GENDER EQUITY IN PHYSICAL EDUCATION: AN EXAMINATION OF GENDER-BIASED COMMUNICATION AND TEACHER BEHAVIORS

BY

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DISSERTATION

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Abstract

Physical education remains a male-dominated terrain where gender biases are reproduced and typically unchallenged (Colwell, 1999; Klomsten, Marsh, & Skaalvik, 2005; Messner, 1988, 1990; Scranton, 1990). Under the lens of critical feminist theory, this investigation examined the language and behaviors physical education teachers employ related to gender equity. The specific purpose of the investigation was (a) to determine what teachers know about gender equitable practices and the potential influence of these practices on students, (b) what types of gender bias are demonstrated in the instructional environment through teacher behaviors and verbal and non-verbal communication between teachers and their students, and (c) how teachers are influenced to adopt gender equitable behaviors in the physical education context, and why some teachers elect not to adopt these behaviors. In order to gain a rich understanding of teachers' language and behaviors in the physical education setting, a multiple-case study was conducted with four physical education teachers in four separate Midwestern school districts. The investigator conducted persistent observations with each of the teachers for a two-week period. Teachers participated in informal interviews throughout the observation period as well as formal interviews at the beginning and conclusion of the observations. Interview transcriptions, observation logs and class documents were analyzed inductively to establish themes, followed by a deductive analysis using critical feminist theory to reaffirm the inductive reasoning (Patton, 2002). Themes emerged within and across cases revealing the use of gender-biased language and instructional practices that included gender segregation and gender-based expectations. Teachers acknowledged they had received minimal training related to gender equitable teaching and were only amendable to future training to varying degrees. Further investigations into gender equitable teaching is merited with regard to teacher training at both pre-service and in-service levels.

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"It always seems impossible until it's done." -Nelson Mandela

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CHAPTER ONE: INTRODUCTION

"In our steady insistence on proclaiming sex-distinction we have grown to consider most human attributes as masculine attributes, for the simple reason that they were allowed for men and forbidden to women" (Gilman, 2005, p. 221).

This quote highlights the pervasiveness of discrimination based on sex and gender in our society. Physical education is a male dominated arena that is supported by cultural expectations and traditions (Colgate et al., 1999; Griffin, 1985; Sadker & Zittleman, 2009). In order for females to have equal opportunities to learn in physical education, they need to have an environment that is supportive, safe, and free from the biases associated with long-held cultural gender expectations.

Children's Health

A supportive physical education environment can have a direct impact on the health of children in our society. Unfortunately, our society has shown an unmitigated increase in obesity over the course of the last 30 years (Washington, 2009). With the onset of exciting technology that is readily accessible, coupled with easy access to television and fewer opportunities for children to walk or bike to and from school, the era of playing outside and remaining active until the dinner bell rings is over. At the current rate, "...one in every four children in the United States will be obese by 2015" (Washington, 2009, p. 2168). This paints a dismal picture for the health of American children, and it should sound an alarm to anyone involved in physical education or interested in the health and well being of our nation's students.

It is no surprise that the increases in the use of technology have contributed to poorer health for children in multiple ways. Researchers have established relationships between media exposure, physical activity and body composition. Children who watch four or more hours of

television per day have considerably higher body fat composition and basal metabolic rate scores than children who watch less than one hour of television per day (Anderson, Crespo, Bartlett, Cheskin, & Pratt, 1998). It is estimated that the average high school graduate will have spent approximately 12,000 hours in school and between 15,000 and 18,000 hours in front of the television (Strasburger, 1992). Additionally, children are influenced to make poor nutritional choices by the advertisements they are exposed to on television. According to Epstein, Coleman, and Myers (1996), children who are not previously hungry are cued to eat as a result of watching television. A major challenge facing society is to increase physical activity while decreasing sedentary habits, and physical education is an important venue where this can happen for both females and males.

Gender Equity in the Educational Environment

Extensive research has been conducted examining gender equity in the educational environment (Adler, Kless, & Adler, 1992; Bailey, Scantlebury, & Letts, 1997; Brophy & Good, 1970; Fagot, 1981; Klein & Orfman, 1994; Lundeberg, 1997; McCaughtry, 2004; Sadker & Zittleman, 2002, 2005; Volk & Beeman, 1998). Scholars contend that females are called on less than males in classroom settings especially in subjects that stereotypically favor males such as math and science (Fagot, 1981; Klein & Orfman, 1994; Lundeberg, 1997; Sadker & Zittleman, 2002; Volk & Beeman, 1998). Males are disadvantaged as well by stereotypically held beliefs as they are corrected more frequently for behavioral problems than females. Behaviors that are more strongly associated with feminine behaviors are considered more desirable in an educational setting, and this can disadvantage males (Fagot, 1981). The belief that "boys will be boys" and comments such as "that's not very lady-like" have long been part of the educational

environment and continue to prevent children from realizing their full potential (Sadker & Zittleman, 2002, p. 19).

Physical education is no exception to this rule. Studies in physical education have demonstrated unequal treatment on the basis of gender (Azzarito & Solomon, 2009; Barr-Anderson et al., 2008; Griffin, 1985; Hastie, 1998; McKenzie et al., 2006; Oliver, Hamzeh, & McCaughtry, 2009; Sabo, 2009; Vu, Murrie, Gonzalez, & Jobe, 2006). Males have typically dominated the physical education setting and have not been discouraged from doing so. Even highly skilled females demonstrate a tendency to defer to males as a result of social pressures (Griffin, 1984, 1985). Thus, physical education may not provide students with equal opportunities to learn and be engaged.

According to Graber and Woods (2013), all school-aged students should have the opportunity to:

develop and refine basic motor skill; experience creativity through dance and gymnastics; be exposed to a variety of developmentally appropriate activities and sports; have opportunities to learn about and acquire a commitment to health-related fitness; acquire an understanding of movement principles, strategies, concepts and tactics; experience enjoyment; (and) learn to work with others. (p.7)

Unfortunately, many students do not experience physical education in this way. Students report a lack of enjoyment in the subject matter due to alienation, lack of proper skill development, and an overemphasis on competition (Portman, 1995). Specifically females experience barriers to physical education as a result of "...school pressures, dissatisfaction with school physical education classes, reluctance to get sweaty or disheveled, and inaccessibility or inconvenience of sporting provision" (Bailey, Wellard, & Dismore, 2004, p. 4). Physical education teachers often

structure classes in a way that allows and, in some cases, encourages females to refrain from participating in activities as a result of feeling uncomfortable due to male domination or because females do not enjoy the curriculum (Griffin, 1985; Koca, 2009; McCaughtry, 2004).

According to the National Association for Sport and Physical Education (2012), educators are responsible for developing the whole child. The development of each child includes learning about healthy practices and lifestyles, learning in a physically and emotionally safe environment, and actively engaging in learning (National Association for Sport and Physical Education, 2012). Research, however, has demonstrated that females are at a higher risk for inactivity due to declining rates of participation in physical activity as they age (Bailey et al., 2004; Baranowski, Thompson, Durant, Baranowski, & Puhl, 1993; Bungum & Vincent, 1997; Sabo, 2009). A well-structured and well-executed physical education program could reduce declining rates of physical activity in females.

A number of investigators have examined the participation patterns of students enrolled in physical education. One of the first investigators to closely examine how females and males participate was Griffin (1984, 1985). Her investigations demonstrate that students participate differently based on gender. In the same vein, McKenzie et al. (2006) used the Trial for Activity of Adolescent Girls (TAAG) to determine how females participated based on field site, lesson content and location, teacher gender, and class composition. They found girls to be more physically active in coeducational rather than single-sex classes. Also collecting data in the TAAG, Vu et al. (2006) found that males have a strong influence on female participation patterns in both negative and positive ways. Barr-Anderson et al. (2008) found that a positive physical education environment significantly influences female participation rates.

Gender Equity and Communication

Within a positive physical education environment, gender should not be a factor that inhibits the learning process. Title IX of the Educational Amendments 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 educational programs or activity receiving federal financial assistance" (Valentin, 1997, p. 1). In accordance with Title IX, physical education programs should be developed and executed in a way that does not favor the interests and needs of one sex over the other. Although society may perpetuate gender-based stereotypes, it is incumbent upon all educators, physical educators included, to challenge those stereotypes in words and actions. Once a level of awareness is reached about gender equity, teachers must overcome their own biases and demonstrate agency over the dominant cultural ideologies. Specifically, how teachers communicate with students sends a powerful message. The following quote exemplifies this sentiment:

Once it has been accepted that the language we use is not simply a transparent representation of only one level of meaning, the way is open for further investigation of how language constructs gender relations within physical education. Therein lies the potential to create change. (Wright & King, 1990, p. 223)

Empirical research related to gender equity and communication in physical education, however, has been sparse. Despite existing evidence that female experiences in physical education are not fulfilling their physical activity needs, little has been done to adequately address the problem.

Theoretical Framework

In the absence of a strong body of knowledge that examines multiple facets of gender equity in physical education, there is a need to undertake investigations that shed additional light

on this topic. In particular, understanding how teachers communicate with students is an important initial step toward developing instructional strategies that promote equality for both females and males. Therefore, the purpose of this investigation was to examine teacher awareness about gender equity and how communication patterns and instructional behaviors influence gender equitable physical education.

Feminist theory provides an appropriate lens from which to view gender equity in the instructional environment. Feminist theory posits that there is a need to increase equality, expand human choice, and eliminate gender stratification (Macionis, 2010). The presumption of this investigation is that an underlying stratification of male dominance exists in physical education classrooms (Griffin, 1985; Koca, 2009; McCaughtry, 2004).

The form of feminist theory that has guided this research is critical feminist theory. Wildman (2007) suggests the possibility of eliciting multiple meanings when one seeks to understand critical feminist theory. When the word "critical" is used to modify "feminist theory", it is presumed, "...that all feminist theory criticizes the misogynistic view of women that characterizes society" (Wildman, 2007, p.348). In another respect, critical feminist theory advocates for a more thorough commitment to eliminating the inferiority of women in society as compared to other forms of feminist theory (Wildman, 2007). According to Qin (2004), in critical feminist theory, "culture is a complex combination of critical cultural elements (i.e., race, ethnicity, class, gender, and sexuality) that are forged, reproduced, and contested within asymmetrical relations of power that primarily constrain one's self" (p. 197). Within the physical education context this may hold especially true, as it has traditionally been a male-dominated terrain influenced by fluid cultural contexts. These contexts can vary greatly depending on the

value system held by those in power over students including physical education teachers, parents, and the administration.

Three of the basic premises of critical feminist theory that specifically frame this investigation are that gender oppression is engrained in society, that gender oppression must be challenged to unveil the interests of the dominant group, and that gender oppression must be challenged in a social way in order for change to occur (Geisinger, 2011). As a largely uncontested male-terrain, physical education is a veritable breeding ground for gender oppression. In using critical feminist theory, the investigator is able to examine how physical education teachers reproduce gender oppression, and provide a vehicle for raising awareness about how gender oppression manifests in physical education. Critical feminist theory ultimately "...calls on us to reconsider our existing understandings of knowledge, power, and spaces of empowerment" (de Saxe, 2012, p. 198). With a critical feminist lens, the three primary research questions guided this investigation are as follows:

- 1. What do teachers know about gender equitable practices and the potential influence of these practices on students?
- 2. What types of gender-bias are demonstrated in the instructional environment through teacher behaviors and verbal and non-verbal communication between teachers and their students?
- 3. How are teachers influenced to adopt gender equitable behaviors in the physical education context, and why do some teachers elect not to adopt these behaviors?

CHAPTER TWO: REVIEW OF LITERATURE

Each step of a marathon is a critical part of a journey that brings one closer to a long awaited finish line. Gender equity in American culture is far from arriving at the finish line, but it has seen a great deal of progress with many mile markers achieved. Females, once viewed as only mothers and housewives, are now afforded opportunities to become educated and enter into a greater variety of professions. According to Lewin (July 9, 2006) in the New York Times, females now comprise 58% of the students attending college. Although general educational opportunities have increased for females, there are still areas within education where inequity exists. Gender remains a variable within the physical education context that often places females as secondary to males while discriminatory practices persist (Nilges, 1998; Sadker & Zittleman, 2009).

This chapter is an overview of the literature as it pertains to gender equity in physical education and sport. Specifically this chapter will address research findings related to (a) defining gender equity, (b) the history of gender equity in the United States, (c) female and male participation in general education, (d) female and male participation in physical education, (e) gender equitable language, and (f) feminist theory.

Defining Gender Equity

According to the World Health Organization, gender is defined as "... the socially constructed roles, behaviours, activities, and attributes that a given society considers appropriate for men and women" (2012, Gender section, para. 1). While sex refers to the physical, biological characteristics that contribute to distinguishing females from males, gender is associated with the masculine and feminine behaviors that are situated in the culture and time period in which males and females live. Gender should not be confused with sex, which refers to the biological and

physiological characteristics that define men and women (World Health Organization, 2012, p. 1). It is important to emphasize that gender and, to some degree, sex are socially constructed and are situated in the context of culture and history.

Gender equity, specifically in the context of education, is defined as, "...the right to education [access and participation], as well as rights within education [gender-aware educational environments, processes, and outcomes], and rights through education [meaningful education outcomes that link education equality with wider processes of gender justice]" (Subrahmanian, 2005, p. 395). The expectations associated with gender often create unequal conditions in sport and physical education. Activities traditionally associated with masculinity and femininity (based on a given culture) place expectations on females and males that may influence their opportunities for participation.

In physical education, gender equity translates into coeducational opportunities where students have equal access to learn. All students, for example, should be afforded a safe environment to develop skills and fully participate. Communication should happen in a manner that provides equal opportunities and places equal expectations on males and females (Davis, 2000). Curricular objectives should be designed to meet the needs of all students regardless of gender. Teachers should make efforts to interact verbally and nonverbally equally with males and females, to have similar expectations for behavior and ability of females and males, and to discourage the use of gender-biased language between males and females (Davis, 2003). All of these strategies should be employed intentionally with teachers to ensure a gender equitable environment.

The History of Gender Equity in the United States

When considering the history of the United States, females have experienced centuries of unequal treatment that have laid the foundation for the gender bias that exists today. Sadker and Zittleman (2009) provide accounts of circumstances throughout this country's history that demonstrate the disparity in fair and equal treatment of all persons. For example:

In 1647, the town council of Farmington, Connecticut, voted money for a school "where all children shall learn to read and write English." However, the council quickly qualified this statement by explaining "all children" meant "all males." Wealthy, white boys were the focus of America's schools for hundreds of years. (p. 29)

In colonial times, most institutions educated males and females very differently, focusing on preparing them for the gender roles that were considered acceptable in society. Educated females were considered, by men in power, to be a threat to the natural order of society. Therefore, females were educated separately from males in seminaries that focused primarily on domesticity. Mount Holyoke, for example, focused on prayer and self-discipline. It would, however, eventually become one of the first institutions to offer a strong academic curriculum while still promoting domesticity (Sadker & Zittleman, 2009). It wasn't until 1833 that women and other minorities were admitted into college with white males. What seemed like a landmark event was, unfortunately, diminished by the reality that females were expected to wash male clothes, clean the rooms of their male classmates, and generally avail themselves for service to their male counterparts. Males were educated to achieve employment and become the sole financial support of their families. In contrast, females were educated to prepare for marriage and support the needs of the family at home. It wasn't until the late 19th century that females began to experience a shift in equality (Sadker & Zittleman, 2009).

In the timeline of the history of the United States, the momentum of change increased as females fought to gain a more equitable position in society. Susan B. Anthony and Elizabeth Cady Stanton, in 1869, formed the National Women's Suffrage Association with the purpose of giving women the right to vote. In 1893, Colorado became the first state to grant females the right to vote, and in 1920, the 19th amendment made voting a constitutional right (Imbornoni, 2012). President Lyndon B. Johnson created an affirmative action policy that was expanded in 1965 to include discrimination based on gender and mandated that federal agencies and contractors offer equal opportunities in employment and education to females and other minorities (Imbornoni, 2012).

In March of 1972 The Equal Rights Amendment, which had the potential to effect critical change for the equality of men and women, was introduced,

The Equal Rights Amendment (ERA) is passed by Congress and sent to the states for ratification. Originally drafted by Alice Paul in 1923, the amendment reads: "Equality of rights under the law shall not be denied or abridged by the United States or by any State on account of sex." The amendment died in 1982 when it failed to achieve ratification by a minimum of 38 states. (Imbornoni, 2012, para.15)

This amendment is still not ratified today, but it has the potential to become the 28th amendment to the U.S. Constitution if three more states out of the required thirty-five vote for ratification.

On June 23, 1972, Title IX was enacted as part of the Education Amendments. Title IX 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 educational programs or activity receiving federal financial assistance" (Valentin, 1997, p. 1). Title IX was used as a means to promote equality by mandating that both sexes be offered equal access to participation

in athletics based on interest and ability. The impact of Title IX at the elementary and secondary level was initially unforeseen as the focus of the amendment was at the level of higher education. This applied not only to sports teams but also to the educational setting. Physical education, for example, was to be offered in a fair and equitable manner to both sexes in a coeducational setting.

Opponents of Title IX argued that rather than creating greater opportunities for females, males were given fewer opportunities for participation since athletic programs for males were reduced at many institutions in order to financially accommodate the addition of programs for females (Shelton, 2000, p. 257). While some institutions made the decision to eliminate male sports programs rather than finding other avenues for continued funding, it is a myth that male participation in sports has declined as a result of Title IX. According to Bowen (2011), when Title IX was passed in 1972 there were 295,000 females who participated in high school sports in the United States as opposed to 3.67 million males. In the 2010-2011 academic year, there were 3.2 million females who competed in high school sports and 4.5 million males. Male participation in sports in the United States has seen an overall increase since the passage of Title IX, yet female participation in 40 years has not exceeded the 1972 participation rate of males. In 2006, Title IX was amended to allow for single-sex classes if provided in a way that enhances opportunities for both sexes (Federal Register, 2006, p. 2). A physical educator could, for example, provide a single-sex class of basketball for males or females if the equivalent class was offered as a coeducational option. Although this amendment stipulates both sexes should benefit from structuring classes in multiple ways, the benefits do not automatically follow. This, in fact, perpetuates the unequal treatment of students based on gender and continues to reproduce dominant cultural ideologies.

According to Ali (2010) in the Office of Civil Rights, "Title IX stands for the proposition that equality of opportunity in America is not rhetoric, but rather a guiding principle" (p.1). This guiding principle, however, does not automatically guarantee compliance. Many institutions receiving federal funding still fail to offer the same benefits to females that are offered to males. Many schools still have gender-segregated physical education classes that are not offered in a fair and equitable way. Schools continue to have inequitable facilities and equipment, and a curriculum that fails to offer equal opportunities to both males and females (Cox, 1977; Nilges, 1998; Sadker & Zittleman, 2009).

Female and Male Participation in General Education

A great deal of research has been conducted in the general education setting to determine whether schools foster gender equitable environments (Adler, Kless, & Adler, 1992; Bailey et. al., 1997; Brophy & Good, 1970; Fagot, 1981; Klein et. al, 1994; Lundeberg, 1997; McCaughtry, 2004; Sadker & Zittleman, 2002, 2005; Volk & Beeman, 1998). Fagot (1981) examined how teachers interacted differently with students based on the teacher and student genders. She found that male teachers commented favorably more often, responded more often to children's questions, asked more questions, and helped children more often than female teachers. When considering the gender of the children, teachers interacted with mixed gender groups more often than single gender groups and they interacted with males more often than with females. Females were asked questions more often than males and males were given about half as much information as females or mixed gender groups. After outlining behaviors that are stereotypically masculine and feminine, teachers responded more favorably to stereotypically feminine behaviors which overlapped with behaviors that contributed to better school performance. Fagot (1981) suggests that, "rather than just presenting a non-sexist environment, an active

environment designed to break through sex stereotypes without threatening gender identity needs to be created" (p. 270). She argued that the encouragement students receive to participate in activities, regardless of gender, can be critical to deconstructing gender stereotypes and may be necessary for success in the development of the child.

Volk and Beeman (1998) addressed gender equity issues that were found in a documentary produced to illuminate discrimination toward minority groups. In this documentary, students were separated based on having blue eyes or brown eyes. Students with blue eyes were treated as superior while students with brown eyes were treated as inferior. The manifestation of this unequal treatment resulted in higher performance by the blue-eyed children and a sense of superiority displayed through name calling of the other students. The authors in this article use the same documentary in a classroom context but with a focus on gender equity. They asked students whether the teacher's treatment of males and females seemed equitable. The students felt that the treatment of males and females was fair but that the teacher called on the males more out of necessity as their behavior dictated their eagerness to be called on. When examining the video with the students, the researchers pointed out that while the males were being called on females whose hands were raised were ignored. A message that has been reiterated in other investigations and supported by the work of Volk and Beeman (1998) is that while gender discrimination may be subtle, the implications for lowering females' self-esteem and producing learned helplessness may have longstanding detrimental effects (Brophy & Good, 1970; Lundeberg, 1997; Sadker & Zittleman, 2005).

Commonly held findings are that males and females are disadvantaged by gender stereotyped beliefs in general education. Teachers call on males more often than females to answer questions and address behavioral problems. Females are scrutinized to a greater extent

for providing incorrect answers which discourages them from responding. Expectations associated with curricular subjects are dependent on gender-biased assumptions such as males perform better in mathematics while females perform better in English (Klein et. al, 1994; Lundeberg, 1997; Sadker & Zittleman, 2005).

Female and Male Participation in Physical Education

As with participation in general education, there is a disparity between females and males in relation to their participation in physical education. Physical education has a history of reproducing culturally held beliefs about males and females. Females have been characterized as weaker and physically inferior to males. White, middle-class, female physical educators perpetuated these beliefs as a way of conforming to culturally held norms of female physicality (Verbrugge, 1997). While other social arenas experienced greater integration of males and females, physical education remained segregated until relatively recently.

These long held cultural ideologies still impact how females and males participate in physical education today. According to the U.S. Centers for Disease Control and Prevention (2010), approximately 11.4% of females are participating in 60 minutes of daily physical education at the high school level, compared to 24.8% of males. Further, as children age, fewer females engage in physical activity than males (U. S. Department of Health and Human Services, 2000; Kimm et. al, 2002). It is notable that females are typically compared to males in the literature when equity measures are in question. This method of comparison is further evidence of reproducing the dominant cultural ideologies.

Participation Patterns

A number of researchers have investigated different aspects of males' and females' participation in physical education (Azzarito & Solmon, 2009; Barr-Anderson et al., 2008;

Griffin, 1985; Hastie, 1998; McKenzie et al., 2006; Oliver et al., 2009; Sabo, 2009; Vu et al., 2006). Griffin (1984, 1985) was one of the first researchers to examine male and female participation patterns. She observed male patterns that varied from "machos" (highly aggressive males who typically dominated game play) to "wimps" (students who appeared physically weaker and engaged less in activity) (Griffin, 1985, p. 102). She also observed female patterns that varied from "athletes" (girls who showed great skill development and were assertive during game play) to "system beaters" (girls who avoided engaging in physical activity via a doctor's note or parental excuse) (Griffin, 1984, p. 32). Griffin's classifications were gathered from her perspective as a researcher but also from the teachers' perceptions of how students engaged in physical education. Despite a small sample size that makes generalization difficult, these patterns of participation are most likely familiar to most physical education teachers.

Several years after Griffin's studies, Hastie (1998) compared females' perceptions of a sport education unit to their perceptions of previous physical education units. He found that females enjoyed the unit of sport education because they experienced fun. The females suggested they focused more on the game and less on the social dynamic, which is in contrast to their perceptions of a single-sex physical education environment where a greater focus is place on the social dynamic. Females, however, were not given leadership roles during the unit of instruction (which is a strong component of the sport education model). The author also noted the perceptions held by both males and females that "boys are naturally better at sports, boys automatically make better players, boys are more serious about sport, and certain sports are easily categorized as boys' sports and girls' sport" (p. 168). No significant differences, however, existed between success rates and opportunities to participate in game play between males and females.

Although considerable progress has been made since the passage of Title IX, the disparity between opportunities for males and females in physical education continues to exist. In an effort to understand this disparity, McKenzie et al. (2006) sought to determine middle school females' physical activity levels related to field site, lesson content and location, teacher gender, and class composition. Using the System for Observing Fitness Instruction Time (SOFIT), females were observed while participating at field sites in the Trial of Activity for Adolescent Girls (TAAG). McKenzie et al. (2006) found that females were more active in coeducational classes than in female only classes. They found no differences in females' activity levels based on teacher gender and very little promotion of physical activity in or outside of the school setting. This study supports the value of the physical education setting for promoting higher physical activity levels for both genders.

In an attempt to determine the barriers and facilitators to females' participation in physical activity, the perceptions of males and females were examined during an investigation that was conducted in concert with the TAAG study (Vu et al., 2006). The results indicated that females are influenced to be physically active as a result of family, peers, social perceptions, and available physical activity opportunities. Males were a significant influence, both positively and negatively, on females. Interview data indicated that males can encourage females in either a harassing or supportive way to be physically active. They either offered supportive commentary and feedback during physical activity performance, or they ridiculed and sometimes ignored females. Males described females who were perceived to be skilled in sports as emasculating, while females who were inactive were characterized as "lazy" and "fat" (Vu et al., 2006, p. 88).

Barr-Anderson et al. (2008) examined the factors that influenced levels of enjoyment of physical education classes for middle school females. The investigators surveyed 1,511 females

from 36 middle schools with a diverse population. The investigators determined that females who enjoyed participating in physical education experienced greater self-efficacy and a supportive physical education environment (encouragement from teachers and peers). The authors highlight the value of

...working with teachers to enlist their support for promoting physically active lifestyles, enhancing self-efficacy for leisure time physical activity among girls, ensuring that boys are respectful of girls when physically active, and promoting social norms of physical activity in girls (Barr-Anderson et al., 2008, p. 25).

The findings from this study demonstrate a need to promote gender equity in physical education. In order to promote equality, the authors suggest "girl-only classes, noncompetitive environments, different types of activities that are fun for girls with different skill levels and interests..." (p. 25). The suggestions of these authors would designate females as altogether different from males, therefore, in need of separate accommodations for their physical activity needs. This does not account for the spectrum of differences between females and the possibility that females and males may benefit from coeducational participation. The authors' suggestions may, in fact, reinforce gender stereotypes about masculine and feminine activities.

While there are disparities between the numbers of males and females who participate in athletics, there is an even wider gap between urban females when compared to rural or suburban females. In 2009, Sabo reported that participation rates among suburban elementary school females were 81% compared to 59% of urban elementary school females. These statistics were taken from two national surveys of 100,000 public, private, and parochial schools to determine youth sports participation. The study also revealed differences in the ages when children enter and exit organized sports. Urban females from low income households entered organized

athletics at 10.2 years of age compared to males from low income households entering at 7.6 years of age. Dropout rates with regard to participation in physical activity increased regardless of gender as children grew older. Urban females were more than twice as likely to drop out from elementary to high school years. It is critical to consider that females are not a homogenous group, instead encompassing differences in race, ethnicity, sexuality, and socioeconomic status.

Another investigation focused on how females are encouraged or discouraged from participating in physical activity from the perspective of the females themselves. Oliver et al., (2009) explored curricular possibilities for females who were identified as more feminine than other females. Two groups of fifth grade females who were perceived by their teachers as less active in physical education or at recess were targeted for study. Information was elicited from the females by developing biographies, taking photographs of facilitators and barriers to physical activity, and analyzing the photographs. Females claimed that "girly girls" "don't want to 'sweat', 'mess up her hair and nails,' or 'mess up her nice clothes,' and sometimes wear 'flipflops" (Oliver et al., 2009, p. 90). Females used being a "girly girl" as an excuse to avoid participating in physical education activities they didn't like and would cease being a "girly girl" when they wanted to participate in the activity offered. When given the opportunity to create games they could enjoy, the females created games that promoted moderate to vigorous physical activity and skill development. Therefore, the notion that "girly girls" did not want to sweat or mess up their hair was contradicted in how their game play manifested. Females "explained that they did not like some sports 'because the boys kick your feet,' 'trip you on purpose,' 'push you down,' and 'grab your hair'" (p. 102). These data would suggest that females are discouraged to participate by the males who treat them poorly, rather than by their own girly girlness.

Azzarito and Solmon (2009) surveyed 528 high school students to understand how gender-biased communication physically manifested in their behaviors and actions and influenced their enjoyment of physical activities. Demographic information was collected along with self-reported levels of engagement in physical education, and responses to open-ended questions regarding favorite and least favorite physical education activities. The results indicated that females valued physical skill less than males; however, females valued the gendered body (the expression of their gender through their bodies) more than males. Females reported lower participation rates suggesting they were "pressured to participate in 'appropriate,' 'feminine' physical activities, especially if the practices in the physical education classroom are constructed as 'male terrain' (p. 185).

Coeducational or Single-Gender Physical Education

The debate over the segregation of sexes in physical education has spanned decades. Many investigators have examined whether it is more beneficial for students to learn in gender-segregated or gender-integrated classes (Bischoff, 1982; Colgate et al., 1999; Griffin, 1981; Hannon & Ratliffe, 2007; Koca, 2009; Lirgg, 1994; Lirgg et al., 1996; McKenzie, Prochaska, Sallis, & LaMaster, 2004; Treanor, Graber, Housner, & Wiegand, 1998). As a result of Title IX, schools were mandated to offer coeducational physical education to all students. This mandate, however met with opposition and skepticism. As of 2006, Title IX was amended to allow physical education to be offered as a single-gender option (Federal Register, 2006, p. 2). The following section outlines arguments favoring both coeducational and single-gender physical education.

Investigations into coeducational physical education began after the passage of Title IX.

In one study, Bischoff (1982) examined how males and females participated in a coeducational

volleyball physical education class. The results suggest that an equal number of males and females provided the most equitable game play. In circumstances where males outnumbered females, females were robbed of opportunities to participate, as males would interfere in game play. Males, however, were not hindered when females outnumbered them. Student feedback showed greater levels of respect for the opposite gender when they were afforded the opportunity to play together on teams that were balanced by gender. Overall, Bischoff (1982) suggested that coeducational physical education can benefit both males and females, especially when teaching a sport in which students have less experience.

Other studies offer conflicting results for coeducational as opposed to single-gender physical education. McKenzie et al. (2004) investigated the differences in participation of females and males in coeducational and single-gender settings while also taking into consideration lesson context. They found that females received higher amounts of moderate to vigorous physical activity (MVPA) in coeducational rather than single-sex physical education, but they attributed this to the focus on skill development in segregated classes as opposed to game play in integrated classes. The authors argue that there may be a greater value in focusing on skill development for females rather than males and a decrease in MVPA would be an acceptable trade-off. The authors also agree with previous investigations (Lirgg, 1993, 1994; Treanor et al., 1998) that segregated classes may afford females greater enjoyment as the emphasis on skill development would replace lost opportunities as a result of male-dominated game play. Treanor et al. (1998) also found that females enjoyed physical education less as they progressed from 6th to 8th grade, while males considered themselves more highly skilled than females and continued to enjoy physical education.

One of the most prevalent arguments for single-gender rather than coeducational physical education is that females will be dominated by males in both game play and verbal interactions with the teacher. Hannon and Ratcliffe (2007) argued that females benefit from separating males and females in game play when team sports are taught. In their investigation, females received more practice opportunities and greater amounts of group verbal feedback from the teacher when participating in single gender physical education. As a result, the authors suggested using both coeducational and single gender physical education in activities that warrant the separation of males and females. Team sports, for example, would be segregated to accommodate differences in skill levels and prevent males from dominating game play. Coeducational activities, however, would still be included for the value of students interacting and learning to work with students of the opposite sex. By suggesting that team sports be segregated based on sex, the authors are presuming that skill is attributed to gender more than individual differences in ability regardless of gender. Mixed messages would be sent by teachers separating students based on gender for some activities and combining students based on gender for others, reinforcing the dominant ideologies one would hope they would combat.

There appears to be no consensus on whether single-gender physical education classes are superior to coeducational classes or vice versa (Colgate et. al, 1999; Gabbei, 2004; Hannon & Williams, 2008). Colgate et. al (1999) reported a range of responses to the question of whether physical education should return to a single-sex format. One respondent claimed that the perception of males being more highly skilled than females would be reinforced if males and females were taught in sex-segregated classes (Colgate et al., 1999, p. 1). Another, however, claimed,

Guys who hear music think dance, and suddenly something happens to their desire to cooperate. It disappears. Dance class, a joy for all girls of all ages and maturities, is a nightmare when it includes a captive audience of immature adolescent males. (p. 1)

Respondents included four physical education teachers in favor of single-gender physical education and four faculty members from universities in favor of coeducational physical education.

In addition to perceptions of students' skills, teachers' gender-biased beliefs can be evidenced in the curricula they develop and how they emphasize the masculinity or femininity of the activities included. Vertinsky (1992) offered an analysis of anti-discrimination legislation and coeducational initiatives that have sought to level the playing field for females in physical education. Traditionally activities in physical education have emphasized competition over cooperation and creative expression. The nature of traditional physical education has favored male dominance. The creation of coeducational physical education has not guaranteed the inclusion of females into this male-dominated forum. Females' presence does not necessarily mean they will be included in physical education activities, only that they will be invited to participate in a context designed for males. Vertinsky advocates for the inclusion of nontraditional sports that are less gender-biased, and the removal of gendered activities such as football and softball. She also advocates teacher-training programs that focus on reflective teaching with an emphasis on gender equity. Vertinsky does not address the level of agency these teachers experience that may allow them to act within dominant social structures to attempt to change their teaching philosophies. Instead, she believes that with proper teacher training, an environment could be fostered to benefit both males and females without excluding athletic activities that are culturally significant such as football and softball.

Koca (2009) investigated coeducational physical education and gender-stereotyped beliefs in Turkey. This study examined one female and one male teacher in two separate physical education classes and 37 eighth grade students. The author specifically examined the frequency of interactions between students and teachers, the types of interactions directed towards male and female students, and the gender stereotyped beliefs held by students and teachers (Koca, 2009). Sadly, the amounts of female initiated statements in both the male and female teachers' classes were 2.8% and 0% respectively. This means that out of 118 student-initiated statements only 3 of those statements were from girls. Both the male and the female teacher interacted with males at a much greater frequency than with females. An overwhelming theme that emerged from the interview data is that gender stereotyped beliefs are strongly held by both teachers and students. Teachers even went so far as to ask female students to perform in a more "lady-like" fashion. After proclaiming their low level of ability in basketball, all but one female stood to the side while the males participated in a game. The teacher made no effort to include or encourage the females but instead stated that it was all right for them not to participate. Although this study took place in Turkey, many other investigations have revealed similar gender-biased teaching.

McCaughtry (2004) found that a coeducational environment fostered the interest and abilities of male students with little consideration of the needs of female students. He looked at one teacher's impressions of the physical education curriculum and environment and how both factors adversely affected female students. The teacher identified a bias towards male students as evidenced in the following quote:

The activities we taught were just not things a lot of girls wanted to do. A lot of girls didn't want to play rough and tumble games of basketball or flag football, so they just sat out. They had no choices; they did what the coaches liked to teach or thought were the

important parts of physical education. So we ended up teaching all competitive and nothing else. (p. 405)

McCaughtry highlighted the fact that the teacher sometimes referred to what "girls" like to do and sometimes recognized that not all female students' interests can be accurately reflected through generalizations. The teacher, however, did not recognize any variation in male interest in physical activity.

In a classic article, Griffin (1981) questioned the assumption that sex-integrated physical education provides a more equitable experience than sex-segregated physical education. She argued that teachers want to be fair and use equitable teaching strategies but have not been given the appropriate training and support to critically analyze their teaching. She provided suggestions for achieving sex equity that also equate with best practices for teaching in general. For example, teachers should provide opportunities for students to participate in small-sided games where all students have greater opportunities to develop skills rather than larger games that are often dominated by higher skilled students. Teachers should also discourage comments that stereotype students based on sex such as, "Jane is a great athlete for a girl" or "Mary, you throw just as well as the boys" (Griffin, 1981, p. 15).

Gender Equitable Language

Relatively little research has examined gender equitable language in physical education. Some literature shows that language is being used (intentionally or unintentionally) to reinforce the social constructs of the dominant culture (Wright & King, 1990). Wright and King (1990) analyzed the linguistic choices made by one female and one male physical education teacher in an Australian school. The authors explain the impact of language used when referencing females on their performance in physical education,

The emphasis on surface appearance and self-consciousness, on nurturance and intimacy, and on process as opposed to product does not place the girls or the teacher in a relationship of power to the dominant discourses. Rather it reinforces or reproduces the gender relationships of the wider social structure (p. 223).

There exists some debate as to whether or not language reform will impact social attitudes and practices (Rubin, Greene, & Schneider, 1994). It is not unlike the argument of what comes first, the chicken or the egg? Social scientists argue that social change must precede the use of gender-inclusive language, and that it is ineffectual to try to change social behavior by first changing language (Lakoff, 1973).

In a more overt way of demonstrating gender-biased beliefs, Wright and King (1991) sought to determine how the language that teachers use in a physical education context influenced males and females differently. The authors investigated the content of the language used and the grammatical structure of the language by using a model of linguistic analysis developed by Halliday (1978, 1985). The authors made three fundamental assumptions regarding the use of language.

(First) Language helps construct the social order through processes operating largely at the unconscious level of awareness (Halliday, 1982). As Cate Poynton (1985) suggested, 'Language is the primary means by which we create categories that subsequently come to organize our lives for us' (p.4), categories that position us a female or male, black or white, teacher or student, and so on.

(Second) Linguistic choices for meaning are constrained by the number and types of words, by the patterns available in the language, and by the knowledge and practice of the culture form, which we speak or write.

(Third) There is not a simple one-to-one relationship between the messages sent by writers or speakers and those interpreted and understood by listeners or readers. All participants in any interactive situation come to spoken and written texts with differing expectations and differing life experiences that are the summation of the interaction with other texts, institutions, and ideological structures (Threadgold, 1986). This means that many different interpretations of any text are possible (Wright & King, 1990, p. 212).

Specifically, Wright and King (1990) investigated the way that males' and females' gymnastics were taught differently. The authors determined from their analysis of both the content and the structure of the language that gender stereotyped constructs were reinforced in this educational environment. The layers of meaning associated with the language teachers use should not be disregarded as inconsequential, but analyzed to avoid reinforcing stereotypes.

Wright (1995) focused on the use of a feminist poststructuralist methodology to examine how language is used in physical education by students and teachers in relation to dominant ideologies. The author argues the lens through which the reader views physical education strongly influences his or her opinions regarding "...physical activity, physical education, 'effective' lessons, the nature of students as learners, and femininity and masculinity" (Wright, 1995, p. 19). The investigator examined teachers from three schools in New South Wales. In total, six male and three female teachers agreed to allow their lessons to be video and audio taped, as well as be interviewed to assess their attitudes towards females' and males' participation in physical education. The author found that both students and teachers were influenced by experiences in other situations outside of the educational context and either reproduced those hegemonic ideologies or challenged them (Wright, 1995). The author emphasizes that traditionally physical education has been designed by males for males.

Feminist Theory

The social hierarchy of the position of males and females in physical education and the implications of how the relations of power influence the educational setting are best analyzed through a feminist lens. Feminist theory challenges traditional theories which offer an assumption of male supremacy or centrality (Beasley, 1999). There are a multitude of feminist theories with intersecting guiding principles. Some of the general principles shared by feminist theories are the need to increase equality, expand human choice, and eliminate gender stratification (Macionis, 2010, p. 347). The theory that will be used to guide this investigation is critical feminist theory.

Critical Feminist Theory

Critical feminist theorists focus on the bi-directional influence between cultural structures and practices and the lives of women and men (Wood, 2008). They are interested in systems of power and how culturally held beliefs are either reproduced or challenged. This perspective aligns well with the male-dominated physical education setting and how physical education teachers play a role in deconstructing or perpetuating gender-based stereotypes.

One of the main purposes of critical feminist theory is to identify, question and reform oppressive hegemonic ideologies (Wood, 2008). In doing so, power dynamics are investigated and challenged at both formal and informal levels. Formally, critical feminists examine laws and other official structures of power, while also examining informal, everyday instances of communication and behaviors that "reproduce or sustain inequitable roles" (Woods, 2008, p. 327). In this investigation, it is at the informal level that critical feminist theory has been applied; specifically examining how physical education teachers behave and communicate in their daily teaching responsibilities.

Critical feminist theory relies on specific underlying assumptions when addressing interpersonal communication and relationships. Wood (2008) identifies these underlying assumptions as the following:

(a) In patriarchal cultures, women make up a subordinate group. (b) Because women, as a group, are subordinate in patriarchal cultures, some experiences, knowledge, and activities that are unique to, or more typical of, women are not represented in language or are represented in ways that do not reflect women's meanings for those experiences. (c) Women's experiences, knowledge, and activities merit respect and linguistic status, which are prerequisites to women's full inclusion in interpersonal, social, and political lives. (d) Voice is a key means of valuing and including women's experiences, knowledge, and activities in cultural life. (p. 328)

Through this investigation, the verbal and non-verbal communication of physical education teachers was examined to reveal whether or not they consciously gave voice to the subordinated groups in their classes. The investigator used a critical feminist lens to challenge existing ideologies in physical education in order to deconstruct the unequal power structures that are in place.

CHAPTER THREE: METHOD

The belief that physical education has been a traditionally male-dominated subject matter is well documented (Colwell, 1999; Klomsten, Marsh, & Skaalvik, 2005; Messner, 1988, 1990; Scranton, 1990). In most schools, the physical education curriculum has been designed to favor competition and a narrow range of interests, failing to address the needs of all students. This type of curriculum disadvantages students who have expressed a preference for cooperative activities and a de-emphasis on highly competitive learning environments (Bailey et. al., 2004). Females are specifically disadvantaged when teachers' gender-stereotyped beliefs privilege males. Intentionally or unintentionally, these beliefs can discourage females from fully participating in physical education.

In order to ensure that all students are given an opportunity to be active and develop enthusiasm for physical activity, research needs to be conducted that specifically addresses gender-biased communication and teaching behaviors. Therefore, the purpose of this investigation was to examine the gender bias held by physical education teachers and how bias influences their communication and behavior with students. The following research questions were designed through a critical feminist lens:

- 1. What do teachers know about gender equitable practices and the potential influence of these practices on students?
- 2. What types of gender bias are demonstrated in the instructional environment through teacher behaviors and verbal and non-verbal communication between teachers and their students?

How are teachers influenced to adopt gender equitable behaviors in the physical education context, and why do some teachers elect not to adopt these behaviors?

A Qualitative Investigation

"Qualitative inquiry cultivates the most useful of all human capacities: The capacity to learn" (Patton, 2002, p. 1).

Qualitative methodology is ideally suited for providing valuable data about the issue of gender equity in physical education because it "seeks to understand the meaning of an experience to the participants in a specific setting and how the components mesh to form a whole" (Thomas & Nelson, 2001, p. 332). Rich, descriptive data is the primary aim of a qualitative researcher, and it requires the investigator be the instrument through which data is gathered (Thomas & Nelson, 2001). For purposes of this investigation, a naturalistic approach to data collection was assumed.

In naturalistic inquiry, investigators examine events as they naturally unfold and do not attempt to manipulate or influence the research setting or participants (Patton, 2002). This method of data collection places the researcher among the participants as an outside observer. Participants are not manipulated to behave in any predetermined way; instead they are observed as part of a phenomenon about which the researcher seeks to gain further understanding. As events unfold, a story is told (Patton, 2002).

One advantage of qualitative inquiry is that it allows for an emergent design (Patton, 2002). As data are collected, methodology can be refined to facilitate a richer understanding of the research setting and participants. Unlike quantitative or positivist research that requires the investigator to adhere to a specific and pre-determined research design, qualitative inquiry promotes flexibility. The researcher, for example, is allowed to adjust questions as warranted by the actions and responses of participants. As stated by Patton (2002), "the researcher avoids getting locked into rigid designs that eliminate responsiveness and pursues new paths of discovery as they emerge" (p. 40). This discovery-oriented process is ideal for understanding

issues of gender equity in physical education because the investigator seeks to give voice to participants.

This investigation utilized a multiple-case study approach. Although varying definitions exist, a case study is an in-depth examination of a participant or an event that provides a rich description so as to place the reader in the circumstances of what is being studied. The data elicited as a result of observations or interviews should present the audience with an understanding of the construction of the phenomenon rather than a reconstruction of the events based on the interpretation of the investigator (Lincoln & Guba, 1985). A multiple-case study approach offers an exhaustive look at more than one participant or event wherein the data can be analyzed in comparison or contrast with each case. The value of using this method of data collection is in proffering the most accurate depiction of the events and understandings of the participants that could possibly be rendered.

Participant Selection

As part of a multiple-case study approach, four participants were selected from middle schools in a Midwestern community. Initially, superintendents of school districts within a 30-mile radius were contacted by phone to request permission to conduct research in their districts. Once phone contact occurred, a presentation of the nature of the investigation was made to each superintendent. After approval was obtained, principals of middle schools or junior high schools were contacted by phone and/or through email correspondence to receive permission to contact physical education teachers at their schools.

Upon approval from the Institutional Review Board at the University of Illinois, contact was made with physical education teachers at participating schools either through phone calls or emails. Two female and two male teachers were selected with varying amounts of teaching

experience, each from separate schools. Since Patton (2002) argues that no definitive number of participants is necessary for qualitative research, the selection of four teachers allowed the investigator to spend an adequate amount of time with each participant until redundancy of data was reached. Approximately two weeks was spent with each teacher in order to gather rich, descriptive data.

Interviews

This investigation utilized formal and informal interviews to gather information about participant beliefs and perceptions. Participants were informed that the investigator sought to better understand how teachers behave and communicate with students. In order to reduce the possibility of influencing participant behaviors, they were not informed that the primary purpose of the investigation was to better understand gender bias. All participants were asked to sign letters of informed consent that allowed them the option of withdrawing from the study at any time (see Appendix A).

Formal Interviews. A semi-structured interview guide approach was used for conducting in-depth formal interviews on two occasions with participants (see Appendices B & C). Although different variations on how to conduct interviews exist, this approach allowed the investigator to use open-ended questions that addressed specific topics to which participants are asked to respond. Based on the response of the participants, the investigator was afforded the opportunity to ask follow-up questions to obtain additional information that participants wished to provide or to probe for further information based on their responses to individual questions. Probing is a method of eliciting more detailed descriptions and gathering as much information as can be extracted from the participants. Although follow-up information varied from participant to participant, the interview guide allowed the same open-ended questions to be asked of each

interviewee, enabling the investigator to compare and contrast responses during data analysis (Patton, 2002).

Participants were initially interviewed prior to observations for approximately 45 minutes to establish background information and general teaching philosophies. This initial interview also included questions regarding the physical education classroom climate and the participants' greatest challenges (see Appendix B). Questions, however, were not focused on gender equity. Following the initial interview participants were observed for two weeks. At the conclusion of the time spent with each case study participant, a final formal interview occurred that lasted approximately 45 minutes to one hour. This formal interview revealed the specific nature of the study allowing participants the opportunity to provide insight into their beliefs regarding genderbiased communication. The teachers were asked whether they made conscious decisions about the language they used when communicating with students before the topic of gender was raised. The questions in the final interview addressed the following topics: (a) defining gender equity, (b) the influence of gender on the teachers' experiences in physical education and physical activity, (c) teachers' beliefs about how gender influences their classroom dynamics and students' participation in physical education, (d) how gender influences teacher planning, and (e) what strategies would teachers consider implementing in the future and what resources are necessary to do so. An interview guide was employed to facilitate responses to these topics (see Appendix C). All interviews were audio recorded and transcribed for further analysis.

Informal Interviews. Informal interviews are interactions that occur between the investigator and participants in a variety of circumstances and without a pre-constructed interview guide. This conversational approach occurred throughout the investigation in settings where the investigator and participants were allowed to converse freely. For example,

conversations took place before and after class, in the teachers' offices, and in the staff lounge. Informal interviews are critical to a case study investigation as they allow for data to be gathered when unforeseen events unfold, potentially revealing hidden biases that may not surface in a formal interview. Since participants are not being audio-recorded during these conversations as they are during a formal interview, they often feel at liberty to speak more freely (Patton, 2002). Informal interviews occurred during casual conversations with the teachers and as a part of the natural dialogue that took place in the school setting. Questions were asked as a result of dialogue generated related to events that occurred during physical education and during casual moments throughout the school day. The investigator recorded notes related to these conversations as they occurred or immediately following the conversation. Since note-taking in the presence of the participants may have inhibited the natural dialogue between the investigator and the participants, the majority of notes were taken after the conversations ended.

Observations

In addition to formal and informal interviews, daily observations were conducted over a two-week period with each of the four teachers. The total number of classes observed with each participant varied dependent on the duration and size of the physical education classes. The numbers of classes observed with each participant are as follows: Mr. Covington for 80 classes, Mr. Danes for 52 classes, Mrs. Porter for 72 classes, and Mrs. Gilmore for 50 classes.

Observations occurred prior to class, during class, and after class. In order to obtain the greatest insight into how teachers think, behave, and communicate with students, they were shadowed during all parts of their school day. Since the investigation utilized a naturalistic approach, the investigator attempted not to interfere with the daily duties of the teachers but simply observed their typical routines. This allowed situations to unfold as they would have naturally occurred if

the investigator were not present. According to Patton (2002), observations should reveal the true nature of the participants' behaviors and attitudes within the research setting to provide a clear understanding of the context for the audience of the research.

The intent of the researcher is to "permit the reader of the study's findings to experience the activity observed through (the) report" (Patton, 2002, p. 303). Therefore, field notes were taken during observations in as much detailed description as possible. Notes were documented in a way that allowed the audience to experience the natural setting of the investigation as if they were present. Whenever possible, verbatim statements were recorded into a research log, particularly when gender was a factor. The participants wore microphones and were audio-recorded during observations so that any direct quotes could later be transcribed in cases where it was not possible to copy their instructions verbatim. Initially, the investigator documented every nuance of the setting and communication of the participants. As the investigation progressed, notes in the log primarily addressed gender.

Written Documents

The investigator collected curriculum and lesson plans used by each of the teachers.

These documents provided further evidence of the participants' knowledge and awareness of gender equitable teaching strategies. When no measures were taken to address gender equity concerns in curriculum guides and lesson plans, that absence was of notable importance (Patton, 2002). When, however, teachers planned with the intent of increasing gender equity in their classrooms these documents contributed important data to the study.

Data Analysis

Initially, data were analyzed inductively to establish themes that emerged over the course of the investigation without regard to any particular theory. Patton (2002) described inductive

analysis as "immersion in the details and specifics of the data to discover important patterns, themes, and interrelationships; begins by exploring, then confirming; guided by analytical principles rather than rules; ends with a creative synthesis" (p. 41). Transcriptions from interviews, field notes from observations, and written documents were inductively analyzed to tease out important themes. The observation logs were compared with interview transcriptions and curriculum and lesson plans provided by the teachers. Initially, themes were coded openly by analyzing each line of interview transcripts, observation logs, and written documents, and making notes in the margins as potential themes arose. Themes were modified as new concepts emerged. After open coding was exhausted, the investigator used axial coding to connect codes with each other. Finally, selective coding was employed to develop a story for each case that was analyzed within and across cases (Corbin & Strauss, 2008).

Subsequently, the researcher used deductive analysis to analyze the data in relation to the critical feminist lens used to frame the investigation. Patton (2002) describes deductive analysis as the last part of data analysis that reaffirms the inductive reasoning used previously by focusing on whether or not the objectives of the investigation were accomplished. It also involves hypothesizing about the relationships that have been established by the investigator.

Establishing Credibility and Trustworthiness

It is imperative in qualitative research that data be confirmed through a series of checks and balances. Thus, several methods were employed to establish credibility and trustworthiness of data. These included persistent observation, peer debriefing, member checks, and triangulation.

Persistent Observation

Persistent observation required the researcher to be immersed in the field to the point of reaching redundancy in the data. It allowed the observer to appreciate the true nature of the situation, to blend into the setting so as to avoid intrusion into the naturalistic setting, and to gain the trust of the participants (Lincoln & Guba, 1985). Persistent observation provided depth to the investigation and involved honing in on the characteristics of the investigation that were most relevant to the issue or problems being investigated (Lincoln & Guba, 1985). By spending two full weeks with each participant, the investigator arrived at data redundancy, gained the trust of participants, and understood the most relevant issues that emerged in relation to gender bias.

Peer Debriefing

Through the use of peer debriefing, the investigator sought to confirm, with a colleague, the themes and conclusions that emerged in the data. Creswell (2003) suggests using a peer debriefer in order to increase the likelihood that individuals other than the researcher will realize the same themes and arrive at the same conclusions. The results of the investigation were strengthened by confirming with another scholar the accuracy of the interpretation of the data collected. According to Altheide and Johnson (1994), validity in qualitative data is the credibility or the truthfulness of the results of an investigation. Peer debriefing contributes to the credibility of the findings in an investigation.

Member Checks

Member checks are a process whereby participants are given the opportunity to review the data and confirm that the interpretations are accurate and in accordance with their perceptions. Carlson (2010) explained that member checks allow participants to modify the data collected to ensure it accurately reflects their intentions. Through this process participants are provided with a sense of agency, empowering them to have a voice in the true intent of their

messages in accordance with critical feminist theory. By allowing participants to verify the accuracy of not only their words, but also the intent of the data they contributed, the investigation is strengthened in its rigor.

Triangulation

Triangulation is one of the most important elements in establishing credibility and verification of themes. Multiple data sources allowed the investigator to test that there was consistency in the results (Patton, 2002, p. 248). In this investigation, multiple data collection techniques were used so that data from one source could be compared against data from other sources. Specifically, data collected during interviews were compared with data from observations and written documents. In addition, data collected from the four participants were compared and contrasted against each other.

Establishing Transferability

Transferability refers to the applicability of research findings to similar contexts (Lincoln & Guba, 1985). It is not possible to generalize research in qualitative investigations to larger populations; however, familiarity with events and situations can be transferred to what is known by the audience. Transferability in qualitative research is similar to external validity in quantitative research. It is established in qualitative research when data are presented with enough detail to allow others to determine if findings can be transferred to other familiar situations and contexts (Lincoln & Guba, 1985).

Establishing Dependability and Confirmability

Shenton (2004) suggested that investigators need to ensure that the conclusions drawn are a result of the data collected rather than generated due to the biases held by the investigator. The researcher needs to remain as unbiased as possible and findings should reflect authentic

empirical data. Qualitative researchers should seek to establish confirmability by remaining non-subjective during data collection (Lincoln & Guba, 1985). Limited interactions with participants during the observations contributed to the objectivity of the data collected. In this investigation several measures were employed to establish dependability and confirmability.

Investigator Logs

By maintaining a detailed account of each aspect of the investigative process, the investigator can easily track data acquired throughout the investigation and other researchers can confirm the accuracy of the data. This investigation included rigorously maintained methodological, theoretical, and observational logs.

Methodological log. The investigator maintained a methodological log in order to keep a detailed description of the procedures that were used throughout the investigation. Procedures included recruitment of teachers, scheduling of observations in the schools, and adjustments to the interview guides. As the study progressed, the investigator documented any changes to the methodology in the methodological log. For example, when interview questions were modified, that decision was recorded along with an explanation as to why that decision was made. All decisions pertaining to the data collection process were documented in the methodological log.

Theoretical log. A theoretical log was used to document emerging themes. In some cases, the log was used to discuss themes without relation to a theoretical framework. In other cases, the log addressed how emerging themes addressed critical feminist theory. The observation log and theoretical log were shared with the peer debriefer in order to confirm that the investigator's perceptions aligned with what was observed in the field. The investigator also discussed the contents of the theoretical log with participants to determine if there was consistency between the perceptions of the investigator and perceptions of the participants.

Observational log. Detailed descriptions of all observations were recorded into an observational log. This log was maintained while observing teachers in the instructional setting and in less formal settings like their offices. Initially, everything that the investigator observed was recorded. As the investigator became more familiar with the setting, the observational log focused primarily on events that addressed the research questions.

Expert Audit Review

According to Patton (2002) it is the role of the doctoral committee to perform an assessment of the quality of the analysis that is performed in the investigation. Experts offered feedback and the investigator made adjustments and corrections as was necessary.

Investigator Bias

Another method to establish dependability and confirmability is to acknowledge investigator bias. This entails "...discussing one's predispositions, making biases explicit, to the extent possible, and engaging in mental cleansing processes" (Patton, 2002, p. 553). During a qualitative investigation, experiences and insights were filtered through the lens of the researcher. Thus, it was important to balance objectivity and neutrality with the inescapable humanistic engagement that the researcher experienced throughout the investigation.

To understand the perspective that I, as the researcher, brought to the data collection process, it is important to provide personal background information along with my assumptions related to the topic of the investigation. I am a 37 year-old female who has been a physical education teacher for the past 14 years. Over the course of my teaching experience, my perceptions regarding gender equity have evolved. Growing up, I was called a "tomboy" and it never occurred to me that this was a term that emphasized the athleticism of males over females. I proudly accepted that title. I was not intimidated when participating with either males or

females and felt complimented when told that I didn't "throw like a girl" or that I could play sports as well as the boys. It was not until graduate school that I began to internalize the way gender is perceived in athletics and physical education by society.

As a physical education teacher, I became increasingly aware of how students participated in my classes as a result of gender expectations. Girls routinely complained about engaging in flag football, often commenting that it was a boys' activity. Boys showed a decrease in activity levels when asked to participate in volleyball due to their perceptions that volleyball was primarily a female sport. As a result of my experiences, I made a concerted effort to use gender equitable behaviors and language in my own instruction. The result was a slight shift in some of the students' attitudes.

I believe that it is possible to teach children that physical activity is accessible to all students regardless of gender or ability. My beliefs are aligned with critical feminist ideologies. This theory frames my thinking and interpretations of situations. As a result of my observations of other teachers and familiarity with the research literature, I anticipated that most participants in my study would lack awareness of equitable physical education teaching practices. Furthermore, I believed the level of education and type of teacher education program from which the participants graduated would strongly influence their gender equitable agendas.

CHAPTER FOUR: RESULTS

This chapter discusses the data analyzed from a multiple-case study that examined the teaching behaviors of four elementary/middle school physical education teachers in relation to gender equity. Each case study is presented individually, followed by a cross-case analysis in which common themes among the participants are addressed. The purpose of this investigation was to examine the gender bias held by physical education teachers and how bias influences their communication and behaviors with students. The following research questions guided this investigation:

- 1. What do teachers know about gender equitable practices and the potential influence of these practices on students?
- 2. What types of gender bias are demonstrated in the instructional environment through teacher behaviors and verbal and non-verbal communication between teachers and their students?
- **3.** How are teachers influenced to adopt gender equitable behaviors in the physical education context, and why do some teachers elect not to adopt these behaviors?

Mr. Covington's Case

Mr. Covington is a physical education teacher in a rural school in Illinois who has taught first through eighth grade physical education at Longbeach Elementary for seven years.

Longbeach Elementary School has an enrollment of 273 students who are approximately 94% Caucasian. Half of the school is eligible for the free or reduced price lunch program. Mr. Covington is the only physical education teacher in the building and is responsible for teaching physical education to all of the students. Mr. Covington's students have 25 minutes of class every day in kindergarten through fifth grade and 30 minutes in sixth through eighth grade. The

sixth through eighth grade students participate in their physical education classes in the afternoon with grade levels combined during each period. On average, Mr. Covington's classes have approximately 25 students.

Holding a certificate from the Crisis Prevention Institute, Mr. Covington is also available to be the disciplinarian at his school, and other teachers sometimes seek him out to manage difficult situations. For example, if a student is physically abusive, a teacher may call upon Mr. Covington to assist and, if necessary, restrain the student. This did not occur while Mr. Covington was being observed and is needed only on rare occasions. In addition, Mr. Covington is an assistant coach of the high school football team and the head coach of the middle school track team. He also serves as the athletic director and is responsible for scheduling games, hiring officials and coaches, ordering equipment, and organizing fundraisers.

After graduating from high school, Mr. Covington spent six years in the National Guard prior to enrolling for two years at a community college and subsequently transferring to a four-year college where he obtained a teaching certificate. Despite stating that he gained confidence to teach during his student teaching experience, Mr. Covington expressed overall dissatisfaction with his undergraduate physical education teacher education coursework because he believed it did not adequately prepare him to enter the teaching profession. Upon completing his bachelor's degree, Mr. Covington was offered a position as a recruiting officer for the Army but chose, instead, to accept a position as a physical education teacher.

Mr. Covington has three daughters and enjoys playing video games and hunting deer. He stays in shape by lifting weights with his high school football athletes. He is also a fan of football.

Themes

Six themes emerged during the course of the two-week observation period in which Mr. Covington was observed. These themes were developed after analyzing interviews, observations, curriculum plans, and performance evaluations related to Mr. Covington.

Gender segregation. Mr. Covington often separated students based on gender. For example, males were asked to stand on one base line while females stood on the other to sprint the length of the gym and back separately. This separation occurred with every class of students regardless of the ratio of males to females in the class.

During game play, students were frequently separated by gender, and Mr. Covington used gender to describe student performance. While students were playing a game of "Cat and Mouse," Mr. Covington stated, "Girls won two rounds, boys won two rounds, we didn't finish the fifth round, it was outstanding." In the interview, Mr. Covington acknowledged the practice of separating students by gender, "I like doing the girls and boys every now and then because they do get extra competitive with that." In team play, Mr. Covington did not consistently organize students into all male and female teams; however, it occurred approximately fifty percent of the time during observations. Another adult supervising the students in Mr. Covington's momentary absence stated, "Uh oh, boys versus girls, you better beat the girls."

Gender-biased language. Mr. Covington used language that demonstrated a bias in favor of males. Often the entire class of students was addressed as "you guys." On a daily basis, when heart rate monitors were used, Mr. Covington would end the class by stating, "You guys can go if I've seen your watches." On one occasion as students were being reprimanded for misbehavior during their warm-up time, he stated to the entire class, "Guys, this is nothing new." When organizing the students, Mr. Covington would ask the class to sit on the baseline, "I'm going to talk to you guys first today, go sit on the line." When a male expressed concern over

whether or not he met the required time in his target heart rate zone, Mr. Covington replied, "You're worse than a woman worrying." While participating in free choice activities during one class Mr. Covington observed a female throwing a football and responded, "That looked like a girl with that throw. You can do better than that." The female proceeded to throw the ball a longer distance than on her previous attempt and Mr. Covington followed up with, "That's a lot better."

During formal and informal interviews, Mr. Covington also used gender-stereotyped language. For example, his language reflected gender bias when referencing basketball instruction. Mr. Covington asked the investigator if she would teach students a man-to-man defense or a zone. The investigator responded that she believes students initially learn the principles of defense better in a person-to-person rather than a zone defense. He agreed and responded, "Yeah, man-to-man." During the formal interview, Mr. Covington explained how he addresses gender equity in his classes:

I tend to lean more towards the girls given them like, you know, they always win if it's a tie or whatnot. I always try to give to the girls for me because I just do that. It's funnier for the boys because you know I mean normally, normally with the boys, boys are a little bit more, more bulk skill in their groups in comparison to bulk girls. Some of the girls don't play sports or aren't as active, aren't as aggressive in the activities that we do.

When the investigator asked Mr. Covington to elaborate more on bulk skill, he responded, "Sports, their personalities and the boys just being a little bit more active, you know." The interviewer asked about using the term "girl push-ups," and he stated, "We don't do girl push-ups. Boys want to do girl push-ups cause you can't do regular push-ups then you do them."

Intimidating language toward male students only. Mr. Covington sometimes used intimidating language directed primarily at males. While encouraging a male student to put equipment away towards the end of the class, Mr. Covington exclaimed, "I'm going to put that basketball up your behind and bounce you with it." While checking heart rate monitors at the end of a class, Mr. Covington was asked by a male student about the microphone he was wearing (for the purposes of this investigation). Mr. Covington responded, "It's for when they hear I beat kids like you they know it's warranted. You think your dad would let me beat you if I had to?" After the male nodded yes, Mr. Covington responded, "I do, too." Mr. Covington, however, was never observed to use intimidating language when addressing females.

During casual conversations and the follow-up formal interview, Mr. Covington confirmed using intimidating language with the students. After the students had exited the gym, Mr. Covington told the investigator about a former student who was very competitive and frustrating to teach. In referencing the student's behavior he stated:

I'd like to slap his ass in the face. Like I give a shit who the hell wins a freaking dodge ball game. I literally want to go over there and slap it out of him. I told him you turn 18 come back and see me.

While being interviewed, Mr. Covington explained that his differential treatment of males and females is intentional. He stated,

I probably would yell at the girls less depending on the girl. I don't have to be as mean to them; I don't have to be as mean to the girls and some of the boys. *Interviewer: So you have to motivate them differently or discipline them differently?* Girls, I'm not going to be as loud...you know boys, it's a little different. They just, it is because it just is. (Laughs) Because they're already used to being yelled at...

He also suggested that other teachers in his school share his mentality that males need to be disciplined in a different way than females. He explained that the kindergarten classroom teachers particularly behave differently toward male students,

Yeah, they're a lot harder on boys than what they would be girls. I think because they, she's only had girls, and I think she likes girls more than boys. That's my, I mean, but that's at least this school that's why you know the boys are used to getting yelled at already.

Equitable exercise as punishment. Mr. Covington sometimes used exercise to punish students for undesirable behaviors. As part of the daily class routine, students would be asked to perform a series of exercises. They were expected to remain focused and refrain from conversation. With a particularly talkative class, Mr. Covington threatened, "If I hear one person talk we're starting the day over (referencing the series of exercises performed at the beginning of class). During game play, students were asked to throw bean bags using an underhand throw rather than overhand. Directed to two females who threw the bean bags overhand Mr. Covington said, "Go give me 15 jumping jacks for throwing the bean bags." The females complied with his instructions. After being asked to put the equipment away, one of the males was reprimanded by Mr. Covington and told to do 15 burpees (squat thrusts) while the rest of the class exited the gymnasium. After walking in late to physical education class, two males were reprimanded with threats about what would happen during basketball practice, "I'll start adding suicides to your basketball practice. You'll have ten by the end of the week." In another class, when equipment was not put away in a timely manner, Mr. Covington stated, "I'd love to see how long it would take for everyone to run a mile. You're going to find out if everyone doesn't put equipment

away." The use of exercise as punishment was implemented equally with females and males and often directed to the class as a whole.

Fitness-focused curriculum and free-choice Fridays. Mr. Covington used heart rate monitors with the middle school students since his curriculum was focused on the development of fitness rather than skills. As a result, students had the freedom to choose to participate in any activity they liked on Fridays, provided the equipment was available. Students were expected to be in their target heart rate zones for at least 14 minutes, and their grades were calculated based on the number of minutes they achieved, with time beyond 14 minutes earning bonus points. One of the female students asked about her basketball skill level during one Friday class, and Mr. Covington stated, "You're not going to work on skill in PE class, that's what basketball practice is for." During the initial formal interview, Mr. Covington described the structure of his curriculum and emphasized his focus on fitness:

I'll give them, there's times like, you know, today I'm going to put on music and give them a free day so today there'll be no instruction on my part other than behavior. You just get your time. And it looks like chaos, structured chaos...so you try to make it as fun as possible, you know some like them some love the heart rate monitors, some of them no.

On days other than Fridays, when students were not given a choice of activities, Mr. Covington expected them to achieve 14 minutes in their target heart rate zone while participating in a game that he had chosen. Students would sometimes complain that they were not afforded the opportunity to achieve their 14 minutes because of the intensity of the game. Mr. Covington stated in the final interview:

That may be interesting, a lot of them were complaining, but I don't know, you weren't in your zone cause you weren't moving. That's my thing 'cause you don't want to get in to the game that's your own fault, you know.

Mr. Covington's grading practices appeared equitable, and students' gender was not a factor in achieving the expected time in their target heart rate zones.

Human targets and captains. Many of the games Mr. Covington incorporated into his curriculum involved using humans as targets, which he suggested may favor one gender over the other. When asked in the final interview how gender influences students' participation in physical education, Mr. Covington explained:

Not really, not with what we do. I don't think kids take...you know...I think the girls like the dodgeball games just as much as the boys because I don't water them down. It's not all we do. We keep a variety. I mean the same with the boys.

Although Mr. Covington stated he believed females like dodgeball as much as the males, he later contradicted himself:

Yeah, when its activities that boys like doing more...they'd like to do dodgeball more

than the girls...some of the girls would rather do line tag. I could see them pulling each other both ways. I can see when you add competition to it in some manner that you know that something is attached to it, it could lead boys that would rather do dodgeball every day than the tag game, in comparison to dodgeball kids that can't really throw real well... Several games Mr. Covington employed were variations of dodgeball. Each involved throwing balls at others to prevent them from scoring or to send them to "prison." Mr. Covington provided the following feedback to students during one game: "That's your challenge – if they don't stop, hit them more" (referring to students who failed to respond to being hit). Mr. Covington used

students as captains to pick teams for these games. He would select students on a rotational basis so that each student in the class had the opportunity to be a team captain. Mr. Covington explained that the practice of using captains provided gender equity as both females and males were provided this opportunity,

At the beginning of the units when I...we do the teams and whatnot and when I don't pick, and I pick captains, everybody gets equal opportunity to be a captain and pick the activity. So it isn't always picking the kids that are probably the best at it.

Mr. Covington felt that by picking captains students picked teams that resulted in competitive and fair game play experiences.

Mr. Danes' Case

After graduating from high school, Mr. Danes attended a junior college where his wrestling team won the national championship in 1989. Upon completion of his associate's degree, Mr. Danes completed his bachelor's degree at a four-year institution while continuing his wrestling career. He was eventually employed as a teacher in the same high school from which he graduated.

The majority of his 20-year career has been spent at the high school level, but for the last two years he has taught at Sunnydale Junior High School. Mr. Danes' students have 43 minutes of daily physical education in sixth through eighth grade. His classes include an average of 40 students; however, he is responsible for managing approximately 80 students in a combined effort with his female co-teacher. Mr. Danes, along with his co-teacher, is responsible for teaching the entire population of students each day. Sunnydale Junior High has an enrollment of 449 students, 66% of whom are eligible for the free or reduced lunch program. The school

community is comprised of approximately 73% Caucasian, 17% Black, and .04% Hispanic students.

As a relatively new addition to Sunnydale's physical education program, Mr. Danes has made some changes in an attempt to enhance the learning experience for his students. He incorporated a policy of students changing from their school clothing into a standard physical education uniform in accordance with the high school physical education program. He also requested financial support to improve the quality of the sound system in the gymnasium. As a result, students in large-sized classes are able to clearly hear directions, and Mr. Danes and his co-teacher are able to move easily throughout the gym by using wireless microphones. Aside from teaching, Mr. Danes is expected to supervise a class of students while their classroom teacher attends a weekly, departmental meeting. In addition, Mr. Danes is the head coach of Sunnydale's eighth grade female volleyball team. Filled with trophies, certificates, and photographs, his office space reflects the great amount of pride he takes in his players and their many accomplishments.

Mr. Danes is a father of four children, three females and one male. He claims to be a consummate chef, having shared with the investigator a delicious recipe for roasting a ham. He recently underwent knee surgery after returning from vacation with his wife.

Themes

Six themes emerged while conducting observations for a two-week period with Mr. Danes. These themes became evident as observations were recorded and confirmed through analysis of interview transcriptions, observation logs, and departmental policy documents.

Gender segregation. Students would enter the gymnasium on a daily basis and were expected to be seated separately based on gender. If either males or females attempted to

interact, they were disciplined by an adult supervisor and instructed to immediately be seated on their side of the gymnasium. This discipline policy was enforced prior to the physical education instructors entering the gymnasium. During the final interview, Mr. Danes explained that this policy was established by the school and is used to manage students throughout the day. He believed it is used for the purposes of reducing behavioral issues that may arise between males and females.

Females and males were also separated on Mondays and Wednesdays when they participated in fitness activities. Initially, however, the class would begin by having students sit in alphabetical order regardless of gender in squad-like spots so that both instructors had the opportunity to take attendance. They subsequently performed stretches, sit-ups, and pushups while remaining in their roll call places. Once the fitness activities began, the typical routine was for the male instructor, Mr. Danes, to take the male students to one side of the gym and for the female co-teacher to take the female students to the other side. Students were expected to run up and down the stairs in the arena-style gym and around the track that borders the upper level. In the initial interview, Mr. Danes suggested that coeducational physical education is one of his biggest challenges as an educator,

Or with gender, coed, there's (sic) challenges that go with that. Um, and so to alleviate some of those challenges, we sometimes go boys here, girls there. *Interviewer: Do you think that reduces problems when you structure it that way?* It has and the girls aren't so self-conscious about what's going on, because they're away from them and that was at the recommendation of the girls' PE teacher.

During the final interview he elaborated on his rationale for separating males and females, "...we do separate them on fitness days due to the fact of there are different speeds and strengths to go up steps and stuff."

Gender-biased language. Language often demonstrated a bias in favor of males. Mr. Danes would refer to the entire class as "you guys." When Mr. Danes returned from the annual state conference of the Illinois Alliance for Health, Physical Education, Recreation and Dance he exclaimed, "Nice to be back to see you guys, I missed you!" While encouraging students to push themselves during part of the fitness routine Mr. Danes said, "We only have a few more minutes in the snake (referencing the running pattern up and down the stadium stairs), come on you guys, push it out!" Mr. Dane often praised his sixth grade students for their outstanding behavior, "You guys are the absolute best, they don't even come close to you, any other class. You guys are awesome!"

As well as frequently referring to all students as "you guys," Mr. Danes used other terminology that was disparaging to females. When reprimanding a female student for not being in the appropriate spot while taking attendance he stated, "Kay this ain't (sic) no sidewalk sissy tardies they give you in English class where you gotta get seven of them before a detention happens." During one class when students were showing a lack of effort, Mr. Danes stated, "You need to man-up. We need to man-up better than you did yesterday." Although the use of the term "girl pushups" was not frequently used, it was, on occasion, referenced by Mr. Danes. He explained to the investigator that one of the males needed to practice his pushups because he only does girl pushups. When Mr. Danes use of this terminology was questioned in the final interview he responded,

You know I probably have before, no I don't have another term for it other than just go to your knees and do pushups. But, with that being said, we also allow boys to do that are in different categories of strength. *Interviewer: But they know it to be girl pushups?*...because whenever I've talked to classes about it and I say that term 'if I asked you to do girl pushups' and everybody does. Oh absolutely, I would agree.

A male student exclaimed that he was doing girl pushups and, although audible to both physical education teachers, no comment or correction was made.

Exercise as punishment. Exercise was more often used as a form of punishment with males than with females. When the investigator asked Mr. Danes about his overall teaching philosophy during the initial interview, he expressed his opinion on implementing discipline,

Education has evolved anymore to, of course, with corporal punishment not being allowed and different things which is sad because you know, um, I think they would do it a little bit different if they was able to have a little bit of stick out there for them. A way for them for doing things. You know the horseplay in the locker room. When I was in junior high, we got a paddling, and then we didn't horseplay anymore, you know?

In the Policies and Procedures document that is distributed to each of the students, it is clearly stated under the general rules that, "Absolutely no horseplay allowed in PE." The result of horseplay for male students was consistently some type of physical punishment, including 50-100 pushups or running the "stairway to heaven" or the "heal to toe express" (running up and down the same set of stairs for the duration of the physical education class). On one occasion, Mr. Danes stated to a male student, "You again screaming in my locker room, you got the stairway to heaven." When male students were asked to put the equipment away they heard, "No more shots or its 50 (pushups). Roll call spots." He reinforced this policy with one of his male

students by stating, "What did I say the next time I catch you horse playing? *Male student: 100 pushups*." Mr. Danes had a similar conversation with another male student, "If I catch you doing that again its 100 pushups! *Male student: I can't do 100 pushups*. Then I better not catch you hanging on the pipes again." When the co-teacher, responsible for supervising the females in the locker room, was asked about her discipline policy, she explained that females lose points for behavioral issues rather than receiving punishment in the form of exercise. This policy was reinforced when Mr. Danes caught two females breaking the rules, "Ladies, when you're caught getting a drink you lose 5%, you know that."

Females did not entirely escape the use of exercise as punishment. Fridays were considered PBIS (Positive Behavioral Interventions & Supports) days at Sunnydale Junior High School, and in physical education this meant that students' time could be spent reading, sitting, or playing; provided their behavior in the preceding days warranted a reward. Those students, however, who had elected not to dress for previous classes, were expected to make up points by either running or walking a mile on the top track of the gym. When the entire class failed to give Mr. Danes their attention he warned, "You guys are about 30 seconds away from doing fitness tomorrow. It's all fun and games until you get punished." On one occasion when Mr. Danes recognized that many students were failing to dress for class, he leaned over to the investigator and stated, "They'll be running miles 'til Christmas."

Some students were required to run up and down the steps for the entire class period if they failed to dress for a PBIS make-up day. During one class a male student noticed that there was a discrepancy between the requirements for males and those for females in relation to running steps. This student asked Mr. Danes, "How come the boys have to go up and down the stairs and the girls just walk laps?" Mr. Danes retorted, "The girls don't just have to run laps."

The investigator, who also noticed the inconsistency in the policy, asked Mr. Danes about this during the final interview.

Interviewer: What exactly is the policy on that because I guess I wasn't sure. I know they have to do laps to make up no dresses, so what's the difference when they have to do the stairs? Well, see I thought we were on the same page, but I didn't want to fight that fight right there. If they're not dressed, they should be walking the stairs even if they have to make up points because you can't make up points if you're not dressed...I don't want it to not be fair because that's how we gain our respectability at different things so I just told the (male) kid just go up top and you walk today.

Mr. Danes and his co-teacher had not clearly articulated the policy to each other and were enforcing it unequally with their students.

Uniform rentals. In the Policies and Procedures document it was clearly stated, "If your child forgets to bring his or her P.E. clothes, then a set of loaner clothes will be issued." This policy, however, was implemented only with males. Females who forgot their clothes received a reduction in their physical education grade that could only be made up on Fridays by running or walking a mile. In one instance, a male student was told by Mr. Danes that he would have to walk laps for forgetting his physical education clothes. The student asked if he could leave and return with one dollar to rent clothes. Mr. Danes complied with his request which enabled the student to avoid the punishment of walking laps. At the conclusion of the semester an announcement was made by Mr. Danes that males would no longer have the option of renting clothes because too many were taking advantage of the policy and not responsibly preparing for class. During the final interview when Mr. Danes was asked about which areas the instructors

could improve in relation to being gender equitable, he acknowledged that the rental option was

not as fair for girls since it was only available to boys.

Female students receive more positive encouragement than males. Although Mr.

Danes was conscious of encouraging all students, he appeared to favor females. During a game

of basketball, Mr. Danes stated, "Girls playing basketball, I want you to beat 'em, box out, play

some defense... no double-teaming the girls." In an attempt to encourage higher intensity during

a fitness activity, Mr. Danes shouted out, "Boys, keep running. You're tougher than that. The

girls are outrunning you!" Although this latter comment was intended to encourage the female

students, they may also have received the implicit message that males are naturally supposed to

be faster than females.

Once the interscholastic volleyball season commenced, Mr. Danes used the free choice

activity days (Tuesdays, Thursdays and Fridays) as an opportunity to develop the skills of his

female volleyball athletes. Males were not directly discouraged from participating in the "free

ball" drills that were run during these classes, but feedback and instruction were more frequently

directed at females. When males did participate and demonstrated incorrect form, they were

offered little, if any, feedback unlike the females who were being coached to improve their skills.

While disseminating the volleyball equipment during a PBIS day, the males were expected to

wait until all females interested in using volleyballs had received them. The following exchange

then transpired:

Mr. Danes: If you would like a volleyball, raise your hand.

(A male student raises his hand).

Mr. Danes: What are you going to do with it? Throw it at people?

Male student: No.

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Mr. Danes: Ladies, come on up...we have chivalry at this school.

Female students routinely left behind. When choices were offered on activity days, the females often elected to walk laps on the top track of the gym instead of participating in activities that required skill. For example, 13 females and one male walked laps for an entire class period when dodgeball was the activity offered. In a subsequent class, 19 females and four males elected to walk laps when students were given the option of choosing any activity. On a PBIS day, 21 students sat and socialized in the bleachers, 17 of whom were females. During the final interview when Mr. Danes was asked how gender equity influenced his curriculum design and lesson planning he explained,

Uh, it does influence because when we choose to do a flag football unit in the spring there are many girls that don't wish to participate in that. We allow that with an alternate activity. And so knowing that, we make, you know, another activity that is more gender specific for girls that they enjoy. ...So we just choose to alleviate the fight and give them the choice and let them go with what they choose.

Mrs. Porter's Case

After graduating from high school, Mrs. Porter attended a four-year university where she received a scholarship for both volleyball and track and field. Initially, it was Mrs. Porter's intention to major in business, but she changed career paths after her first campus visit. Upon graduating with a bachelor's degree in physical education, she immediately entered a master's degree program. This program required students to teach part-time at a local school where there were no physical education instructors as faculty. Currently, Mrs. Porter is a physical education teacher in a kindergarten through eighth grade school at Stars Hollow in Illinois, where she has taught physical education for 13 years. The school composition is 59% Caucasian, 16% Black,

12% Asian, and 8% Hispanic; 57% of whom are eligible for the free or reduced lunch price program. Mrs. Porter teaches kindergarten once per week for 30 minutes and first through fourth grade three times per week for 30 minutes. The average number of students in Mrs. Porter's classes is 20. The fifth through eighth grade classes are taught by two male teachers in a separate gymnasium. She has accumulated 12 hours beyond her master's degree with no intention of pursuing a doctorate.

Perceived by co-workers and administration as a leader at Stars Hollow, Mrs. Porter serves on multiple committees in addition to teaching her classes. She is the physical education representative on the Common Core Committee that ensures the national standards in each of the school's subject areas are addressed, and she is a member of the Wellness Committee that contributes ideas about school nutrition and physical activity. She participates in programs such as CATCH (Coordinated Approach to Child Health) and Walk Across Illinois (sponsored by Illinois Governor, Pat Quinn).

Mrs. Porter is married to a former physical education teacher who is now a superintendent in a different school district. She has a daughter who is a developing athlete and attends Stars Hollow. Mrs. Porter and her husband own a successful and growing family business that affords her the financial means to leave teaching, but she continues in her present position because of the satisfaction she receives.

Themes

Five themes emerged while observing Mrs. Porter over a two-week period. Analysis of field notes, interview transcriptions, and class documents validated these themes.

Lack of gender-biased language. Mrs. Porter used language that favored males on only a few occasions throughout the course of the observation period. On only ten occasions during

the entire two week observation period did she employ the term, "you guys" when referencing the entire coeducational class of students. For example, when students were lifting a parachute high above their heads Mrs. Porter proclaimed, "I didn't think you guys could do that." In order to elicit feedback she asked, "Did you guys like this?" While encouraging a group of three females and five males to problem solve and work together she stated, "You guys go help the orange team." During the final interview, Mrs. Porter indicated she consciously avoids using the gender-biased term "you guys."

Interviewer: Is that something that you do consciously, like you avoid saying you guys when you're addressing boys and girls?

Mrs. Porter: I do. I do, and I do it sometimes, and as soon as I say it, I know that I say it. Interviewer: So why is it that you're aware of it, why are you thinking about that?

Mrs. Porter: Because when I had a student teacher he said it all the time. And I told him you can't say that. And then it's the kids too, the kids will respond when you say you guys, 'We're not guys.'

Overall, the language that Mrs. Porter used was consciously inclusive. Rather than telling students to use good sportsmanship, she would ask them to be good sports. When students performed straight leg push-ups, they were never referred to as boy's push-ups. Mrs. Porter commented on this decision during the final interview as well,

Yeah, when we do them (pushups) sometimes they say this is a girl pushup, and I always correct them and say it's not a girl pushup, it's a modified pushup. And I consciously have corrected it and have seen that, but I always teach them the straight leg pushup, you know, the normal way that you do that.

Gender balanced interactions. Since field notes indicated the gender of students being observed, it was possible to track whether gender bias occurred when students were asked to respond to questions. Overall female students were called upon to answer questions the same number of times as males. The following is a representative example of the sequence Mrs. Porter used when asking female and male students to respond: female, male, female, male, male, female, and male. Other methods of checking for understanding were also used that demonstrated no gender bias. For example, Mrs. Porter would sometimes address the entire class with a question that enabled everyone to respond in unison. At the beginning of the final interview, Mrs. Porter stated,

I would say that you treat both boys and girls the same. And I've found that I try to make sure that when I'm calling answers that I do equal amounts of girls and boys but, um, I try to give them all the same opportunities.

When asked about any gender equitable training that she might have received, she talked about taking a class that encouraged teacher education students to monitor their interactions with students:

...and so after that class I really made an effort to make sure that when I was asking a question I had the boys answer, at least if there was one boy, then I would have a girl answer too.

When asked if this strategy had become second nature, she replied,

I think that's become second nature but I'm thinking about it sometimes when they're sitting there and I'm asking them questions in the circle to say, "I need a boy to answer. I need a girl to answer." So I do think about it, but it's not something that's conscious, it's just one of those things that's the right thing to do.

The *Magic Eight Ball*. In order to provide students with equal opportunities to lead during exercises and go first in game situations, Mrs. Porter used a magic eight ball application on her iPad device. When using this technique, students had numbers that corresponded with spots on the gym floor where they sat after entering the gym to perform daily warm-ups. The Magic Eight Ball application was implemented by randomly selecting from the range of numbers Mrs. Porter had programmed into it for each class. The student with the selected number would have the opportunity to lead exercises for that day. She highlighted her use of this application when asked how she addressed gender equity in her classes,

...when I do exercises and stuff I try to, you know, have it come from an outside source like the Magic Eight Ball that picks it, so they don't think that I'm just picking the girls or picking the boys.

Equitable management strategies. Mrs. Porter used a variety of strategies when releasing students into activities, distributing equipment, and organizing them into teams. At times, Mrs. Porter would release students based on their class formation. For example, during one class she stated, "When I call your line you can get a drink before you jump rope."

Sometimes students were selected to have the first opportunity to retrieve equipment because they were demonstrating good behavior and other times based on the color of clothing they were wearing. Even in a traditional activity such as square dancing, Mrs. Porter avoided pairing students by gender,

...what I did was I handed out cards and it would be a random thing...that they had to find who it was and I said it may be two boys and it may be two girls, or it may be a boy and a girl, but you just have to deal with that, and the only thing that I said is that when

you, that honor your partner that if you're two boys don't hit your heads when you're bowing and...it wasn't an issue.

Although Mrs. Porter stated that she sometimes separated students by gender, there were no instances that were observed during the course of the study. When asked about those instances, Mrs. Porter responded,

Well for example, sometimes when I do split them up, boys and girls, I'll sometimes be on the boys' team so that girls can see that it's not just, you know, that it doesn't matter that it's not like a big thing.

She later stated that male students sometimes experience difficulty if they lose to the girls:

Well, I think they always get excited about it and it's always, you know, like if the boys win they're real excited because they were able to beat the girls, and what I've noticed is when the boys don't win they always say that there's some excuse.

Interviewer: There's a reason for it because they shouldn't lose to girls?

Mrs. Porter: Correct, and they always say well they had more people or they didn't, and I find that more out of the boys than what I do the girls. The girls just like if they lose they lose and they just accept it. But the boys are more making excuses for why they didn't win.

Equal encouragement and feedback. Females and males received equal amounts of encouragement and feedback regardless of the activity. One of the first activities witnessed during the observations was jump roping. Field notes indicated that Mrs. Porter would clap her hands as both female and male students performed in front of her. She would also take out a flip camera and shoot videos of both male and female students jumping rope. When two males facing each other jumped while sharing a rope, Mrs. Porter exclaimed, "Hey, good job boys. That's

awesome!" After saying, "We have a lot of people that are practicing really hard," Mrs. Porter proceeded to individually assist three females and three males who were struggling to turn their ropes with proper timing. This exchange occurred during the final interview:

Interviewer: Describe the ways in which males and females have or do not have equal opportunities to learn in physical education?

Mrs. Porter: I honestly don't know if I can think of anything because when I'm looking at my situation, I don't look at male and female. I just look at children.

Mrs. Gilmore's Case

After high school graduation, Mrs. Gilmore attended a junior college in central Illinois, where she received her associate's degree in education. Subsequently, she transferred to a four-year institution, majoring in physical education teacher education and playing softball for the university. Once Mrs. Gilmore was established in her teaching career, she continued her education and earned a master's degree in teacher leadership. With an additional year of coursework in the program, she could have earned an administrative certificate, but declined to continue her education due to other personal interests. She has taught physical education for 17 years.

Currently, Mrs. Gilmore is a physical education teacher at Clearfield Junior High School that is located in a town setting in Illinois. Clearfield Junior High has 830 students enrolled, 82% of whom are Caucasian, and 44% of whom are eligible for the free or reduced price lunch program. During the two weeks in which she was observed, Mrs. Gilmore taught sixth and eighth grade physical education and seventh grade health. Class periods were 54 minutes in length and classes consisted of approximately 27 students. Mrs. Gilmore and a co-teacher, however, combined their classes so the average team-taught class size was closer to 60 students. Physical

education classes were segregated by gender so that female students were taught by the female physical education teachers in a separate gymnasium from the males.

Although the physical education is devoid of a formal department head, Mrs. Gilmore is considered by the school administrators and her five physical education colleagues to be the department leader. She has taken the initiative to apply for grants in order to purchase heart rate monitors and video gaming equipment. Her co-workers defer to her to develop new units and to implement technology in the curriculum. Despite receiving no additional compensation or official title, she is responsible for writing departmental reports on the status of the department.

Mrs. Gilmore is married to another physical education teacher who teaches at a separate school. They are the parents of three children who are all athletes. Much of Mrs. Gilmore's time outside of teaching is spent driving her children to and from games and practices. As a result, she is no longer able to coach, and, at the time of the study observation, was feeling physically exhausted and had been sick for nearly a month. During her free time, she prefers reading to television and also enjoys acquiring crafting ideas from Pinterest.

Themes

While observing Mrs. Gilmore over a two-week period, three themes emerged from the data. These themes were confirmed through the analysis of field notes, interview transcriptions, physical education curriculum plans, and course documents.

Gender-biased language. Biased language in favor of males was evident in Mrs. Gilmore's physical education and health classes. For example, she frequently addressed her classes of all female students as "you guys." On the first day of observations the use of this language occurred 28 times. She more often addressed her two health classes (all female students) as "you guys" than she did her physical education classes because of the increased

frequency of verbal instruction that occurred during health. In one of the health classes she stated, "That is probably the biggest influence that you guys have is your friends." Even while describing female health issues, Mrs. Gilmore used gender-biased language, "We, as females, will go through mood swings once a month due to hormones. You guys will experience this." In physical education class, as students were organized in preparation for a fitness test, Mrs. Gilmore instructed, "When the pacer starts, only you guys go." At the conclusion of an intense cardiovascular circuit Mrs. Gilmore encouraged, "Do some leg stretches because you guys really need it"

During a discussion about the development of one's personality, Mrs. Gilmore commented on the influence of positive and negative behaviors, "...mostly because boys can't control themselves." While teaching the students about coping with feelings she declared, "...especially being girls, we've got emotions." Mrs. Gilmore used the examples of losing weight and hair style as mechanisms that create or relieve stress and anxiety in teens.

Despite the gender-biased language that Mrs. Gilmore employed, she challenged her students to confront stereotypes associated with gender. A poem that she read aloud to the class encouraged students to look beyond race, gender, religion and age, "Just because I am a girl, doesn't mean I like to shop, doesn't mean I am boy crazy, doesn't mean I can't play sports." Using her own life as an example, Mrs. Gilmore proclaimed, "People think I like pink just because I'm a girl. People believe stereotypes. Girls can't throw a ball because that's a boy thing."

Gender segregation. Although Title IX stipulates that physical education class should be coeducational, students at Clearfield Junior High were separated by gender. Females were

housed in a separate gym that had female locker rooms. Mrs. Gilmore described how the separation of females and males influenced how she addressed gender equity in her classes,

Well, with me having all females I don't really have the opportunity to address boys in general, but now that in health class, you know, I try to incorporate that, you know, something depending on what we're talking about in class. I try to make everything equal, that no one is better than the other and you know, showing respect towards the other gender or race.

The physical education program at Clearfield Junior High had been operating with separated classes for approximately eight years. Mrs. Gilmore reflected on her experiences of teaching prior to this time,

Well, I just, from past experience, you know, I've taught coed before. The girls give so much more effort when there are no males present because they're not worried about what their hair looks like, they're not worried about sweating. The boys are not dominating the game or dominating the activity, so the girls aren't afraid of getting hurt...they're not worried about being pretty and, you know, so by far I think it's better to have, you know, separated by gender for classes...

During the final interview, Mrs. Gilmore was asked if she would prefer to teach coeducational or single sex classes. Although she described her preference for instructing females, she elaborated on the potential benefits of both configurations,

I think separately, I think they get more attention, they get to focus, they focus a little bit more on what they're doing in class so they're more attentive and more on task... but on the other hand, you've got, when we're separated we've got girls in the class that could benefit highly from playing with boys, you know...so, having the class of all girls, those

higher end athletes, the ones that are actually skilled, they need to have some better competition other than what they have in class and a lot of times you find that with the boys too. As with the boys, there are some boys that aren't as skilled that would probably benefit with the girls because they can at least be successful instead of boys always having to take a back seat to the jocks in the class or the highly skilled kids.

Teacher gender matters. The gender of the physical education teachers at Clearfield Junior High had a considerable influence on the physical education department, the physical education curriculum, and the physical education students. Mrs. Gilmore indicated that the male physical education teachers would not adhere to previously agreed upon policies,

We do meet every year at the beginning during one of our in-service days, and we met this year because we had a new teacher coming and we had a second year new teacher so we thought this would be a great opportunity to get everyone together and kind of all agree on what we need to be doing, and it just didn't pan out the way we were hoping it would. Interviewer: So while you're in those meetings are they not responsive? Or do they appear to be on board and they just don't follow through? Right, they appear to be and they're like oh we could try that and they're saying probably what I want to hear at the time and then going off and doing, you know, what am I going to do?

As a result of the unwillingness of male and female teachers to align, the students were exposed to very different curricula. Male students were expected to participate in fitness activities twice a week, while the female students were expected to participate in fitness three times a week. Female students were required to wear heart rate monitors during one of their fitness days. This policy was clearly stated in the contract signed by students at the beginning of each quarter,

Grading will be based on student participation, class projects, written tests, fitness tests, and the effectiveness of personal Heart Rate Monitor use. Three days a week students will participate in 'fitness days', which are class hours based solely on improving or learning techniques/principles to improve personal fitness.

Although the female physical education teachers reserved the use of heart rate monitors on the opposing days for the male physical education teachers, they were rarely used with male students. Mrs. Gilmore stated,

...we do have parents that call that may have a daughter and a son and they're wondering why their sons not doing this and their daughter is having to do this. And it's hard to explain. It'd be just easier if we were all on the same page and grading the same. Not necessarily teaching the same units but at least teaching at the same level with the same information.

The physical education department received a gaming device, dance mats, and practice mats as a result of grant funding received by Mrs. Gilmore. When asked whether or not this equipment had been used in male classes she responded, "It's only been done with the girls; we didn't even do it with the boys." She stated,

...our female PE teachers here are a level above what our males are doing right now just because we are willing to use the technology, and we are willing to change up and study innovating ideas so that the kids stay excited and whereas the boys are still kind of doing the hey, let's play some basketball. They're still old school.

The lack of cohesion among the physical education faculty appeared to strongly impact the experiences of males and females at Clearfield Junior High. She explained how the female teachers incorporated interdisciplinary strategies such as reading comprehension into the curriculum, "I think our girls are getting a better physical education experience just because we're introducing them to technology, we're introducing them to terminology, I mean, because we do vocabulary." She further explained that the males and females do not receive the same units in physical education,

Like the boys spend more time... like this year the boys did soccer, well we didn't do soccer this year. I don't remember what we did instead. I think we did volleyball or volley tennis instead whereas the boys didn't do that.

When asked if boys were exposed to sports that are traditionally perceived as masculine, Mrs. Gilmore responded:

Oh by far yeah. They're doing volleyball but I just think it was because of the class sizes that their class sizes are so big they had to come up with something that they could accommodate that many kids. *Interviewer: Do you think that you and your co-teacher choose things that are more traditionally associated with being, like, feminine activities?*Not really because we play football...

Cross Case Analysis

All four participants exhibited varying degrees of gender-biased language and behavior in their physical education classes. The following section will compare and contrast the data collected across the four case studies.

Background

There were both differences and similarities regarding the schools and physical education class dynamics represented in each of the case studies. Mr. Covington and Mrs. Porter taught at schools ranging from kindergarten through eighth grade. While Mr. Covington was responsible for teaching all grade levels, Mrs. Porter instructed only kindergarten through fourth grade. Mrs.

Gilmore and Mr. Danes taught at junior high level schools that housed sixth through eighth grade students. Mrs. Porter, Mr. Covington, and Mr. Danes taught coeducational physical education, and Mrs. Gilmore taught only females. Mr. Danes and Mrs. Gilmore worked with much larger class sizes than did Mrs. Porter and Mr. Covington. Mrs. Porter was the only teacher whose students did not participate in daily physical education. All four participants had differing amounts of class time with students. Table 4.1 provides a condensed representation of the data.

Table 4.1

Physical Education Variables

PE Dynamics	Mr. Covington	Mr. Danes	Mrs. Porter	Mrs. Gilmore
Average Class Size (students)	25	80	20	60
Class duration (minutes)	25	43	30	54
Class frequency (per week)	5	5	3	5
Grade Levels	K-8	6-8	K-4	6-8
Gender	Coed	Coed	Coed	Female

The two male teachers coach interscholastic teams whereas the females do not coach due to family responsibilities. All four teachers were considered to be leaders in their respective schools because they have elected to utilize technology or are moving toward a fitness-oriented curriculum. All have received grant money from the same institution, and each responded that administrators and parents have been very supportive of the physical education program.

Overall, the participants were experienced physical education teachers. As outlined in Table 4.2, three of the four attended a junior college prior to entering a four-year university. All completed their bachelor's degrees with an emphasis in physical education. The female teachers continued their education and received master's degrees with additional accumulated hours beyond the master's. The least experienced teacher was Mr. Covington and the most was Mr.

Danes. Each expressed a caring and compassionate attitude towards their students and an investment in their successful development.

Table 4.2

Teacher Experiences

Teacher Experiences	Mr. Covington	Mr. Danes	Mrs. Porter	Mrs. Gilmore
Junior College	Yes	Yes	No	Yes
College Athlete	No	Wrestling	Volleyball	Softball
Bachelors	Yes	Yes	Yes	Yes
Masters	No	No	Yes	Yes
Years Teaching	7	20	13	17

Themes

After a thorough analysis of each individual case, a cross-case analysis was conducted for purposes of uncovering additional themes. This cross case analysis enabled the investigator to look for commonalities among the teachers even though the four participants in the study were quite different from each other.

Lack of training in gender equity. Participants were asked during the final interview what types of gender equity training they had received and whether it was as an undergraduate student, a graduate student, or as part of a professional development experience. The first participant, Mr. Covington, could not recall having received training in gender equity at any level,

(Undergraduate experience) Not so much, not really, nothing I can think of any strategies. I think that, for them to give me scenarios on the way to approach things, not that I can remember, no. I mean the only thing they had was stuff for physical education for special pops or people with disabilities. (Professional development) I mean we always have to continue professional development with our CPDU's in our institutes and whatnot. Um, I

don't know if they've touched on gender equity, or um, gender equity that I can remember, I'm sure I've had a few things on it, but it's been awhile.

Similar to Mr. Covington, Mr. Danes was unable to remember any in-depth training related to gender equity in physical education at any level of training,

(Undergraduate experience) No...other than Title IX that you went over in your methods or whatever and what professor, you know, addressed that and the issue of, you know, examples of all that stuff, but other than female to male perspectives wasn't in the classroom setting, it was not addressed. (Professional Development) No.

Mrs. Porter also indicated that she lacked training in gender equity. With regard to her undergraduate education, she stated, "I don't remember any kind of training that we had on that. Not about gender." When referencing her professional development opportunities, she stated,

I have not had that except we went to a training on how to it was a train that we had when they talk about how you look at your classroom and when you ask question who you ask the question to and where they're seated in your classroom accordingly, and they tally marked and it showed how you were to tally mark if you were observing somebody and how you would... *Interviewer: To see if there might be an imbalance?* Right, and so after that class I really made an effort to make sure that when I was asking a question I had the boys answer at least if there was one boy then I would have a girl answer too.

Finally, Mrs. Gilmore also expressed a paucity of training. When referencing her undergraduate experience, she recalled, "I don't remember anything like other then talking about Title IX a couple of times. I don't really remember." And when discussing professional development, she stated, "I've never had any of, no."

All four participants had little or no training in gender equity at either the undergraduate level or as part of a professional development experience. This may explain participants' lack of awareness in relation to gender equitable language and instructional practices. The one teacher, Mrs. Porter, who made a concerted effort to communicate equally with both males and females, had attended a session in which she was encouraged to tally her interactions with all students. During observations, it was clear that she consciously called on males and females an equal number of times. Whether this training made a significant difference in her gender equitable instructional behaviors, or whether some other factor was primarily responsible, based on her interview, it is clear the training had a positive impact on her overall instructional style.

Incorporating gender equity in the future. In the final interview, each of the teachers were asked whether or not they would be willing to incorporate gender equitable teaching strategies in their classes and what resources would be required. Mr. Covington expressed a willingness to entertain the possibility but with some degree of hesitancy,

It just depends on what the changes would be. It depends on what the strategies would be. I mean, you know, you're always, I'm always open to learn what they think would work, what would make it easier cause that would make my life easier. You know, if the kids enjoyed it more and it seemed like stuff they'd like to do, I mean it all varies on what the changes are, you know, I'm open to give anything a try, it just depends on what it is, you know.

Mr. Danes expressed that incorporating gender equitable strategies was unnecessary where his physical education classes were concerned, "I don't know unless I see that it's something that is really negligent. I'm not seeing a lot that would need to change." Although Mrs. Porter was not

convinced that gender equity played a role in her curriculum, she stated that she would be amendable to acquiring strategies that had the potential to make a positive impact on her classes,

Well, yeah. I would be interested to see if it makes a difference in the way that's going on if I use different strategies to see if it helps the activities that I'm doing, but honestly when I think of all the activities that I do I don't think gender plays a role in it. But I might be wrong so I would be open to trying some different strategies just to see if it works. Because it might work in some of the instances that I don't think that that's an issue and it might be.

Finally, similar to Mr. Danes, Mrs. Gilmore did not perceive a need to implement gender equitable teaching strategies given her current teaching environment,

I would like to, but I just don't know if with us not having the space for one and the equipment is hard. I don't think we could actually do that until we all get on the same page, until we have a department that is unified.

What is apparent from the data is that those teachers who were least interested in acquiring training in gender equity were those who most frequently used gender biased language and instructional practices that either promoted gender segregation or perpetuated gender stereotypes. The teacher with the fewest instances of gender-biased language or behaviors was the one most receptive to training.

Gender segregation. Each of the participants were observed to separate students by gender or indicated to the investigator that they employed this strategy on occasion. The prevalence of this practice, however, varied by individual teacher. At one extreme, Mrs. Gilmore's classes were separated by gender for all class periods. At the other extreme, Mrs. Porter was never observed to segregate students although she did admit to doing so on occasion

to foster a more competitive atmosphere. Between these two extremes were Mr. Covington and Mr. Danes.

Gender-biased language. Each of the participants used gender-stereotyped language that favored males throughout the observations. The instructor who used the term "you guys" most frequently was Mrs. Gilmore, who taught only female students in physical education and health. Mr. Covington and Mr. Danes also used this term with regularity when addressing coeducational physical education classes. Although Mrs. Porter was heard referencing her coeducational classes as "you guys," she did this with a very low frequency and stated in the final interview that she intentionally avoids this type of language.

Both male participants were observed using the term "girl pushups" with male and female students to refer to straight leg pushups. Both female participants stated that they reference these types of pushups as modified and were never observed using the term boy's pushups.

Condescending behaviors toward females. Three of the four teachers behaved in ways that were condescending to their female students. While it is unlikely that these behaviors were deliberately employed to be patronizing toward females, the implied message of differential expectations was that males were more capable of performing tasks than females. For example, the expectation held by Mr. Danes and his co-teacher was that males should run stairs as a punishment for not changing into their physical education clothes, whereas females were allowed to walk laps around the top level of the gym. Mr. Covington demonstrated patronizing behaviors by intentionally allowing the females to win when games between males and females were close. Mrs. Gilmore referred to her class of all female students as "you guys," even when female reproductive issues were the topic of discussion.

Gender equity in relation to lack of appropriate practices. There appeared to be a relationship between the use of appropriate physical education practices and the use of gender equitable teaching. The teacher who demonstrated the most consistent use of effective instructional techniques, Mrs. Porter, made a conscious effort to avoid using the term "you guys" when addressing her students and had the fewest instances of gender-biased teaching. She demonstrated quick managerial transitions, maximizing the time her students were engaged in physical activities. She also used corrective feedback to impact the skill development of her students.

These strategies, however, were observed at a less frequent rate from the other three teachers. Mr. Covington often required students to wait in long lines before they would have the opportunity to participate. His use of intimidating language created a negative environment where students may not have felt safe. He invited students to participate in games without prior lessons focused on skill development. Mr. Danes would often take attendance for the first 15 minutes of class preventing students from achieving at least 50 percent of moderate to vigorous physical activity (MVPA) during class. Similarly, Mr. Danes and his co-teacher demonstrated no instruction related to students' skill development. While students were afforded the opportunity to participate in fitness activities, he focused his attention primarily on those students who were volleyball athletes, placing a greater emphasis on his coaching responsibilities rather than teaching all students. Mrs. Gilmore's students had the opportunity stop engaging in physical activity after they achieved 20 minutes in their target heart rate zones which meant that students were not always participating for the full class period. Students also had to stand in lines while waiting to participate in cardiovascular activities preventing them from engaging in greater amounts of MVPA. Lastly, on days when fitness was not the primary objective of physical

education, Mrs. Gilmore allowed students to play games without any emphasis on skill development prior to game play.

Chapter Summary

The data reveals the use of gender-biased language and behaviors in physical education classes as evidenced by the four case study participants. The participants used language and behaviors that were gender-biased to varying degrees. All of the participants consistently used the term "you guys" when referencing males and females, including one participant who did this with only female students. They also used gender segregation as a teaching strategy for various reasons, including the promotion of competition and the avoidance of social distractions in physical education.

Additional themes emerged that were unique to each of the participants and their teaching styles in physical education. Mr. Covington used intimidating language more often with male students than females. Mr. Danes showed particular favoritism to female athletes, however females were not provided with the same opportunities in relation to policies and procedures in physical education. Mrs. Porter used intentionally inclusive strategies to provide equal opportunities for all students. Mrs. Gilmore used gender biased language more frequently than the other teachers. She also felt inhibited by the existing dynamic of the instructors within her department and believed this is what prevented a more inclusive physical education environment for her students.

CHAPTER FIVE: CONCLUSIONS AND DISCUSSION

The pervasiveness of discrimination based on sex and gender in our society has been investigated from multiple perspectives, yet little attention has been given to its emergence in the physical education literature. Thus, the purpose of this investigation was to use critical feminist theory to examine the gender bias held by physical education teachers and how bias influenced their communication and behaviors with students.

Critical feminist theorists believe that gender oppression is engrained in our culture and is contextually and historically situated (Geisinger, 2011). Guiding this investigation was the premise that females continue to be the target of oppression in educational and athletic systems in spite of the enactment of Title IX more than 40 years ago. The educational environment fails to provide females and males with equal facilities, equipment, and curricular opportunities (Cox, 1977; Nilges, 1998; Sadker & Zittleman, 2009).

Critical feminists advocate for challenging existing ideologies in order to deconstruct unequal power structures that are in place (Geisinger, 2011). Previous investigators have undertaken the challenge of unveiling the difference in experiences of females and males in physical education contributing to a deeper understanding of the existing power dynamics that still exist in educational institutions, particularly at the K-12 level (Azzarito & Solmon, 2009; Barr-Anderson et al., 2008; Griffin, 1985; Hastie, 1998; McKenzie et al., 2006; Oliver et al., 2009; Sabo, 2009; Vu et al., 2006). The results of these investigations indicate there are fewer opportunities for female participation in physical education, in part, due to expectations about females' ability to perform physical skills and the presumption that males are physically superior.

It also is argued by critical feminists that in order for change to take place, gender oppression must be challenged in a social way (Geisinger, 2011). Physical education classes, which are one form of a social system, offer a platform to resist the reproduction of gender norms that occur with gender bias. Physical education teachers have the potential to influence students to challenge or to acquiesce to the hegemonic assumptions of male superiority. Teachers, however, often organize physical education classes in a way that allows and, sometimes, encourages females to avoid participation because of pressures associated with male domination and a lack of enjoyment in physical education activities (Griffin, 1985; Koca, 2009; McCaughtry, 2004; Treanor, et. al., 1998).

Conclusions

This qualitative investigation used inductive and deductive analysis of observation logs, written documents and interview transcriptions. Inductively, themes that emerged throughout the investigation were analyzed, followed by a deductive analysis using critical feminist theory. The following section will discuss the themes shared by participants under the lens of critical feminist theory.

Gender Segregation

The participants in this investigation often felt it was appropriate to separate students based on gender. Extensive research has been conducted on the advantages and disadvantages of separating students based on gender (Bischoff, 1982; Colgate et al., 1999; Griffin, 1981; Hannon & Ratliffe, 2007; Koca, 2009; Lirgg, 1994; Lirgg et al., 1996; McKenzie, Prochaska, Sallis, & LaMaster, 2004; Treanor, et. al., 1998). Extant research has also focused on the participation of males and females in either coeducational or single-gender physical education, but has not addressed the potential impact of fostering competition in a coeducational setting between males

and females. Two of the teachers in this study cited the need to promote competition as one of the reasons for specifically placing females on one team and males on another. Both participants argued that females and males were more enthusiastic when their opponents were of the opposite gender. Mrs. Porter also cited a consistent difference in how both genders reacted in these situations when their team lost a competition. The general expectation was that the males would win and the females would lose, and both genders responded accordingly; females showed very little emotion when they lost while males who lost claimed unfair conditions or cheating by the females. Certainly, from a critical feminist perspective, this teaching practice reproduces the gendered assumptions that both teachers and students hold, perpetuating an unequal power dynamic.

While only two teachers created game situations pitting one gender against the other, three of the teachers separated females and males to varying degrees in their physical education classes. These three teachers believed that females preferred to participate in physical activities separated from males due to perceived social pressures and male domination in a coeducational setting. Research has both refuted and supported these beliefs. Previous studies have shown there is a lower degree of female participation in coeducational rather than single-sex physical education due to male-dominated game play (Lirgg, 1993, 1994; Treanor et al., 1998). Bischoff (1982), however, determined through student feedback that coeducational physical education provided the opportunity to develop greater amounts of respect for the opposite gender in game play when gender was balanced on both teams. Some authors argue a compromise of including both coeducational and single-sex physical education when activities that are offered warrant either configuration. Offering single-sex physical education is advocated by some when contact

sports are taught or there is an emphasis on competition (Hannon & Ratcliffe, 2007; McKenzie et. al., 2004).

By suggesting that a separate environment is necessary to foster the unique needs of males and females, there is no challenge made to the culturally dominant ideologies, and a greater emphasis is placed on differences between males and females rather than similarities. When viewed from a critical feminist perspective, the practice of separating students into activities based solely on gender presupposes that all females will enjoy and benefit from the same activities as would all males share the same interests and propensities. This practice does not account for the broad spectrum of differences within and between the categories of female and male that can be attributed to race, ethnicity, sexuality, and class, in addition to gender (Qin, 2004). If teachers separated students based on any other variable such as race, ethnicity, or class; administrators, parents, and students would likely be outraged and this practice would be highly scrutinized. Unfortunately, however, it still appears acceptable to separate students by gender. In order to develop the whole child as suggested by NASPE (2012), teachers should treat students as individuals rather than categorizing them based on physical traits.

Gender-biased Language

The use of gender-biased language was evident in all four case studies and was used to varying degrees. Teachers used the term "you guys" when they addressed coeducational physical education classes and, in one case, when they addressed a physical education class with all females. While the use of "you guys" may seem trivial to some, the lack of intentionally inclusive language reinforces social constructs of the dominant culture (Griffin, 1981; Napper-Owen, 1994; Wright & King, 1990). As part of the hidden curriculum (Bain, 1990), teachers who intentionally avoid addressing students as "you guys" challenge existing power structures and

may contribute to social change over time. Some social scientists, however, contend that change in behavior must precede any change in language to impact overall social change (Lakoff, 1973). One of the four teachers, although demonstrating occasional use of the term "you guys," stated in the interview that she consciously avoided using this language because she felt it was the right thing to do.

Another term indicating a power imbalance between males and females was employed by the male teachers and avoided by the female teachers. The female teachers expressed a conscious intention to avoid using the term "girl pushups" because they felt it was an inaccurate and inappropriate way of describing the exercise. Both male teachers acknowledged their use of this term and appeared hesitant and, possibly, uncomfortable elaborating on this during the interview. From a critical feminist perspective, these male teachers were in a position of privilege and did not recognize how their language positioned females as inferior. They are afforded the luxury of not considering the impact of this language from their position of power. The female teachers in this study, however, recognized the term "girl pushups" as an overt way of subordinating the females in their classes.

While not intending to do harm, gender-biased language that is reproduced in physical education will continue to be used unless awareness and change is sought. Although the teachers expressed a desire to include gender equity in their teaching, they had not previously recognized terms such as "you guys" or "girl pushups" as potentially harmful in their message (Halliday, 1982). These findings are akin to Wright and King's (1995) investigation into the language used in physical education that was found to reinforce social constructs. It is important to challenge the use of terms such as "girl pushups" to, at the very least, encourage teachers to consider the implications this language may have on both females and males in their classes. By adopting

inclusive language all teachers, regardless of subject matter focus, can foster a better educational environment, discontinuing a cycle of hegemonic ideology.

Knowledge of Gender Equity

The results of this investigation indicate that teachers' educational experiences have been almost devoid of training in gender equity at any level. The only reference to undergraduate education about matters of gender was related to Title IX and was addressed at a very superficial level for each of the teachers. The teacher who demonstrated the least amount of gender bias described a professional development experience related to providing gender equitable feedback. This training impacted the way that she called on her students in physical education, equally checking for feedback from both females and males, and was demonstrated with consistency throughout the two-week observation period.

It is understandable that the physical education teacher education programs from which the participants graduated would have varied in the strategies and perspectives they offered future teachers in relation to gender equity. Each of the teachers, however, regardless of the amount of time that had elapsed since they had been an undergraduate student in a physical education teacher education program, stated that they had no memories of learning about gender equity with the exception of being made aware of Title IX.

The results of the present investigation reinforce the necessity for teacher educators to become aware of continuing gender inequities in K-12 schools and take responsibility for influencing the actions and language of future teachers. Davis (2003) suggests that "one viable solution to improving gender equity within education seems to be a matter of teaching prospective teachers about their own biases and how to educate others about gender equity" (p. 77). Under the lens of critical feminist theory, teachers need to take an active role in challenging

the power structures within physical education to influence how males and females think about physical activity (Wood, 2008), yet without guidance during teacher education, this is unlikely to happen.

Incorporating Gender Equity in the Future

While two of the teachers welcomed the possibility of incorporating gender equitable strategies into their teaching, the other two teachers acknowledged that, although they were willing to consider it, they failed to see a need to do so in their existing physical education programs. The research literature indicates that teachers may hold gender biases of which they are unaware (Griffin, 1981; Napper-Owen, 1994; Vertinsky, 1992); which likely is the case, to varying degrees, for participants in the current investigation. For example, Mrs. Porter acknowledged that she is unaware of how she may be allowing gendered assumptions to influence her teaching. In the absence of reflective practices, teachers' gender biased assumptions will continue to reinforce dominant cultural ideologies. Thus teachers' willingness and commitment to reflect on current inequitable practices and embrace change is critical to altering the current inequitable structure of the physical education context.

Gender equity in relation to lack of appropriate practices.

Within the context of this investigation, there was a relationship between the use of gender equitable teaching practices and appropriate practices in teaching physical education as suggested by the National Association for Sport and Physical Education (NASPE, 2010). Mrs. Porter, who had the highest degree of awareness related to gender equitable teaching, was observed using appropriate practices as suggested by NASPE more often than the other teachers. Perhaps by increasing the awareness of gender equitable practices teachers will be influenced to use more appropriate practices in the physical education classroom.

Limitations

Since only four participants were observed and interviewed, this qualitative investigation offers a limited scope of gender-biased communication and behavior within the physical education context. It is anticipated, however, that the in-depth description of the context of the physical education setting and perspectives offered through formal and informal interviews will contribute to the transferability of this study to other settings that are similar in context (Lincoln & Guba, 1985). Further, by spending two full weeks with each teacher, deeper insights into gender-biased teaching practices were obtained than in other studies where investigators have spent only a brief amount interacting with participants.

Another limitation to the study is that observations took place within a 50-mile radius of where the investigator was employed, limiting the spectrum of schools observed to a limited geographical area. The investigator acknowledges the potentially different perspectives that may have been recorded if participants had been employed in a wider variety of schools that more equally represented urban, rural, and suburban schools with varying demographic populations of teachers and students. Unfortunately, the logistics and time constraints imposed on the investigator did not enable a more diverse population of school sites to be explored.

Finally, the fact that the interviewer was a female and an instructor at a large university may have influenced participant responses, especially during the final interview, when gender equity was revealed as the primary focus of the investigation. It is possible that participants were proffering responses they felt would be acceptable to the interviewer. In fact, during the final interview with Mr. Danes, it was clear that he became increasingly uncomfortable once the full nature of the investigation was revealed.

Implications

Previous investigations have demonstrated that teachers exhibit gender bias in physical education (Griffin, 1981; Sadker & Zittleman, 2009; Treanor et. al., 1998; Vertinsky, 1992). The present study confirms not only that gender bias continues to exist as demonstrated by the ways that physical education teachers communicate with their students, but also that teachers lack an overall awareness of gender equitable practices. Teachers indicated that their undergraduate and post-graduate experiences did not adequately prepare them to implement or even reflect on gender equitable teaching practices. Thus, teacher educators need to do more during teacher education to influence awareness of gender bias and the use of gender equitable teaching strategies. One strategy may be to use a variety of case study examples with future teachers to impress upon them the effectiveness of incorporating gender equitable teaching into their physical education programs. Another strategy might be to have future teachers conduct a series of video-taped analyses that focus on gender-biased language and teaching practices. Lastly, students should be engaged in discussions in which they are asked to contemplate why gender segregation continues to exist when racial or ethnic segregation would be considered inappropriate practice.

All four teachers indicated a willingness to explore the possibility that their teaching practices could be improved as a result of gender equity training, although two of the teachers expressed reservations. According to Davis (1999), "For the most part, teachers just do not believe that they treat male and female students differently" (p. 13). The willingness of these teachers, at any level of commitment, to enhance the physical education experience for their students suggests a pathway for physical education teacher educators and leaders in professional development to impart gender equitable teaching strategies to current and future physical educators. With only a modicum of training in equitable teaching practices, one of the four

teachers made a profound change in her communication patterns when addressing females and males, offering further evidence of the possibility for positive change.

The current status of physical education in the context of this multi-case study implies a continued gendered hierarchy in favor of males. Thus, concerted efforts need to be made that challenge differential treatment on the basis of gender (Lock, Minarik, & Omata, 1999). Unless teachers can begin to model gender fair communication and behaviors, students will not learn to treat others in a more equitable manner, nor will they be exposed to a physical education environment that is equally conducive to learning for everyone.

Recommendations for Future Research

Since the inception of Title IX of the Education Amendments, females have experienced improvements in relation to gender equity in K-12 education; however, much work has yet to be done to ensure that all students receive equal opportunities to learn in physical education.

Research on gender equity needs to be conducted at the level of physical education teacher education, particularly in relation to programs that successfully incorporate this element of education into the curriculum. Successful in-service professional development efforts should also be investigated through the same lens.

The findings of the present study suggest a serious lack of teacher awareness about gender equitable teaching practices in physical education. Thus, investigations focused on programmatic assessment should consider gender equitable teaching behaviors as an important variable that characterizes effective programs. Larger scale investigations that include a wide geographical area of schools should also be conducted to explore variations in physical education teachers' attitudes about and understandings of gender equity. Further, action research should be conducted as a mechanism for enhancing teachers' awareness about the many issues that

surround gender equity and gender equitable teaching practices. Finally, investigating student perceptions about gendered instructional practices employed by teachers in physical education would shed new and important light on this underexplored area of inquiry.

REFERENCES

- Adler, P., Kless, S. J., & Adler, P. (1992). Socialization to gender roles: Popularity among elementary school boys and girls. *Sociology of Education*, *65*, 169-187.
- Ali, R. (2010). Office of Civil Rights. *Dear Colleague Letter: Intercollegiate Athletics Policy Clarification*. United States Department of Education. Retrieved from http://www2.ed.gov/about/offices/list/ocr/letters/colleague-20100420.html
- Altheide, D., & Johnson, J. (1994). Criteria for assessing interpretive validity in qualitative research. In N. K. Denzin, & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 485-499). Thousand Oaks, CA: Sage.
- Anderson, R. E., Crespo, C. J., Bartlett, J. B., Cheskin, L. J., & Pratt, M. P. (1998). Relationship of physical activity and television watching with body weight and level of fatness among children. *Journal of the American Medical Association*, 279, 938-942.
- Azzarito, L., & Solmon, M. (2009). An investigation of students' embodied discourses in physical education: A gender project. *Journal of Teaching in Physical Education*, 28, 173-191.
- Bailey, B. L., Scantlebury, K., & Letts, W. J. (1997). It's not my style: Using disclaimers to ignore gender issues in science. *Journal of Teacher Education*, 48, 29-36.
- Bailey, R., Wellard, I., & Dismore, H. (2004). Girls' participation in physical activities and sports: Benefits, patterns, influences and ways forward. *Technical paper for the World Health Organization*. Canterbury: Centre for Physical Education Research.
- Bain, L.L. (1990). A critical analysis of the hidden curriculum in physical education. In D. Kirk & R. Tinning (Eds.), *Physical education, curriculum, and culture: Critical issues in the contemporary crisis* (pp. 19-34). Philadelphia, PA: Falmer Press.

- Baranowski, T., Thompson, W. O., Durant, R. H., Baranowski, J., & Puhl, J. (1993).

 Observations of physical activity in physical locations: Age, gender, ethnicity, and month effects. *Research Quarterly for Exercise and Sport*, 64, 127-133.
- Barr-Anderson, D. J., Neumark-Sztainer, D., Schmitz, K. H., Ward, D. S., Conway, T. L., Pratt,
 C., Pate, R. R. (2008). But I like PE: Factors associated with enjoyment of physical
 education class in middle school girls. *Research Quarterly for Exercise and Sport*, 79, 18-27.
- Beasley, C. (1999). What is feminism: An introduction to feminist theory. London: Sage.
- Bischoff, J. (1982). Equal opportunity, satisfaction, and success: An exploratory study on coeducational volleyball. *Journal of Teaching in Physical Education*, 2, 3-12.
- Bower, F. (2012, June 20). Title IX has encouraged girls to play sports. *The Washington Post*.

 Retrieved from http://articles.washingtonpost.com/2012-06
 20/lifestyle/35461397_1_school-sports-hispanic-girls-college-sports
- Brophy, J. T., & Good, T. L. (1970). Teachers' communication of differential expectations for children's classroom performance: Some behavioral data. *Journal of Educational Psychology*, *61*, 365-374.
- Bungum, T. J., & Vincent, M. L. (1997). Determinants of physical activity among female adolescents. *The American Journal of Preventative Medicine*, *13*, 115-122.
- Carlson, J. A. (2010). Avoiding traps in member checking. *The Qualitative Report*, *15*, 1102-1113.
- Colgate, T. P., Davis, K. L., Docheff, D., Hedlund, R., Hesson, J., & Johnson, D. (1999). Should physical education classes return to teaching males and females separately? *The Journal of Physical Education, Recreation & Dance*, 70, 11.

- Colwell, S. (1999). Feminisms and figurational sociological contributions to understandings of sports, physical education and sex/gender. *European Physical Education Review*, 5, 219-240.
- Corbin, J. M., & Strauss, A. L. (2008). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (3rd ed.). Los Angeles: Sage Publications, Inc.
- Cox, T. A. (1977). Intercollegiate athletics and Title IX. *George Washington Law Review*, 46, 34-64.
- Creswell, J. W. (2003). Research design: Qualitative, quantitative, and mixed method approaches (2nd ed.). Thousand Oaks, CA: Sage.
- Davis, K. L. (1999). Giving women a chance to learn: Gender equity principles for HPERD classes. *The Journal of Physical Education, Recreation, and Dance*, 70, 13-14.
- Davis, K.L. (2000). A case study in gender equity for basic instruction programs. *Physical Educator* 57, 46–56.
- Davis, K. L. (2003). Teaching for gender equity in physical education: A review of the literature. *Women in Sport and Physical Activity Journal*, 12, 55-81.
- deSaxe, J. (2012). Conceptualizing critical feminist theory and emancipator education. *The Journal for Critical Education Policy Studies*, 10, 183-201.
- Epstein, L. H., Coleman, K. J., & Myers, M. D. (1996). Exercise in treating obesity in children and adolescents. *Medicine and Science in Sports and Exercise*, 28, 428-435.
- Fagot, B. I. (1981). Male and female teachers: Do they treat boys and girls differently? *Sex Roles*, 7, 263-272.

- Federal Register (2006). Nondiscrimination on the basis of sex in education programs or activities receiving federal financial assistance. Retrieved from http://www.ed.gov/legislation/FedRegister/finrule/2006-4/102506a.html
- Gabbei, R. (2004). Achieving balance: Secondary physical education gender grouping options. *Journal of Physical Education, Recreation, and Dance, 75*, 33-39.
- Geisinger, B. N. (2011). *Critical feminist theory, rape, and hooking up.* Iowa State University. *ProQuest Dissertations and Theses*, 63. Retrieved from http://search.proquest.com/docview/874969314?accountid=14553. (874969314)
- Gilman, C.P. (2005). Charlotte Perkins Gilman. In L.D. Edles, & S. Applerouth (Eds.), *Sociology theory in the classical era: text and readings* (pp. 193-240). Thousand Oaks, CA: Pine Forge Press.
- Graber, K. C., & Woods, A. M. (2013). *Physical education and activity for elementary classroom teachers* (1st ed.). New York: McGraw Hill.
- Griffin, P. (1981). One small step for personkind: Observations and suggestions for sex equity in coeducational physical education classes. *Journal of Teaching in Physical Education*, 1, 12-17.
- Griffin, P. S. (1984). Girls' participation patterns in a middle school team sports unit. *Journal of Teaching in Physical Education*, *4*, 30-38.
- Griffin, P. S. (1985). Boys' participation styles in a middle school physical education team sports unit. *Journal of Teaching in Physical Education*, *4*, 100-110.
- Halliday, M. A. K. (1978). Language as social semiotic. London: Edward Arnold.

- Halliday, M. A. K. (1982). The linguistics of writing. In D. Attridge, A. Durant, N. Fabb & C.MacCabe (Eds.), *Language and the order of nature* (pp. 135-154). Manchester, UK:Manchester University Press.
- Halliday, M. A. K. (1985). An introduction to functional grammar. London: Edward Arnold.
- Hannon, J. C., & Ratliffe, T. (2007). Opportunities to participate and teacher interactions in coed versus single-gender physical education settings. *Physical Educator*, *64*, 11-20.
- Hannon, J. C., & Williams, S. (2008). Should secondary physical education be coeducational or single-sex? *Journal of Physical Education, Recreation, and Dance*, 79, 55-56.
- Hastie, P. A. (1998). The participation and perceptions of girls within a unit of sport education. *Journal of Teaching in Physical Education*, 17, 157-171.
- Imbornoni, A. (2012). Women's rights movement in the US: Timeline of key events in the women's rights movement 1848-1920. Retrieved from http://www.infoplease.com/spot/womenstimeline1.html
- Kimm, S. Y. S., Glynn, N. W., Kriska, A. M., Barton, B. A., Kronsberg, S. S., Daniels, S. R., Liu, K. (2002). Decline in physical activity among black girls and white girls during adolescence. *New England Journal of Medicine*, *347*, 709-715.
- Klein, S. S., & Orfman, P. E. (1994). Continuing the journey toward gender equity. *Educational Researcher*, 23, 13-21.
- Klomsten, A. T., Marsh, H. W., & Skaalvik, E. M. (2005). Adolescents' perceptions of masculine and feminine values in sport and physical education: A study of gender differences. *Sex Roles*, *52*, 625-636.
- Koca, C. (2009). Gender interaction in coed physical education: A study in Turkey. *Adolescence*, 44, 165-185.

- Lakoff, R. (1973). Language and women's place. Language in society, 2, 45-80.
- Lewin, T. (2006, July 6). The new gender divide: At colleges, women are leaving men in the dust. *New York Times*, Retrieved from http://www.nytimes.com/2006/07/09/education/09college.html?pagewanted=all&_moc.semityn.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage Publications.
- Lirgg, C. D. (1993). Effects of same-sex versus coeducational physical education on the self-perceptions of middle and high school students. *Research Quarterly for Exercise and Sport*, 64, 324-334.
- Lirgg, C. D. (1994). Environmental perceptions of students in same-sex and coeducational physical education classes. *Journal of Educational Psychology*, 86, 183-192.
- Lirgg, C. D., George, T. R., Chase, M. A., & Ferguson, R. H. (1996). Impact of conception of ability and sex-type of task on male and female self-efficacy. *Journal of Sport & Exercise Psychology*, *18*, 426-434.
- Lundeberg, M. A. (1997). You guys are overreacting: Teaching prospective teachers about subtle gender bias. *Journal of Teacher Education*, 48, 55-61.
- Macionis, J. J. (2010). Sociology (13th ed.). Upper Saddle River, NJ: Prentice Hall.
- Mandela, N. (2011). The top ten Nelson Mandela quotes of all time. Retrieved from http://newsone.com/1397375/nelson-mandela-quotes-93rd-birthday/
- McCaughtry, N. (2004). Learning to read gender relations in schooling: Implications of personal history and teaching context on identifying disempowerment for girls. *Research Quarterly for Exercise and Sport*, 75, 400-412.

- McKenzie, T. L., Catellier, D. J., Conway, T., Lytle, L. A., Grieser, M., Webber, L. A., Elder, J.
 P. (2006). Girls' activity levels and lesson contexts in middle school PE: TAAG baseline.
 Medicine and Science in Sports and Exercise, 38, 1229-1235.
- McKenzie, T. L., Prochaska, J. J., Sallis, J. F., & LaMaster, K. J. (2004). Coeducation and single-sex physical education in middle schools: Impact on physical activity. *Research Quarterly for Exercise and Sport*, 75, 446-449.
- Messner, M. A. (1988). Sports and male domination: The female athlete as contested ideological terrain. *Sociology of Sport Journal*, *5*, 197-211.
- Messner, M. A. (1990). Men studying masculinity: Some epistemological issues in sport sociology. *Sociology and Sport Journal*, 7, 136-153.
- National Association for Sport and Physical Education & American Heart Association. (2010).

 2010 Shape of the nation report: Status of physical education in the USA. Reston, VA:

 National Association for Sport and Physical Education.
- National Association for Sport and Physical Education. (2012). *Physical education position statements*. Retrieved from http://www.aahperd.org/naspe/standards/peps.cfm
- Napper-Owen, G.E. (1994). Equality in the elementary gymnasium. *Strategies: A Journal for Physical and Sport Educators*, 8, 23-26.
- Nilges, L. M. (1998). I thought only fairy tales had supernatural power: A radical feminist analysis of Title IX in physical education. *Journal of Teaching in Physical Education*, 17, 172-194.
- Oliver, K. L., Hamzeh, M., & McCaughtry, N. (2009). Girly girls can play Games/Las ninãs pueden jugar tambien: Co-creating a curriculum of possibilities with fifth-grade girls.

 *Journal of Teaching in Physical Education, 28, 90-110.

- Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage Publications.
- Portman, P. A. (1995). Coping behaviors of low-skilled students in physical education: Avoid, announce, act out, and accept. *The Physical Educator*, *52*, 29-39.
- Poynton, C. (1985). *Language and gender: Making the difference*. Victoria, Australia: Deakin University Press.
- Qin, D. (2004). Toward a critical feminist perspective of culture and self. *Feminism & Psychology*, 14, 297-312.
- Rubin, D. L., Greene, K., & Schneider, D. (1994). Adopting gender-inclusive language reforms:

 Diachronic and synchronic variation. *Journal of Language and Social Psychology*, 13, 91114.
- Sabo, D. (2009). The gender gap in youth sports: Too many urban girls are being left behind. *Journal of Physical Education, Recreation, and Dance*, 80, 35-40.
- Sadker, D., & Zittleman, K. R. (2002). Gender bias in teacher education texts: New and (old) lessons. *Journal of Teacher Education*, *5*, 168-180.
- Sadker, D., & Zittleman, K. R. (2005). Gender bias lives, for both sexes. *Education Digest*, 70, 27-30.
- Sadker, D., & Zittleman, K. R. (2009). Still failing at fairness: How gender bias cheats girls and boys in school and what we can do about it. New York: Scribner.
- Scott, J. W. (1994). Deconstructing equality-versus-difference: Or, the uses of poststructuralist theory for feminism. In S. Seidman (Ed.), *The postmodern turn: New perspectives on social theory* (pp. 282-298). New York, NY: Cambridge University Press.
- Scranton, S. (1990). Gender and physical education. Geelong, Victoria: Deakin University.

- Shelton, D. E. (2000). Equally bad is not good: Allowing Title IX "compliance" by the elimination of men's collegiate sports. *University of Michigan Journal of Law Reform*, 34, 253-264.
- Shenton, A. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information*, 22, 63-75.
- Strasburger, V. C. (1992). Children, adolescents, and television. *Pediatrics in Review*, 13, 144-151.
- Subrahmanian, R. (2005). Gender equality in education: Definitions and measurements. *International Journal of Educational Development*, 25, 395-407.
- Thomas, J. R., & Nelson, J. K. (2001). *Research methods in physical activity* (4th ed.) Champaign, IL: Human Kinetics.
- Threadgold, T. (1986). Semiotics-ideology-language. In T. Threadgold, E. A. Grosz, G. Kress, & M. A. K. Halliday (Eds.), *Semiotics, ideology, language* (pp. 15-60). Sydney, Australia: Sydney Association for Studies in Society and Culture.
- Treanor, L., Graber, K., Housner, L., & Wiegand, R. (1998). Middle school students' perceptions of coeducational and same-sex physical education classes. *Journal of Teaching in Physical Education*, 18, 43-56.
- U.S. Centers for Disease Control and Prevention. (2010). *Youth risk behavior surveillance system.* Atlanta, GA: U.S Department of Health and Human Services.
- U.S. Department of Health and Human Services. (2000). *Healthy people 2010: Understanding and improving health*. Washington D.C.: Government Printing Office. 22B, pp. 1-25.
- Valentin, I. (1997). Title IX: A brief history. Women's Educational Equity Act Resource Center.

 Retrieved from www.edc.org/WomensEquity

- Verbrugge, M. H. (1997). Recreating the body: Women's Physical Education and the science of sex differences in America, 1900-1940. *Bulletin of the History of Medicine*, 71, 273-304.
- Vertinsky, P. A. (1992). Reclaiming space, revisioning the body: The quest for gender-sensitive physical education. *Quest*, *44*, 373-396.
- Volk, R. W., & Beeman, M. (1998). Revisiting "the eye of the storm": The subtleties of gender bias. *Teaching Sociology*, 26, 38-48.
- Vu, M. B., Murrie, D., Gonzalez, V., & Jobe, J. B. (2006). Listening to girls and boys talk about girls physical activity behaviors. *Health Education and Behavior*, *33*, 81-96.
- Washington, R. L. (2009). Physical education in schools helps reduce future cardiovascular risk. *American Heart Association*, 120, 2168-2169.
- Weedon, C. (1987). Feminist practice and post-structuralist theory. Cambridge, MA: Blackwell.
- Wildman, S. (2007). Critical feminist theory. In D. Clark (Ed.), *Encyclopedia of law & society:*American and global perspectives (pp. 349-351). Thousand Oaks, CA: Sage Publications.
- Wood, J. T. (2008). Critical feminist theories: Giving voice and visibility to women's experiences in interpersonal communication. In L.A. Baxter & D.O. Braithwaite (Eds.), *Engaging theories in interpersonal communication: Multiple perspective* (pp. 232-334). Thousand Oaks, CA: Sage Publications.
- World Health Organization. (2012). *Gender section para. 1.* Retrieved from http://www.who.int/topics/gender/en/
- Wright, J. (1995). A feminist poststructuralist methodology for the study of gender construction in physical education: Description of a study. *Journal of Teaching in Physical Education*, 15, 1-24.

Wright, J., & King, R. C. (1990). "I say what I mean," said Alice: Analysis of gendered discourse in physical education. *Journal of Teaching in Physical Education*, 10, 210-225.

APPENDIX A

You are being invited to participate in a research project that is being conducted by Dr. Kim C. Graber, Associate Professor in the Department of Kinesiology, and Julia A. Valley, Doctoral Candidate at the University of Illinois, Urbana-Champaign. The purpose of this project is to examine different aspects of the way in which teachers communicate with students and behave in the physical education setting.

If you agree to participate, you will be asked to participate in the following over a two-week period: (a) allow the investigator to observe your teaching, (b) informally discuss your teaching behaviors and communication style, (c) provide available curriculum guides and lesson plans, and (d) participate in two individual interviews that will be audio-recorded. There are no foreseeable risks other than responding to questions you may not be comfortable answering. In such case, you may choose not to answer specific questions. Participation is voluntary, and if you elect to participate, you may discontinue participation in the project at any time without prejudice. The decision to participate, decline, or withdraw from participation will have no effect on your status at, or future relations with the University of Illinois. While you will not derive any direct benefits from your participation in the project, you will be contributing information that may lead to a better understanding of teaching in physical education.

The materials from this study will be used primarily for a doctoral dissertation, research presentations and publications in professional journals. Any information that is obtained in connection with this study and that can be identified with you will remain confidential. As interview tapes are transcribed, your name will be transcribed using a fictitious name. The only document with your name will be this signed consent form.

If you have any questions about the research at any time, please call or write Dr. Kim C. Graber, Department of Kinesiology, 129 Freer Hall, University of Illinois, 906 S. Goodwin Avenue, Urbana, IL 61801 (Phone: (217) 333-2697 or E-mail: kgraber@illinois.edu). If you desire additional information about your rights as a participant, please feel free to contact the UIUC IRB Office at 217-333-2670 or irb@uiuc.edu. Collect calls will be accepted if you identify yourself as a study participant.

	indicating that you have read this document and are voluntarily ne study. (You will be provided with a copy of this consent doc	
	Participant's Signature	
Date		
Please check one of the	ollowing:	

I agree be audio-taped

I do not agree to be audio-taped

APPENDIX B

Initial Interview Guide for Physical Education Teachers

- 1. How many years have you been a physical education teacher?
- 2. Please tell me about the different schools in which you have been employed as a physical education teacher
- 3. Describe your educational background.
- 4. What is your overall teaching philosophy?
- 5. What beliefs guide your curriculum and/or lesson planning?
- 6. How often and for how long do your physical education classes meet?
- 7. What is the average number of students you teach per class?
- 8. What are the greatest challenges you face as a physical education teacher?
- 9. What types of support do you receive as a teacher?
- 10. What factors contribute to the success of your physical education program?
- 11. What types of conscious decisions do you make about the language that you use while teaching?
- 12. What types of conscious decisions do you make about the behaviors that you use while teaching?

APPENDIX C

Final Interview Guide for Physical Education Teachers

- 1. What types of conscious decisions do you make about the language that you use while teaching?
- 2. How would you define gender equity?
- 3. In what ways do you address gender equity in your classes through the ways in which you communicate or speak to students?
- 4. In what ways do you address gender equity in your classes through the ways in which you behave as a teacher?
- 5. Looking back on your educational experiences, what types of gender bias did you encounter?
 Could you provide examples?
- 6. How do you feel your gender influenced your participation in physical education or physical activity growing up?
- 7. How do you think gender effects your students' participation in physical education?
- 8. What strategies do you employ to address gender in your classes?
- 9. In what areas do you think that you could improve in relation to being gender equitable?
- 10. How do you see the influence of gender in the ways your students encourage or discourage each other to participate in physical education?
- 11. Please describe any gender equity training that you may have had in your physical education courses as an undergraduate student or in a graduate program.
- 12. Do you have a preference for teaching coeducational or single-sex physical education? Explain.
- 13. In what ways do you believe that gender inequities still exist in physical education?

- 14. Describe the ways in which males and females have or do not have equal opportunities to learn in physical education.
- 15. How does gender equity influence your curriculum design and lesson planning?
- 16. If you are not implementing strategies to create gender equity in your physical education classes, would you be interested in incorporating these strategies in the future? What might influence you to make that change? What resources would be necessary for you to do so?
- 17. Have you received professional development in gender equitable teaching? If so, what? Are you interested in professional development in gender equitable teaching?
- 18. How could teacher education programs improve in relation to providing future teachers with gender equitable behaviors and communication styles?
- 19. Describe the ways in which your co-workers use language and behaviors that are or are not gender equitable?
- 20. What other thoughts or comments would you like to contribute?