, the children sat on the floor in a pattern of: $\mathrm{F}=\mathrm{Female}$ and $\mathrm{M}=$ Male.

| TEACHER |
| :---: |
| FFMMMF |
| FFM F |
| FFF M |
| M |
| MM |
| MM |

Figure 1. Kindergarten Seating Pattern: Observation One.

During the second observation the children sat on the floor in the following pattern:

|  |
| :---: |
| TEACHER |
| FF |
| MMMM |
| FFMFFFM |
| FFM |
| MMM |

Figure 2. Kindergarten Seating Pattern:
Observation Two.

During both observation visits, both female and male students were enthusiastic about sharing answers to questions. Data was recorded using the Teacher-Child Dyadic Interaction (Brophy \& Good, 1969). Teacher K asked a total of 29 questions. Twenty were asked of female students and nine of males. Females were asked 10 direct questions and 10 open questions. The males were asked one direct and eight open questions. Females were asked 19 process questions and one product question. All nine questions asked of males were process. Table 2 summarizes the number, type and level of questions asked by Teacher K .

TABLE 2

## KINDERGARTEN NUMBER, TYPE AND LEVEL OF QUESTIONS

| Gender | Number of Questions | Discipline | Direct | Open | Process | Product |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Female | 20 | 0 | 10 | 10 | 19 | 1 |
| Males | 9 | 0 | 1 | 8 | 9 | 0 |

In terms of student and teacher responses, female students answered 16 questions correctly, three incorrectly and one student did not respond. The teacher affirmed 10 questions answered by females, seven times she had no response, two times the teacher gave the answer and one time another student called out before she responded to the child who had answered. Male students answered seven questions correctly, one partially correct and one student did not respond. The teacher affirmed two answers, did not
respond six times and posed a new question one time. Table 3 summarizes student and teacher responses to the questions posed.

TABLE 3

KINDERGARTEN STUDENT AND TEACHER RESPONSES

| Responses | Female | Male |
| :--- | :---: | :---: |
| Student |  |  |
| Correct | 16 | 7 |
| Partially Correct |  | 1 |
| Incorrect | 1 | 1 |
| No Response | 10 |  |
| Teacher | 7 | 2 |
| Praise |  | 6 |
| Affirmation |  |  |
| No Response | 2 |  |
| Negativism |  |  |
| Criticism | 1 | 1 |
| Process |  |  |
| Gives Answer |  |  |
| Ask Other |  |  |
| Other Calls Out |  |  |
| Repeat Question |  |  |
| Clue |  |  |
| New Question |  |  |

In terms of procedural, work and behavioral contacts during class, 10 females interacted with the teacher while conducting seatwork. The students created seven interactions and the teacher afforded three. Four female students were given behavior warnings. Seven male students interacted with the teacher during seatwork time. The students created four of the interactions with the teacher affording three. The males interacted with the teacher four times to receive behavior warnings. Table 4 summarizes direct teacher-student contacts in the areas of work, procedure and behavior.

## TABLE 4

KINDERGARTEN PROCEDURAL, WORK AND
BEHAVIORAL CONTACTS

| Category | Female | Male |
| :--- | :---: | :---: |
| Student Created Work \& Procedural Seatwork Interaction | 7 | 4 |
| Teacher Afforded Work \& Procedural Seatwork Interaction | 3 | 3 |
| Total Seatwork Interaction | 10 | 7 |
| Behavior Praise | 0 | 0 |
| Behavior Warning | 4 | 4 |
| Behavior Criticism | 0 | 0 |
| Total Behavior Interaction | 4 | 4 |

Summary. The purpose of the observation was to investigate and record data concerning seating placement for students, teacher proximity among the students during instruction and interactions between the teacher and students based on response, work, procedural and behavioral contacts.

Teacher K did not direct the children concerning seating arrangements. However, the children placed themselves according to gender when sitting on the floor during instruction. The students clustered together by gender during both observation periods. As children experience elementary school, they begin to develop segregation patterns (Sadker \& Sadker, 1994) as seen in the self-choice seating arrangements of the kindergarten students. Teacher K remained in her rocking chair during the observation time and did not proximate herself toward any certain group based on gender during the questioning segment.

During both observations, male and female students were enthusiastic to answer questions. Teacher K asked questions of 20 females compared with nine questions being asked of males from the nine females and 10 males present. Female students were given more than twice the amount of response opportunities than the male students were with an average of two questions asked of females present and approximately one of the males present. Teacher K asked female students an equal amount of direct and open questions with the males being asked open questions eight to one direct. Teacher K equitably distributed process questions to all students questioned asking a product question only once the entire time. Both male and female students overwhelmingly answered the
questions correctly. Teacher K affirmed the female students more often than the males and did not respond to male students more often than the females.

While students performed seatwork, Teacher K distributed her attention in an equitable manner based on the number of males and females present. Female students created more contact with the teacher than did the males. The behavioral contacts were equal with four warnings being given to male and female students.

## First Grade Observation

Teacher One was observed for 70 minutes while conducting a reading lesson. During the observation, there were nine female and 10 male students present. The students sat on the floor during the instruction time and then moved to tables of choice during the seatwork segment. They evenly dispersed themselves by gender. During the questioning, Teacher One sat in a rocking chair with the children sitting at her feet. The male students appeared to be more enthusiastic about answering questions posed by Teacher One. They jumped up and down and made guttural sounds indicating that they wanted to answer. The female students raised their hands less often and did not attempt to participate as extensively as the males. One female student commented, "Only the boys are answering."

In terms of number, type and level of questions asked, Teacher One asked a total of 48 questions with 14 being posed to females and 34 toward male students. Of the 14 questions asked of females, two were direct and 12 were open. Females were asked 10 process questions and four product. The males answered 10 direct question and 24 open
questions. They were asked 19 process questions and 15 product. Table 5 summarizes these data.

TABLE 5
FIRST GRADE NUMBER, TYPE AND LEVEL OF QUESTIONS

| Gender | Number of Questions | Discipline | Direct | Open | Process | Product |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Female | 14 | 0 | 2 | 12 | 10 | 4 |
| Male | 34 | 0 | 10 | 24 | 19 | 15 |

Of the 14 questions asked of the female students, all 14 were answered correctly. The teacher provided 14 affirmations of the answers. The male students answered 29 questions correctly, one partially correct, one was incorrect and three male students did not respond. The teacher affirmed 28 answers, did not respond to one, asked another student three times, one time another student called out and Teacher One gave a clue one time. Table 6 summarizes the student-teacher responses to questions asked.

During the seatwork time, the female students interacted with Teacher One 15 times with all 15 interactions being student created. The males interacted with the teacher seven times with two being student created and five being teacher afforded.

## TABLE 6

FIRST GRADE STUDENT AND TEACHER RESPONSES

| Responses | Female | Male |
| :--- | :---: | :---: |
| Student | 14 | 29 |
| Correct |  | 1 |
| Partially Correct |  | 1 |
| Incorrect |  |  |
| No Response |  |  |
| Teacher |  |  |
| Praise | 28 |  |
| Affirmation |  |  |
| No Response |  |  |
| Negativism |  |  |
| Criticism |  | 3 |
| Process |  | 1 |
| Gives Answer |  | 1 |
| Ask Other |  |  |
| Other Calls Out |  |  |
| Repeat Question |  |  |
| Clue |  |  |
| New Question |  |  |

Female students were praised for behavior five times and given six behavioral warnings. The males were praised four times and given 11 behavioral warnings. Table 7
summarizes the interactions between students and the teacher during seatwork and behavioral contacts.

## TABLE 7

FIRST GRADE PROCEDURAL, WORK AND BEHAVIORAL CONTACTS

| Category | Female | Male |
| :--- | ---: | :---: |
| Student Created Work \& Procedural Seatwork Interaction | 15 | 2 |
| Teacher Afforded Work \& Procedural Seatwork Interaction | 0 | 5 |
| Total Seatwork Interaction | 15 | 7 |
| Behavior Praise | 5 | 4 |
| Behavior Warning | 6 | 11 |
| Behavior Criticism | 0 | 0 |
| Total Behavior Interaction | 11 | 15 |

Summary. Teacher One allowed the students to select their seating place during both questioning times on the floor and the seatwork session. The children equitably spread themselves out with a mixture of male and female students during both segments.

During the questioning period, male students showed a high degree of enthusiasm often jumping up and down and making sounds to indicate that they wanted to answer.

Female students did not express a high degree of excitement about answering seldom raising their hands. Of the nine females present, 14 response opportunities were provided averaging less than two questions per female. Of the 10 males present, 34 questions were asked allowing over three questions per male. Teacher One preferred open questions to direct for both genders. However, she asked female students a greater amount of process questions as opposed to the males based on female-male ratio. Teacher One consistently affirmed the answers of both females and males.

Female students overwhelmingly created contact with Teacher One during the seatwork period. The teacher did not afford any contact toward the females in comparison to five teacher afforded contacts being given to the male students. Males received the greater behavioral attention being warned by the teacher 11 times compared with the six warnings given to females.

## Second Grade Observation

Teacher Two was observed for 60 minutes during a math lesson. During the observation, seven females and 10 males were present. The students were sitting at tables during the observation with an equal number of male and female students at each table. Teacher Two used the front of the room where the whiteboard was located throughout the questioning period. During the 45 minutes of questioning, the males raised their hands quickly and were enthusiastic in manner. The male students moved up and down indicating that they wanted to answer the teacher posed questions. When indicating that they wanted to answer, female students hesitated when raising their hands. They raised
their arms in a half-extended manner. Males raised their arms to full extent indicating a desire to respond.

In terms of number, type and level of questions asked during the observations, 14 questions were asked of female students with three being direct and 11 being open. Females were asked one process question and 13 product. Male students were asked a total of 21 questions with five being direct and 16 open. Three questions were process and 18 were product. Table 8 summarizes these data.

## TABLE 8

SECOND GRADE NUMBER, TYPE AND LEVEL OF QUESTIONS

| Gender | Number of Questions | Discipline | Direct | Open | Process | Product |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Female | 14 | 0 | 3 | 11 | 1 | 13 |
| Male | 21 | 0 | 5 | 16 | 3 | 18 |

Females answered 12 questions correctly, one partially correct and one female student did not respond. Teacher Two praised the answers four times, affirmed seven, did not respond one time, asked another student one time and gave a clue one time. Males answered 20 questions correctly and one student did not respond. Teacher Two praised the male students five times, affirmed 14 times and did not respond two times. Table 9 summarizes the student and teacher responses to questions.

## TABLE 9

## SECOND GRADE STUDENT AND TEACHER RESPONSES

| Responses | Female | Male |
| :--- | :---: | :---: |
| Student | 12 |  |
| Correct | 1 | 20 |
| Partially Correct |  |  |
| Incorrect | 1 | 1 |
| No Response | 4 | 5 |
| Teacher | 7 | 14 |
| Praise | 1 | 2 |
| Affirmation |  |  |
| No Response |  |  |
| Negativism |  |  |
| Criticism |  |  |
| Process | 1 |  |
| Gives Answer |  |  |
| Ask Other |  |  |
| Other Calls |  |  |
| Repeat Question |  |  |
| Clue |  |  |
| New Question |  |  |

Six females interacted with Teacher Two with three interactions being student created and three teacher afforded. Males interacted with the teacher 17 times with seven occasions being student created and 10 teacher afforded. Three female students interacted with the teacher for behavioral purposes. Two females were praised and one
warned. Males interacted six times with two being praised and four being warned.

Table 10 summarizes the interactions between the students and teacher based on procedural, work and behavioral activities.

TABLE 10
SECOND GRADE PROCEDURAL, WORK AND BEHAVIORAL CONTACTS

| Category | Female | Male |
| :--- | :---: | :---: |
| Student Created Work \& Procedural Seatwork Interaction | 3 | 7 |
| Teacher Afforded Work \& Procedural Seatwork Interaction | 3 | 10 |
| Total Seatwork Interaction | 6 | 17 |
| Behavior Praise | 2 | 2 |
| Behavior Warning | 1 | 4 |
| Behavior Criticism | 0 | 0 |
| Total Behavior Interaction | 3 | 6 |

Summary. Teacher Two arranged the students around the classroom in an equitable manner based on the seven females to 10 males. Teacher Two remained at the front of the room during the questioning period and did not proximate herself within any gender.

During the 45 minutes of questioning, males displayed an enthusiasm to answer. They quickly raised their hands and moved up and down. Female students were hesitant and moved in a more undecided manner. Based on the ratio of females to males present, Teacher Two equitably provided response opportunities for male and female students with an average of two questions being asked per student both male and female. Teacher Two demonstrated the use of open questioning preferring product level questions for both genders. Females and males equally answered questions correctly. Teacher Two evenly praised and affirmed male and female responses to questions posed.

Teacher-student contacts were greater for male students than the females. Males created contacts with the teacher seven times compared with three by females. Teacher Two afforded contacts with the male students ten times compared with three for females. Males were provided approximately twice the amount of contacts based on procedure and work than were the female students based on the female to male ratio present. Female and male students were praised two times each. Males were given more behavioral warnings with four being given compared with one for females present.

## Third Grade Observation

Teacher Three was observed for 60 minutes while she taught a literature activity. The class consisted of seven females and nine males. The students sat at tables with an equal distribution of males and females based on the class ratio. Teacher Three taught from the front of the classroom where she often used the whiteboard during instruction. During the questioning portion, the males were assertive when offering answers to
questions. They jumped up and down and waved their arms indicating a strong desire to answer. They shouted phrases such as, "I know, I know." Males raised their hands often when an open questions was put forward. Females slowly raised their hands to answer and sat quietly.

Table 11 reports the questions asked by the teacher with the type and level of question asked.

TABLE 11

THIRD GRADE NUMBER, TYPE AND LEVEL OF QUESTIONS

| Gender | Number of Questions | Discipline | Direct | Open | Process | Product |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Female | 16 | 0 | 4 | 12 | 4 | 12 |
| Male | 33 | 0 | 5 | 28 | 1 | 32 |

In sum, females were asked 16 questions with four being direct and 12 open. Four were process questions and 12 product. The male students were asked 33 questions with five being direct and 28 open. One question asked of the males was a process level and 32 were product.

Table 12 summarizes the student-teacher responses to answers given. Female students provided 16 correct answers. Teacher Three gave one extension of praise, 11 affirmations and four no response. The males offered 28 correct answers, two partially
correct and three wrong answers. The teacher provided the male students with five praises, 22 affirmations, two no response, one repeat of the question and three clues.

TABLE 12
THIRD GRADE STUDENT AND TEACHER RESPONSES

| Responses | Female | Male |
| :--- | :---: | :---: |
| Student |  |  |
| Correct | 16 | 28 |
| Partially Correct |  | 2 |
| Incorrect |  | 3 |
| No Response | 11 | 5 |
| Teacher | 4 | 22 |
| Praise |  | 2 |
| Affirmation |  |  |
| No Response |  |  |
| Negativism |  | 1 |
| Criticism |  | 3 |
| Process |  |  |
| Gives Answer |  |  |
| Ask Other |  |  |
| Other Calls |  |  |
| Repeat Question |  |  |
| Clue |  |  |
| New Question |  |  |

Table 13 reports direct student-teacher contacts in the areas of work, procedure and behavior. During the seatwork segment, females interacted with the teacher five times. The female students created three, and the teacher afforded two. The males interacted six times with one being created and five afforded by Teacher Three. Female students interacted with the teacher three times for behavioral reasons. One female was praised and two were criticized. Males interacted 19 times with warnings being the inclusive reason for exchange.

## TABLE 13

## THIRD GRADE PROCEDURAL, WORK AND <br> BEHAVIORAL CONTACTS

| Category | Female | Male |
| :--- | :---: | :---: |
| Student Created Work \& Procedural Seatwork Interaction | 3 | 1 |
| Teacher Afforded Work \& Procedural Seatwork Interaction | 2 | 5 |
| Total Seatwork Interaction | 5 | 6 |
| Behavior Praise | 1 | 0 |
| Behavior Warning | 0 | 19 |
| Behavior Criticism | 2 | 0 |
| Total Behavior Interaction | 3 | 19 |

Summary. Teacher Three had the students sitting at tables in assigned seats that equitably placed students based on gender. Teacher Three remained at the front of the room during questioning and did not proximate herself around any certain group of students.

Male students demonstrated a strong desire to answer questions by jumping up and down and waving their arms. Females sat quietly and slowly raised their hands. Teacher Three provided males twice the opportunity to respond to questions compared with females. Males received an average of four questions compared with two questions being the average offered to females by Teacher Three. The teacher overwhelmingly asked open and product questions of both genders. She seldom asked direct or process. questions of the students. The majority of female and male students answered questions correctly. Teacher Three demonstrated the use of affirmation as a response to the questions asked of both genders. However, males were praised more often than females.

Seatwork interactions for procedural and work were equitably distributed by Teacher Three. Behavioral contacts were much greater for males than females with the males receiving 19 interactions as opposed to three contacts for the females. Males were warned 19 times with females being praised one time and criticized two times. Males interacted with Teacher Three an average of two times as compared with an average of less than one behavioral contact made by the teacher per female student.

## Fourth Grade Observation

Teacher Four was observed during a social studies lesson. She had 10 male and 10 female students present during this time. Students were sitting at tables with an
equitable distribution of male and female students at each table. During the questioning session, males offered the answers often by waving their arms and raising hands. Females attended infrequently and were quiet and appeared uninterested with the exception of one female student who often raised her hand and grunted showing that she wanted to answer. Teacher Four taught the lesson from the front of the room by the whiteboard, which she used to dictate answers given by the students.

Table 14 recapitulates the number of questions posed by the teacher as well as the type and level of the questions. The teacher asked ten female students nine direct and one open question. All 10 questions were product. The male students were asked 20 questions with two being discipline, 13 direct and five open. The entire 20 questions were product.

TABLE 14
FOURTH GRADE NUMBER, TYPE AND LEVEL QUESTIONS

| Gender | Number of Questions | Discipline | Direct | Open | Process | Product |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Female | 10 | 0 | 9 | 1 | 0 | 10 |
| Male | 20 | 2 | 13 | 5 | 0 | 20 |

Table 15 summarizes the responses presented by the students and teacher. Female students answered seven questions correctly, one partially correct and two students did not respond. The teacher provided six affirmations of the answers, three no response, and one time she gave the answer. Males answered correctly 16 times partially correct once,
incorrectly twice and one student did not respond. The teacher gave males 14 affirmations, two no response, two process and two times she gave the answer.

TABLE 15
FOURTH GRADE STUDENT AND TEACHER RESPONSES

| Responses | Female | Male |
| :--- | :---: | :---: |
| Student |  |  |
| Correct | 7 | 16 |
| Partially Correct | 1 | 1 |
| Incorrect | 2 | 2 |
| No Response | 6 | 1 |
| Teacher | 3 | 2 |
| Praise |  |  |
| Affirmation |  | 2 |
| No Response | 1 | 2 |
| Negativism |  |  |
| Criticism |  |  |
| Process |  |  |
| Gives Answer |  |  |
| Ask Other |  |  |
| Other Calls |  |  |
| Repeat Question |  |  |
| Clue |  |  |
| New Question |  |  |

Table 16 summarizes the interaction between the teacher and students based on work and procedure during seatwork. Teacher Four did not interact with any students for behavioral purposes during the observation. Female students interacted with Teacher Four two times with both being student created. The male students interacted four times with the teacher with two being student created and two teacher afforded.

TABLE 16
FOURTH GRADE PROCEDURAL, WORK AND BEHAVIORAL CONTACTS

| Category | Female | Male |
| :--- | :---: | :---: |
| Student Created Work \& Procedural Seatwork Interaction | 2 | 2 |
| Teacher Afforded Work \& Procedural Seatwork Interaction | 0 | 2 |
| Total Seatwork Interaction | 2 | 4 |
| Behavior Praise | 0 | 0 |
| Behavior Warning | 0 | 0 |
| Behavior Criticism | 0 | 0 |
| Total Behavior Interaction | 0 | 0 |

Summary. Teacher Four assigned seats for students in an equitable manner in regards to gender. Teacher Four used the front of the room for teaching and did not move about while questioning students.

Male students in Teacher Four's class were assertive in showing a desire to answer. They waved their arms when raising their hands. Females in this class were generally lethargic during the observation with the exception of one female. Teacher Four asked questions of males twice as often as females during the observation. She inquired using direct questions more often than open for both genders. She inclusively asked product level questions with no process question being used. The majority of male and female students answered questions correctly. Teacher Four used affirmation as her primary response to male and female students.

Teacher Four had few contacts with male and female students. Males interacted with her four times as compared with females interacting two times for seatwork. There were no behavioral contacts for either gender.

## Fifth Grade Observation

Teacher Five taught a math lesson during the 50 -minute observation. There were seven females and 13 males present during this time. The seating arrangement was by tables with three of the seven females sitting at one table with one male. Teacher Five stood at the front of the room by the whiteboard and at times moved about the room during the questioning session. He did not proximate himself in any certain location throughout the observation. Both females and males showed a subdued interest in the lesson and were attentive. They did not raise hands often due to the teacher's direct manner of questioning as shown in Table 17. Females were asked eight questions with all of them being direct. Five were process and three were product questions. Males
were asked 26 questions with 23 being direct and three open. Males were asked 18 process questions and eight product.

TABLE 17
FIFTH GRADE NUMBER, TYPE AND LEVEL
OF QUESTION

| Gender | Number of Questions | Discipline | Direct | Open | Process | Product |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Female | 8 | 0 | 8 | 0 | 5 | 3 |
| Male | 26 | 0 | 23 | 3 | 18 | 8 |

Student-teacher responses to the questions posed are summarized in Table 18. The female students answered six questions correctly, one incorrectly and one student did not respond. The teacher responded with one praise comment, five affirmations, one no response and one time he asked another student the question. The male students answered correctly 21 times, three times partially correct, one time incorrectly and one student did not respond. The teacher gave six praise comments, 15 affirmations, one no response, two times asking others, one repeat the question and one time he gave a clue.

TABLE 18

FIFTH GRADE STUDENT AND TEACHER RESPONSES

| Responses | Female | Male |
| :--- | :---: | :---: |
| Student |  |  |
| Correct | 6 | 21 |
| Partially Correct | 1 | 3 |
| Incorrect | 1 | 1 |
| No Response | 1 | 1 |
| Teacher | 5 | 6 |
| Praise | 1 | 15 |
| Affirmation |  | 1 |
| No Response |  |  |
| Negativism |  |  |
| Criticism | 1 | 2 |
| Process. |  | 1 |
| Gives Answer |  | 1 |
| Ask Other |  |  |
| Other Calls |  |  |
| Repeat Question |  |  |
| Clue |  |  |
| New Question |  |  |

The students did not have any interactions with the teacher based on behavior.
Table 19 reports the interaction between teacher and students during the seatwork period. Females interacted with the teacher seven times. Four exchanges were student created and three were teacher afforded. The four student created interactions occurred
consecutively. Male students interacted with the teacher 17 times with 10 being student created and seven teacher afforded.

TABLE 19

FIFTH GRADE PROCEDURAL, WORK AND BEHAVIORAL CONTACTS

| Category | Female | Male |
| :--- | :---: | :---: |
| Student Created Work \& Procedural Seatwork Interaction | 4 | 10 |
| Teacher Afforded Work \& Procedural Seatwork Interaction | 3 | 7 |
| Total Seatwork Interaction | 7 | 17 |
| Behavior Praise | 0 | 0 |
| Behavior Warning | 0 | 0 |
| Behavior Criticism | 0 | 0 |
| Total Behavior Interaction | 0 | 0 |

Summary. Teacher Five assigned seats with female students clustered at certain tables. Male students outnumbered female students approximately two to one. Teacher Five did not proximate himself around any particular group of students.

Male and female students did not often raise their hands due to Teacher Five's direct questioning manner. There was a subdued tone of enthusiasm for the lesson, which was common for the males and females. Teacher Five provided male students an average
of two questions. He gave female students an average of one question. Teacher Five asked direct questions as opposed to open calling directly on students regardless of their desire to answer. He asked twice as many process questions as product. Teacher Five offered six praise responses to the males and one to the females. The majority of his responses were affirmations for both genders.

Teacher Five had no behavioral contacts with his students. His contact with male and female students concerning procedures and work were slightly more for males than females in consideration of the greater number of males in the class population.

## Sixth Grade Observation

Teacher Six was observed on two occasions for a total of 122 minutes. The first observation was a writing composition lesson and the second was a science lesson. During the first observation, 13 female and 15 male students were present. During the second one, 10 females and 14 males were present. The classroom setting had individual student desks that were arranged in a box shape with one row in the middle. Students sat side-by-side with a male-female pattern. During both observations, Teacher Six either sat or stood at the front of the room during the questioning time.

Male students raised their hands, waved their arms and smiled indicating an anxiousness to answer questions. They often jumped up and moaned to gain the teacher's attention to be called upon. Females raised their hands in a half-extended manner and did not present facial expressions.

During the first observation, the teacher was reading model student compositions, which allowed the students to experience good writing. She told the students in order to
maintain the privacy of the students' identification, she would refer to all authors of the excellent compositions as "he." Throughout the 60-minute observation, Teacher Six referred to the authors of the compositions shared as "he." She made comments such as; "he" used strong descriptive style in this sentence. None of the authors' papers shared were referred to as "she." However, Teacher Six did refer to one author as "they" several times.

Table 20 summarizes the questions asked by Teacher Six to include the type and level. Female students were asked 37 questions with five being direct and 32 open. Female students were asked 12 process questions and 25 product. Males were asked 68 questions with nine being direct and 59 open. The males were asked 29 process questions and 39 product.

TABLE 20
SIXTH GRADE NUMBER, TYPE AND LEVEL OF QUESTIONS

| Gender | Number of Questions | Discipline | Direct | Open | Process | Product |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Female | 37 | 0 | 5 | 32 | 12 | 25 |
| Male | 68 | 0 | 9 | 59 | 29 | 39 |

Table 21 notes the students and teacher's responses to the questions asked.
Female students answered correctly 30 times. They responded partially correct five
times, incorrectly one time and one female student did not respond. Teacher Six provided 28 affirmations, three no response, three times she asked another student, one time she

TABLE 21
SIXTH GRADE STUDENT AND TEACHER RESPONSES

| Responses | Female | Male |
| :--- | :---: | :---: |
| Student |  |  |
| Correct | 30 | 48 |
| Partially Correct | 5 | 12 |
| Incorrect | 1 | 4 |
| No Response | 1 | 4 |
| Teacher | 28 | 6 |
| Praise | 3 | 42 |
| Affirmation |  | 1 |
| No Response |  | 1 |
| Negativism | 3 | 1 |
| Criticism |  | 10 |
| Process |  |  |
| Gives Answer | 1 | 3 |
| Ask Other | 2 | 1 |
| Other Calls |  |  |
| Repeat Question |  |  |
| Clue |  |  |
| New Question |  |  |

gave a clue and two times she asked a new question. Male students answered correctly 48 times, partially correct 12 times, incorrectly four and four students did not respond. The teacher gave six praise comments, 42 affirmations, one no response, one negative response, one time she gave the answer, 10 times she asked others for the answer, three times the question was repeated, three clues were given and one new question asked.

Table 22 summarizes the seatwork contacts. No exchanges were recorded for behavioral reasons during the observation. Females interacted five times with the five interactions being student created. Five males interacted with Teacher Six during the observation. Four exchanges were student created with one being teacher afforded.

TABLE 22
SIXTH GRADE PROCEDURAL, WORK AND BEHAVIORAL CONTACTS

| Category | Female | Male |
| :--- | :---: | :---: |
| Student Created Work \& Procedural Seatwork Interaction | 5 | 4 |
| Teacher Afforded Work \& Procedural Seatwork Interaction | 0 | 1 |
| Total Seatwork Interaction | 5 | 5 |
| Behavior Praise | 0 | 0 |
| Behavior Warning | 0 | 0 |
| Behavior Criticism | 0 | 0 |
| Total Behavior Interaction | 0 | 0 |

Summary. With two observations conducted consisting of different number of males and females at each one, an average number of males and females was used. There were 13 female students present at observation one and 10 at the second observation for an average of 11 females. There were 15 males at the first observation and 14 at the second for an average of 14 . With this being considered, the following information was summarized.

Students were assigned seats based on a male-female pattern around the room. Teacher Six either stood or sat in the front of the room throughout the questioning segment and did not proximate herself in any manner.

Male students showed a greater enthusiasm for answering questions than females. Males waved their arms and moaned if the teacher didn't call on them. Females raised their hand in a half-extended manner. Teacher Six provided female students an average of three questions. She asked male students approximately five questions providing males a greater opportunity to respond. She evenly spread the type and level of questions based on gender. She used more open and product questions for both genders. The majority of the students answered the questions correctly. Teacher Six used affirmation as the key response for both genders. However, she praised the males six times as compared with no praise response given to the female students. Teacher Six repeatedly asked other students for the answer using this response more often with males. When sharing exceptional work with the class, Teacher Six used the term "he" to refer to all student authors in order to provide anonymity.

Teacher Six made no contacts based on behavior. The seatwork interactions were evenly distributed between the male and female students.

## Collective Observation Summary

The total number of students involved during the observations of the seven classrooms was 136 with 60 female students and 76 males. Females represented 44 percent of the sample with male students representing 56 percent. Observation data was reviewed focusing on teacher practices in three areas: student seating with teacher proximity, response opportunities during questioning and procedural, work and behavioral contacts for students represented in kindergarten through sixth grade.

Student Seating and Teacher Proximity. Students were placed in assigned seats in grades two through six. With the exception of Teacher Five, the children were equitably assigned based upon gender when considering the ratio of males to females. Teacher Five had a ratio of twice as many males than females in his class with seven females compared with 13 males. Three of the seven females sat together at a table in this classroom. Two other females sat at another table with the other two being split between two separate tables with males.

Kindergarten and first grade students were not assigned seats. They chose where to place themselves during the observations. Kindergarten students grouped themselves by gender. First grade students sat in a mixed gender pattern.

During the questioning time of the observations, all seven teachers had a tendency to stay at the front of the room. Teacher K and Teacher One remained seated in rocking
chairs. The other five teachers primarily remained at the front of the room often using the whiteboards to record answers or for instruction purposes. Teachers tend to proximate themselves in certain areas of the room creating "dead zones" for certain students (Sadker \& Sadker, 1994, p. 268). Teachers within this study did proximate themselves at the front of the room tending not to move into any certain zones. During seatwork time, the Teacher-Child Dyadic Interaction instrument (Brophy \& Good, 1969) was used in this study to record the attention given by the teacher to individual students as summarized in Table 25. This allowed a more in-depth investigation of the contacts created between the teacher and students.

Response Opportunities. Field notes indicated that students did show a difference when responding to questions asked by their teachers. Male students showed an outward enthusiasm during this time often raising their arms high and waving. They also jumped up and down and loudly stated that they knew the answer, or they made moaning type sounds indicating that they wanted to answer. Collectively, female students raised their arms in a half-extended manner and did not jump or make noises when offering to answer.

These classrooms were filled with interactions occurring at a rapid pace. Table 23 summarizes the collective number, type and level of questions asked by the seven teachers represented in this study. The first column presents the number of females and males present during the observations. Column 2 states the number of questions asked of the students based on gender. Columns 3, 4 and 5 address the type of questions with columns 6 and 7 presenting the level of questions asked. Table 23 refers to the grade
levels as $K, 1,2,3,4,5$ and 6 . Teachers' names are abbreviated such as Teacher One referred to as T1, Teacher Two as T2 and so forth.

TABLE 23
GRADES K-6 NUMBER, TYPE AND LEVEL OF QUESTIONS

| Gender <br> With \# <br> Present | Number of Questions | Discipline | Direct | Open | Process | Product |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Female |  |  |  |  |  |  |
| K....... 9 | TK .... 20 |  | TK .... 10 | TK ... 10 | TK ... 19 | TK ..... 1 |
| 1...... 9 | T1 .... 14 |  | T1 ...... 2 | T1 .... 12 | T1 .... 10 | T1 ..... 4 |
| $2 \ldots . . .7$ | T2 .... 14 |  | T2 ...... 3 | T2.... 11 | T2 .... 1 | T2 .... 13 |
| $3 \ldots . .7$ | T3 ... 16 |  | T3 ..... 4 | T3 ... 12 | T3 ...... 4 | T3 .... 12 |
| 4...... 10 | T4 $\ldots . .10$ |  | T4...... 9 | T4 $\ldots . .1$ | T4..... 0 | T4..... 10 |
| 5..... 7 | T5.... 8 |  | T5 ..... 8 | T5... 0 | T5 .... 5 | T5.... 3 |
| $6 \ldots . .11$ | T6 .... 37 |  | T6..... 5 | T6... 32 | T6 .... 12 | T6... 25 |
| Total . . 60 | Total . 119 | Total ... 0 | Total ... 41 | Total . . 78 | Total .. 51 | Total . . 68 |
| Male |  |  |  |  |  |  |
| K...... 10 | TK ..... 9 |  | TK ..... 1 | TK .... 8 | TK .... 9 | TK .... 0 |
| $1 \ldots . .10$ | T1 .... 34 |  | T1..... 10 | T1.... 24 | T1 .... 19 | T1 .... 15 |
| $2 \ldots . . .10$ | T2.... 21 |  | T2..... 5 | T2 .... 16 | T2 .... 3 | T2 .... 18 |
| $3 \ldots . . .9$ | T3 .... 33 |  | T3 ...... 5 | T3 .... 28 | T3 ..... 1 | T3 .... 32 |
| 4...... 10 | T4.... 20 | T4..... 2 | T4..... 13 | T4.... 5 | T4.... 0 | T4.... 20 |
| $5 \ldots \ldots \cdot 13$ | T5 ..... 26 |  | T5 ..... 23 | T5 ..... 3 | T5 .... 18 | T5.... 8 |
| $6 \ldots . .14$ | T6.... 68 |  | T6..... 9 | T6.... 59 | T6.... 29 | T6.... 39 |
| Total . . 76 | Total .. 211 | Total .... 2 | Total ... 66 | Total . 143 | Total .. 79 | Total . . 132 |

Collectively, the teachers in this study directed 60 percent of the questions to males compared with females receiving 40 percent. Males averaged three questions per
male and females two questions. The exception for this was Teacher K and Teacher Two. Teacher K asked her female students twice as many questions as the males. Teacher Two asked questions in an equitable manner based on gender. None of the teachers asked questions for disciplinary reasons with the exception of Teacher Four who asked two of male students. Both males and females were asked more open questions as opposed to direct indicating that the seven teachers were inclined to ask open questions waiting on students to indicate a desire to answer. The exception was Teacher Four and Teacher Five who showed a preference for asking direct questions. Both Teachers Four and Five asked males twice as many questions when using the direct type of questioning.

Table 24 summarizes the collective data recorded for student and teacher responses to the answers given by the students. This study focused on elementary teachers' awareness of gender. However, it proved helpful to review the student response as well when examining interactions in the classroom.

Both females and males answered questions correctly the majority of the time with 85 percent of the answers given by females being correct and 80 percent for the males. This led to the understanding that the majority of the teacher responses were affirmations with 68 percent of the females being affirmed and 65 percent of the males. Another key response was academic praise with five percent of the female responses being praised and 10 percent of the males. This indicated that during the observation periods of these seven classrooms, males were praised for academic success twice as often as females. With this representing a small percentage, there might be discussion concerning the significance. When considering that this study represented a snapshot of a
typical classroom, one can assume that during the 180 days of school each year that it is possible for this to have a cumulative impact.

TABLE 24

GRADES K-6 STUDENT AND TEACHER RESPONSES

| Responses | Female | Male |
| :--- | ---: | :---: |
| Student |  |  |
| Correct | 101 | 169 |
| Partially Correct | 7 | 20 |
| Incorrect | 5 | 11 |
| No Response | 6 | 11 |
| Teacher | 6 |  |
| Praise | 81 | 22 |
| Affirmation | 19 | 137 |
| No Response | 0 | 15 |
| Negativism | 0 | 1 |
| Criticism | 0 | 0 |
| Process | 3 | 2 |
| Gives Answer | 5 | 3 |
| Ask Other | 1 | 15 |
| Other Calls | 0 | 1 |
| Repeat Question | 2 | 5 |
| Clue | 2 | 8 |
| New Question |  | 2 |

Table 25 summarizes the recorded data from the seven classroom observations investigating procedure, work and behavioral contacts between the teacher and students. Once students were assigned seatwork, the teachers moved about the room offering assistance and examining the students' progress. Table 25 examines the cumulative contacts made by the seven elementary teachers in this study.

TABLE 25

GRADES K-6 STUDENT AND TEACHER PROCEDURAL, WORK AND BEHAVIORAL CONTACTS

| Category | Female | Male |
| :--- | :---: | :---: |
| Student Created Work \& Procedural Seatwork Interaction | 39 | 30 |
| Teacher Afforded Work \& Procedural Seatwork Interaction | 11 | 33 |
| Total Seatwork Interaction | 50 | 63 |
| Behavior Praise | 8 | 6 |
| Behavior Warning | 11 | 38 |
| Behavior Criticism | 2 | 0 |
| Total Behavior Interaction | 21 | 44 |

Two approaches were applicable when presenting the data for procedural, work and behavior contacts. One was to compare the number of contacts with the total number
of females and males in the observation portion. The other method was to compare the contacts against the number of female and male students who actually had contact with the teacher during the seatwork portion of the observation. Both comparisons were made.

A total of 71 contacts were made between female students and their teachers with a total of 107 contacts occurring between the male students and teachers. Females had a total of 50 procedural/work seatwork contacts and males had 63 . Females had 21 behavioral contacts with the male students having 44.

Seventy-one contacts for the females represented approximately one contact per female of the 60 females present during the observations. One hundred-seven represented approximately two contacts per male of the 76 males present. Further desegregation of the data was necessary to create a more thorough understanding.

Females and males received an equitable amount of contacts for procedure and work with each gender receiving 83 percent contact with the teacher. However, it was interesting to note that 60 percent of the females created the contacts with the teacher compared with 40 percent of the males creating contact. Eighteen percent of the females were afforded contact by the teacher for procedure or work interactions. Forty-three percent of the males were afforded assistance for procedures and work by the teacher. Although the males and females received the same amount of contacts with the teachers, there was a discrepancy between what was created by the students and afforded by the teacher. Females created more contact, and the teachers afforded males more contact.

In examining the behavioral contacts it was noteworthy to call attention to the fact that Teachers Four, Five and Six did not have any behavioral contacts with their students.

They moved along with instruction with no behavioral contact for praise, warning or criticism. The data was from teachers in the primary grades kindergarten, first, second and third.

Approximately 35 percent of the female students represented in this study had contact with the teachers for behavior with 58 percent of the male students having received behavioral contact. Males were contacted primarily to receive a warning about inappropriate behavior. Thirty-eight warning contacts were made representing half of the number of male students in the male sample. This also represents 86 percent of the interactions when examining the total number of behavioral contacts with male students. Male students received six behavioral praise contacts representing eight percent of the male students and 13 percent of the total contacts made with males by their teachers. There were no criticism contacts made.

Females were contacted for warning purposes 11 times representing more than half of the contacts made. The 11 contacts represent 18 percent of the females in our female sample. Female students received eight praise contacts equaling 38 percent of the behavioral contacts made. Two female students were criticized representing slightly less than one percent of our female population observed.

When examining the observation portion of this study, the following findings were collectively summarized for presentation:

1. Teachers questioned males more often than females with males receiving an average of three questions and females two. Thus, the males received approximately 60 percent of the interactions and females 40 .
2. Teachers preferred the use of open questioning for females and males.
3. Teachers preferred asking product questions of females and males.
4. When responding to questions, the majority of females and males answered correctly.
5. Teachers responded to females and males in an affirmative manner the majority of the time.
6. Teachers provided academic praise for male students approximately two times more often than females.
7. Teachers provided an equitable amount of procedural/work contacts with females and males. However, males received more than twice the amount of procedural/work contact afforded by teachers. Females created contact more often than males.
8. Males received more behavioral contact than females with 86 percent of the male contacts being received as a behavioral warning. However, females received a greater amount of contact for behavioral praise.
9. Males demonstrated more outward excitement than females when being questioned by the teacher. They enthusiastically raised their hands and often made noises and jumped up and down to be noticed. Females raised their hands in a half-extended manner and seldom moved their bodies or made noises for attention.

The term document was used as "the umbrella term to refer to a wide range of written, visual, and physical material relevant to the study at hand" (Merriam, 1998, p. 112). Documents examined for this study included textbooks, trade books and the physical classroom to include student work, teacher-made and commercially bought materials openly displayed, which explained the perceptions of elementary teachers in regards to gender. The reading textbooks were examined for each grade level along with random sets and individual trade books openly displayed for usage in the classrooms. These three themes merged to create an understanding of these teachers' gender awareness concerning operational environment, which affected the daily lives of the students.

Certain subject areas did not have textbooks until second grade, and the individual teacher chose materials to meet the standards. The same reading company's materials for both the student and teacher texts impacted all students in grade kindergarten through sixth. Reading was chosen as the area of investigation for this reason.

Data were coded by investigating the total number of females and males present as main characters in textbook and trade book stories. Illustrations were scrutinized to record the number of passive and active illustrations based on gender in the additional sections of the reading textbooks such as chapter introductions or poetry sections (Weitzman, Eifler, Hokada \& Ross, 1972; Williams, Vernon, Williams \& Malecha, 1987). The reading textbooks were a part of DoDDS adoption for all grades kindergarten
through sixth represented in this study. Trade books were randomly chosen from the shelves in the classroom libraries. Characters were coded as female, male, both or neutral. If an animal was the main character and the term "he" or "she" was used, that was coded by gender. If the animal was referred to as "it" in the story, neutral was recorded. Another example of a neutral story is a nonfiction book on making kites or an alphabet story. If a character's gender could not be determined in illustrations, nothing was recorded.

## Teacher K

Teacher K had a center-based classroom layout. The room was decoratively arranged with early childhood materials where children had the opportunity to investigate their surroundings. The room had a focal area in front of the whiteboards where the children sat on the floor when they met. The room included art, computer, blocks, housekeeping (socio-dramatic play area, as labeled by the teacher), writing, science and math centers. Teacher K had taken photographs of the children while they worked in the various centers, which she has posted in the room. Children's work and teacher-made and commercially made posters surrounded the room as well.

The art center displayed pictures the children had painted and one photograph with two males and two females shown painting. The math center had four photographs displayed with six females and four males combined. The science center had an equal number of male and female characters in the materials used. The computer center was gender neutral.

The block center was overwhelmingly male in nature. There were six photographs of students working in the center with all 12 depicted students being male. Student writing displayed in the block center was exclusively male.

The housekeeping (socio-dramatic play area) was heavily female in nature. All dolls were female. There were fewer male-type pieces of clothing. One example of student work was displayed, which was a female student's writing with an illustration drawn. One was a teacher-made poem titled "My Little Sister," which had a drawing with females. One commercial poster depicted a mother with her kindergarten age daughter changing a baby's diaper.

The writing center was gender neutral with no posters or student work displayed. Materials for writing such as paper and pencil were arranged. The reading center had a bookshelf with various books. Twelve trade books were randomly chosen from the shelves of the classroom library and examined for gender representation. Seven of the easy to read books had males as main characters. Four main characters were female, and one book had a male and female as main characters. One of the female main characters was Cinderella, a book that depicted a female who was rescued by a prince.

One book was chosen for closer exploration, which was a book about dinosaurs. The cover had a school age male and female on the cover, which could lead to an assumption that the book had a male and female as main characters. In examining the book it was found to be nonfiction with 24 characters illustrated in the book being male and nine female. Only one female character was shown as a scientist. This female was
illustrated as she looked in to a microscope. Male scientists were shown digging and examining fossils.

Kindergarten age students did not have a reading textbook. The reading series was based on trade books that the teacher read to the students with language activities developed for each story. Two units totally investigated 17 stories. The trade books used for teaching reading contained main characters to include seven females, three males, one with both genders as the main characters and six neutral. The neutral coded books included stories on kites, pizza, tortillas, making teddy bears and two stories were on the alphabet.

Summary. Teacher K had a visually pleasing classroom filled with activities for early childhood students. In examining the room with gender awareness as the focus, it was apparent that the art, math, writing, science and computer centers were gender neutral from a physical standpoint such as posters and displays present. The block center was male in nature with only male photographs and work displayed in the center. Housekeeping was female in nature with posters and poetry depicting only females and the clothes lacking in male type pieces.

The reading center was investigated in order to code trade books by gender. Twelve books were randomly pulled for examination. Four main characters were female, seven male and one book had a male and a female as the main characters. One of the four female books represented was Cinderella, which portrayed "good" females as beautiful and "evil" ones as ugly in physical attributes. A prince saved the beautiful female from
her ugly stepsisters. A non-fiction science book depicted males 24 to 9 females as discovering and studying dinosaurs.

Trade books were used for kindergarten reading. Seventeen stories were reviewed for main character representation. Seven females, three males, one with both genders as main characters and six neutral stories were present in two units of the kindergarten reading series.

Teacher K displayed a limited amount of gender awareness in her physical classroom-setup. The most typical gender biased centers were blocks and housekeeping, which are examples throughout education in the kindergarten setting for sex-role distinctions. "Boys and girls are socialized to accept society's definition of the relative worth of each of the sexes and to assume the personality characteristics that are 'typical' of members of each sex" (Weitzman, Eifler, Hokada \& Ross, 1972, p. 1125).

The random sample of trade books represented in Teacher K's reading center indicated a subtlety of gender bias. Females were represented less often as main characters than males with a ratio of seven to four. One of the four main female characters was Cinderella.

The DoDDS adopted reading series incorporated trade books as opposed to a textbook in kindergarten. This series indicated gender bias with females being cast as main characters more often than males. Seven females to three males were present in two units of the kindergarten series. However, six stories were neutral with nonfiction stories on pizza, tortillas, teddy bears, kites and the alphabet being the main idea twice. One story included a male and female as joint main characters.

## Teacher One

Teacher One had a center-based classroom filled with materials for exploration in first grade. The room was colorful and pleasant to the eye. Centers included were art, building, special interest, reading, writing and math. In examining the displays throughout the room, no specific gender was represented. Posters were of gender-neutral animals, numbers and the alphabet.

The special interest center was filled with books on flight that had been checked out from the school library. In examining the eight books on flight, jets, helicopters and how to be a pilot, only two females were pictured as pilots. Two females were shown as flight attendants and two as a part of a rescue team. Two other females were depicted as renovating the wing of an antique plane as team members for a museum. Male characters were illustrated throughout all the books primarily as pilots, engineers and scientists.

The reading center was filled with books divided by popular authors. All of the books displayed represented male authors with the exception of one book co-authored by a male and female. Fourteen books were randomly pulled from the shelf for examination. Seven of the main characters were male, one female, four gender neutral such as an animal referred to as "it" and two had a male and female as joint main characters.

The reading series for first grade had a number of smaller books as expected in the lower grades. Three reading textbooks were examined to create an equitable amount of data examined in comparison to the other grade levels in this study. There were 15 passive males and four active in the illustrations for a total of 19 male illustrations other than those in the main stories. Females were represented 25 times in passive illustrations
and five active for a total of 30 depictions. In the stories males were the main character eight times, females three, both genders were key characters in three stories with neutral stories represented four times.

Summary. Teacher One's gender awareness in regards to the operational environment was reported through the use of the subcategories physical environment, trade books and textbooks.

When viewing the classroom, no direct data indicated either male or female over representation in Teacher One's classroom. The displays were gender neutral. However, in closer examination of the special interest center, it became apparent that this center was male-defined. The books on flight were male biased and stereotypical as described in the trade books category. Also, Teacher One mentioned the special interest center in her interview describing it a center that her male students had wanted to establish.

Teacher One's trade book collection represented exclusive male orientation in flight travel with the exception of two female pilots from a selection of eight books in a center. The reading center contained all male authors with the exception of a malefemale team writing one book with books categorized in sets by author. The random selection of shelved books represented seven males, one female, four neutral and two with both genders in the random selection.

The books reviewed represented 19 male illustrations with 15 being actively depicted and four passive. Females were illustrated 30 times with 25 being passive and five active. Females were represented more often than males in a passive role and
equitably when depicted in active roles. Males were main characters more often than females in the reading stories.

Teacher One's classroom appeared to be gender neutral when physically viewing the classroom. However, in reviewing trade books within the classroom, males were represented more often than females. The DoDDS adopted materials contained more males as main characters than females. Males were illustrated less often than females in the areas other than the main stories such as poetry and chapter introduction sections. However, the females were depicted as passive compared with the males.

## Teacher Two

Teacher Two had a traditional looking classroom with the exception of tables being used compared with individual desks. The room was sparsely decorated, but what was displayed was pleasant and friendly for young children. When examining the room, the displays were found to be gender neutral with animals, numbers and letters shown. A small amount of student work was displayed.

The room had a reading area with books for the students' enjoyment. This included a listening area. In examining the materials in the listening area, three sets of books were available. All three sets had males as the main character. Trade books were also available in sets. Of the 26 sets of trade books, 10 had male main characters, seven females, six neutral and three had both. Individual trade books were located on shelves. Fifteen were randomly pulled from the shelves for investigation. Seven books depicted
males as main characters, three females, three neutral and two included both a male and female as joint main characters.

The reading textbook was scrutinized to examine for the number of male and female main characters and other illustrations throughout the book. It was further investigated for passive and active roles of those illustrated throughout the book in areas other than main stories. The second grade reading textbook included 87 illustrations exclusive of the main stories. Forty-six of these illustrations were male with 18 being pictured as passive and 28 as active. Females were illustrated 41 times with 21 being passive and 20 actively involved. The book contained 17 stories for the students to read. Ten stories had males as main characters with four being female. Two stories contained both genders as main characters and one story was gender neutral.

Summary. The room was found to be gender neutral with animals, numbers and letters displayed throughout the room. The students' work was evenly distributed for showing with sparse displays.

Females were under represented in the reading area. Books were reviewed by sets and individually. The three sets of books accompanied with cassettes for listening had males as main characters. The 26 sets of trade books had 10 male main characters, seven females, six neutral and three with both represented. The individual books randomly chosen from shelves represented seven males, three females, three neutral and two with both genders as main characters. This totaled a representation of main characters as 20 males, 10 females, nine neutral and five with a male and a female as joint main characters.

The reading book contained a slightly greater amount of illustrations of males than females with 46 to 41 . The main characters of the stories contained more than twice as many males than females with 10 to 4.

Teacher Two's classroom physically appeared gender neutral. In examining the trade books a greater representation of males was present with twice as many males than females. The DoDDS adopted materials also represented a greater number of males than females as main characters in the stories. Illustrations outside the main stories were fairly equitable based on gender depiction.

## Teacher Three

Before entering the classroom, it was noted that Teacher Three had divided the students by gender when creating the class list. There were boy and girl columns on the display, which was attached to the hallway side of the door. Teacher Three had one of the largest rooms in the school building. It was roomy with a sofa for the students to sit and read. The room had tables and chairs as opposed to individual desks. There were displays of teacher-made and commercially bought posters throughout the room. These were gender neutral with animals, number and letters pictured. There were an array of puzzles and games for the children to use. There was a reading area with trade books located on a bookcase.

Fifteen books were randomly pulled from the two shelves within the case. Seven books had males as the main character, three were female, one was neutral with an animal referred to as "it" and four books had a male and female as joint main characters.

The reading textbook was examined. Males represented 66 illustrations with 33 being passive and 33 active. The females represented 47 illustrations with 28 being shown as passive and 19 as active. The main characters of the 19 stories in the text included nine males, six females, two neutral and two had both male and female as main characters of the story.

Summary. Teacher Three's classroom was coded as neutral with no specific gender present. Alphabet and number displays were around the room with gender neutral animals also present. Outside the classroom, Teacher Three had the class list divided by gender with a boys' and a girls' column.

Teacher Three had a reading bookcase containing two shelves. Fifteen books were randomly pulled for examination. Seven books contained males as main characters with three others being female. One was coded as neutral and four had a male and a female both as main characters.

The DoDDS adopted textbook contained a majority of male characters. Illustrations depicted males 68 times as compared with 47 females. Males were more actively depicted as well. Main characters were predominately male containing nine males, six females, two neutral and two both genders represented in the stories for the children to read.

Teacher Three's classroom appeared to be gender neutral with neither gender being present. However, a subtle bias was present in discovering the class being divided by gender. A class roll was displayed outside the classroom entrance.

The random selection of trade books from the reading case indicated unawareness by Teacher Three of gender representation with males outnumbering females seven to three. The trade books represented both genders as joint main characters four times with one book being a neutral-gendered animal.

The third grade reading textbook was recorded as illustrating males more often than females 66 to 47 with females being depicted as active 19 times and males 33. The stories contained males as main characters nine times and females six. Both genders were joint main characters two times and there are two neutral stories contained in this reading volume. There was no indication that Teacher Three was aware that the adopted text has a lesser representation of females than males. The sample of trade books and the lack of mentioning the reading text in the interview substantiated this subtlety of gender bias and the unawareness of the importance of gender representation for females as well as male students in the elementary setting.

## Teacher Four

Teacher Four's room was crowded with furniture, books and projects. Tables were used rather than traditional desks with chairs. The walls were filled with posters and various displays of student work. Teacher Four had mainly gender-neutral posters with the exception of two modern geometric depictions of Einstein and Lincoln situated at the front of the classroom. Other displays were photographs of the teacher, her family and friends. She also had a large collection of stuffed animals around the room.

One shelf was filled with trade books for the children. Sixteen books were randomly pulled and examined for gender representation as main characters. Five main characters were males with five being female. Five also represented both genders as joint main characters and one book was gender neutral.

The reading textbook depicted 61 males in illustrations with 46 shown as passive and 15 as active. Females illustrated were shown as passive 46 times and active 12 for a total of 58 depictions. Eight males were coded as main characters in the reading stories with six female, two neutral stories and three stories with male and female main characters.

Summary. Teacher Four's room was extremely crowded with posters, projects, student work and furniture. It was primarily gender neutral with the exception of two male posters balanced by photographs for the teacher with her female friends pictured at various vacation spots around the world.

The random selection of trade books indicated an equitable distribution by gender in Teacher Four's collections. The adopted DoDDS series slightly depicted males more often than females in illustrations and main characters of stories.

Teacher Four's room had only two characters depicted in posters. Both were male. However, she had photographs of herself with female friends in different world locations. Textbooks depicted males more often. However, the difference was slight with 61 male illustrations compared with 58 females and 8 male main characters and six females. Males were also illustrated as active 15 times compared with 12 times for
females. Teacher Four's trade book collection served as an example of equal representation of males and females as main characters.

## Teacher Five

The hallway outside of Teacher's Five room was filled with student work. One display was titled "Celebrate Hispanic Heritage." Students had created posters and written about famous Hispanics. Of the 13 posters displayed, 11 focused characters were male and two were female. The other poster display was titled "Trade Books." Students had created posters depicting the cover of a trade book and a written description of that book. Six of the books had males as main characters, two were female and three had a male and female as joint main characters.

Teacher Five had a highly decorated room filled with posters and displays of student work. The room was covered with visuals for learning. One display was student book reports. Examination of the books chosen by the students indicated that 13 had males as main characters, four females, two gender neutral such as non-fiction on volcanoes, and three book reports had a male and a female as joint main characters.

Teacher Five had created a bulletin board display titled "First Americans." This included six posters. All six posters were of male Native Americans with information about each one at the bottom of each poster. Another poster was on making a totem pole, which showed two Native American males carving a totem pole. There was a book cover on the Aztecs also on the board. It depicted a village with a large number of males in the foreground and a few females in the background.

Commercially made posters were examined. One poster focused on valor with those earning military medals of honor. No females were represented. Another poster pictured all of the American presidents. There was a Christopher Columbus poster and beside it was a poster titled "Explorers of North America," which depicted seven male explorers. No females were represented.

No trade books for reading were readily noticeable although the book reports indicated that the children read trade books as a part of the curriculum. The review of book reports was used as the trade book sample for this study.

The reading textbook was scrutinized. Males represented 65 illustrations with 42 being passively depicted and 23 being active. Females were illustrated 57 times with 42 shown in a passive mode and 15 as active. The stories for student reading showed main characters with seven males, four females, two neutral and three with male and female represented.

Summary. Student created work displays heavily represented males in the famous Hispanics, trade books and book report displays. Teacher-made and commercially bought posters and bulletin board displays completely omitted female representatives ranging from military valor, Native Americans and famous explorers.

Trade books were not shelved in the classroom. However, the students used trade books due to the book reports and trade book posters noted. These were used as the trade book data. Six males and two females were represented in the trade book posters. Three had a male and a female as joint main characters. Book reports represented 13 males and four females as main characters. There were two gender-neutral examples and three
books had joint gender main characters. This summarized a total of 19 males, six females, two gender neutral and six males and females as joint main characters in classroom trade books representation.

Illustrations were within a narrow range of difference based on the number of depictions with 61 for males and 57 for females. However, the males were shown as active 23 times and females 15 . The stories represented seven males, four females, two neutral and three joint gender as main characters.

Teacher Five demonstrated a male-defined awareness in the elementary setting. Females were grossly under represented in the physical setting of the classroom as well as the main characters in frequently read stories.

## Teacher Six

Teacher Six had a sparsely decorated and simple room. The number of students required a large amount of space to be occupied for desks and chairs around the room. On the day of examination the teacher had mainly teacher-made displays such as one titled "Tracing the Elements," which was a part of the survival unit. There was a small amount of student work around the room. The classroom was visually gender neutral.

Four sets of trade books were on shelves in the room with a copy for each student. Of the four sets, two had males as main characters, and two had females. One book was about a young woman living in the Kalahari Desert. She longed to be a hunter and the book's focus was on her struggle to become what she aspired to be as she faced the obstacles around her. These obstacles included the prejudice that females were not able
to be hunters. Her intent was to prove to the people of her village that she was capable of being a great hunter.

The reading textbook represented males more often than females with 80 illustrations compared with 59 for females. Males were depicted in passive roles 67 times and actively 13. Females were represent in a passive role 46 times and actively 13. Main characters in the reading stories contained eight males, six females, four with both genders and five were neutral.

Summary. Teacher Six's room did not present any gender over representation by viewing posters, student work or displays. The room was sparse in nature and was gender neutral with a limited amount of data.

Teacher Six had very few books openly presented for student reading pleasure. There were four sets of books in the classroom. Of the four sets, two characters were male and two female. Males were represented more often than females in illustrations. Males were also represented as main characters slightly more often than females.

Teacher Six's room did not physically display any gender representation. The sample of trade books was small with only four sets openly displayed in the classroom. The DoDDS adopted reading textbook represented males more often through illustrations and main characters in stories.

## Collective Documents Summary

The summative data was reviewed within the understanding of the operational environment for the seven teachers included in the study using the three subcategories of
physical environment, trade books and textbooks. Table 26 reviews the teachers' gender awareness through the investigation of physical evidence such as classroom displays, student work and teacher created or bought posters and other visual materials. The table explains gender awareness through the concepts of traditional gender roles, over representation of female or male and gender neutral.

TABLE 26

TEACHERS K-6 GENDER AWARENESS IN THE PHYSICAL SETTING

| Teachers | Stereotypical <br> Representation | Female <br> Representation | Male <br> Representation |
| :--- | :---: | :---: | :---: |
| K | Neutral/Equitable <br> Setting or <br> Insufficient Data |  |  |
| One | X |  |  |
| Two |  | X |  |
| Three |  | X | X |
| Four |  | X |  |
| Five |  | X |  |
| Six |  | X |  |

Teacher K's classroom had an equitable amount of gender representation however, the representation was defined by traditional roles such as females in the housekeeping center and males in the block center. Teachers One, Two, Three, Four and

Six were gender neutral in the physical setting although Teacher Three did have the students divided by gender posted outside the classroom. Their rooms depicted animals or student work, which was not defined within the context of gender. Also, Teachers Two and Six had limited data with sparsely decorated classrooms. Teacher Four had a slight over representation of males by displaying posters of Lincoln and Einstein, but these were balanced by her personal photographs with female friends on vacation outings. Teacher Five copiously demonstrated male representation in the physical setting.

Table 27 summarizes gender awareness of kindergarten through sixth grade teachers concerning the inquiry of trade book examples randomly reviewed in the study.

TABLE 27
SUMMARY OF MAIN CHARACTERS IN CLASSROOM TRADE BOOKS

| Female | Male | Both Genders | Neutral |
| :---: | :---: | :---: | :---: |
| 31 | 67 | 23 | 37 |

Kindergarten through sixth grade teachers in summary had more than twice as many males than females in the classroom trade book choices for students. The majority of the books were individually displayed on shelves openly displayed in classrooms. A few were presented in sets and as listening materials. Both genders jointly represented main characters 23 times. Thirty-seven gender neutral stories were found with themes
such as the alphabet and nonfiction animal books. These neutral books were not investigated by illustrations in reference to gender.

Table 28 summarizes the textbook illustrations by gender. These illustrations were examined outside the main stories. This particular reading series filled the books with visually pleasing illustrations to gain and maintain student interest. Illustrations were throughout the series at the beginning of chapters and with special interests pieces such as poetry.

TABLE 28
SUMMARY OF TEXTBOOK ILLUSTRATIONS

| Gender | Passive | Active | Total |
| :--- | :---: | :---: | :---: |
| Female | 208 | 84 | 292 |
| Male | 221 | 116 | 337 |

Table 28 indicates that males were illustrated more often than females in the adopted reading series in grades one through six with kindergarten using trade books to begin language literacy. Males were shown 45 more times than females. More interestingly, males were depicted as active twice as often as females. Activities included sports, working on projects and any person shown as actively involved while completing a task. Females were shown more often as sitting and watching the activity interacting as spectators.

Table 29 summarizes the main characters in stories by gender within the reading textbooks for kindergarten through sixth grade. Categories female, male, both genders and neutral stories organized data.

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## SUMMARY OF MAIN CHARACTERS IN <br> READING TEXTBOOKS

| Female | Male | Both Genders | Neutral |
| :---: | :---: | :---: | :---: |
| 36 | 53 | 18 | 22 |

Table 29 confirms that collectively males were main characters of the reading stories more often than females within the reading textbooks. The single exception was kindergarten with a greater number of female main characters. Kindergarten students did not have a reading textbook. The teachers within the kindergarten grade level used trade books as specified by the reading company with learning instructions in the teacher's edition. Males were main characters 53 times compared with females at 36 . Eighteen stories had both genders as joint main characters and 22 stories were gender neutral such as nonfiction books.

When examining the documents portion of this study, the following findings were collectively summarized for presentation:

1. The majority of the teachers had gender-neutral classroom settings.
2. Classroom library trade book main characters represented twice as many males than females.
3. Adopted reading textbooks contained more male main characters than female.
4. Adopted reading materials contained illustrations depicting males participating in active roles twice as often as females.

## Empirical Information Summary

The purpose of data collection was to document the awareness of and practices used by elementary teachers in their classrooms in regards to gender. Interviews were conducted to determine the attitudes held by the seven elementary teachers involved in this study concerning gender awareness. Questions were designed around the concepts of Feminist Phase Theory (Tetreault, 1985). The seven teachers were observed to investigate the relationship of their attitudes as compared with classroom practices using classroom seating and teacher proximity (Sadker \& Sadker, 1994) and the Teacher-Child Dyadic Interaction used to code interactions between students and the teacher (Brophy \& Good, 1969). Documents were investigated in order to triangulate the study by compiling data that indicated teacher gender awareness in the day-to-day operational environment presented in the classroom setting.

## Interviews

The interview information revealed that at-risk students were perceived by the seven teachers within male-defined concepts. Eighteen of the 21 students named as at risk were male. The primary reason these elementary teachers believed a student was at risk was from an academic perspective followed by social-emotional concerns. The exception was Teacher K who placed social-emotional as her key reason. However, considering that the focus of kindergarten is social, Teacher K's reasoning was understood.

Six of the seven teachers postulated similar understandings concerning gender when examining exemplary students. In exception was Teacher Four who described her three females and one male within general understandings of exemplary. The other respondents had definite concepts of exemplary illustrated separately for males and females. The teachers defined 11 males as exemplary by making reference to them as being builders, creators, explorers, leaders, risk takers and exceptional learners. Females were exclusively defined as exemplary from an academic perspective such as being strong readers and writers. They were also understood from a compliant posture.

The interviews revealed a similar stance when examining data concerning the teachers' perspective of leaders and risk takers. Females were under represented with only five being considered in this category when compared with 14 males. Teacher Four spoke in general terms as she described her two males and one female. However, the six remaining teachers' views differed for males and females when depicting leadership and risk-taking attributes. The males were illustrated as loud, excitable, enthusiastic,
overpowering, needing to be the center of attention, able to solve problems, hardworking, outgoing, always wanting to answer, comfortable with themselves and being able to have everyone follow what they modeled. The summation of the three females in reference to leadership and risk-taking abilities was exclusively attributed to academics.

Only Teacher Three shared concerns from a gender perspective. She stated that she knew that her male students overshadowed the females when answering questions in the classroom. The other six teachers mentioned various concerns such as academics and emotional-social maturity of their students with no reference to gender.

Gender was not operating within the paradigm concerning student or written modifications for these elementary teachers. The single reference to gender was made by Teacher One when she shared about moving furniture to create a flight center for the males in her class.

## Observations

The observation information was used to compare teacher attitudes to classroom practices. The extensive data were summarized for presentation. Teachers directed questions to male students more often than females when examining the total sample. Teachers preferred to use open questioning for both genders. Teachers responded to both genders in an affirmative manner. Males were praised for academics approximately two times as often as females. Males received more behavioral contact than females with 86 percent of the male contacts being received as a behavioral warning. Females received more contact than males for behavioral praise. Teachers provided an equitable amount of
procedural/work contacts with both genders. However, males received more than twice the amount of contact afforded by the teachers. Females created the contact more often than the males. Males demonstrated more outward excitement than females when being questioned by the teachers.

## Documents

Document examination disclosed the three subcategories of physical setting, trade books and textbooks within the perceptions created in the teachers' operational environment. The physical classroom was gender neutral for Teacher One, Two, Three, Four and Six. Teachers Two and Six had limited data with sparsely decorated classrooms. Teacher K's classroom represented a setting by traditionally considered gender roles producing a stereotypical environment. Teacher Five had over representation of males in the classroom setting, which all but excluded females in representation.

Trade books in summary represented twice as many males as females in the seven teachers' classroom libraries. Also represented were books with both genders as main characters and books with a neutral stance such as nonfiction books. The trade books were not examined for illustrations.

The adopted textbooks illustrated more males than females. In addition, males were depicted as active twice as often as females. The main characters of the adopted
textbook reading series contained more male main characters than female. The single exception was kindergarten, which contained trade books to read rather than a bound textbook.

## CHAPTER IV

## ANALYSIS OF DATA

The data gathered through interviews, observations and documents were presented in Chapter III. Three broad categories interconnecting with subcategories emerged from the data. These were (1) attitudes and beliefs held by elementary teachers, (2) practices used by these teachers and (3) the operational environment incorporated in regards to gender awareness. In this chapter the three categories are analyzed using Feminist Phase Theory, which classifies thinking within five phases (Tetreault, 1985).

The five phases of Feminist Phase Theory were operationalized with the categories of data from this study to reveal the gender awareness of elementary school teachers. Data were analyzed independently and then collectively. The Male phase was operationalized with the germane absence of women. Within the confines of this phase, there was the absence of elementary teachers' awareness that the educational paradigm rests on the precedence of male activities as the criterion of which everything within the educational setting is defined (Tetreault, 1986). There was little or no awareness of gender within the context of education and females were missing. With males as the focus, there was a sense of females being invisible (Schuster \& Van Dyne, 1985).

Compensatory phase of Feminist Phase Theory revealed that something was amiss and that females were different than males and underrepresented (Nielsen \&

Abromeit, 1993). Within the elementary school setting, females were deficient when compared with male students. The male norm was the standard of greatness, however, the teachers were not aware of the solution to correct the missing female.

The Bifocal phase described the elementary school teachers' understanding as a dualistic male and female experience rather than a male-defined setting. There was an effort to include females with them fitting in to the patriarchal structure. Males and females were compared in this stage as generalized and separate groups (Twombly, 1991). There was a tendency to see males and females as occupying stereotypical roles, and there was a propensity to view the females as inferior (Tetreault, 1985). The structures that described the female students were seen as disadvantaged (Schuster \& Van Dyne, 1985).

The Feminist phase characterized the earlier devalued components of the female existence as a measure of significance (Tetreault, 1985). Questions were asked within the elementary setting from the perspective of females, and their premise was relevant (Schuster \& Van Dyne, 1985). "Disciplinary standards of excellence are questioned. Excellence begins to be defined as more than superior models of artistic creation judged by the criteria of formal genre" (Tetreault, 1985, p. 371).

Multifocal, the fifth phase, created a human experience as opposed to a male to female one. The view was holistic rather than dualistic. Female and male perspectives were fused becoming a human view of life's experiences. Work was no longer disciplinary but multidisciplinary in nature (Tetreault, 1985). Within the elementary setting, the process of knowledge formation encompassed the variables such as gender
and ethnicity, which led to an awareness of human experiences and needs of the elementary child in a holistic view rather than one of opposition (Nielsen \& Abromeit, 1993).

Individual Teacher Analysis

The three categories of data (1) attitudes, (2) practices and (3) operational environment were cast against Feminist Phase Theory for individual teacher participants. Each category was analyzed to determine the overall phase within FPT that explained the teacher's gender awareness. A summary of the three categories followed for each teacher.

## Teacher K

Teacher K had an all-male description of her at-risk students focusing on social and emotional needs. She described her two exemplary male students within the male context of excellence in constructing, building and possessing creativity. The single female was seen as a good reader creating a Bifocal understanding with the males defining more stereotypical assertive type behaviors and the female being seen from an academic view. The males were aligned with similar attributes yet the female was identified for academic reasons solely, creating a dualistic position. Teacher K had great difficulty naming students that she considered leaders or risk takers. She identified one female expressing that this student had leadership skills within an academic realm. Thus,

Teacher K's understanding of leadership was also seen as Bifocal with an understanding that risk taking is based on the female student's academic accomplishments.

Interestingly, Teacher K commented that she normally had the children answer in chorale fashion, and that she was uncomfortable calling on children individually during the arranged questioning period. Her classroom was set in a center fashion with cooperative inquiry and investigative practices usually the standard of the day. The females and males equally showed great enthusiasm to answer, which was observed only in the kindergarten setting. Her questioning time focused on females with those students receiving twice as many questions as the males. Teacher K equitably offered assistance to the students during seatwork sessions. However, the female students approached her more often than the male students creating the interaction with the teacher. Females in this environment showed more stereotypical male type behaviors, which are often considered the norm of school environments. This was shown through their enthusiasm that received the attention of the teacher. It could be considered that these children have not yet been socialized to the school setting, which with time creates an atmosphere with females as "passive spectators" (Sadker \& Sadker, 1994, p. 3). When casting the Feminist Phase Theory against this data, it is difficult to determine the level of awareness. With the consideration that Teacher K did not normally have the students in an individual questioning style, and weighing the other aspects of her practices, the Multifocal phase was determined.

Teacher K interacted in her classroom physical environment within the Bifocal phase of thinking. Within the environment, females were represented yet they were
found within the context of stereotypically held beliefs. The centers were bound by gender with the block center containing photographs of males only and the housekeeping center decorated with female posters and art. Within the classroom library, reading materials were gender biased with scientists and other main characters being represented as overwhelming male.

Summary

Teacher K's gender understanding was represented by the Bifocal and Multifocal phases. Her attitudes revealed a Bifocal understanding of her students being seen in stereotypical roles as students. She asked females twice as many questions than the males during the questioning time. However, the children displayed equal enthusiasm when eagerly indicating the desire to answer. This was a new experience for them since Teacher K did not normally use individual questioning practices. She afforded equal attention to her students while they worked at their seats creating a Multifocal level of understanding. Within her operational environment, females and males were shown in stereotypical fashion in the centers. Her trade books were more gender stereotypical than the adopted reading textbooks. Her overall level of gender awareness in the classroom setting was Bifocal.

## Teacher One

Teacher One identified three at-risk students with one female relating to the two males with similar needs. Her traditionally held notions that males possess the types of
behaviors needed for leadership or risk-taking behaviors were expressed as she described a male student as being overly enthusiastic and a risk-taker. Teacher One did not consider the females to take risks and did not perceive this as a problem. Teacher One described the male student as playing "boy type games, the running . . . not the rope jumping and that kind of stuff, but the things, the basketball, the kickball he'll play with those girls." The females were expected to conform to the ideals of the male. Thus, male and female students were perceived differently when considering compliance in reference to intellect and ability. Even though Teacher One identified two females as exemplary students, they were considered in this category for reasons of compliance and for being strong readers. The male student was identified for his excitement and overzealous behavior. Teacher One's attitude toward students revealed that "teachers' evaluations of girls' competence correlated significantly with their estimation of girls' compliance, while teachers' evaluations of boys' competence did not correlate with their estimation boys' compliance" (Gold, Crombie, \& Noble, 1987, p. 354). This aligned Teacher One's overall understanding within the Bifocal phase of thinking.

Females were included within questioning aspect of exchanges, however they were grossly underrepresented in this process. Teacher One used open questioning methods, with her male students overwhelmingly raising their hands to answer. One female student verbally shared that only the boys were answering during the questioning period indicating that she noticed the deficient manner within the Compensatory thinking of Teacher One. Also revealed were female students overwhelmingly creating interactions with the teacher during seatwork while the males were being approached by
the teacher without solicitation. Their dialogue with the teacher was presented within the private realm of the elementary classroom setting with her affording the males more attention than the females during the seatwork session. Thus, Teacher One's contact with her students during instructional time was Compensatory in nature.

In analyzing Teacher One's operational environment, her classroom modifications were male defined as shown in a classroom center solely being developed for males to learn about flight and geography. First grade textbooks had male main characters approximately twice as often as females. However, Teacher One's classroom trade books contained few examples of female main characters or favorite female authors in that particular section of the reading center. Overall, Teacher One's operational environment fell within the Compensatory phase of FPT.

## Summary

Teacher One's awareness of gender within the elementary setting revealed the phases of Compensatory and Bifocal when applying Feminist Phase Theory. Her understanding was built upon the thinking that the norm for the elementary classroom is built upon traditionally held notions of male defined behavior. Her attitudes toward students were thought of within a stereotypical context when considering risk-taking behaviors and modifications made for students in the classroom. Her at-risk students were seen within a male dominion with the female having aligned needs. Her practices were Compensatory in nature with females being considered in the contexts of response and seatwork opportunities. The female students were deficient when compared with
their male peers. Thus, evidence of Teacher One's Compensatory practices. Teacher One's awareness of her environment was operational within the Compensatory phase of understanding. Modifications and books were almost strictly within a male connotation of understanding with the female experience not measuring up to that of the male.

## Teacher Two

Teacher Two considered her one female at-risk student as being "less noticeable" than her male at-risk students who were having the same difficulty. Within this subordination of female existence, there is an inequality of attention. Through the absence of noting that females are missing, in a subtle manner teachers continue social understandings and the invisibility that females daily experience (Derber, 1979). Teacher Two described one male student as the leader of the class as the sole example. Females were referred to within the domain of being good readers when examining exemplary students. However, the one male who was identified as exemplary was also the leader of the class and was described within that understanding as opposed to an academic one. The understanding was a dualistic position. Overall, a Bifocal awareness for Teacher Two concerning her attitudes was revealed.

Teacher Two equitably posed questions to males and females during the questioning portion of the day. However, she affirmed the males' answers more often than the females eliciting a greater amount of interaction with males. Both males and females were praised for academics in an equal fashion. Students were distributed in a mixed fashion for seating purposes as well. During the seatwork session, Teacher Two
moved about the room assisting the children. Even though the males were working quietly and were not asking for assistance, Teacher Two afforded the males more attention than the females, with the males gaining more academic attention than females. Males were also given more behavioral warnings. Teacher Two's practices were aligned with the Bifocal phase within FPT as shown in her interactions with the students during instructional time. They were perceived within generalized terms as the males were thought by the teacher to need more assistance even though it was not solicited. Also present was Teacher Two's awareness that the males were more active within the environment causing her to interact with behavioral warnings.

Teacher Two's awareness in regards to her operational environment was of the Compensatory phase of thinking. In reviewing the adopted reading textbook, the main characters were males approximately twice as often as females. There were slightly more males shown as active in illustrations compared to females. However, Teacher Two's classroom library did not contain equitable gender representation as main characters in trade books. Her listening center selections only had male main characters. Teacher Two's overall understanding was within the Compensatory phase of FPT.

## Summary

Teacher Two's awareness represented the Compensatory and Bifocal phases of Feminist Phase Theory. Her attitudes toward her students were Bifocal without regard to deficient females when considering her beliefs toward student leaders. Her attitudes in regards to exemplary students were a dualistic view of her female students compared with
her male students. Teacher Two's statement that her female at-risk student was "less noticeable" than her two males implied her understanding concerning at-risk students to have separate generalized ideas for males and females. Teacher Two's practices were Bifocal in nature with her equitably posing questions to students yet affording the males more attention during seatwork interactions. When analyzing her environment, it was discovered that females were only slightly represented within the classroom library indicating the Compensatory phase of understanding.

## Teacher Three

Teacher Three defined three male students as at-risk. Her two male students that were described as exemplary were depicted as incredible students with huge leadership abilities. The one female considered to be exemplary was defined as being overpowered by the males, and the males were noted for their greatness. Teacher Three believed that if she did not provide wait time during questioning interactions, her two exemplary males would overpower her exemplary female student. Her concerns for her students were built upon awareness that the female situation was deficient. Although Teacher Three attempted to interact and provide a more equal playing field, she remained puzzled concerning the differences in the students' behavior, "You could really see the those girls . . . start to shrivel . . . not wanting to take those risks like the boys. I don't know if it's just boys tend to be that's their nature, you know they're rough and tough." Her concerns indicated her thinking within a female deficient position with her awareness being within the Compensatory phase.

Teacher Three's practices demonstrated her awareness to be operationally within the Compensatory phase. She posed questions twice as often to males than females when questioning students. Females were lethargic in behavior yet teacher Three asked open questions rather than direct questions the majority of the time. She also praised the males for academic success five to one when compared with the females. When interacting with her students during the seatwork period, Teacher Three interacted according to behavioral situations, her understanding was within a Compensatory level with males greatly interacting with her as opposed to female students. With regards to awareness of classroom practices, Teacher Three's overall practices held females within a deficient realm when reflecting on her contact time and interactions with them.

Teacher Three's understanding within the context of the classroom environment was within the Bifocal phase. Her classroom contained little gender specific details with the exception of a class roll divided by gender substantiating that she viewed her students as two separate groups based on gender. When comparing her textbooks to the classroom trade books, females were present but under represented and depicted more often than males in a passive capacity with males being shown in stereotypical activities requiring action.

## Summary

Teacher Three's awareness disclosed two of the five phases when using Feminist Phase Theory as a lens: Compensatory and Bifocal. She believed that there were differences for her students based on gender, but she could not identify why the females
were not as powerful as the males. She reflected an attitude that the male norm of activity should be the norm for the female students acknowledging the female deficiency. Teacher Three attempted to accommodate for these deficiencies for females. However, in practice, Teacher Three's awareness was within the Compensatory phase of thinking revealed through her questioning practices, which allowed males a greater opportunity for interaction with the teacher than females. Teacher Three demonstrated the Bifocal phase of thinking in her environment; females were present but in a dualistic and deficient context when compared with males.

## Teacher Four

In her beliefs concerning her exemplary and risk-taking students, Teacher Four's thinking was within general terms. Teacher Four described the attributes of her students conceptualizing within a human realm with no discrepancies by gender. Male and female students were characterized in a generalized context of having qualities such as being self-motivated, organized, able to build consensus and going beyond teacher expectations. However, in describing her all male at-risk students, Teacher Four demonstrated her understanding of their needs from solely an academic realm, thus continuing the stereotypical belief that males are at greater academic risks than females. Her incongruent attitudes overall demonstrated a Bifocal phase of understanding.

Teacher Four was within the Compensatory phase when analyzing her practices. Teacher Four asked males twice as many questions as the females even though she used direct questioning 21 times as compared with only six open questions. The males in the
class were much more assertive in nature waving their arms and making noises to answer when compared with the females. However, even when Teacher Four used a direct manner of questioning, males were afforded questions twice as often as females. Interactions during the seatwork sessions were limited. However, the small academic interactions revealed males receiving more interactions with the teacher than the females.

Although she had few gendered posters within her room with two being famous males, she also had posters of countries where she had traveled and photographs depicting her with female friends. This data was limited. Within the data of materials her trade and reading textbooks represented genders in an equitable fashion. Teacher Four's thinking was revealed within the Multifocal phase with a holistic view.

## Summary

Teacher Four's thinking was within the understanding of the three phases Bifocal, Compensatory and Multifocal. Her beliefs revealed awareness at the Bifocal realm of understanding with her descriptions of her students being incongruent. Teacher Four's classroom practices were contextually Compensatory. Her awareness shown in the operational environment was Multifocal shown through her classroom displays and reading materials present in textbook and trade books.

## Teacher Five

Teacher Five's attitudes and beliefs were within the Compensatory phase when analyzing at-risk and exemplary students. One girl was believed to be fitting in with the
boys when understanding Teacher Five's attitudes toward exemplary students. Further, all three at-risk students were male. Females were barely noted by Teacher Five when sharing leaders within his classroom, and when mentioned, they were referenced within the accepted norms of male standards.

Although Teacher Five almost exclusively used direct questioning, he asked the male students 26 questions compared with the eight he asked of the females. Teacher Five also praised the males six times compared with one academic praise that was extended to a female. Teacher Five afforded more assistance to the males as they interacted during seatwork session. Analyzed data revealed that Teacher Five practiced within the understanding of the Compensatory phase with little awareness in regards to gender with the females interacting in a deficient manner within the classroom setting.

Teacher Five's awareness in his classroom environment revealed thinking within the Compensatory phase. His classroom posters, student work and reading materials were close to being exclusively male. Females were completely missing from the aspects of valor and as being great explorers when examining the posters in the classroom. Student work was male-centered with the book reports and famous Hispanics displays being grossly under represented by females. When females were recognized, they were considered within the male norm for excellence.

## Summary

Teacher Five's overall thinking was within the Compensatory phase. Teacher Five's awareness was revealed concerning his attitudes when females were missing with
a patriarchal understanding for the elementary classroom. When analyzing the practices used by Teacher Five, it was revealed that males were dominant when interacting with the teacher. They were afforded much greater opportunities to respond to Teacher Five with females existing in a deficient fashion. Within Teacher Five's operational environment, females were grossly underrepresented and barely noticed revealing the Compensatory phase.

## Teacher Six

Teacher Six's attitudes concerning gender awareness disclosed thinking within the Compensatory phase. Her exemplary students were exclusively male. One student was believed to be "all boy." Teacher Six described, "He plays hard when he plays, he works hard when he works." Females were missing in her descriptions of student leadership abilities or exemplary behaviors with those being singularly male. Her beliefs of her classroom students revealed a male domain. The only female mentioned was within the context of at-risk students where she was identified along with the male students. Teacher Six described a deficient view of females within a male referenced understanding.

Teacher Six somewhat exclusively asked open questions of her students although the males were much more vigorous and assertive in style as compared with the females. Males were given a greater opportunity to answer with approximately five questions per male as compared with slightly more than three being asked per female. Females were not praised for academic success during questioning. The males were praised six times
indicating Teacher Six's awareness along the Compensatory phase of thinking using FPT. Seatwork interactions were limited.

Teacher Six's classroom was sparse making it difficult to gather data on the environment in relation to gender. There were no gendered posters and little student work displayed. What was present was gender neutral. In reviewing the trade and textbooks, there were only four sets of trade books in the room. These trade books had two females and two males as main characters. Teacher Six's small sample of trade books did represent an equal representation by gender without stereotypical main characters. The textbook depicted males slightly more often than females in the series with equal distribution of males and females depicted as active in illustrations. With limited classroom displays and trade books, Teacher Six was analyzed to be within the Multifocal phase of Feminist Phase Theory for the operational environment. There was no division by gender and the environment was holistic.

## Summary

Teacher Six's awareness revealed two phases Compensatory and Multifocal. Her attitudes demonstrated an understanding based on a patriarchal posture as understood within the Compensatory phase. Teacher Six's practices in questioning her students paralleled a Compensatory understanding with females being provided deficient opportunities when interacting with the teacher in the classroom setting. Her environment appeared Multifocal in nature with slight data being collected in the limited displays and materials within the classroom setting.

## Collective Analysis

Data groups were scrutinized using Feminist Phase Theory as a lens for analysis. Table 30 provides collective analyses according to the emerged categories of awareness as described through teacher attitudes $(\mathrm{A})$, practices $(\mathrm{P})$ and operational environment ( O ).

TABLE 30

COLLECTIVE SUMMARY OF TEACHER ATTITUDES, PRACTICES AND OPERATIONAL ENVIRONMENTS

|  | Male | Compensatory | Bifocal | Feminist |
| :--- | :---: | :---: | :---: | :---: |
| Teacher K |  | M O |  | P |
| Teacher 1 | P O | A |  |  |
| Teacher 2 | O | A P |  |  |
| Teacher 3 | A P | O |  |  |
| Teacher 4 | P | A | O |  |
| Teacher 5 | A P O |  | O |  |
| Teacher 6 | A P |  |  |  |

The attitudes and beliefs of the seven teachers in regard to gender awareness were dominated by perceptions within the Compensatory and Bifocal phases of Feminist Phase Theory. These were analyzed in relationship to their attitudes toward students seen as at risk, exemplary, as leaders/risk-takers and concerning modifications as explained only by

Teachers One and Three. Overall, teachers either viewed female students as subsumed under what is merited for greatness as defined by males or they perceived their male and female students as separate entities (Nielsen \& Abromeit, 1989). Within their Bifocal understandings, females and males were identified within stereotypical boundaries.

Within the practices used by these elementary teachers, the magnitude of the interactions were within the Compensatory level of thinking using Feminist Phase Theory. This is in reference to the questioning opportunities and seatwork interactions between these teachers and their students. Overall, teachers asked questions of males more often than females and afforded interactions with males disproportionately compared with females. Thus, females within the classroom were included within the male framework, but the female experience did not measure up to that of the male (Schuster \& Van Dyne, 1985). The major exception was Teacher K who displayed an understanding within the Multifocal phase. It is worth considering the fact that kindergarten provides a year of socialization for students, and that data were collected within the first nine weeks of school. Kindergarten students were the only ones within this study who displayed equal eagerness to answer questions, and Teacher $K$ was not use to direct questioning. Variables to this analysis offer interesting aspects to the study.

The teachers' awareness within their operational environment was viewed within three phases of FPT, Compensatory, Bifocal and Multifocal. The data were analyzed in connection with the physical environment as seen through the set-up and displays within the classroom and the trade books provided for the students in the classroom libraries.

These seven teachers represented understandings representing three stages of development within their environments.

An analysis of teacher demographics compared with the awareness level of the seven teachers was also conducted. Table 31 summarizes the comparison of these two items as described through attitudes (A), practices ( P ) and operational environment ( O ).

## TABLE 31

TEACHER DEMOGRAPHICS AND GENDER
AWARENESS COMPARISON

| 1 | 2 | 3 | 4 | 5 |  | 6 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
|  |  |  | Male Compensatory Bifocal Feminist Multifocal |  |  |  |  |
| K | F | 25 | BA | 3 |  | A O | P |
| 1 | F | 27 | BA | 5 | OP | A |  |
| 2 | F | 32 | BA | 1 | O | A P |  |
| 3 | F | 48 | MA | 26 | A P | O |  |
| 4 | F | 47 | BA | 23 | P | A | O |
| 5 | M | 58 | MA | 34 | A PO |  |  |
| 6 | F | 49 | MA | 27 | A P | O |  |

Note: 1=Teacher; 2=Gender; 3=Age; 4=Highest Degree Held; 5=Years Experience; 6=Gender Awareness.

A comparison of teacher demographics with the teachers' gender awareness level revealed that teachers with less experience were documented as supporting attitudes that were in the Bifocal Phase. Teachers with greater experience and age held attitudes with the Compensatory level with the exception of Teacher Four. Practices were found to be

Compensatory with the exception of Teacher K and Two who had the least amount of experience. It is interesting to note that attitudes revealed only two levels of awareness: Bifocal and Compensatory while practices and environments revealed a wider range.

The two Multifocal levels in terms of the operational environment were found within the understandings of Teachers Four and Six, experienced teachers in their forties. Teacher Three, who had a Master's degree and a great amount of experience, understood the next level of awareness, the Bifocal, which was seen in the operational environment category. Teacher K , young with little experience, also held the Bifocal understanding indicating that both the Bifocal and the Compensatory phases were spread across demographics with the less and more experienced teachers having this awareness level within their environments.

Teachers K and Five provided interesting analysis when examining them individually. Teacher K collectively had the highest awareness in regards to gender compared with the other teachers involved in this study. She was the youngest and had a small amount of experience. Her experience was primarily in kindergarten, which provides engaging practices for young students that often create a more equitable setting. Teacher Five was the only male within the group of participants. He had the greatest number of years of experience and held a Master's degree. Yet, his level of gender awareness was solidly within the Compensatory phase for all three categories revealing him as the only teacher whose understanding was solely the missing female stage of Feminist Phase Theory.

## Summary

When collectively examined, the understanding of the seven teachers in relation to gender awareness in the elementary classroom revealed a dominant aspect of Compensatory and Bifocal levels of understanding. The Multifocal phase was limited, and there was no awareness found within the Male or Feminist phases.

Teachers' attitudes and beliefs were defined by Bifocal followed by Compensatory understandings of students being within a patriarchal paradigm. The male norm of understanding defined their attitudes toward students. When females were recognized, it was within a limited understanding of their own worth and dimensions. Females were not considered to be at-risk, and they were virtually ignored as having exemplary or leadership attributes within a male-defined text of being assertive, creative, excited and investigative in nature indicating stereotypical attitudes of the teachers.

Teacher practices were soundly fixed within a Compensatory level. Females were represented in questioning interactions, seatwork sessions and behavioral interactions, but they were deficient in their apportionment. Sixty percent of the teacher directed questions were afforded to males and 40 percent to the females when examining the total sample. Males were provided two times as many academic praise comments. Males received more afforded attention from teachers during seatwork and behavioral interactions. Thus, females were represented in deficient portrayal with compliant behavior often leaving them invisible within the classroom interactions.

The spread of understanding was across three levels when considering the operational environment. The greatest consideration was toward the Compensatory level
of thinking followed closely by Bifocal and Multifocal phases. This was aligned with the physical environment filled with teacher and student made displays and classroom libraries filled with trade books selected by the teachers. Females were represented, but with a decreased representation especially within the trade book selections with males being represented as main characters twice as often as females. The representation of females and males were generally in stereotypical roles. Two teachers provided holistic depictions through displays and books in the classroom environment.

Therefore these seven teachers revealed an overall awareness within the Compensatory and Bifocal phases of Feminist Phase Theory. The subtlety of gender bias was demonstrated in this analysis through the day-to-day understandings, practices and environments of these seven teachers. The teachers recognized their female students within a different ideal than the males. Male behaviors and attributes defined the standards and norms of the classroom with the females compared against these (Tetreault, 1985) with an understanding within the Compensatory phase. And, stereotypes and generalizations afforded by gender were the dimensions of understanding within the Bifocal phase.

Schuster and Van Dyne (1984) suggest that teachers go through a series of stages using various strategies when attempting to transform the curriculum. In the analysis of this data, it is noted that the teachers represented various stages of understanding. Practices were weighted at the Compensatory phase or the "Search for missing women" (1984, p. 419) as related in Schuster and Van Dyne's model. Attitudes were dispersed between Compensatory and Bifocal with teachers tending to see students in gendered
understandings with females in stereotypical roles or as "a subordinate group" (Schuster \& Van Dyne, 1984, p. 422). The operational environment was spread across three phases. Thus, a teacher can individually understand the different aspects of gender while conceptualizing different stages. Within this study all of the participants varied their understandings with the significance of this actualization being within the Compensatory and Bifocal phases with the exception of Teacher Five.

Summary of Analysis

Using the Feminist Phase Theory (Tetreault, 1985), gender awareness was evaluated and characterized individually and collectively for the seven teachers in this study. The Compensatory and Bifocal phases categorized the perceptions, practices and environments of these teachers. Their awareness was collectively identified within the confines of these phases with limited perspectives within the Multifocal phase.

## CHAPTER V

## SUMMARY, CONCLUSIONS, RECOMMENDATIONS, IMPLICATIONS AND COMMENTARY

This study examined the levels of awareness of elementary classroom teachers in regards to gender. This chapter includes a summary, conclusions, recommendations, implications and commentary.

Summary of the Study

Using the lens of Feminist Phase Theory (Tetreault, 1985), the purpose of this study was:

1. to document the gender awareness of elementary teachers in their classrooms;
2. to analyze the levels of awareness through the Feminist Phase Theory lens;
3. to evaluate the usefulness of Feminist Phase Theory in understanding the realities of gender in their elementary classrooms; and
4. to describe other realities revealed.

The purpose was accomplished through the collection and presentation of data from interviews, observations and documents. Seven elementary teachers participated in the study and represented grade levels kindergarten through sixth grade from their
elementary school, which had an enrollment of approximately 500 students. Interview questions were used to derive information from the participants regarding gender awareness. The interview questions combined semistructured and unstructured/informal questions (Merriam, 1998). Observations were conducted to gain information on teacherchild interactions during teacher-student questioning interactions, seatwork assignments and procedural/behavioral exchanges (Brophy \& Good, 1969). Additional data was gathered through the review of reading materials and classroom environments which focused on room set-up and displays.

## Data Presentation

Prior to the data collection, a literature review was conducted. Empirical information was continuously cast against the literature. The data collected from interviews, observations and documents was grouped individually and then collectively into three categories with themes emerging from within each cluster.

Attitudes and Beliefs. This information involved teachers' understanding of students believed to be at-risk, exemplary and those possessing leadership or risk-taking characteristics. Teachers also shared concerns they had or modifications provided for students and written materials. Concerns and modifications provided limited data in the study.

Practices. This information was categorized using teacher-defined practices, which were used and then related to gender awareness. The understanding was
experienced through the subcategories of student seating, response opportunities, workrelated exchanges and procedural/behavioral contacts as experienced between the teacher and students.

Operational Environment. Data also revealed the individual teacher's gender awareness in the day-to-day environment of the elementary classroom experience. This data provided the teacher's understanding of gender awareness in the classroom's physical setting and the reading materials used.

## Data Analysis

Personal bias was diminished through the use of a theoretical milieu as presented in Chapter I and firmly established in literature review in Chapter II. Through this lens, the collected empirical information was analyzed individually and collectively. Three categories of data: (1) attitudes and beliefs, (2) practices and (3) operational environment were cast against the five levels of Feminist Phase Theory (Tetreault, 1985).

## Summary of the Findings

Overall, the seven teachers represented in the study revealed gender awareness within the Compensatory and Bifocal phases of Feminist Phase Theory. The teachers recognized their female students within a different ideal than the males. Male behaviors and attributes defined the standards and norms of the classroom with female students compared with these (Tetreault, 1985). The teachers' gender awareness was more often understood within these two phases of Feminist Phase Theory with limited consideration
within the Multifocal phase. Females were deficient in consideration when cast against their understandings of the male students. When perceived with males, females were viewed as a separate and subordinate group. They were seen within a stereotypical realm of understanding.

Attitudes and Beliefs. The participants' at-risk students were almost totally male and considered from an academic dimension. Exemplary male students were described as risk takers with abilities to explore and lead the class. Female exemplary students were understood from strictly an academic perspective with compliant behaviors, and they were less in number than the males. Females were underrepresented when considering class leadership and those who were risk takers. Males were considered to have these leadership/risk-taking qualities three times as often as the females. Thus, the reflection of these teachers in regard to student characteristics lacked gender equitability. The data fell heavily into the Bifocal and Compensatory phases.

Practices. When considering the awareness of the teachers in practices used in the classroom setting, females were represented but in a deficient manner. Collectively, the teachers in this study posed sixty percent of the questions to males and forty percent to females. Males averaged three questions per male and females averaged two. Male students demonstrated exuberance when attempting to gain attention in order to answer questions. Female students more often were lethargic in manner by half-extending arms to indicate a desire to answer with the exception of kindergarten females. Males were given twice as many academic praise responses from the teachers than the females with
ten percent of the males being praised as compared with five percent of the females. Teachers afforded more attention to the males when interacting with them concerning response opportunities, work-related exchanges and procedures/behavior contacts. Thus, the females were realized primarily through a Compensatory lens. When females were considered during interactions, the second most understood phase was Bifocal. Teachers considered them within a male domain with females vying for attention in a dualistic setting.

Operational Environment. The operational environment was expressed within the three phases of Compensatory, Bifocal and Multifocal. The physical environment, which included the room arrangement and various displays were missing females or depicted female and male students in stereotypical roles. Teacher K had a gender stereotypical setting. Teacher Five's setting was almost completely missing females from the physical environment. The other teachers within this study presented a gender-neutral environment or lacked data to be analyzed. When examining reading trade books presented by the teachers in the classroom libraries, males were depicted as main characters twice as often as females. The adopted reading series underrepresented females in the illustrations, and when shown they were more often passive than males. Females were also less likely to be the main characters of the stories within the series. The participants did not demonstrate an awareness of this gender bias with the exception of two teachers who had more holistic type trade books in their environments. Collectively, the level of thinking within the day-to-day operational environment was
more heavily represented within the Compensatory level of Feminist Phase Theory with the Bifocal and Multifocal phases secondly occurring.

## Other Realities

Other realities were found through this study of elementary teachers' gender awareness. Disproportionately, boys displayed enthusiasm and eagerness to answer their teachers' questions with girls depicting more lethargic attitudes. When given the opportunity to choose where to sit, kindergarten students sat in a gendered fashion. Overall, boys were more active in the classroom, and the girls quiet as the teacher attempted to define the classroom environment for learning. Also, the reading textbooks were gender bias with females less often represented as main characters in the stories. Females were also shown less often as being active in illustrations indicating stereotypical passive roles.

Thus, the teachers faced the obstacles of the children's understanding of their gendered roles in the classroom setting and gender-biased textbooks. The students often acted in a stereotypical manner, attributing to the gender-biased environment. The military setting was considered, which is a strongly male defined in stereotypical behavior. Students' behaviors within the classroom setting reflected this culture. When realizing the adventuresome and open attitude's of Department of Defense teachers, there were great obstacles for the teachers to overcome within the traditionally defined gender roles displayed by the students living in a military environment.

The teachers were also limited by the usage of the adopted reading series. These realities focus on the need for teachers to remain vigilant in attempting to address these behaviors with their students and the need to scrutinize and adapt the adopted textbooks. This indicates the importance and the difficulty of attaining teacher gender awareness.

## Conclusions

Collectively, the teachers who served as respondents in the study possessed limited gender awareness as shared through their expression of attitudes, practices and environment. Although they represented a broad range of teaching experience, gender awareness was consistently missing across the participants' manner of understanding. Females were often thought of within a male-defined standard with deficient representation compared with male peers. When females were considered, the experience was dualistic with expectations and attributes for males differing from that of females.

The teachers' attitudes and beliefs concerning their students were dualistic in understanding or subsumed under male defined experiences. They were explained as Bifocal followed by Compensatory phases of FPT (Tetreault, 1985). Their understanding within the Bifocal phase was explained by their attitudes that males and females had different attributes for leadership, exemplary behavior and for being at-risk. These were seen dualistically. The Compensatory understanding was understood with females being deficiently named for being at-risk, exemplary or as a leader. This thinking occurred secondly and found teachers assuming these traits were male-defined with females inadequately working into this definition.

The female students were forgotten within the realm of being considered at-risk with the understanding being one of academic deficiencies. When reviewing the clarifications for students considered as being at-risk, females can be forgotten due to their compliant behaviors that often leave their needs invisible to teachers (D'Arcangelo, 1999). Teachers within this study perceived the males as being academically at-risk and needing greater attention than females. Thus, the females were viewed with higher academic expectations and seen with stereotypical compliant behaviors.

All of the teachers, with the exception of Teacher Four, perceived exemplary and risk-taking students from the male domain as being constructive, assertive and leading the class. Females were deficiently represented as exemplary and considered for solely academic reasons. There were two distinct understandings of exemplary and risk-taking students as defined by gender. Thus, it can be concluded that there was a lack of gender awareness with males defining what is exemplary and considered to be leadership type behaviors with a dualistic understanding. The teachers were not aware that the assertive behavior of males left females missing from the action of the classroom (Sadker \& Sadker, 1994).

Collectively, the participants' concerns did not reflect consideration of the adopted reading series, which underrepresented females as main characters and in illustrations, and depicted females in a more passive stance than males. Within their classrooms, the trade books generally continued this deficient manner of presenting females in literature. Females were present yet not represented in an equitable manner. When they were represented, they were often depicted in stereotypical passive roles.

Thus, it is concluded that collectively the participants in the study were unaware of the gender bias within the reading series.

Practices of the teachers resolutely fell into the Compensatory phase of FPT (Tetreault, 1985). The teachers acknowledged that their female students were present, but these females were not recognized to the extent of their male peers. Males were posed questions more often. They also captured more teacher attention in afforded praise, seatwork assistance and procedural/behavioral contact. The subtlety of gender bias appeared to be present when examining these findings. The teachers remained unaware of their inequitable practices in the classroom environment. Defining and existing within the Compensatory level of FPT, these teachers utilized practices, unaware of their influence on female students.

The environment and materials used by the teachers were understood within the Compensatory phase followed with an equal understanding within the Bifocal and Multifocal phases. The environments, which were investigated by examining displays and reading materials, depicted females in stereotypical or deficient fashion. Collectively, the textbook reading series underrepresented females in illustrations and as main characters with classroom libraries not compensating for this deficiency. Collectively, teachers were unaware of this gender inequity.

It is worth noting that while the teachers expressed shared understandings of atrisk, leadership and exemplary student attributes, females were consistently underrepresented. When sharing their concerns, these teachers focused on the male student population. While their objective was to prepare each child for the next grade
level as expressed within their interviews, in reality they taught using inequitable practices.

Teacher Three is particularly interesting when examining her understandings. While she articulated that she understood that her males overpowered the females and that the females were hesitant to take risks, in practice she demonstrated an opposite understanding. Teacher Three directed twice as many questions to males as compared with females, and overwhelmingly asked open questions as opposed to direct, which could have equalized the distribution of students given the opportunity to answer. She appeared to be unaware of how her male students were overzealous in demonstrating a desire to answer as they monopolized the classroom atmosphere leaving the females lethargic and uninspired. She possessed the desire to make a change according to gender, but in reality she was unaware of her bias practices.

In sum, the seven teachers who served as respondents in this study were limited in their awareness of gender as categorized by attitudes, practices and operational environments. It is useful to apply Schuster and Van Dyne's understanding (1984) in concluding this study. Overall, teachers fell heavily into the Compensatory and Bifocal phases of understanding. When they spoke of their students, they expressed a higher level of gender understanding than when they actually applied their day to day practices. These teachers represented the various stages of change when attempting to organize the knowledge they wanted to teach their students. Their attitudes had developed to a higher stage than their actual practices. This is not a static process but a fluid one with teachers gaining understanding and moving toward the human conception of schooling. "Not
surprisingly, these invisible paradigms are organized around power . . . and around values" (Schuster \& Van Dyne, 1984, p. 417). It is difficult for teachers to move through the stages, and they may be at various stages of understanding pending the aspect of the curriculum. "It is unlikely that different groups of teachers within a single institution will be moving through the same stages at the same time" (Schuster \& Van Dyne, 1984, p. 418). The key is for teachers to ask questions allowing them continued growth. This study indicated that these elementary teachers possessed a higher awareness in attitudes than practices and operational environments. Individually and cooperatively they represented varied levels of understanding.

Title IX was the catalyst for gender awareness to be cast into the limelight during the 1970s. Over the decades, there has been a continued quest to provide an equitable education for all students. The final stage will be understood when the curriculum is transformed where the process is a higher dimension than products or defined frames of thinking (Schuster \& Van Dyne, 1984). Teachers will be aware to "use gender as a category for analysis"' (Schuster \& Van Dyne, 1985, p. 27). Knowledge will not be thought of as unchangeable but will be understood as socially constructed. Paradigms will be tested, and the learning process will be a part of the student's encountering. Educators will recognize that "culture reproduces itself in the classroom" (Schuster \& Van Dyne, 1985, p. 28).

Although Title IX was enacted almost 30 years ago, our schools continue to provide inequitable opportunities for students based upon gender. This study substantiates the research concluding that teachers exist in their professional settings
unaware of their gender biases. Regardless of teaching experience, the subtle gender unawareness persists in our schools. The male culture continues to dictate the meaning of school with females being subsumed within this definition or understood within stereotypical attributes. Societal biases entrenched in male-defined norms, the lack of gender education within our preservice teachers' curriculum and the hit-or-miss inservice opportunities for teachers perpetuate the lack of change in our nation's schools.

## Usefulness of Feminist Phase Theory

Feminist Phase Theory was useful in analysis of gender awareness of elementary school teachers. FPT was effective as an evaluative tool to measure and categorize shared understandings. The developmental stages contained within Feminist Phase Theory allowed analysis of gender awareness, which the seven teachers represented in this study both individually and collectively at various stages of understanding.

In the strict examination of reading textbooks, there were restrictions with the use of FPT. The teachers had no choice of the DoDDS adopted series. However, through their omission of stating gender bias in the series or by creating a gender biased classroom library, FPT proved to be effective as a lens in analyzing their gender awareness concerning reading materials.

Careful consideration was given to the limitations of Feminist Phase Theory in terms of this study. No substantive limitations were identified.

## Recommendations and Implications

The research findings from this case study impacted theory, research and practice. Each was examined.

Theory

Feminist Phase Theory (Tetreault, 1985) was useful as an evaluative tool examining the gender awareness of elementary teachers. It proved to be effective in diagnosing teachers' attitudes, instructional practices and environments. These teachers experienced gender awareness in three levels of Feminist Phase Theory. Their understandings dominated within the Compensatory phase followed closely by the Bifocal phase. Limited thinking appeared in Multifocal phase.

Feminist Phase Theory could apply to other research efforts. Within the elementary setting there are various aspects where Feminist Phase Theory could apply such as to special education or support staff's gender awareness. The study of gender awareness of secondary teachers and school administrators could also be conducted using Feminist Phase Theory.

Research

This qualitative study provided findings that added to the knowledge base of teacher gender awareness in the elementary setting. This study confirmed that teachers fail to conceptualize their teaching within gender dominion. It is vital for educators to be aware of gender within the elementary setting. Teachers need to be cognizant of their
attitudes, practices and classroom environment in regard to gender equity in order to provide opportunities for female and male students.

This research focused on elementary teachers' gender understanding within three domains of (1) attitudes and beliefs, (2) practices and (3) classroom environments. The study highlighted these understandings in the broad sense of females and males. Future research might examine specifically ethnic females to differentiate treatment in the educational setting. Research could also expand to outside the classroom setting by examining cafeteria and playground interactions within the aspects of gender.

Although this study focused on the inequitable treatment of females, our male students should not be forgotten (Goldberg, 2000). Often the attention they gain is in a negative light such as behavioral warnings as found within the data of this study. Eightysix percent of the behavioral interactions between the teachers and male students was afforded for behavioral warnings. "When teachers remember their worst students - the discipline problems, the ones most likely to create a classroom disturbance or to flunk out of school" they list boys (Sadker \& Sadker, 1994, p. 198). Thus, even though males remain at the center of attention within the classroom setting, a male-centered aspect of schooling is not consistently positive for our male student population. Research in this arena is also needed, which would assist with equalizing the playing field for both genders.

## Practice

The findings of this study are vital to educational practice. They allow teachers to examine their gender awareness in order to equalize the instructional opportunities for all students. Considering the data revealed in this study, teachers are either unaware of the biases within the classroom setting, or they do not understand how to create an equitable situation. The first step to providing maximum learning opportunities is the examination of attitudes, the practices and environment that teachers create. This study focused on teacher practices in regard to gender. It was disclosed that the teachers in this study afforded more attention to males in the classroom through response opportunities and when making contact for seatwork and procedural/behavioral needs of the students. These were not purposeful exchanges excluding females, but subtle teacher behaviors left undiscovered due to a lack of exposure and understanding.

It is crucial for educators to be gender conscious. Teachers need to understand what works best for females with implications of this also affecting males. There are five key concepts, which expedite the success of our female students: "(1) Celebrate girls" strong identity, (2) Respect girls as central players, (3) Connect girls to caring adults, (4) Ensure girls' participation and success, (5) Empower girls to realize their dreams" (Hansen, Walker, \& Flom, 1995, p. 1). There is a need for continuous staff development, which allows educators to become aware and comfortable with examining their practices as they relate to gender. This study emphasized the need for teachers to be aware and reflective of classroom practices as related to gender.

## Commentary

This research project is a limited vestige of understanding gender awareness. When considering the data revealed in this study, there is a consistency with the literature on this paradigm. I believe that teachers daily enter their classrooms filled with the expectations for all students to equitably engage in learning. However, the reality is contrary to the intent.

This study facilitated the expansion of my knowledge concerning gender issues. Feminist Phase Theory acted as a lens of understanding, which broadened my concepts of gender not only in the elementary classroom setting, but also in my day-to-day comprehension of being an elementary school principal. The close examination of emerging categories confirmed my belief that teachers are unaware of the need to focus on gender bias.

With 20 years of classroom experience, I realize how easy it is to be unaware or complacent in teaching practices. The very nature of the exclusive classroom physical setting makes the exchange of information difficult for teachers (Tyack \& Cuban, 1995). Our schools perpetuate hallways with closed doors where instruction can become ineffective, and the awareness of the need for change is restricted. The likelihood of gender awareness teacher training is limited and our universities are failing to teach gender equity within schools of education (Sadker \& Sadker, 1994). Teachers remain unaware of their behaviors, which directly influence their students.

There is a need for gender awareness to be inclusive for female and male students. Our schools were founded primarily for the education of white males with this frame
continuing to define the norms of understanding. However, the voices of both our females and males should be heard. Good teaching must "amplify the voices of children" (Goldberg, 2000, p. 704). What is good for the engagement of girls is equally worthy for boys. "Boys and girls are hard-wired to be competent, creative, and competitive . . . caring, nurturing, and compassionate" (AAUW, 2000, p. 5).

Responsible educators should be given every opportunity to improve their understandings, practices and classroom environments for the optimal growth and learning of their students. There are various paths for us to examine educators' potential to be aware and effectively create changes to improve the school experience for our children. This study has gifted the opportunity of making a difference in the lives of students. The questions posed and the answers revealed in this study were created not as an end but as a continuation of ideas and knowledge to be sustained.

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## APPENDIXES

## APPENDIX A

INSTITUTIONAL REVIEW BOARD

APPROVAL FORM

# Oklahoma State University Institutional Review Board 



Reviewed and
Processed as: Exempt
Approval Status Recommended by Reviewers) : Approved

Signature :

# Oklahoma State University Institutional Review Board 



Reviewed and
Processed as: Exempt
Approval Status Recommended by Reviewers) : Approved

Signature :

## Introductory Letter

Dear $\qquad$ , ,

I am writing to invite you to take part in a research project I am conducting as part of my doctoral degree in educational administration with Oklahoma State University. The purpose of this study is to examine classroom practices and teachers' beliefs concerning practices.

If you agree to participate, I will interview you and observe you in your classroom. Interviews will take approximately one hour, but may run a bit longer. A follow-up interview may be needed to clarify information. Interviews will be taped then transcribed for analysis. Observations will range from one to four hours. I will take notes during the observations. Notes will be typed and analyzed.

Complete anonymity will be maintained. Specific names of participants or identifying information will not be used in this study. Tapes, transcripts, and notes will be treated as confidential materials. Only my advisor, my dissertation committee and myself will have access to the data.

I would appreciate it if you would be willing to participate in this study and contribute to this field of research. This research will contribute to the knowledge base by identifying classroom practices and teachers' beliefs concerning these practices. I will begin my research in October 2000. I will ask you to sign a consent form should you agree to participate.

Thank you for your consideration of this research project. You may reach me by phone at 0322-332-9377 or e-mail me at <austin@unimedya.net.tr.

Sincerely,

## Consent Authorization

I, $\qquad$ , hereby authorize Fran Austin to perform the following:

1. Interview me concerning my experiences as a teacher in relation to my students and teaching practices. A follow-up interview may be required. Interviews will take place from October 15, 2000 to April 1, 2000;
2. Observe in my classroom one to four times from October 15, 2000 to April 1,2000. The duration of each observation will be one hour or less;
3. Examine display boards, picture books, grade level materials and other teaching apparatus located in my classroom from October 15, 2000 to April 1, 2000.

I understand that my participation in this research is voluntary and that there is no penalty for refusal to participate. I am free to withdraw my consent to participate in the project at any time without penalty.

I may contact Adrienne Hyle at (405) 744-7246. I may also contact the Institutional Review Board, 203 Whitehurst, Oklahoma State University; telephone (405) 744-5700.

Date: $\qquad$ Time: $\qquad$
Signed: $\qquad$

## APPENDIX C

## INTERVIEW INSTRUMENTS

## Interview Protocol

I will first:

1. introduce myself
2. explain that I am studying teaching practices and teachers' beliefs concerning teaching practices.

I will next ask the following questions:

1. Please tell me about your teaching experience.

Possible follow-up:
a. Number of years teaching
b. Number of years at this school
c. Experiences at this particular school
2. Please tell me about the students in your classroom.

Possible follow-up:
a. Do you make modifications for your students? If yes, how do you accommodate?
b. Have you made any changes to your classroom set-up? If yes, what changes and why?
3. Describe three of your "at-risk" students.
4. Describe three students you consider being exemplary.
5. Describe your students who are risk takers or seen by you as leaders.
6. Describe your greatest concerns for your students?
7. Describe the effectiveness of your grade level materials when considering the needs of your students.

## Demographic Information

1. Name:
2. Age:
3. Place of Birth:
4. Father's Occupation:
5. Mother's Occupation:
6. Number of: Brothers $\qquad$ Sisters $\qquad$
(Order) I am child number $\qquad$ of the $\qquad$ total children in my family.
7. Marital Status: Married $\qquad$ Single $\qquad$
8. Spouse's Occupation:
9. Number of children: Male/Age(s) $\qquad$ Female/Age(s) $\qquad$
10. In what year did you receive your $\mathrm{BA} / \mathrm{BS}$ ? $\qquad$ Highest degree you hold? $\qquad$
11. In what year did you begin teaching? $\qquad$
12. How many years have you been teaching? $\qquad$
13. How many years have you been working at your current school? $\qquad$
14. Please begin with your first year of teaching and share what you have taught until the present. Continue on the back if necessary:


## Follow-up Interview - A

Dear $\qquad$ ,

The slower pace at work over the holidays has given me a wonderful opportunity to work on my dissertation. As I have compiled information, I've discovered things. These discoveries have brought more ideas and questions in my head!

Could you please list below your three most favorite books that you enjoy reading to your students. Please place them in priority indicating your first, second and third choices of favorites. If your students are older and you do not read to them, please list three books/stories that you either share or discuss with your students that are your favorites.

I am forever grateful for your assistance in this huge project. It certainly is the most involved and difficult task I've ever experienced. Thanks so much!

Fran

My favorite books to read to my student(s) or share and discuss with them are:

1. $\qquad$
2. $\qquad$
3. $\qquad$

## Follow-up Interview - B

Dear $\qquad$ ,

After reviewing my interview notes of November 8, 2000, I realize that I am in need of some additional information from you. I greatly appreciate you providing the following:

You referred to four exemplary students who attended the Talented and Gifted program at your school. Could you please write down the gender of each student and explain the characteristics that make this student exemplary.

1. Student One - Gender $\qquad$

Characteristics of exemplary behavior:
2. Student Two - Gender $\qquad$

Characteristics of exemplary behavior:
3. Student Three - Gender $\qquad$
Characteristics of exemplary behavior:
4. Student Four - Gender $\qquad$
Characteristics of exemplary behavior:
Thank you for taking the time to provide me with these details. I appreciate your support in my dissertation endeavor.

Sincerely,

Fran

## APPENDIX D

GENERAL CLASS ACTIVITIES - DYADIC INTERACTIONS

Start
Attendance
Stop
Elapsed

Activity
 $\qquad$
DYADIC INTERACTIONS


## VITA

Frances L. Austin

Candidate for the Degree of
Doctor of Education

## Thesis: REACHING BEYOND TITLE IX: GENDER AWARENESS IN THE ELEMENTARY SCHOOL SETTING

Major Field: Educational Administration
Biographical:
Education: Received Bachelor of Arts degree in Elementary Education from the University of North Carolina, Chapel Hill, North Carolina in May 1975, respectively. Received Master of Arts in Educational Administration and Supervision from Winthrop University, Rock Hill, South Carolina in December 1988, respectively. Completed the requirements for the Doctor of Education degree with a major in Educational Administration at Oklahoma State University, Stillwater, Oklahoma in August 2001.

Experience: Taught as a classroom teacher with experience in grades preschool through third from 1975-1985. Taught gifted and talented students grades second through sixth 1985-1989. Began teaching for the Department of Defense Dependents Schools in 1989 working as a gifted and talented teacher grades kindergarten through ninth as well as teaching sections of fourth through eighth ranging from English to Math. From 1990-1995 taught gifted and talented students, grades first through fifth. Became an assistant principal in 1996 until 1998. Elementary school principal from 1998 to present.

Professional Memberships: Association for Supervision and Curriculum Development, Federal Managers Association, American Association of University Women.

