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*East Tennessee State University*

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Perceptions of Seventh- and Eighth-Grade Girls Toward  
Coeducational Physical Education Classes in  
Five Middle Schools in East Tennessee

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A dissertation  
presented to  
the faculty of the Department of Educational Leadership and Policy Analysis  
East Tennessee State University

In partial fulfillment  
of the requirements for the degree  
Doctor of Education

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by  
Shannon Clabo Sullivan  
May 2003

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Dr. Louise MacKay, Chair  
Dr. Cecil Blankenship  
Dr. Nancy Dishner  
Dr. Russell Mays

Keywords: Coeducational, Gender Equity, Obesity, Physical Education, Title IX

## ABSTRACT

### Perceptions of Seventh- and Eighth-Grade Girls Toward Coeducational Physical Education Classes in Five Middle Schools in East Tennessee

by

Shannon Clabo Sullivan

The purpose of this study was to examine the participation, perceptions, and preferences of seventh- and eighth-grade girls in coeducational and gender-separated physical education classes in five schools in East Tennessee. The participants in this study were seventh- and eighth-grade girls attending public schools in two East Tennessee counties. Participants completed a questionnaire pertaining to their physical education classes. Although 465 students were invited to participate in this study, only 241 students returned the permission form. This resulted in a 52% response rate. The findings were descriptive in nature, although basic analyses were calculated to identify any relationships among the different variables.

The literature review examined adolescents' activity patterns, adolescents' self-esteem, gender equity issues, coeducational physical education versus same-gender physical education, and physical educators and their roles.

The study revealed that most seventh- and eighth-grade girls dressed out for physical education and participated in coeducational physical education classes. A majority of the seventh- and eighth-grade girls preferred having a female physical education teacher. Seventh- and eighth-grade girls' participation rates did not decrease in a coeducational class setting. There was not a significant relationship between the gender of the physical education teacher and seventh- and eighth-grade girls' participation in physical education activities. Seventh- and eighth-grade girls agreed their physical education teachers were fun, fair, and easy to talk to. Seventh- and eighth-grade girls also agreed that their physical education teachers explained things well and motivated them to do their best. Having boys in physical education classes was not a major factor for girls in dressing out for physical education classes or in their participation rates.

## DEDICATION

*“To God Be the Glory”*

First I would like to dedicate this work to my Lord and Savior,  
Jesus Christ,  
who gave me the strength and guidance to complete this project.

I would also like to dedicate this work to my loving parents,  
Gary and Karen Clabo,  
who have always encouraged me to do my best and to follow my dreams.  
I am deeply grateful for your love and support throughout the years.  
I love you both more than you could ever imagine!

This work is also dedicated to my loving husband,  
Jerry Sullivan,  
who has patiently supported and encouraged me throughout this program.  
I love you with all of my heart!

Additionally, I dedicate this work to my family,  
the Beavers, the Clabos, the Postons, and the Sullivans  
for their love and support during this challenging endeavor.

*Forgetting what is behind and straining toward what is ahead,  
I press on toward the goal to win the prize for which God has called me.*

*~ Philippians 3:13*

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## CHAPTER 1

### INTRODUCTION TO THE STUDY

Fitness levels of youth in the last decade have been on a steady decline with one third to upward of two thirds of the younger population being unfit (Devoe & Kennedy, 1997). These fitness levels are important in improving the health and well-being of a child (James, 1999). Physical education provided at school is an ideal way to encourage activity and develop fitness among children; for many children these classes will be their only preparation for an active lifestyle (Summerfield, 1998).

It is imperative that young people be encouraged to become physically active because sedentary living early in life tracks to inactive living in adulthood (Corbin, Dale, & Pangrazi, 1999). Promoting physical activity through physical education is becoming crucial. If physical educators can get young people to participate in some type of physical activity, then, as these young people mature they will be more inclined to participate in some type of fitness activity in the future.

Physical educators at the middle school level are constantly seeking ways to improve their physical education classes. Students at this age level are going through many changes with their bodies, emotions, and self-concepts. For girls and boys, the dramatic physical transformations that occur during puberty are accompanied by equally dramatic social changes (Duncan, 2000). Physical differences and perceived differences in abilities between boys and girls especially in adolescence have traditionally formed the bedrock upon which school physical education programs are constructed (Vertinsky, 1992). Physical education curricula and experiences must be implemented in ways that convey equitable messages about sports and physical activities for boys and girls (Barnd, 1999).

Most middle school and high school physical education programs across the United States require students to dress out for physical education class each day. Dressing out for physical education class consists of changing out of the clothes students wear to school and into proper physical education attire such as a t-shirt, shorts, and tennis shoes (Mitchell & Hewitt, 2002). In order to participate in most physical education classes, students must be dressed appropriately. In many physical education programs, the consequence of nonparticipation in physical education class usually means a loss of student participation points, resulting in a final grade reduction (Mitchell & Hewitt). Students who choose not to dress out for physical education class can become a distraction to the teacher and also to the students who have chosen to participate in physical education class.

Although many girls at the middle school level enjoy physical education classes, some girls at this age do not. Unfortunately, many females at the middle school level despise coeducational physical education because of their lack of success and feelings of inadequacy (Barnd, 1999). Intimidation for girls is reflected in boys' harassment, little opportunity to participate, and reinforcement of stereotypic gender roles (Barnd). Williamson (1996) found that with the change from separate gender to coeducational physical educational classes required by Title IX (Rhea, 1998), physical education teachers became frustrated by the difficulty of meeting the needs of both genders. Because of the problems related to coeducational physical education classes, some schools throughout the nation returned to separate gender physical education classes when coeducational physical education classes proved to be unsuccessful (Barnd).

As researchers, physical education teachers, and parents debate whether physical education classes at the middle school level should return to teaching males and females separately, they may have forgotten to listen to an important faction--the students (Sherman, 2000). This research study was designed to gather input from students who might be affected by these decisions.

### *Statement of the Problem*

The primary goal of a physical education program should be to help students incorporate some form of physical activity into their lifestyle (Pangrazi & Darst, 1985). The promotion of physical activity is an effective means of improving health and enhancing the function of the human body and quality of life (Bjornstal, 2000).

There are several benefits of daily physical activity, including controlling weight and building and maintaining healthy bones, muscles, and joints. Daily physical activity also reduces stress and prevents or delays the development of high blood pressure (Kientzler, 1999). Expending 30 to 45 minutes daily of walking, running, swimming, or playing racquetball greatly reduces the risk of developing serious health problems in the future (Johnson & Deshpande, 2000). Despite these known benefits, girls' participation in physical activity declines with age (Kientzler).

The President's Council on Physical Fitness and Sports reported that too many young people, especially girls, are not active enough (Kientzler, 1999). Girls at the middle school level have limited physical education classes during the week and this may be the only physical activity, besides walking, that they encounter.

Girls at the middle school level are going through many changes with their bodies. Adolescent girls usually have negative perceptions about their body image, which may be a factor for not wanting to participate in a coeducational physical education class. Girls' bodies at this age are developing at a very rapid rate; this may be another factor related to girls' reluctance to participate in a coeducational physical education class. According to Hastie (1998), girls' participation in an activity or sport decreased when physical education was coeducational compared with schools where the subject was taught in single-gender classes. Lirgg (1993) also reported that girls in middle school preferred gender-segregated physical education classes.

Despite the passage of Title IX in 1972 mandating coeducational physical education classes in all educational institutions receiving federal assistance, the question can still be posed:

Are boys and girls receiving the same benefits and equal treatment in physical education classes? (Davis, 2000). According to Hastie's (1998) findings, physical educators around the nation have not transferred Title IX into the practice of physical education.

Kunesh, Hasbrook, and Lewthwaite (1992) stated that some physical educators indicated the premise behind Title IX was the concept that if girls were given the same experiences, instruction, and performance expectations that boys were provided, there would be a direct relationship with the level of skill and physical activity participation. However, inequity problems continue in coeducational physical education classes and there seems to be a difference in the expectations that physical education teachers hold for boys and girls. Do girls choose not to be physically active in a coeducational physical education environment because of their limited skills, other interests, and apprehension of challenges? (Barnd, 1999). It seems to be an important question to ask whether girls at the middle school level prefer coeducational physical education class or whether they would prefer a same-gender physical education class. The purpose of this quantitative study was to examine the participation, perceptions, and preferences of seventh- and eighth-grade girls in coeducational as well as gender separated physical education classes in five middle schools in East Tennessee.

### *Research Questions*

This study was designed to deepen and further clarify an understanding of factors that contribute to seventh- and eighth-grade girls' decisions and feelings about participation in physical education classes and to focus on those areas in which limited research has been conducted. The following research questions served as the focal point of this study:

1. What are the attitudes of the seventh- and eighth-grade girls in relation to their physical educational programs?
2. What beliefs do seventh- and eighth-grade girls hold toward physical education and physical education classes?

3. Does participation in physical activities vary by the gender composition of the class?
4. Does participation in physical activities vary by grade level?
5. Does participation in physical activities vary by the gender of the teacher?
6. Does the frequency that students dress out vary by grade level?
7. Does the frequency that students dress out vary by gender composition of the class?
8. Does the preferred gender composition of the class vary by grade level?
9. Is there a difference between students in girls-only and coeducational classes regarding their preferred gender composition of the class?
10. Do students' perceptions of their physical education teacher vary by the gender of the teacher?
11. Is there a difference between the students' preferred teacher gender and the actual gender of the students' teacher?

### *Significance of the Study*

Thirty years have passed since the implementation of Title IX and the creation of coeducational physical education classes. School-based physical education programs are the only nationally offered opportunities capable of addressing the physical activity needs of the majority of the nation's children and youth (Sallis & McKenzie, 1991). The period during adolescence can be an opportunity to influence future attitudes toward physical activity (Prusak & Darst, 2001). Female adolescents in particular appear to be in the least served subpopulation according to current physical education practices (Prusak & Darst). Perhaps a reason for this can be found in the answer to the question as to whether physical education classes for adolescent females should be coeducational or gender-specific.

Physical educators often disagree about the benefits of coeducational classes and how these classes provide opportunities to teach students to appreciate the abilities and motivations of the opposite gender. What do and seventh- and eighth-grade girls perceive as advantages

and disadvantages of coeducational physical education as opposed to same-gender physical education? Does Title IX help or hinder physical education classes at the middle school level? Gathering descriptive data concerning the participation, perceptions, and preferences of seventh- and eighth-grade girls in coeducational physical education classes in the East Tennessee area could add information to the limited knowledge base concerning same-gender versus coeducational physical education at the middle school level. The information gained in this study may be useful to middle school physical education teachers and middle school administrators as they make decisions pertaining to their programs.

### *Definition of Terms*

*Gender Equity* refers to an environment in which fair and equitable distribution of overall athletic opportunities, benefits, and resources is available to women and men and in which student-athletes, coaches, and athletics administrators are not subject to gender-based discrimination (Priest & Summerfield, 1994).

*Physical Education* is an educational process that focuses on increasing knowledge and affecting attitudes and behaviors relative to physical activities, including exercises, sports, games, dance, aquatic activities, and outdoor adventure activities (Pangrazi & Darst, 1985).

*Title IX Legislation* prohibited discrimination because of gender for all federally funded education programs and required institutions that were recipients of federal funds to conduct a self-evaluation on gender discriminatory practices (Annarino, Cowell, & Hazleton, 1980).

*Dressing Out* refers to students' changing out of the clothes they wear to school and wearing appropriate physical education attire such as t-shirts, shorts, sweat pants, sweat shirts, and tennis shoes (Mitchell & Hewitt, 2002).

### *Limitations and Delimitations*

The results of this study can be generalizable only to the five participating middle schools in East Tennessee. A limiting factor of the study was a low return rate (52%) of the questionnaire possibly because of the age of the students participating in this study, their reluctance to share personal information, and their reluctance (as well as that of their parents) to sign the Informed Consent form. The delimitation of this study was that it included female students in seventh- and eighth-grades in five middle schools in East Tennessee who agreed with the permission of their parents or guardians to participate in the study.

### *Overview of the Study*

This study is presented in five chapters. Chapter 1 contains an introduction, statement of the problem, research questions, significance of the study, definition of terms, and the limitations and delimitations of the study. Chapter 2 presents an overview of adolescents' health and development, adolescents' self-esteem, a brief history of Title IX, gender equity issues in physical education, coeducational physical education versus same-gender physical education, and the role of physical educators. Chapter 3 includes an introduction, research design, sampling procedures, instrumentation, data collection, and data analysis. Chapter 4 provides the presentation of data and analysis of the data. Chapter 5 contains a summary of the study's findings, conclusions, and recommendations for practice and further study.



## CHAPTER 2

### REVIEW OF RELATED LITERATURE

The purpose of this study was to examine seventh- and eighth-grade girls' participation rates in physical education classes in five middle schools and to examine factors that they perceive to relate to their participation and enjoyment of those classes. This study was designed to deepen and further clarify an understanding of factors that contribute to seventh- and eighth-grade girls' decisions and feelings about participation in physical education classes and to focus on those areas in which limited research has been conducted.

The review of related literature is divided into five sections. The first section examines adolescent activity patterns. The second section provides information on students' self-esteem. The third section discusses gender equity issues and includes a summary of the Title IX movement. The fourth section provides information about coeducational physical education versus same-gender physical education. The fifth section examines physical educators and their roles in physical education classes.

#### *Adolescents' Activity Patterns*

Although children represent the most fit and active segment of society, there are genuine concerns among some professionals that children may not be active enough for current or future health benefits. Many children and adolescents in America already have risk factors for chronic diseases and the prevalence of overweight children is at an all-time high (Wright, Patterson, & Cardinal, 2000). A pattern of inactivity, also known as sedentism, begins early in life, making the promotion of physical activity among children particularly significant for their future well-being (Summerfield, 1998). Furthermore, the early years provide a window of opportunity that

may help prevent some chronic diseases exacerbated by the lack of physical activity (Corbin et al., 1999).

Physical activity is defined as any bodily movement produced by skeletal muscles that results in energy expenditure (Heath, Pate, & Pratt, 1993). There are many health benefits from being physically active. These include (a) controlling weight; (b) maintaining strong and healthy bones, muscles, and joints; and (c) lowering blood pressure (Walton, Hoerr, Heine, & Frost, 1999). The Centers for Disease Control and Prevention (2002) recommends moderate amounts of daily physical activity for all ages. This can include walking for 30 minutes or jogging for 15 to 20 minutes. Encouraging children into a sustainable active lifestyle might have some bearing on lessening adult-levels of heart disease and strokes in their future.

Adolescence is a critical period for developing positive self-worth, friendships, personal goals, and lifelong habits toward physical activity (Barnd, 1999). Adolescence is the time when children make a transition from childhood to adulthood. During this time, there are traumatic physical changes that occur in the development of the brain, stature, motor skills, and hormonal production that result in general maturation (Larson & Zaichkowsky, 1995). Middle school students contend with mood swings, an increasing concern for peer acceptance, and the need to establish independence. Because of their wide swings of emotion, middle school students need to experience success in physical activities and to achieve recognition as individuals. The young adolescent must handle social changes and peer relationships along with mastering a physically changing body (Barnd).

During adolescence, the onset of puberty for girls and boys has begun and they are experiencing rapid growth and body development. Numerous changes in boys' and girls' height, weight, aerobic capacity, and body proportions are taking place (Griffin, 1983). According to Griffin, girls usually gain additional body fat during their adolescent years, while boys' shoulder girths widen. Those who are inactive in their teenage years, especially females, compromise their optimal bone mass formation, increasing both the risk and severity of osteoporosis later in

life (Corbin et al., 1999). Physical and emotional correlates of the onset of puberty, along with an increased advantage for males in the areas of skill and fitness, may combine to make middle school a more difficult period for effective implementation of coeducational physical education (Barnd, 1999).

Studies have shown that adolescent females are generally more negative about their bodies and are concerned with physical beauty and maintaining an ideal, thin shape as idealized by the media and societal images (Rhea, 1998). Adolescent females are often concerned about being too tall or too fat and many well-proportioned young girls may compensate for perceived physical inadequacies by slouching, wearing baggy clothing, or trying a seemingly endless number of fad diets (Rhea).

A change of attitude toward physical activity occurs in early adolescence. According to DeMarco and Sidney (1989), reasons for participating in physical activity change from “having fun” to “improving and/or maintaining health” (p. 337). Research indicates that during grades seven through nine, students show a decrease in their belief that exercise is fun and take on beliefs that approximate adults' reasons for fitness participation--that is, for their health and well-being (DeMarco & Sidney). Although the adolescent female may be concerned about her body image, social status, or performance, understanding that adolescent females struggle with these psychological and physical elements may be the key to future participation in physical education (Rhea, 1998).

Childhood obesity is becoming a significant public health problem, with medical and psychological consequences that often persist into adulthood (Hill & Trowbridge, 1998). All signs suggest that the current generation of children will become the most obese generation of adults the United States has ever recorded. If children are obese, they are more likely to suffer from severe health and psychosocial damage later in life. For some girls, rapid physical changes cause them to experience a sense of physical inadequacy, along with negative perceptions of body image and increased occurrences of depression (Barnd, 1999). Obese students often lack

confidence in their physical abilities and are inhibited when asked to participate while other students are watching (Rhea, 1998). From early adolescence, girls, unlike boys, are more concerned with their physical appearance than their physical performance (Daley & Buchanan, 1999).

Obesity is defined as an excessive accumulation of body fat. Obesity is present in children when total body fat is more than 25% in boys and more than 32% in girls (Lohman, 1987). According to Summerfield (1998), 5% and up to 25% of children and teenagers in the United States are obese.

The risk of becoming obese is greatest among children who have obese parents (Dietz, 1983). Heredity has recently been shown to influence fatness, regional fat distribution, and response to overfeeding (Summerfield, 1998). This could be attributed to powerful genetic factors or to parental modeling of both eating and exercise behaviors indirectly affecting the child's energy balance (Ross & Pate, 1987). Major shifts in the family's environment such as an increase in the number of working parents and dining out, as well as changes in the physical environment such as relying on cars for transportation instead of walking or riding bicycles seem to be major factors that have led to what the Centers for Disease Control label an obesity epidemic (2002).

The average American child spends several hours a day watching television, a time that in previous years might have been devoted to physical pursuits (Summerfield, 1998). The number of hours a child spends in front of the television is more predictive of obesity than any other variable according to a study presented at the annual meeting of the American College of Nutrition (DeMott, 2000). Not only are children spending more time in front of the television, they are consuming diets that are heavy in sweets and fats and light in fruits and vegetables.

Particularly detrimental to the health of adolescents is central abdominal body fat that is linked to cardiovascular disease and diabetes (Summerfield, 1998). Studies show that adolescents who are physically active can reduce their risk of cardiovascular disease--but how

active must adolescents be? Current recommendations state that children and adults should strive for at least 30 minutes (daily) of moderate-intensity physical activity (Summerfield). Children and adults who already participate in daily exercise will benefit more from vigorous activity. Moderate to high levels of physical activity for adolescents are important for young people in at least three ways: (a) they may lead to a habit of physical activity that will possibly carry over to adulthood, (b) they may contribute to the overall health status later in life, and (c) they may include a preventive function in adult diseases (Barnd, 1999).

In order to reduce obesity in the United States, educators need to encourage a significant societal change in attitudes and practices toward eating, physical activity, and transportation. In early childhood, education should include proper nutrition, selection of low-fat snacks, good exercise/activity habits, and monitoring of television viewing (Summerfield, 1998). Because obese adolescents typically possess negative attitudes toward physical activity, it is important to introduce them gradually to enjoyable forms of exercise so they begin to feel more confident in their physical abilities and self-images (Rhea, 1998). Physical educators face many challenges in their struggle to inspire young people to be physically active throughout life (Butler & Anderson, 2002). The unique contributions that physical education makes to the growth and development process of an individual can enable it to be an integral element of the total education of adolescents (Barnd, 1999).

### *Adolescents' Self-Esteem*

Adolescence is clearly a time of transition from dependence to independence, a time when peer group pressure has a strong influence, and may intensify the culture of femininity in girls. Children constantly rate themselves on appearance factors demonstrating that physical make-up is an important component of identity development in adolescence (Daley & Buchanan, 1999). Helmets and kneepads can protect children from physical injury, but too often, their dignity and self-esteem remain open to attack from classmates and teachers (Helion, 1996).

Physical education provides an opportunity to influence not only students' physical health but it can also influence students' self-esteem. Self-esteem is recognized as being a critical component in the adoption of positive health behaviors (Goodwin, 1999). When children feel good about themselves, they are more likely to ignore negative advice from others. The logical conclusion is that children with greater levels of self-esteem are more likely to develop the ability to think for themselves, cope with the basic challenges of life, be consistent with their values, and enjoy the fruits of their efforts (Goodwin). Despite declining self-esteem levels among many adolescent females, physical education and athletics can provide an opportunity for young girls to excel (Daley, 1998). Physical education class should be a place where each student feels he or she belongs (Halliday, 1999).

Physical educators are in a position to influence the development of their students' self-esteem. Through movement experiences, physical educators can enhance girls' perceptions of their own worth and body satisfaction (Daley, 1998). Physical education is sometimes the only class in which students demonstrate their abilities to their classmates. If a particular student is having trouble in English class, the student and the teacher may be the only ones who know; however, if a student is unskilled in a certain sport or physical activity, then everyone in the class is aware. It is wise to avoid embarrassing students by putting them into situations where their abilities are put on display, especially if it is not by choice (Halliday, 1999). For example, having students perform one at a time with everyone in the class watching can be a devastating experience for someone who is still in the early stages of learning a skill (Halliday). This is one of many reasons that students may not want to participate in physical education class. It is the responsibility of physical education teachers to recognize this and take appropriate steps to create a supportive environment conducive to learning and development of self-esteem (Goodwin, 1999).

Fox (1988) offered the following suggestions to physical education teachers in dealing with students' self-esteem. Teachers need to redefine success for students so that the focus

becomes improvement and effort rather than peer comparisons and norms. Physical educators need to provide programs in which there is a focus on individualized activities rather than team sports. A less competitive environment could provide students with a relaxed atmosphere conducive to learning and increased self-esteem. Physical education teachers must try to offer opportunities for success for all students whether they are fat, thin, weak, strong, or afraid.

A study by Daley (1998) indicated that the self-confidence of females increased when the activities performed in physical education were considered feminine such as cheerleading, dance, and aerobics. This implied that participation in activities that are considered feminine might increase females' self-esteem (Lirgg, 1991). Researchers have suggested that girls should be involved in choosing the types of activities that form the physical education curriculum (Daley). By choosing their physical education curriculum, girls can choose activities where they are likely to succeed and thus observe the positive effects of their work. This development may result in increased self-esteem (Brown & Harrison, 1986).

### *Gender Equity Issues*

With the implementation of Title IX in 1972, educators in the public realm were forced to examine their instructional opportunities in physical education and sports. This legislation prohibited discrimination based on gender for all federally funded education programs and required institutions that were recipients of federal funds to conduct a self-evaluation on gender discriminatory practices (Annarino et al., 1980). The implementation of Title IX legislation affected all physical education classes, interscholastic sports teams, and intercollegiate sports teams from kindergarten through the 12 grades and at the collegiate level. One aspect of this legislation prohibited the offering of same-gender courses and programs, such as single-gender home economics classes, industrial arts classes, and physical education classes (Lirgg, 1994).

Title IX was interpreted for physical education programs to mean that boys and girls should have equal opportunities to enroll in all programs offered. In reality, it signaled for the

emergence of coeducational physical education classes. Ability grouping not based on gender may be used within a class for more effective instruction with the exception of certain contact sports such as football, wrestling, and basketball where gender may be considered (Annarino et al., 1980).

Sports equity is important at the middle and secondary school levels not only to increase opportunities for young women in sports and physical activity but to change perceptions, particularly to change the incorrect perception that sports participation is not important for girls and women (Priest & Summerfield, 1994). Priest and Summerfield described gender equity as, “An environment in which fair and equitable distribution of overall athletic opportunities, benefits, and resources are available to women and men and in which student-athletes, coaches, and athletics administrators are not subject to gender-based discrimination” (p. 54).

As it relates to physical education, Part 106.34 of Title IX stipulates that classes cannot be conducted separately on the basis of gender, except where the purpose or major activity involves bodily contact (Hastie, 1998). Prior to 1972, physical education classes were separated by gender. This separation produced gender-role stereotyping in which expectations were placed on all members of a group (or gender) regardless of differing abilities and interests (Gadelmann, 1980). These stereotypes led to unequal treatment of males and females in the physical education classes, a notion grounded in assumptions and beliefs about gender differences in physical ability (Davis, 2000). Studies suggest that in spite of the change from sex separate to sex mixed classes required by Title IX, sex stereotyping and inequity continue to be a problem in physical education (Griffin, 1985). Thus, a mandate for coeducational classes does not ensure the equal treatment of male and female students in a physical education setting (McBride, 1990).

In physical education, teachers and coaches often discuss whether male and female students differ in how they think about and perform in sports and physical education, and, if so, whether these differences are a product of gender-biased educational settings (Weiller & Doyle, 2000). According to Davis (2000), gender bias seems to exist in all types of classes, at all levels



of instruction, and with both genders of teachers. In some classrooms, female students can become nearly invisible as teachers interact more frequently with boys, asking them better questions and providing more precise and helpful feedback. In many cases, female students have been shortchanged in their education to enable male students to benefit more from classroom interactions (Sadker & Sadker, 1994). It is possible that male and female students differ in how they seek information and help from a teacher; therefore, if these differences truly exist, physical educators who understand them could become better equipped to meet the learning needs of both genders (Weiller & Doyle). Those teachers interested in equity can strive to create situations in which gender boundaries are blurred and in which neither sex dominates nor is given greater value (Knoppers, 1988). Title IX has failed to prepare teachers to confront their own gender biases and to become aware of the impact that differential treatment has on students, particularly female students (Davis). Other than outside experts explaining the legal requirements of Title IX, most teachers have been on their own in coping with the day to day problems of coeducational physical education (Griffin, 1984a).

#### *Coeducational Physical Education Versus Same-Gender Physical Education*

The issue of coeducational physical education classes versus same-gender physical education classes has been and remains a debated topic among physical education specialists. Griffin (1983) commented that gender stereotyping is pervasive within physical education. A study conducted by Engel (1994) showed that girls' participation in sport activities decreased where physical education was coeducational when compared to schools where the subject was taught in single-gender classes. Thus, the situation for females may actually be worse in coeducational classes than in segregated classes if practices that allow or promote gender inequity are allowed (Satina, Solomon, Cothran, Loftus, & Stockin-Davis, 1998).

According to Sadker and Sadker (1994), more than 25 years after the implementation of Title IX in the United States, females and males receive very different, inequitable educations.

Teachers often boost male students to higher levels of academic achievement by giving them greater attention than females and by encouraging males to clarify their ideas, sharpen their thinking, and speak frequently (Satina et al., 1998). Conversely, female students have often been conditioned by teachers to be silent, to defer, and to be well behaved and docile; this can result in declines in achievement and increases in complacency throughout their public school years (American Association of University Women, 1992).

Limited research has been conducted on the question of whether coeducational physical education classes are a positive learning experience for girls at the middle school level. A study by Humbert (1996) gave female participants in coeducational physical education classes an opportunity to share their experiences. After the data were analyzed, the researcher discovered that girls perceived the coeducational environment to be full of male harassment, domination, and intimidation with a resulting lack of female participation (Humbert). Harassment by boys regularly occurs in the gym (Griffin, 1983). Boys seem to fail to learn the inexcusability of this behavior, and girls seem to fail to learn assertive skills to confront these behaviors (Knoppers, 1988). The girls in Humbert's study were discouraged by comments made by the boys about their appearance and skill level. Another complaint from the girls surveyed in this study was that the boys tended to dominate games played, and that this allowed the boys to control the physical education environment (Humbert).

A similar study conducted by Griffin (1984a) showed comments indicating that students' interaction and participation patterns were not solely caused by the teacher, as students already had gender-stereotyped beliefs about themselves, each other, and the activities being taught. Eccles and Harold (1991) concluded that although gender differences in children's attitudes to sports are strong and emerge at a very young age, these differences seem to occur more as a result of gender role socialization than of natural aptitude differences. According to Eccles and Harold, boys rate themselves as more able than girls rate themselves in sports (even as early as the first grade), and they rate sports as more important, useful, and enjoyable than do girls.

Deaux, Emswiller, and Eccles (1974) also suggested that women are stereotyped as less competent than men in the athletic domain.

Some researchers have looked beyond performance to the quality of students' interactions as a measure of the success of coeducational physical education. For example, Griffin (1984b) found that in a gymnastics unit, boys limited the girls' abilities to learn by hassling them but did not limit other boys' opportunities. Solomans (1980) conducted a study and found that in an elementary school girls received fewer passes in basketball games than boys and passed up scoring opportunities more than boys did in spite of the fact that girls and boys were equally successful when they did try to score.

A recent study by Treanor, Graber, Housner, and Wiegand (1998) investigated middle school students' perceptions of coeducational and same-gender physical education classes. Students in the study participated in a coeducational physical education program in the fall semester. Because the teachers became frustrated with the coeducational physical education classes, they decided to form same-gender physical education classes for the spring semester. At the end of the spring semester, students were given a questionnaire about their physical education experience for the year. Students were asked if they preferred coeducational or same-gender physical education classes. According to Treanor et al., regardless of their gender or of their perceived levels of skill, fitness, or effort, students who liked physical education showed a preference for same-gender physical education. Treanor et al. also mentioned that in this study, males perceived that they performed skills and played team sports better, received more practice opportunities, competed harder, learned more, behaved better, and felt less fearful of injury in a same-gender physical education class. The females in this study reported the same perceptions about participating in a same-gender physical education class. Results of this study of coeducational physical education class indicated that males were found to maintain a high level of enjoyment in physical education across all three middle school grades, even though girls exhibited a decrease in their enjoyment over the same period.

Boys and girls may view a coeducational class in physical education differently; that is, boys may find that coeducation fosters self-efficacious beliefs, whereas girls do not (Lirgg, 1993). Many girls report that they see physical education as irrelevant because its content has no apparent link to their lives as adult women (Knoppers, 1988). According to Knoppers, the physical education curriculum in content and intent is structured for boys, especially for those who prize athletic skills and competition. According to Eccles and Blumenfeld (1985), coeducation may facilitate achievement in boys but may dampen or have little positive effect on girls' achievements. McCarthy et al. (1996) asked physical education specialists whether they believed coeducational physical education helps high school students reach their full potential. Most of the physical education experts who responded agreed that coeducational physical education does not help high school students reach their full potential. According to a physical education specialist involved in the McCarthy et al. study:

Coeducational physical education is not allowing high school students to reach their full potential. When high school students convene for physical education, the skill level of both the girls and the boys declines. There is fear of injury for the girls when participating with boys. The competitive character of the boys subdues the girls. The girls will avoid play while the boys control the activity. Boys want to show their skill ability and girls want to watch them perform. Coeducational physical education is a no-win situation in our high schools today. (p. 53)

In the same study conducted by McCarthy et al. (1996), some physical education specialists reported that coeducational physical education classes helped develop more well-rounded individuals by providing a social context that adolescents desire for leisure time activity. In a coeducational physical education class setting, students can learn to get along with and respect the other gender. If male and female students can learn to respect each other, cooperate, and participate together without harassing each other, then coeducational physical education classes can be wonderful learning experiences. Physical educators point to coeducational

physical education classes as prime opportunities to test the limits of or, ideally, to eliminate gender-role stereotypes, thus giving students the chance to learn and enjoy activities together (Lirgg, 1994).

The traditional routine of separating boys' and girls' physical education classes focused on performance outcomes in activities in which male-defined standards of power and strength predominated. Physical education has thus been able to "buttress and legitimate the view that women, because of their biology, go slower, and lower, and are weaker than men" (Vertinsky, 1992, p. 374). Cockburn (1983) explained,

Small biological differences are turned into bigger physical differences, which themselves are turned into the gambits of social, political, and ideological power play. Women are first tendered weak; their weakness is transformed to vulnerability; and vulnerability opens up the way to intimidation and exploitation. It is difficult to exaggerate the scale and longevity of the oppression that has resulted. (p. 204)

Until Title IX was introduced in 1972, fewer than 300,000 young women participated in interscholastic athletics nationwide (Lough, 1998). Before the emergence of Title IX, sports and physical education programs were adapted to accommodate females into feminine sports that involved such activities as dance and gymnastics. Although physical education initially had two curricula, one for boys and one for girls, the merger of the two programs mandated by Title IX has resulted in a primarily competitive sports dominated curriculum (Griffin, 1984b).

By contrast, boys' physical education was designed to play a pivotal role in the development and construction of masculinity, giving them an arena where sports provided the force, skill, and competence to turn a boy into a man, giving them a competitive edge and a teamwork mentality (Vertinsky, 1992). Oglesby (1984) suggested that bipolar trait definitions of the genders imply that males are active, aggressive, public, cultured, rule-governed, instrumental, goal oriented, organized, dominating, and competitive; whereas females are

viewed as passive, submissive, private, natural, idiosyncratic, expressive, chaotic, disorganized, subordinate, cooperative, and controlled. Some girls may shun sports altogether to avoid compromising their femininity, or they may choose physical activities that appear to be more gender-appropriate. They may prefer cooperative, aesthetically pleasing, expressive, and graceful activities such as cheerleading, gymnastics, diving, swimming, tennis, and dance (Duncan, 2000). This type of thinking by experts has dominated gender differences in the realm of sports participation by females.

According to Talbot (1986), when girls can enjoy the benefits of coeducational classes and experience the same expectations for performance as boys, they will have more opportunity to develop their skills and raise their aspirations. Girls will have more of an opportunity to develop skills and be able to experience boys' games. Girls will also have opportunities to raise their performance levels and expose fallacious arguments about females' frailty and limitations. Yet, when Title IX was enacted, physical education teachers were in opposition to coeducational physical education classes. They expressed concerns about physical differences between genders, locker room supervision of mixed groups, and the morality of girls' potential body contact in sports, as well as potential health and safety risks to maturing female bodies (Geadelmann, 1981). At its worst, coeducational physical education is a frustrating experience for most students and a confirmation that competitive sports are only for the most highly skilled aggressive minority (Griffin, 1984a).

When Title IX was passed in 1972, coeducational physical education classes were viewed by critics as being an invitation for girls to participate in the boys' physical education classes. However, equal access for girls and boys in physical education did not ensure equal participation. The practice of ignoring gender and letting boys and girls mix in a curriculum that had previously been strongly gendered and differentiated was claimed to exacerbate, rather than dissipate differences between them, create hostility, and intensify students and teachers' stereotypical attitudes (Evans, 1989). According to Vertinsky (1992), some

observers of coeducational physical education documented in detail how boys actively harassed girls, monopolized available space, and limited girls' participation in game activities. It was pointed out that the behavior and role-play of boys and girls became more rather than less polarized, with boys dominating leadership roles and girls accepting subservient ones (Griffin, 1989). Winning did not matter to girls as much as it did to boys. The strategy of promoting equal opportunity by removing access barriers was widely criticized among physical educators as having the effect of bringing about a greater loss of educational opportunities for girls by limiting their participation, undermining their values, and discounting their concerns (Vertinsky).

The question of whether coeducational physical education classes beyond the elementary level have succeeded or failed may be difficult to answer because in the past, researchers have used performance outcomes as the major dependent measure (Lirgg, 1993). If earlier studies by researchers could have been designed so that learning similarities or differences occurring in same-gender versus coeducational settings could have been measured, results may have been different (Lirgg). A study conducted by Lirgg (1991) showed that in single-gender physical education classes, girls perceived themselves as being more involved in class, better behaved, and receiving more teacher support than girls in coeducational physical education classes. The study also showed that girls could be comfortable during single-gender physical education classes whether or not they were highly skilled without the fear of harassment from boys. According to Daley (1998), girls in same-gender physical education classes exhibited augmented confidence compared to girls in coeducational classes. Research on class climate found same-gender classes to have fewer distractions, more freedom to focus intellectual energy, better working conditions, fewer students' attention demanding behaviors, fewer discipline problems, and greater time on task (Lirgg, 1994). In a Canadian study of girls' self-esteem during single-gender physical education classes, Humbert (1996) found that for young women to be physically active, they

needed an environment in which they felt respected and valued. Some physical educators proposed that same-gender classes might result in a higher number of interactions for female students, because there would not be competition with male students for the attention of teachers and peers in the classroom (Davis, 2000). Arbitrarily segregating girls and boys could create hostility and perpetuate power imbalances. Although there has been a great deal of recent interest in gender-segregated schools, there is yet no direct evidence that gender-segregated physical activity is desirable (Duncan, 2000). Lirgg (1991) suggested that the impact of Title IX on boys and girls should be researched more carefully to examine how class type affects students' performance and sensitivity to identify the best physical education setting for students.

Thinking reflectively and critically about girls' experiences in physical education is essential as educators work to create spaces where girls can overcome traditional societal role constraints and construct an identity that includes an active, healthy lifestyle (Ennis, 1999). Because girls often have not experienced adequate skill instruction, or have been socialized to reject the subjective value of physical participation, they often demonstrate low-skill levels and high levels of reluctance and rejection of sports (Vertinsky, 1992). Girls' marginalization and alienation in sport-based physical education is a particularly insidious problem that has been extensively documented (Ennis). Ennis stated that no curriculum in physical education has been as effective in constraining opportunities and alienating girls as that found in coeducational, multiactivity sport classes.

A curricular innovation entitled, *Sport for Peace*, was designed by Ennis (1999) to enhance the engagement and satisfaction of students with the physical education curriculum. *Sport for Peace* is based on the creation of teams of relatively equal skill and playing ability (Ennis). Teachers select a student coach to assist less skilled players in improving their performance. These student coaches also monitor the team environment. Players rotate through team positions taking a regular turn at the duties of scorekeeper, statistician, and



official. *Sport for Peace* was designed to include a focus on conflict negotiation, care and concern for others, and self and social responsibility (Ennis).

The study conducted by Ennis (1999) reported that in the beginning, boys complained that the girls would not play with intensity. The girls reported that if they were not treated with respect, they would not play at all. The teacher's role became important early in the study. Teachers reminded students that each team consisted of different skill-level players and that effective teams always found ways to work cooperatively.

The conclusion of the Ennis (1999) study was that boys cooperated with girls, treating them as respected members of the team. The boys were encouraging and supportive of the girls' efforts. The *Sport for Peace* curriculum enlists and rewards the assistance of skilled male peers in enhancing girls' sport skills and in providing legitimate and meaningful opportunities for practice and contribution to team efforts (Ennis). To develop gender fairness in physical education classes, physical educators must create an environment where both genders feel safe to explore and develop their abilities in sport and physical activity, and they must gain the respect of their colleagues while doing so (Chepyator-Thompson, Jepkorir, & Hutchinson, 1995).

### *Physical Educators*

Today's physical educators have one of the hardest jobs in the schools as they attempt to get unfit, overweight, unmotivated, and generally lazy children to move and be active (Thompson, 2000). Perceived expectations from the physical education teacher and interactions of teachers with students can positively or negatively influence students' attitudes towards participation in physical activity (DeMarco & Sidney, 1989). Physical educators must recognize their responsibility for supporting positive attitudes toward physical activity and send positive messages to their students about fitness and exercise (DeMarco & Sidney).

According to Davis (1999), most physical education teachers do not consider that they treat male and female students differently. However, there is substantial evidence that the inequitable treatment based on gender that is pervasive in school culture extends into the gym (Satina et al., 1998). Physical educators must look more closely at adolescent girls' cultural perspectives and the framework in which they make sense of themselves and their bodies (Vertinsky, 1992).

It would seem that physical education teachers could perform extremely important work in fostering the well-being of pupils by helping them to come to terms with the way they feel about their sexuality, ability, and gender differences; how they react to them; and the language they use to articulate those feelings (Vertinsky, 1992). Thinking reflectively and critically about girls' experiences in physical education is essential to creating spaces where girls have the opportunity to overcome traditional societal role constraints and construct personal identities that include active, healthy lifestyles (Ennis, 1999). This means that educators must encourage students to develop critical thinking about gender-based biases (Duncan, 2000).

The decline in activity participation by girls during and after adolescence is well documented and is a particular cause for concern among physical educators (Vertinsky, 1992). Grade 8 seems to be the time when dissatisfaction and disinterest deepens among girls; by grade 11, a majority of girls have dropped physical education entirely (Vertinsky). Unless today's students enjoy and have a general interest in the physical education program and a more specific interest in the physical education content, there is little chance that they will remain physically active in the future (Duncan, 2000).

Recent studies suggest that middle- and high-school level physical educators are more likely to abandon coeducational physical education classes in favor of single-gender classes (Portman & Nelson, 2001). Male and female teachers have shown a similarity, both in general approaches to instruction and in their interactions with male and female students

(Lirgg, 1994). As students mature and differences in interest, strength, and ability increase, it becomes more difficult for educators to teach a curriculum of multiactivity games (Portman & Nelson). Female teachers report being frustrated with taking time out from their teaching to discipline boys whereas male teachers seem more frustrated with girls being less skilled than boys (Treanor et al., 1998). A factor in teachers' behavior toward boys and girls is that boys seem to become involved in more attention-getting techniques; the result is that teachers often give boys more attention (Lirgg, 1994). Instructional techniques are often imbued with gender meaning (Knoppers, 1988). Instructions such as “play man-to-man defense,” “guard your man,” and “throw the ball to the first baseman” are not only sexist in language but also emphasize the maleness of the sports world (Griffin & Placek, 1983).

A study by Sadker and Sadker (1982) showed that (a) boys receive more praise, criticism, and attention in physical education classes than girls; (b) girls tend to be ignored and receive little praise and few reprimands in physical education class; (c) girls are more likely to be praised for being neat, quiet, and compliant than for questioning and assertiveness; (d) achievement by boys tends to be attributed to ability, whereas that by girls to luck; and (e) failure by boys tends to be attributed to lack of effort, whereas that by girls to lack of ability. Although these patterns vary by class and race, the overall picture suggests that both women and men teachers interact differently with girls and boys (Knoppers, 1988).

The problems encountered in coeducational classes are solvable but require that administrators and teachers take responsibility for solving them (Griffin, 1984a). It is time for physical education teachers to become aware of the consequences coeducational physical education appears to have for many young adolescent girls and to provide choices for the environment in which physical education is taught (Barnd, 1999). Physical education teachers should also serve as examples to students by providing motivation and support (Helion, 1996). Physical education teachers need to work together by sharing ideas and acting to change inequitable levels of students' participation and interaction in classes

(Griffin, 1984a). Physical education teachers have the opportunity to provide solutions for promoting coeducational classes and positive interactions between the genders (Davis, 2000).

## CHAPTER 3

### RESEARCH METHODOLOGY

The purpose of this quantitative study was to examine the participation, perceptions, and preferences of seventh- and eighth-grade girls in coeducational as well as gender separated physical education classes in five middle schools in East Tennessee. Chapter 3 presents an introduction, research design, sampling procedures, instrumentation, data collection, and data analysis. Eleven research questions were developed to act as a guide in completing this study:

1. What are the attitudes of the seventh- and eighth-grade girls in relation to their physical educational programs?
2. What beliefs do seventh- and eighth-grade girls hold toward physical education and physical education classes?
3. Does participation in physical activities vary by the gender composition of the class?
4. Does participation in physical activities vary by grade level?
5. Does participation in physical activities vary by the gender of the teacher?
6. Does the frequency that students' dress out vary by grade level?
7. Does the frequency that students dress out vary by gender composition of the class?
8. Does the preferred gender composition of the class vary by grade level?
9. Is there a difference between students in girls-only and coeducational classes regarding their preferred gender composition of the class?
10. Do students' perceptions of their physical education teacher vary by the gender of the teacher?
11. Is there a difference between the students' preferred teacher gender and the actual gender of the students' teacher?

As reported in the literature review, there have been other studies designed to identify whether physical education classes should remain coeducational or whether same-gender physical education classes should return to public K-12 schools. In addition, studies are being conducted to determine whether students prefer coeducational physical education classes or whether they prefer same-gender physical education classes.

### *Research Design*

This quantitative study was designed to use descriptive and inferential research methods. The research methods were designed to involve the collection of data through a questionnaire administered to the chosen sample of seventh- and eighth-grade girls to answer research questions pertaining to their perceptions regarding their participation and preferences in coeducational and gender-segregated physical education classes. Eleven research questions were developed to act as a guide in completing the study. From the research questions, the following hypotheses were developed:

Ho1: There is no difference in the participation levels of students in girls-only and coeducational physical education classes.

Ho2: There is no difference between grade levels and the level of participation in physical education activities.

Ho3: There is no difference in the participation levels among students with male teachers only, female teachers only, and students with both male and female teachers.

Ho4: There is no difference between the frequency that students dress out and their grade level.

Ho5: There is no difference between students in girls-only and coeducational classes in the frequency that they dress out.

Ho6: There is no difference between grade levels in the preferred gender composition of the physical education class.

Ho7: There is no difference between students in girls-only and coeducational classes in the preferred gender composition of the class.

Ho8: There is no difference in students' perceptions of their teacher among students with female only teachers, male only teachers, and students with both male and female teachers.

### *Sampling Procedures*

The population of this study consisted of seventh- and eighth-grade girls in five middle schools in two counties in East Tennessee. Four of the schools were located in one county in East Tennessee and the fifth school was located in another county in East Tennessee. Each school had a varied socioeconomic and ethnic population.

The school system directors, school principals, students, and parents were required to grant written permission before the students participated in the study. Two hundred forty-one seventh- and eighth-grade students from these selected schools participated in the study. Copies of the questionnaire were distributed to each physical education teacher in the selected schools (see Appendix A). Physical education teachers were asked to distribute the questionnaires to their students during one physical education class and to request that the girls take them home to discuss with their parents or guardians and return the signed Informed Consent form (see Appendix B).

### *Instrumentation*

In the absence of an existing instrument to identify participation rates and preferences of seventh- and eighth-grade girls in coeducational physical education, a questionnaire was developed by the researcher (see Appendix A). An item pool of self-reporting statements regarding seventh- and eighth-grade girls' participation and preferences in coeducational physical education classes was developed using input from related literature and experts in the field such as the Tennessee State Department of Education, physical education professors in

higher education, and certified physical education teachers in Tennessee. A 5-point Likert-type response instrument containing 35 questions was developed from the item pool attained.

Because of the need to address issues of importance in seventh- and eighth-grade girls' physical education classes, the final portion of the questionnaire included open-ended questions pertaining to reasons why students liked or disliked their physical education class.

A panel of experienced physical educators critiqued the questionnaire to identify any weaknesses and to offer suggestions concerning the instrument's content validity. These educators were selected because of their familiarity with students of the appropriate age group and educational curriculum. Modifications were made to the questionnaire following the review by the panel.

A pilot test of the questionnaire was conducted with 10 respondents in order to assure that the questionnaire was reliable. The respondents for the pilot test were seventh- and eighth-grade girls' who participated in a coeducational physical education class at one middle school in East Tennessee. Few changes were made as a result of the pilot test. The information collected from the pilot test was not part of this study.

The data collected from the pilot test were used to calculate measures of reliability, including Cronbach's alpha. Calculations were performed using the Statistical Package for the Social Sciences, Student Version 8.0. Questionnaire items were retained, modified, or deleted based on the results of reliability. The questionnaire was revised and finalized into a form approved by the Institutional Review Board at East Tennessee State University.

### *Data Collection*

Schools were initially identified based upon their location. Each county's school director was contacted by phone to identify the procedures for requesting permission to conduct the study. Next, an introductory letter and permission form was sent to two of the school system directors requesting permission to conduct the study. Approval from the school system directors



was obtained for this study (See Appendix D). Telephone calls were made to the school principals. An introductory letter and permission form to conduct the survey was sent to the school principals (See Appendix E). A parental permission form was given to each seventh- and eighth-grade girl in the five participating middle schools (See Appendix B and C). A child assent form was distributed to the students to obtain permission from the seventh- and eighth-grade girls (See Appendix F). After permission was obtained from parents and from the seventh- and eighth-grade girls participating in the study, the students were given a questionnaire by their physical education teacher during one physical education class. The questionnaires were collected by the physical education teacher and were immediately sealed in a large envelope. Parents and students were assured of confidentiality. Unauthorized persons did not have access to this information. The anonymity of the students' responses was fully protected.

#### *Data Analysis Procedures*

The findings of the study were analyzed using the Statistical Package for the Social Sciences (SPSS) software program that is designed to analyze and display data (Gall, Borg, & Gall, 1996). The data were initially analyzed using crosstabulation tables to identify demographic information. Chi-square statistics were used to examine the relationships and differences among the variables identified in the survey and to address the research questions.

Frequency tables were used to identify the characteristics of the participants in this study in the first two research questions. Chi-square was used to analyze the relationships examined in the research questions. Because all data in the questionnaire were categorical, data analysis for each of the 35 research questions was conducted using descriptive statistics (number and percentage) and chi-square analysis. The analysis was conducted at an alpha level of .05.

## CHAPTER 4

### ANALYSIS OF DATA

The importance of physical education at the middle school level in a child's physical development cannot be underestimated. Because girls at the middle school level are going through so many changes physically, socially, and emotionally, a study examining the participation, perceptions, and preferences of seventh- and eighth-grade girls in physical education class is significant. The purpose of this quantitative study was to examine the participation, perceptions, and preferences of seventh- and eighth-grade girls in coeducational as well as gender separated physical education classes in five middle schools in East Tennessee.

Data were gathered from responses to questionnaires given to the selected classes of seventh- and eighth-grade girls in the spring of 2002. Results were obtained from five schools in East Tennessee. Four hundred sixty-five forms were distributed to seventh- and eighth-grade girls in five middle schools in two counties in East Tennessee. The sample size of the study included 241 seventh- and eighth-grade girls. Questionnaires were color coded so the investigator could identify responses returned from each school.

The study's participants consisted of seventh- and eighth-grade girls in five middle schools in two counties in East Tennessee. The schools are identified as A, B, C, D, and E. Two hundred forty-one parents signed consent forms agreeing to allow their children to participate in the study. During physical education classes, a copy of the questionnaire was distributed to each of the 241 students. In addition to basic demographic information, the questionnaire was designed to gather information pertaining to coeducational versus same-gender physical education classes, dressing out for physical education, and teacher gender preference.

### *Research Question #1*

What are the attitudes of the seventh- and eighth-grade girls in relation to their physical education programs?

The first research question addressed the attitudes of seventh- and eighth-grade girls and the type of physical education programs in which they were enrolled. In school A, 90 (37.3%) students responded to the questionnaire. School B had 29 (12%) students responding to the questionnaire. School C had 36 (14.9%) student responses. School D had 42 (17.4%) student responses and school E had 44 (18.3%) students responding to the questionnaire.

From the five schools selected for the study, there were 241 participants. There were 119 (49.4%) 7th-grade participants and 122 (50.6%) 8th-grade participants. The participants by grade level were nearly equal. The 8th-grade sample was comprised of only 3 more girls (50.6%) than the 7th grade (49.4%).

Of the 7th- and 8th-grade girls in this study, 44 out of 241 (18.3%) participated in a single-gender physical education class. This number represented one school out of the five schools in the study. The majority (81.7%) of girls surveyed participated in coeducational physical education classes.

Seventh- and eighth grade girls were asked if they “dress out” for physical education all of the time, most of the time, sometimes, or never. Of the participants, 49.4% dressed out for physical education class all of the time; 26.6% dressed out for physical education class most of the time; 12% dressed out for physical education sometimes, and 12% never dressed out for physical education class. This shows that 76% of the students surveyed dressed out for physical education class either all of the time or most of the time.

The survey responses to the question “I participate in physical education” showed that 59.4% of the 7th- and 8th-grade girls participated in physical education class all of the time while 28.2% participated in physical education class most of the time. A small percentage (12.1%) participated in physical education class either sometimes or never.

The next questions in this study pertained to the physical education teachers. Participating seventh- and eighth-grade girls were queried as to the number of teachers and the gender of the teachers in their programs. Seventh- and eighth-grade girls were asked if they had both a male and female physical education teacher, a male teacher, or a female teacher. Of the girls surveyed, 15.4% had both male and female physical education teachers and 84.6% did not have both male and female teachers. A large percentage (56%) of the students surveyed had a male teacher only whereas 44% did not have a male physical education teacher.

Seventh- and eighth-grade girls were asked if they had a female physical education teacher only. The majority of students surveyed (58.5%) indicated they had a female teacher only whereas 41.5% indicated their physical education teacher was not a female teacher.

### *Research Question # 2*

What beliefs do seventh- and eighth-grade girls hold toward physical education and physical education classes?

Frequency tables show survey responses to seventh- and eighth-grade girls' beliefs toward physical education and physical education classes. In the questionnaire, girls were asked if they enjoyed participating in activities. Out of 241 7th- and 8th-grade girls surveyed, 34% strongly agreed and 49.4% agreed; 9.5% surveyed were undecided if they enjoyed participating in activities, whereas 4.6% disagreed and 2.5% strongly disagreed that they enjoyed participating in activities (see Table 1).

Seventh- and eighth-grade girls were asked if they enjoyed having physical education class with boys. Survey results show that 62.3% strongly agreed or agreed they enjoyed having physical education with boys, 18.3% were undecided whether they enjoyed having physical education with boys, and 19.5% said they disagreed or strongly disagreed that they enjoyed having physical education with boys (see Table 1).

Seventh- and eighth-grade girls surveyed were asked if they preferred having physical education class with girls only. Table 1 indicates that 19.9% said they strongly agreed that they preferred having physical education class with girls only, 15.4% agreed, and 21.2% were undecided about having physical education with girls only. Results show that 21.2% disagreed with the idea that they preferred having physical education with girls only, whereas 22.4% strongly disagreed about having class with girls only.

Seventh- and eighth-grade girls were asked if they preferred having a male physical education teacher, a female physical education teacher, or both a male and female physical education teacher. Table 1 shows that 2.1% of the 7th- and 8th-grade girls surveyed in this study strongly agreed with having a male physical education teacher; 6.2% of 7th- and 8th-grade girls in this study agreed with having a male physical education teacher; 39% of the girls surveyed in this study were undecided about having a male physical education teacher; and 30.7% of girls surveyed in this study disagreed with having a male physical education teacher, whereas only 22% strongly disagreed to having a male physical education teacher.

Table 1 also shows whether the seventh- and eighth-grade girls preferred having a female physical education teacher. Only 30.7% of the 7th- and 8th-grade girls in this study strongly agreed with having a female physical education teacher, whereas 38.2% agreed with having a female teacher; 26.1% were undecided as to whether they preferred having a female physical education teacher; 3.3% disagreed with the preference of having a female physical education teacher, and 1.7% strongly disagreed with having a female physical education teacher.

Seventh- and eighth-grade girls were also asked if they would prefer both a male and female physical education teacher. As shown in Table 1, 20.3% strongly agreed with having both a male and female physical education teacher, whereas 28.2% agreed; 31.5% were undecided; 13.7% disagreed with having both a male and female teacher, and 6.2% strongly disagreed with having a male and female physical education teacher.

A question pertaining to physical education being a time when girls can socialize with friends was included in the questionnaire. Out of 241 participants in the study, 10.8% strongly agreed that physical education is a time when girls can socialize with friends, whereas 27.8% agreed with the statement; 22.8% were undecided as to whether or not physical education is a time for socialization with friends; 28.6% disagreed that physical education is a time for socialization with friends and 10% strongly disagreed that physical education is a time for socialization with friends (see Table 1).

Seventh- and eighth-grade girls were asked if the activities taught in physical education class were primarily for boys or primarily for girls. Of the respondents, 6.6% strongly agreed that activities taught in class were primarily for boys, whereas 14.5% agreed with the statement; 18.3% were undecided whether activities taught in class were primarily for boys; 41.9% disagreed and 18.7% strongly disagreed that activities taught in class were primarily for boys (see Table 1).

Table 1 also indicates whether the activities taught in class were primarily for girls. Of the girls surveyed, 2.5% strongly agreed that activities taught in class were primarily for girls, whereas 4.1% agreed; and 21.2% were undecided with the statement. Of those surveyed, 51.9% disagreed that the activities taught in class were primarily for girls whereas 20.3% strongly disagreed that the activities taught in physical education class were primarily for girls.

The participating seventh- and eighth-grade girls responded to the questions, “Do boys stress cooperation in physical education class?” and “Do girls stress cooperation in physical education class?” Of 7th- and 8th-grade girls in this study, 9.5% strongly agreed that boys stressed cooperation in physical education class whereas 19.9% agreed that boys stressed cooperation in physical education class; 31.5% were undecided as to whether boys stressed cooperation in physical education class; 27.0% disagreed that boys stressed cooperation in physical education class and 12% strongly disagreed that boys stress cooperation in physical education class (see Table 1).

Table 1 also shows whether girls stressed cooperation in physical education class. Of the girls surveyed, 4.6% strongly agreed that girls stressed cooperation in physical education class, whereas 20.3% agreed; 35.3% were undecided whether or not girls stressed cooperation in physical education class; 30.3% disagreed that girls stressed cooperation in physical education class and 9.5% strongly disagreed with the statement.

Seventh- and eighth-grade girls surveyed in this study were asked if boys placed strong emphasis on winning in activities. Of the respondents, 44.4% strongly agreed that boys placed strong emphasis on winning in activities, whereas 36.9% agreed with the statement; 9.1% were undecided and, 6.2% disagreed that boys placed strong emphasis on winning in activities and 3.3% strongly disagreed that boys placed strong emphasis on winning in class activities (see Table 1).

Table 1 also shows that out of the 241 7th- and 8th-grade girls surveyed, 14.1% strongly agreed that that girls placed strong emphasis on winning in activities, whereas 32% agreed with the statement; 26.1% were undecided, and 21.6% disagreed with the statement. Only 6.2% of girls surveyed strongly disagreed that girls placed strong emphasis on winning in activities.

Seventh- and eighth-grade girls in this study were asked if they enjoyed playing team games with boys and if they enjoyed playing team games with girls. Table 1 shows that 38.2% strongly agreed they enjoyed playing team games with boys, whereas 34.9% agreed; 8.7% were undecided and, 12.4% disagreed they enjoyed playing team games with boys and 5.8% strongly disagreed that they enjoyed playing team games with boys.

Table 1 also shows whether the seventh- and eighth-grade girls surveyed in this study enjoyed playing team games with girls. Only 43.2 % strongly agreed they enjoyed playing team games with girls, whereas 49.0% agreed; 5% were undecided and, 2.5% disagreed that they enjoyed playing team games with girls and only .4% strongly disagreed with the statement.

Seventh- and eighth-grade girls in this study were also asked if they enjoyed playing individual sports with boys and if they enjoyed playing individual sports with girls. Results

show that 23.7% of girls surveyed said they strongly agreed that they enjoyed playing individual sports with boys, whereas 36.1% agreed with the statement; 17.0% were undecided, 14.1% and 9.1% strongly disagreed with the statement (see Table 1).

Table 1 also shows that 31.5% of the 7th- and 8th-grade girls surveyed strongly agreed they enjoyed playing individual sports with girls; 51.9% agreed they enjoyed playing individual sports with girls; 9.5% were undecided; 4.1% disagreed, whereas 2.9% strongly disagreed they enjoyed playing individual sports with girls.

Seventh- and eighth-grade girls in this study were asked if girls have equal opportunities with boys to participate in activities in physical education class. Of the participants, 35.7% strongly agreed that girls have an equal opportunity with boys to participate in activities, whereas 31.1% agreed; 12.4% were undecided; 11.6% disagreed that girls have equal opportunities with boys to participate in activities whereas 9.1% strongly disagreed (see Table 1).

Table 1 shows results from the statement, “I don’t like physical education because boys make fun of me if I cannot perform well.” Of the respondents, 10.4% answered that they strongly agreed that they did not like physical education because boys made fun of them if they could not perform well, whereas 17% agreed with the statement; 14.1% were undecided; 26.6% disagreed, and 32.0% strongly disagreed.

Table 1 also shows results to the statement, “ I don’t like physical education because girls make fun of me if I cannot perform well.” Table 1 shows that 1.7% strongly agreed they didn’t like physical education because girls made fun of them if they could not perform well, whereas 7.1% agreed; 15.4% were undecided about the question. Only 34.4% disagreed that they did not like physical education because girls made fun of them if they could not perform well and 41.5% strongly disagreed with the statement.

Seventh- and eighth-grade girls were asked to agree or disagree with the statement, “I don’t like physical education because my teacher makes fun of me if I cannot perform well.” Only 2.9% of the girls surveyed in this study strongly agreed with the statement, whereas 3.3%



agreed they didn't like physical education because their teacher made fun of them; 17% were undecided about the statement and, 28.6% disagreed, and 48.1% strongly disagreed (see Table 1).

Seventh- and eighth-grade girls were asked about winning and playing team and individual games; however, the issue of competitiveness in coeducational classes versus same-gender classes was not directly addressed. The responses to survey questions 12 through 17 may, in a general way, address those issues. The results indicated that 81.3% of seventh- and eighth-grade girls strongly agreed or agreed that boys place strong emphasis on winning in activities, whereas only 46.1% of seventh- and eighth-grade girls strongly agreed or agreed that girls place strong emphasis on winning in activities. Of 7th- and 8th-grade girls surveyed, 73.1% strongly agreed or agreed they enjoyed playing team games with boys, whereas 92.2% of seventh- and eighth-grade girls strongly agreed or agreed they enjoyed playing team games with girls. Of 7th -and 8th-grade girls surveyed, 59.8% strongly agreed or agreed they enjoy playing individual sports with boys, whereas a majority of 7th- and 8th-grade girls (83.4%) strongly agreed or agreed they enjoy playing individual sports with girls (see Table 1).

### *Research Question #3*

Does participation in physical activities vary by the gender composition of the physical education class?

Ho1: There is no difference in the participation levels of students in girls-only and coeducational physical education classes.

Table 1

*Frequency Table: Response to Survey Questions*

Survey Questions	Strongly Agree		Agree		Undecided		Disagree		Strongly Disagree	
	f	%	f	%	f	%	f	%	f	%
I enjoy participating in activities	82	34.0	119	49.4	23	9.5	11	4.6	6	2.5
I enjoy having class with boys	73	30.3	77	32.0	44	18.3	27	11.2	20	8.3
I prefer having class with girls only	48	19.9	37	15.4	51	21.2	51	21.2	54	22.4
I prefer having a male PE teacher	5	2.1	15	6.2	94	39.0	74	30.7	53	22.0
I prefer having a female PE teacher	74	30.7	92	38.2	63	26.1	8	3.3	4	1.7
I prefer having both a male and female PE teacher	49	20.3	68	28.2	76	31.5	33	13.7	15	6.2
PE is a time when I can socialize with friends	26	10.8	67	27.8	55	22.8	69	28.6	24	10.0
Activities taught in class are primarily for boys	16	6.6	35	14.5	44	18.3	101	41.9	45	18.7
Activities taught in class are primarily for girls	6	2.5	10	4.1	51	21.2	125	51.9	49	20.3

Table 1 (continued)

Survey Questions	Strongly Agree		Agree		Undecided		Disagree		Strongly Disagree	
	f	%	f	%	f	%	f	%	f	%
Boys stress cooperation in physical education class	23	9.5	48	19.9	76	31.5	65	27.0	29	12.0
Girls stress cooperation in physical education class	11	4.6	49	20.3	85	35.3	73	30.3	23	9.5
Boys place strong emphasis on winning in activities	107	44.4	89	36.9	22	9.1	15	6.2	8	3.3
Girls place strong emphasis on winning in activities	34	14.1	77	32.0	63	26.1	52	21.6	15	6.2
I enjoy playing team games with boys	92	38.2	84	34.9	21	8.7	30	12.4	14	5.8
I enjoy playing team games with girls	108	43.2	118	49.0	12	5.0	6	2.5	1	.4
I enjoy playing individual sports with boys	57	23.7	87	36.1	41	17.0	34	14.1	22	9.1
I enjoy playing individual sports with girls	76	31.5	125	51.9	23	9.5	10	4.1	7	2.9

Table 1 (continued)

Survey Questions	Strongly Agree		Agree		Undecided		Disagree		Strongly Disagree	
	f	%	f	%	f	%	f	%	f	%
Girls have an equal opportunity with boys to participate in activities	86	35.7	75	31.1	30	12.4	28	11.6	22	9.1
I don't like PE because boys make fun of me if I cannot perform well	25	10.4	41	17.0	34	14.1	64	26.6	77	32.0
I don't like PE because girls make fun of me if I cannot perform well	4	1.7	17	7.1	37	15.4	83	34.4	100	41.5
I don't like PE because my teacher makes fun of me if I cannot perform well.	7	2.9	8	3.3	41	17.0	69	28.6	116	48.1

Chi-square analyses were used to determine if participation in physical activities vary by the gender composition of the physical education class. Table 2 shows that there was a difference in participation levels between coeducational and girls-only physical education classes ( $X^2 = 28.649, p = .001$ ). Table 2 shows that 95.5% of students in girls-only classes participated in activities all of the time, whereas only 51.8% of the students in coeducational classes participated all of the time

Table 2

*Chi-Square Test of Participation Rates and Type of Physical Education Environment*

	<u>Gender Composition of the Class</u>						<u>X<sup>2</sup></u>	<u>p</u>
	<u>Coed</u>		<u>Girls-Only</u>		<u>Total</u>			
	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>		
<u>I Participate in activities:</u>								
All of the time	102	51.8	42	95.5	144	59.8	28.649	<.001
Most of the time	66	33.5	2	4.5	68	28.2		
Sometimes or never	<u>29</u>	<u>14.7</u>	<u>0</u>	<u>0</u>	<u>29</u>	<u>12.0</u>		
Total	197	100.0	44	100.0	241	100.0		

\*  $p < .05$

*Research Question #4*

Does participation in physical activities vary by grade level?

Ho2: There is no difference between grade levels and the level of participation in physical education activities.

Chi-square analyses were used to determine if participation in physical activities varied by grade level. Table 3 shows that 66.4% of 7th-grade girls participated in activities all of the time, whereas 53.3% of 8th-grade girls participated all of the time. A higher percentage of 8th-grade girls participated only sometimes or never (16.4%) than do 7th-grade girls (7.6%). There is a difference between the grade levels and participation in activities ( $X^2 = 6.027, p = .049$ ).

Table 3

*Chi-Square Test of Participation in Physical Activities and Grade Level*

	<u>Grade Level of Class</u>						<u>X<sup>2</sup></u>	<u>p</u>
	<u>7th</u>		<u>8th</u>		<u>Total</u>			
	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>		
<u>I Participate in activities:</u>								
All of the time	79	66.4	65	53.3	144	59.8	6.027	.049
Most of the time	31	26.1	37	30.3	68	28.2		
Sometimes or never	<u>9</u>	<u>7.6</u>	<u>20</u>	<u>16.4</u>	<u>29</u>	<u>12.0</u>		
Total	119	100	122	100	241	100		

\* $p < .05$

*Research Question # 5*

Does participation in physical activities vary by the gender of the teacher?

Ho3: There is no difference in the participation levels among students with male teachers only, female teachers only, and students with both male and female teachers.

Chi-square analyses were used to determine if participation in physical activities varied by the gender of the teacher. Table 4 shows that there was no statistically significant difference

among the types of teachers and participation levels ( $X^2 = 2.455, p = .653$ ). Fifty percent of 7th- and 8th-grade girls responded they participated in activities when they had both male and female physical education teachers, whereas 38.9% of 7th- and 8th-grade girls stated they participated in activities most of the time when they had both male and female physical education teachers. Sixty-one percent of 7th- and 8th-grade girls responded they participated all of the time in physical education class when they had male only teachers, whereas 27.0% of 7th- and 8th-grade girls responded they participated most of the time when having male only physical education teachers.

Of 7th- and 8th-grade girls surveyed, 61.9% stated they participated in activities all of the time when having female only physical education teachers, whereas 27% of 7th- and 8th-grade girls surveyed stated they participated most of the time when having female only physical education teachers.

Table 4

*Chi-Square Test of Participation in Physical Activities and Gender of Teacher*

	<u>Type of Teacher</u>								<u>X<sup>2</sup></u>	<u>p</u>
	<u>Both</u>		<u>Male Only</u>		<u>Female Only</u>		<u>Total</u>			
	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>		
<u>I participate in activities:</u>										
All of the time	18	50.0	61	61	65	61.9	144	59.8	2.455	.653
Most of the time	14	38.9	27	27	27	27	68	28.2		
Sometimes or never	4	11.1	12	12	13	12.4	29	12		
Total	36	100	100	100	105	100	241	100		

\* $p < .05$

*Research Question # 6*

Does the frequency that students dress out vary by grade level?

Ho4: There is no difference between the frequency that students dress out and their grade level.

Chi-square analyses were used to determine the frequency that students dressed out for physical education class by grade level. Table 5 shows that there is a difference between grade levels and the frequency that students dressed out ( $X^2 = 9.519, p = .023$ ). Of 7th-grade girls, 52.1% dressed out for physical education class all of the time, whereas 46.7% of 8th-grade girls dressed out for physical education class all of the time. Of 7th-grade girls, 23.5% dressed out for physical education class most of the time, whereas 29.5% of 8th-grade girls dressed out for physical education class most of the time. Only 7.6% of 7th grade girls dressed out for physical education class sometimes and 16.4% of the 8th-grade girls dressed out for physical education class sometimes. Of 7th-grade girls, 16.8% stated they never dressed out for physical education class and 7.4% of 8th-grade girls reported they never dressed out for physical education class.

Table 5

*Chi-Square Test of Frequency of Students Dressing Out and Grade Level*

	<u>Grade Level</u>						<u>X<sup>2</sup></u>	<u>p</u>
	<u>7th</u>		<u>8th</u>		<u>Total</u>			
	<u>F</u>	<u>%</u>	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>		
<u>I dress out:</u>								
All of the time	62	52.1	57	46.7	119	49.4	9.519	.023
Most of the time	28	23.5	36	29.5	64	26.6		
Sometimes or never	<u>9</u>	<u>7.6</u>	<u>20</u>	<u>16.4</u>	<u>29</u>	<u>12.0</u>		
Total	119	100	122	100	241	100		

\* $p < .05$



*Research Question # 7*

Does the frequency that students’ dress out vary by gender composition of the class?

Ho5: There is no difference between students in girls-only and coeducational classes in the frequency that they dress out.

Chi-square analyses were used to determine if the frequency that students dress out varied by the gender composition of the class. Table 6 shows that 95.5% of the students in girls-only classes dressed out all of the time although only 39.1% of students in coeducational classes dressed out all of the time. There is a difference between coeducational and girls-only classes in the frequency that they dress out ( $X^2 = 45.918, p = .000$ ). Of 7th- and 8th-grade girls surveyed who participated in coeducational physical education class, 39.1% dressed out for physical education class all of the time. Of 7th- and 8th-grade girls who participated in girls-only physical education classes, 95.5% dressed out all of the time for physical education classes. Of 7th- and 8th-grade girls who participated in a coeducational physical education class, 31.5% dressed out most of the time and 4.5% of 7th- and 8th-grade girls who participated in a girls-only class dressed out for physical education class most of the time. Of 7th- and 8th-grade girls who participated in coeducational physical education classes, 14.7% sometimes dressed out for class and 14.7% stated they never dressed out for physical education class.

Table 6  
*Chi-Square Test of Frequency of Dressing Out and Gender Composition*

	<u>Gender Composition</u>				<u>X<sup>2</sup></u>	<u>p</u>		
	<u>Coed</u>		<u>Girls-Only</u>				<u>Total</u>	
	<u>F</u>	<u>%</u>	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>		
<u>I dress out:</u>								
All of the time	77	39.1	42	95.5	119	49.4	45.918	.000

Table 6 (continued)

	<u>Gender Composition</u>						<u>X<sup>2</sup></u>	p
	<u>Coed</u>		<u>Girls-Only</u>		<u>Total</u>			
	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>		
Most of the time	62	31.5	2	4.5	64	26.6		
Sometimes	29	14.7			29	12.0		
Never	<u>29</u>	<u>14.7</u>	<u>0</u>	<u>0</u>	<u>29</u>	<u>12.0</u>		
Total	197	100	44	100	241	100		

\* $p < .05$

*Research Question #8*

Does the preferred gender composition of the class vary by grade level?

Ho6: There is no difference between grade levels in the preferred gender composition of the physical education class.

Chi-square analyses were used to determine if the preferred gender composition of the classes varied by grade level. Table 7 shows there was no statistically significant difference between 7th- and 8th-grade girls in their preferred gender composition of the classes ( $X^2 = 2.178$ ,  $p = .337$ ). Of girls' surveyed, 43.6% strongly disagreed or disagreed that they preferred having physical education classes with girls only. Of 7th- and 8th-grade girls, 21.2% were undecided and 35.3% agreed they preferred having physical education classes with girls only.

Table 7

*Chi-Square Test of Preferred Gender Composition and Grade Level*

	<u>Grade Level</u>						<u>X<sup>2</sup></u>	p
	<u>7th</u>		<u>8th</u>		<u>Total</u>			
	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>		
<u>I prefer PE with girls</u>								
Disagree	57	47.9	48	39.3	105	43.6	2.178	.337
Undecided	25	21.0	26	21.3	51	21.2		
Agree	<u>37</u>	<u>31.1</u>	<u>48</u>	<u>39.3</u>	<u>85</u>	<u>35.3</u>		
Total	119	100	122	100	241	100		

\* $p < .05$

*Research Question # 9*

Is there a difference between students in girls-only and coeducational classes regarding their preferred gender composition of the class?

Ho7: There is no difference between students in girls-only and coeducational classes in the preferred gender composition of the class.

Chi-square analyses were used to determine if there was a difference between students in girls-only and coeducational classes regarding their preferred gender composition of the class. Table 8 shows that 43.6% of girls surveyed in coeducational physical education disagreed with the idea that they preferred having physical education class with girls only whereas 21.2% were undecided; 35.3% of 7th- and 8th-grade girls in both coeducational and girls-only classes agreed they would prefer having physical education class with girls only. There was a difference

between students in girls-only and coeducational classes regarding their preferred gender composition of the class ( $X^2 = 19.050, p = .000$ ).

Table 8

*Chi-Square Test of Girls-Only and Coed Classes and Preferred Gender*

	<u>Gender Composition</u>						<u>X<sup>2</sup></u>	<u>p</u>
	<u>Coed</u>		<u>Girls-Only</u>		<u>Total</u>			
	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>		
<u>I prefer PE with girls</u>								
Disagree	92	46.7	13	29.5	105	43.6	19.050	.000
Undecided	31	15.7	20	45.5	51	21.2		
Agree	<u>74</u>	<u>37.6</u>	<u>11</u>	<u>25.0</u>	<u>85</u>	<u>35.3</u>		
Total	197	100	44	100	241	100		

\* $p < .05$

*Research Question # 10*

Do students' perceptions of their physical education teacher vary by the type of the teacher?

Ho8: There is no difference in students' perceptions of their teacher among students with female only teachers, male only teachers, and students with both male and female teachers.

Research question # 10 required eight crosstabulated tables for the following questions on the questionnaire: Questions 21, 26, 27, 28, 29, 30, 31, and 32. There were violations of the

assumptions in Chi-square. Because of the violations of the assumptions in Chi-square, questions 21 and 26 through question 32 were recoded into the following categories:

1. Disagree (strongly disagree + disagree)
2. Undecided
3. Agree (strongly agree + agree)

Seventh- and eighth-grade girls were asked if they did not like physical education because their teachers made fun of them. Table 9 shows that 76.8% of 7th- and 8th-grade girls disagreed they did not like physical education because their teacher made fun of them, whereas only 17% were undecided. Only 6.2% of 7th- and 8th-grade girls agreed they did not like physical education because their teachers made fun of them.

Table 9

*Crosstabulation of Teachers Making Fun of Students and Gender of Teacher*

	<u>Gender of Teacher</u>							
	<u>Both</u>		<u>Male Only</u>		<u>Female Only</u>		<u>Total</u>	
	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>
<u>I don't like PE because my teacher makes fun of me</u>								
Disagree	26	72.2	76	76.0	83	79.0	185	76.8
Undecided	7	19.4	17	17.0	17	16.2	41	17.0
Agree	<u>3</u>	<u>8.3</u>	<u>7</u>	<u>7.0</u>	<u>5</u>	<u>4.8</u>	<u>15</u>	<u>6.2</u>
Total	36	100	100	100	105	100	241	100

Seventh- and eighth-grade girls were asked if their physical education teachers made them nervous. Table 10 shows that 66.4% of 7th- and 8th-grade girls disagreed that their physical education teacher made them nervous, whereas 12.9% were undecided if their physical education teacher made them nervous. Only 20.7% agreed their physical education teacher made them nervous.

Table 10

*Crosstabulation of “Teacher Makes Me Nervous” and Gender of Teacher*

	<u>Gender of Teacher</u>							
	<u>Both</u>		<u>Male Only</u>		<u>Female Only</u>		<u>Total</u>	
	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>
<u>Teacher makes me nervous</u>								
Disagree	24	66.7	53	53.0	83	79.0	160	66.4
Undecided	6	16.7	23	23.0	2	1.9	31	12.9
Agree	<u>6</u>	<u>16.7</u>	<u>24</u>	<u>24.0</u>	<u>20</u>	<u>19.0</u>	<u>50</u>	<u>20.7</u>
Total	36	100	100	100	105	100	241	100

Seventh- and eighth-grade girls were asked if they thought their teachers were fun. Because of a violation in the assumption of Chi-square, Chi-square was not used in Table 11. Although 100% of 7th- and 8th-grade girls with both male and female physical education teachers agreed their teachers were fun, Table 11 shows that only 54% of 7th- and 8th-grade girls with male only physical education teachers agreed their teacher was fun; 22.0% were undecided and only 24.0% disagreed; 88.6% of 7th- and 8th-grade girls with female only physical education

teachers agreed the female teachers were fun and only 7.6% were undecided. A small percentage (3.8%) of 7th- and 8th-grade girls with a female only teacher disagreed that their teachers were fun.

Table 11

*Crosstabulation of "I Think My Teacher is Fun" and Gender of Teacher*

	<u>Gender of Teacher</u>							
	<u>Both</u>		<u>Male Only</u>		<u>Female Only</u>		<u>Total</u>	
	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>
<u>My teacher is fun</u>								
Disagree			24	24.0	4	3.8	28	11.6
Undecided			22	22.0	8	7.6	30	12.4
Agree	<u>36</u>	<u>100</u>	<u>54</u>	<u>54.0</u>	<u>93</u>	<u>88.6</u>	<u>183</u>	<u>75.9</u>
Total	36	100	100	100	105	100	241	100

Seventh- and eighth-grade girls were asked if they thought their teachers were fair. Table 12 shows that 76.8% agreed their physical education teachers were fair, whereas 14.9% were undecided. Only 8.3% disagreed that their physical education teachers were fair.

Table 12

*Crosstabulation of “I Think my Teacher is Fair” and Gender of Teacher*

	<u>Gender of Teacher</u>							
	<u>Both</u>		<u>Male Only</u>		<u>Female Only</u>		<u>Total</u>	
	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>
<u>My teacher is fair</u>								
Disagree	1	2.8	16	16.0	3	2.9	20	8.3
Undecided			29	29.0	7	6.7	36	14.9
Agree	<u>35</u>	<u>97.2</u>	<u>55</u>	<u>55.0</u>	<u>95</u>	<u>90.5</u>	<u>185</u>	<u>76.8</u>
Total	36	100	100	100	105	100	241	100

Seventh- and eighth-grade girls were asked if they thought their teachers knew a lot about physical education. Table 13 shows that 82.2% of 7th- and 8th-grade girls agreed they thought their physical education teachers knew a lot about physical education, whereas 11.6% were undecided. Only 6.2% of 7th- and 8th-grade girls disagreed that their physical education teachers knew a lot about physical education.

Seventh- and eighth-grade girls were asked if they thought their physical education teacher was easy to talk to. Table 14 shows that 58.9% of 7th- and 8th-grade girls agreed they thought their physical education teachers were easy to talk to and 22.0% were undecided. Only 19.1% disagreed their physical education teachers were easy to talk to.



Table 13

*Crosstabulation of “I Think my Teacher Knows a Lot” and Gender of Teacher*

	<u>Gender of Teacher</u>							
	<u>Both</u>		<u>Male Only</u>		<u>Female Only</u>		<u>Total</u>	
	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>
<u>My teacher knows a lot</u>								
Disagree			14	14.0	1	1.0	15	6.2
Undecided	1	2.8	22	22.0	5	4.8	28	11.6
Agree	<u>35</u>	<u>97.2</u>	<u>64</u>	<u>64.0</u>	<u>99</u>	<u>94.3</u>	<u>198</u>	<u>82.2</u>
Total	36	100	100	100	105	100	241	100

Table 14

*Crosstabulation of “My Teacher is Easy to Talk to” and Gender of Teacher*

	<u>Gender of Teacher</u>							
	<u>Both</u>		<u>Male Only</u>		<u>Female Only</u>		<u>Total</u>	
	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>
<u>My teacher is easy to talk to</u>								
Disagree			40	40.0	6	5.7	46	19.1
Undecided	8	22.2	34	34.0	11	10.5	53	22.0
Agree	<u>28</u>	<u>77.8</u>	<u>26</u>	<u>26.0</u>	<u>88</u>	<u>83.8</u>	<u>142</u>	<u>58.9</u>
Total	36	100	100	100	105	100	241	100

Seventh- and eighth-grade girls were asked if they thought their teachers explained things well. Table 15 shows that 75.9% of 7th- and 8th-grade girls agreed they thought their physical education teachers explained things well, whereas 15.4% were undecided. Only 8.7% of 7th- and 8th-grade girls disagreed that their physical education teachers explained things well; 94.4% of 7th- and 8th grade girls with both a male and female teacher agreed their teachers explained things well and 2.8% were undecided. A small percentage (2.8%) of girls with both a male and female teacher disagreed; 50% of 7th- and 8th-grade girls with male only teachers agreed their teacher explained things well and 32% were undecided; 18% of 7th- and 8th-grade girls with male-only teachers disagreed their teachers explained things well; 94.3% of 7th- and 8th-grade girls with female only teachers agreed their teachers explained things well and only 3.8% were undecided. Only 1.9% of 7th- and 8th-grade girls with female only teachers disagreed their teachers explained things well.

Table 15

*Crosstabulation of “Teacher Explains Things Well” and Gender of Teacher*

	<u>Gender of Teacher</u>							
	<u>Both</u>		<u>Male Only</u>		<u>Female Only</u>		<u>Total</u>	
	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>
<u>My teacher explains well</u>								
Disagree	1	2.8	18	18.0	2	1.9	21	8.7
Undecided	1	2.8	32	32.0	4	3.8	37	15.4
Agree	<u>34</u>	<u>94.4</u>	<u>50</u>	<u>50.0</u>	<u>99</u>	<u>94.3</u>	<u>183</u>	<u>75.9</u>
Total	36	100	100	100	105	100	241	100

Seventh- and eighth-grade girls were asked if they thought their physical education teachers motivated them to do their best in class. Table 16 shows that 94.4% of 7th- and 8th-grade girls with both male and female teachers agreed they thought their physical education teachers motivated them to do their best, whereas only 5.6% were undecided; 49% of 7th- and 8th-grade girls surveyed and had male only physical education teachers agreed they thought their teachers motivated them to do their best whereas 24.0% were undecided. Only 27% of 7th- and 8th-grade girls with male only teachers disagreed that their teacher motivated them to do their best; 87.6% of seventh-and eighth grade girls with female physical education teachers agreed their teachers motivated them to do their best and 14.5% were undecided. Only 3.8% of 7th- and 8th-grade girls with female teachers disagreed their teacher motivated them to do their best.

Table 16

*Crosstabulation of “Teacher Motivates Me to Do My Best” and Gender of Teacher*

	<u>Gender of Teacher</u>							
	<u>Both</u>		<u>Male Only</u>		<u>Female Only</u>		<u>Total</u>	
	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>
<u>Teacher motivates</u>								
Disagree			27	27.0	4	3.8	31	12.9
Undecided	2	5.6	24	24.0	9	8.6	35	14.5
Agree	<u>34</u>	<u>94.4</u>	<u>49</u>	<u>49.0</u>	<u>92</u>	<u>87.6</u>	<u>175</u>	<u>72.6</u>
Total	36	100	100	100	105	100	241	100

In Table 17, Chi-square was not used because there were violations of the assumptions. A crosstabulated table for preferred teacher gender by actual teacher gender was used. According to the findings, only 2.4% of 7th- and 8th-grade girls preferred having male physical education teachers only; 50% of 7th- and 8th-grade girls preferred having female teachers only and 30.3% preferred having both male and female physical education teachers; 17.3% of 7th- and 8th-grade girls preferred either female only teachers or both genders equally.

Table 17

*Crosstabulation of Preferred Type of Teacher and Gender of Teacher*

	<u>Gender of Teacher</u>							
	<u>Both</u>		<u>Male Only</u>		<u>Female Only</u>		<u>Total</u>	
	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>
<u>Preferred gender of teacher</u>								
Prefer male			3	3.3	2	2.2	5	2.4
Prefer female	7	25.5	41	45.6	56	62.2	104	50.0
Prefer both	16	57.1	26	28.9	21	23.3	63	30.3
Prefer either female or both equally	<u>5</u>	<u>17.9</u>	<u>20</u>	<u>22.2</u>	<u>11</u>	<u>12.2</u>	<u>36</u>	<u>17.3</u>
Total	28	100	90	100	90	100	208	100

Chapter 5 includes a summary of the study's findings. Findings, conclusions, and recommendations for practice and further study are also presented.

## CHAPTER 5

### FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this study was to examine seventh- and eighth-grade girls' participation rates in physical education classes in five middle schools in East Tennessee and to examine factors they perceived to relate to their participation and enjoyment of those classes. The study's population consisted of seventh- and eighth- grade girls who participated in physical education classes in five middle schools in two counties in East Tennessee. The five selected schools were geographically and structurally diverse ranging from small (K-8), mid-sized (4-7), mid-sized (K-8), mid-sized (8-11), and large (6-8). Although 241 7th- and 8th-grade girls participated in this study, 224 chose not to participate; therefore, 241 parents signed consent forms for their daughters to complete the survey questionnaire. Data were examined through students' questionnaire results.

The student questionnaire surveyed demographic information and issues pertaining to physical education classes. The questionnaire primarily incorporated a Likert-type format and contained two short-answer questions. Seventh- and eighth-grade girls were asked to complete the questionnaire during one physical education class period.

The findings of the study were analyzed using the Statistical Package for the Social Sciences (SPSS) software program that is designed to analyze and display data (Gall et al., 1996). The data were initially analyzed using frequency tables to identify basic demographic information. The findings were descriptive in nature. Chi-square was used to examine the relationships among the different variables identified in the questionnaire and to address the research questions.

## *Findings*

Four hundred sixty-five seventh-and eighth-grade girls were invited to participate in this study. Two hundred forty-one seventh-and eighth-grade girls returned their permission forms and agreed to participate in this study. The participation and questionnaire return rate for the study was acceptable at 52%. The findings are summarized as responses to the basic research questions.

### *Research Question #1*

What are the attitudes of the seventh- and eighth-grade girls in relation to their physical education programs?

Frequency distributions indicated that the largest school involved in this study had 90 7th- and 8th-grade girls participating. The smallest school participating in the study had 30 students who participated. The number of participants by grade level in this study was nearly equal with 119 7th-grade girls and 122 8th-grade girls participating. Frequency tables show the number of seventh- and eighth-grade girls who attended same-gender or girls-only physical education class. Out of 241 participants, only 17.8% of those surveyed participated in a same-gender or girls-only physical education class. A large majority (82.2%) of the students participated in coeducational physical education class.

The questionnaire asked seventh- and eighth-grade girls several questions related to their physical education classes. Frequency tables show that 76% of 7th- and 8th-grade girls dress out for physical education classes all of the time or most of the time. Survey results also indicated that 88% of 7th- and 8th-grade girls surveyed participated in physical education class all of the time and 28.2% participated in physical education class most of the time. Only a small percentage, 12.1% participated in physical education class sometimes or never.

Frequency tables were used to respond to the survey statement, "I have a male and female physical education teacher." Out of 241 participants, only 15.4% had both male and female

physical education teachers. Seventh- and eighth-grade girls responded to the question “I Have a Male Teacher Only.” Out of the 241 participants, 56% responded to having a male physical education teacher only. Seventh- and eighth- grade girls also responded to the statement “I have a female physical education teacher only.” A majority (58.5%) of 7th- and 8th-grade girls surveyed responded they had a female physical education teacher only.

### *Research Question #2*

What beliefs do seventh- and eighth-grade girls hold toward physical education and physical education class?

Frequency tables were used to show seventh- and eighth grade girls' beliefs toward physical education and physical education classes. Seventh- and eighth-grade girls in this study were asked if they enjoyed participating in activities taught in physical education class. A majority of 7th- and 8th-grade girls (83.4%) strongly agreed or agreed they enjoyed participating in activities taught in physical education, whereas only a small percentage (16.6%) were undecided, disagreed, or strongly disagreed that they enjoyed participating in physical education activities.

Frequency tables were used to determine if seventh- and eighth-grade girls' enjoyed having physical education class with boys. Frequency tables show that 62.3% strongly agreed or agreed they enjoyed having physical education class with boys.

Frequency tables were used to show if seventh- and eighth-grade girls preferred having male only physical education teachers, female only physical education teachers, or both male and female physical education teachers. A small percentage (8.3%) of 7th- and 8th-grade girls surveyed strongly agreed or agreed they preferred male only physical education teachers. A large percentage (39.0%) of 7th- and 8th-grade girls were undecided as to their preferences of male only physical education teachers. A majority (52.7%) of 7th- and 8th-grade girls surveyed strongly disagreed or disagreed with having male only physical education teachers. This clearly

demonstrated that seventh- and eighth grade girls surveyed in this study did not want male only physical education teachers.

Frequency tables were used to show if seventh- and eighth-grade girls preferred having female physical education teachers. A majority (68.9%) of 7th- and 8th-grade girls surveyed strongly agreed or agreed they preferred having female physical education teachers. Only 5% strongly disagreed or disagreed with having a female physical education teacher.

Frequency tables were used to show if seventh- and eighth-grade girls preferred having both a male and female physical education teacher. Of the girls surveyed, 48.5% responded they strongly agreed or agreed they preferred both male and female physical education teachers whereas only 19.9% strongly disagreed or disagreed that they preferred having both male and female physical education teachers.

Frequency tables were used to respond to the statement “Physical education is a time when girls can socialize with friends.” Seventh- and eighth-grade girls surveyed were divided in their responses. Of the 7th- and 8th-grade girls surveyed, 38.6% strongly agreed or agreed that physical education is a time when girls can socialize with friends, whereas 38.6% of 7th- and 8th-grade girls surveyed strongly disagreed or disagreed that physical education is a time for socializing with friends. A study conducted by DeMarco and Sidney (1989) suggested that the reason students participate in physical education class is to have fun and socialize with friends.

Frequency tables were used to determine if the activities taught in physical education class were considered to be primarily for boys or primarily for girls. A resounding 60.6% of 7th- and 8th-grade girls surveyed strongly disagreed or disagreed that activities taught in classes were primarily designed for boys. The majority of 7th- and 8th-grade girls surveyed (72.2%) strongly disagreed or disagreed that activities taught in classes were primarily for girls.

Frequency tables were used to respond to the questions “Do boys stress cooperation in physical education class?” and “Do girls stress cooperation in physical education class?” Only 29.4% of 7th- and 8th-grade girls strongly agreed or agreed that boys stressed cooperation in



physical education class. Of the 7th- and 8th-grade girls surveyed (39.0%) strongly disagreed or disagreed that boys stressed cooperation in physical education class. Only 24.9% of 7th- and 8th-grade girls surveyed strongly agreed or agreed that girls stressed cooperation in physical education classes, whereas 39.8% of 7th- and 8th-grade girls surveyed strongly disagreed or disagreed that girls stressed cooperation in physical education classes.

Frequency tables were used to answer if boys place strong emphasis on winning in activities. A large majority of 7th- and 8th-grade girls surveyed (81.3%) strongly agreed or agreed that boys placed strong emphasis on winning in activities; 46.1% of 7th- and 8th-grade girls surveyed strongly agreed or agreed that girls placed strong emphasis on winning in activities.

Frequency tables were used to determine if seventh- and eighth-grade girls enjoyed playing team games with boys or if they enjoyed playing team games with girls. Of 7th- and 8th-grade girls surveyed, 73.1% strongly agreed or agreed they enjoyed playing team games with boys; 94.2% of 7th- and 8th-grade girls surveyed responded they strongly agreed or agreed they enjoyed playing team games with girls. Regardless of gender, seventh- and eighth-grade girls enjoyed playing team games whether with boys or girls. This was contradictory to the findings of Sherman (2000). In his study, girls exhibited a decrease in their enjoyment of physical education class whereas males were found to maintain a high level of enjoyment in physical education class.

Frequency tables were used to determine if seventh- and eighth-grade girls enjoyed playing individual sports with boys and with girls. The majority of 7th- and 8th-grade girls surveyed (59.8%) strongly agreed or agreed they enjoyed playing individual sports with boys; 83.4% of 7th- and 8th-grade girls surveyed responded they strongly agreed or agreed they enjoyed playing individual sports with girls. More seventh- and eighth-grade girls' surveyed would rather play individual sports with girls than with boys.

Frequency tables were used to determine if girls had equal opportunity with boys to participate in activities in physical education class. The majority (66.8%) of 7th- and 8th-grade girls surveyed responded they strongly agreed or agreed they had equal opportunity with boys to participate in activities in physical education class.

Frequency tables were used to determine “I don’t like physical education because boys make fun of me if I cannot perform well.” Survey results from the 7th- and 8th-grade suggested that 58.6% strongly disagreed or disagreed with the item “I don’t like physical education because boys make fun of me if I cannot perform well.”

Frequency tables were used to answer the statement “I don’t like physical education because girls make fun of me if I cannot perform well.” The majority of 7th- and 8th-grade girls surveyed (75.9%) strongly disagreed or disagreed with the statement “I don’t like physical education because girls make fun of me if I cannot perform well.”

Frequency tables were used to answer the question, “I don’t like physical education because my teacher makes fun of me if I cannot perform well.” A small percentage (8.8%) strongly agreed or agreed they did not like physical education because their teacher makes fun of them if they cannot perform well. The majority of 7th- and 8th-grade girls’ surveyed (75.9%) strongly disagreed or disagreed that their teachers makes fun of them if they could not perform well.

### *Research Question #3*

Does participation in physical activities vary by the gender composition of the physical education class?

Chi-square statistics were used to identify any significant relationship between the variables and the strength of the relationship. Based on the results, there was a difference in participation levels between coeducational and girls-only physical education classes ( $\chi^2 = 28.649, p = .001$ ). A majority (59.8%) of 7th- and 8th-grade girls participated in activities all of

the time, whether they were in a coeducational physical education class or girls-only physical education class.

#### *Research Question #4*

Does participation in physical activities vary by grade level?

To identify any significant differences between participation in physical activities varying by grade level, chi-square statistics were used. A higher percentage of 7th-grade girls (66.4%) participated all of the time in physical education class, whereas 53.3% of 8th-grade girls participated all of the time. There was a difference between the grade levels and participation in activities ( $X^2 = 6.027, p = .049$ ).

#### *Research Question #5*

Does participation in physical activities vary by the gender of teacher?

Chi-square statistics were used to determine if participation in physical activities varied by the gender of the teacher. There was no statistically significant difference among the gender of teachers and participation levels ( $X^2 = 2.455, p = .653$ ). According to Sherman (2000), teachers who have made physical education a success are enthusiastic about teaching their students and trying something new. Half (50.0%) of the 7th- and 8th-grade girls surveyed responded they participated in activities when they had both male and female teachers. A large majority (61.0%) of 7th- and 8th-grade girls responded they participated all of the time in classes when they had male teachers; 61.9% of 7th- and 8th-grade girls surveyed responded they participated in activities all of the time when they had female physical education teachers.

#### *Research Question #6*

Does the frequency that students dress out vary by grade level?

Chi-square statistics were used to determine if the frequency that students dress out for physical education varied by grade level. Of 7th-grade girls, 52.1% dressed out for physical education classes all of the time, whereas 46.7% of 8th-grade girls dressed out for physical education classes all of the time. There was a difference between grade levels and the frequency that students dressed out ( $X^2 = 9.519, p = .023$ ). Most of seventh- and eighth-grade girls surveyed dressed out for physical education class either all of the time, most of the time, or sometimes. A small percentage (24.2%) of 7th- and 8th-grade girls surveyed never dressed out for physical education class.

#### *Research Question #7*

Does the frequency that students dress out vary by gender composition of the class?

Chi-square analyses indicated that the majority of 7th- and 8th-grade girls surveyed (95.5%) in a girls-only physical education class dressed out for physical education classes all of the time. A smaller percentage (39.1%) of 7th- and 8th-grade girls surveyed in coeducational classes dressed out all of the time showing there was a difference between coeducational and girls-only physical education classes and the frequency that they dressed out ( $X^2 = 45.918, p = .000$ ).

#### *Research Question #8*

Does the preferred gender composition of the class vary by grade level?

Chi-square analyses were used to determine if the preferred gender composition of the classes varied by grade level. There was no statistically significant difference between seventh- and eighth-grade girls and their preferred gender composition of the class ( $X^2 = 2.178, p = .337$ ). Most 7th- and 8th-grade girls preferred having physical education class with girls only, however (43.6%) of 7th- and 8th-grade girls disagreed that they preferred having physical education class with girls only.

### *Research Question #9*

Is there a difference between students in girls-only and coeducational classes regarding their preferred gender composition of the class?

Seventh- and eighth-grade girls in both coeducational and girls-only classes were asked if they preferred having physical education classes with girls only. Of those surveyed in coeducational physical education classes, 43.6% of 7th- and 8th-grade girls disagreed with having physical education classes with girls only. Only 35.3% of 7th- and 8th-grade girls in both coeducational and girls-only classes agreed that they would prefer having physical education class with girls only. Chi-square statistics demonstrated a difference between students in girls-only and coeducational classes regarding their preferred gender composition of the classes ( $X^2 = 19.050, p = .000$ ).

### *Research Question #10*

Do students' perceptions of their physical education teacher vary by the gender of the teacher?

Because of the violations of the assumptions of chi-square, crosstabulated tables were used to identify students' perceptions of their physical education teachers and how they varied by the gender of the teacher. Seventh- and eighth-grade girls were asked if they did not like physical education because their teacher made fun of them. A majority (76.8%) of 7th- and 8th-grade girls disagreed with the statement "I don't like physical education because my teacher makes fun of me."

Seventh- and eighth grade girls were asked if their physical education teacher made them nervous. The majority of 7th- and 8th-grade girls surveyed (66.4%) disagreed with the statement "My physical education teacher makes me nervous."

Seventh- and eighth-grade girls were asked if they believed their teachers were fun. All of the seventh- and eighth-grade girls with both male and female physical education teachers

agreed their teachers were fun. Of 7th- and 8th-grade girls surveyed with male only teachers, 54.0% agreed their teachers were fun; 88.6% of 7th- and 8th-grade girls with female only teacher agreed their teachers were fun. Kientzler (1999) reported that the reason girls played in physical education was to have fun.

Seventh- and eighth-grade girls surveyed were asked if they thought their physical education teachers were fair. A majority of 7th- and 8th-grade girls surveyed (76.8%) agreed their physical education teachers were fair.

Seventh- and eighth-grade girls were asked if they thought their teacher knew a lot about physical education. The majority of 7th- and 8th-grade girls (82.2%) agreed they thought their physical education teacher knew a lot about physical education.

Seventh- and eighth-grade girls were asked if they thought their physical education teachers were easy to talk to. A majority (58.9%) of 7th- and 8th-grade girls agreed they thought their physical education teachers were easy to talk to.

Seventh- and eighth-grade girls surveyed were asked if they thought their physical education teachers explained things well. A majority (75.9%) of 7th- and 8th-grade girls agreed they thought their physical education teacher explained things well.

Seventh- and eighth-grade girls surveyed were asked if they thought their physical education teachers motivated them to do their best. A large majority (94.4%) of 7th- and 8th-grade girls with both male and female physical education teachers agreed their teachers motivated them to do their best, whereas 49% of 7th- and 8th-grade girls with male only teachers agreed their teachers motivated them to do their best; 87.6% of 7th- and 8th-grade girls with female only physical education teachers agreed their teachers motivated them to do their best.

A crosstabulated table was used to show what type of teachers seventh- and eighth-grade girls' preferred and the gender of the teachers they had in physical education class. Seventh- and eighth-grade girls with female teachers seemed to prefer having female physical education teachers.

### *Conclusions*

Physical education is a vital part of the total education of children. Because involvement in physical education is as beneficial for females as for males, it is important that girls be given adequate opportunities to develop their physical skills, develop health related fitness, and develop an enjoyment of physical education (DeMarco & Sidney, 1989). Adolescent girls are developing at a rapid rate, and unfortunately, there is a significant decline in physical activity by females during adolescence. This study was designed to examine the participation, perceptions, and preferences of seventh- and eighth-grade girls in both coeducational and same-gender physical education classes.

Seventh- and eighth-grade girls' responses indicated they dressed out for physical education class all of the time or most of the time, regardless if their teachers were male, female, or both male and female. The majority of seventh- and eighth-grade girls surveyed stated they enjoyed participating in activities taught in physical education classes.

Seventh- and eighth-grade girls' responses suggested they did not prefer a male physical education teacher. The majority of seventh- and eighth-grade girls surveyed preferred a female physical education teacher. In addition, seventh- and eighth-grade girls surveyed agreed they liked playing team games with boys, but preferred playing individual sports with girls.

More seventh-grade girls participated in physical education all of the time and dressed out for physical education class all of the time. In the girls-only physical education classes, almost everyone dressed out for physical education class all of the time. A smaller percentage of seventh and eighth-grade girls surveyed in coeducational physical education classes dressed out all of the time for class.

Seventh- and eighth-grade girls responded that they agreed their physical education teachers were fun, fair, and easy to talk to. Seventh- and eighth-grade girls also agreed their physical education teachers explained things well and motivated them to do their best.

Physical educators point to coeducational physical education as a prime opportunity to test the limits of or to eliminate gender-role stereotypes, thus giving students the chance to learn and enjoy activities together (Lirgg, 1994). Well-trained and sensitive physical education teachers provide the best options to promote coeducational classes and interactions between the genders (Davis, 2000).

The results of this study indicate that seventh- and eighth-grade girls noted they felt more comfortable having female physical education teachers. Having boys in physical education classes was not a major factor in seventh- and eighth-grade girls dressing out for physical education classes or on their participation rates. It is important that physical educators purposely structure physical education classes so that girls can approach them with the confidence to succeed and have fun. Seventh- and eighth-grade girls who experience success and fun are more apt to continue having a physically active lifestyle.

#### *Recommendations for Practice*

Based on the study's findings, several recommendations are proposed to encourage continuing research in this field.

1. Physical educators should provide positive environments that encourage participation in physical education.
2. Physical educators should examine their attitudes toward adolescent girls' participation in physical education classes.
3. Physical educators, along with parents and students, should work cooperatively in providing well-rounded physical education programs. Physical educators should consult with other professionals in the realm of physical education when planning physical education programs.
4. Physical educators should emphasize enjoyment and participation in physical education classes. Physical educators should also gear their activities toward their students' physical abilities.



5. The possibility that physical educators act and react differently in coeducational physical education or same-gender physical education classes should be fully investigated as to the effects on adolescents' self-perceptions.

#### *Recommendations for Further Research*

1. Additional research in this field is needed to identify the best type of physical education class situation (coeducational versus same gender) to assist middle school girls.
2. Additional research is needed on the implementation of Title IX and how it should be monitored by researchers to determine its effects on adolescents.
3. Additional research is needed in designing coeducational physical education programs that provide equitable and productive experiences for middle school girls.
4. Additional research is needed on teacher interactions with girls in physical education classes at the middle school level.
5. Additional research is needed to determine the best motivational strategies for encouraging adolescent females' participation in physical education classes.
6. Additional research is needed to determine the best opportunities for females (coeducational physical education versus same-gender physical education classes) in the development of their leadership skills.
7. Additional research is needed to determine alternative ways physical educators can present physical education to adolescent girls. Staff development and current curriculum guidelines are crucial when planning and implementing alternative programs for adolescent girls.

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APPENDICES

APPENDIX A

Seventh- and Eighth-Grade Questionnaire

**Student Demographic Information: Please fill in the blanks below:**

Grade \_\_\_\_\_ Age \_\_\_\_\_

My physical education class is for girls only. \_\_\_\_\_yes \_\_\_\_\_no

My physical education class is for both girls and boys. \_\_\_\_\_yes \_\_\_\_\_no

I dress out for physical education class:

\_\_\_\_\_all of the time \_\_\_\_\_most of the time \_\_\_\_\_sometimes \_\_\_\_\_never

I participate in class activities:

\_\_\_\_\_all of the time \_\_\_\_\_most of the time \_\_\_\_\_sometimes \_\_\_\_\_never

I have both a male and female physical education teacher. \_\_\_\_\_yes \_\_\_\_\_no

My physical education teacher is male. \_\_\_\_\_yes \_\_\_\_\_no

My physical education teacher is female. \_\_\_\_\_yes \_\_\_\_\_no

**KEY**

**SA** = Strongly Agree

**A** = Agree

**U** = Undecided

**D** = Disagree

**SD** = Strongly Disagree

**Refer to the KEY above and please circle your answers to the following questions:**

1. I enjoy participating in activities taught in my physical education class. **SA A U D SD**
2. I enjoy or would enjoy having physical education class with boys. **SA A U D SD**
3. I would prefer having physical education with girls only. **SA A U D SD**
4. I would prefer having a male physical education teacher. **SA A U D SD**
5. I would prefer having a female physical education teacher. **SA A U D SD**
6. I would prefer having both a male and female physical education teacher. **SA A U D SD**
7. I believe physical education is a time when I can socialize with my friends. **SA A U D SD**
8. I believe the activities taught in my physical education class are primarily for boys. **SA A U D SD**
9. I believe the activities taught in my physical education class are primarily for girls. **SA A U D SD**



**KEY**

**SA = Strongly Agree      A = Agree      U = Undecided      D = Disagree      SD = Strongly Disagree**

- |  |           |          |          |          |           |
|--|-----------|----------|----------|----------|-----------|
| 10. I believe boys stress cooperation in physical education class.   | <b>SA</b> | <b>A</b> | <b>U</b> | <b>D</b> | <b>SD</b> |
| 11. I believe girls stress cooperation in physical education class.  | <b>SA</b> | <b>A</b> | <b>U</b> | <b>D</b> | <b>SD</b> |
| 12. I believe boys place strong emphasis on winning in physical education activities.                        | <b>SA</b> | <b>A</b> | <b>U</b> | <b>D</b> | <b>SD</b> |
| 13. I believe girls place strong emphasis on winning in physical education activities.                       | <b>SA</b> | <b>A</b> | <b>U</b> | <b>D</b> | <b>SD</b> |
| 14. I enjoy playing team games (basketball, volleyball, etc.) with boys.                                     | <b>SA</b> | <b>A</b> | <b>U</b> | <b>D</b> | <b>SD</b> |
| 15. I enjoy playing team games (basketball, volleyball, etc.) with girls                                     | <b>SA</b> | <b>A</b> | <b>U</b> | <b>D</b> | <b>SD</b> |
| 16. I enjoy playing individual sports (tennis, golf, etc.) with boys.  | <b>SA</b> | <b>A</b> | <b>U</b> | <b>D</b> | <b>SD</b> |
| 17. I enjoy playing individual sports (tennis, golf, etc.) with girls.                                       | <b>SA</b> | <b>A</b> | <b>U</b> | <b>D</b> | <b>SD</b> |
| 18. I believe girls have an equal opportunity with boys to participate in class activities.                  | <b>SA</b> | <b>A</b> | <b>U</b> | <b>D</b> | <b>SD</b> |
| 19. I don't like physical education because boys make fun of me if I cannot perform an activity well.        | <b>SA</b> | <b>A</b> | <b>U</b> | <b>D</b> | <b>SD</b> |
| 20. I don't like physical education because girls make fun of me if I cannot perform an activity well.       | <b>SA</b> | <b>A</b> | <b>U</b> | <b>D</b> | <b>SD</b> |
| 21. I don't like physical education because my teacher makes fun of me if I cannot perform an activity well. | <b>SA</b> | <b>A</b> | <b>U</b> | <b>D</b> | <b>SD</b> |
| 22. I feel uncomfortable running/exercising in front of boys in physical education class.                    | <b>SA</b> | <b>A</b> | <b>U</b> | <b>D</b> | <b>SD</b> |
| 23. I feel uncomfortable running/exercising in front of classmates in physical education class.              | <b>SA</b> | <b>A</b> | <b>U</b> | <b>D</b> | <b>SD</b> |
| 24. I feel uncomfortable wearing gym clothes in front of boys.   | <b>SA</b> | <b>A</b> | <b>U</b> | <b>D</b> | <b>SD</b> |
| 25. I feel uncomfortable changing clothes in the girls locker room.  | <b>SA</b> | <b>A</b> | <b>U</b> | <b>D</b> | <b>SD</b> |
| 26. My physical education teacher makes me nervous.  | <b>SA</b> | <b>A</b> | <b>U</b> | <b>D</b> | <b>SD</b> |
| 27. I think my physical education teacher is fun.  | <b>SA</b> | <b>A</b> | <b>U</b> | <b>D</b> | <b>SD</b> |
| 28. I think my physical education teacher is fair.   | <b>SA</b> | <b>A</b> | <b>U</b> | <b>D</b> | <b>SD</b> |
| 29. I think my physical education teacher knows a lot about physical education.                              | <b>SA</b> | <b>A</b> | <b>U</b> | <b>D</b> | <b>SD</b> |
| 30. I think my physical education teacher is easy to talk to.  | <b>SA</b> | <b>A</b> | <b>U</b> | <b>D</b> | <b>SD</b> |
| 31. I think my physical education teacher explains things well.  | <b>SA</b> | <b>A</b> | <b>U</b> | <b>D</b> | <b>SD</b> |
| 32. I think my physical education teacher motivates me to do my best.  | <b>SA</b> | <b>A</b> | <b>U</b> | <b>D</b> | <b>SD</b> |
| 33. I prefer to sit on the bleachers during physical education class.*                                       | <b>SA</b> | <b>A</b> | <b>U</b> | <b>D</b> | <b>SD</b> |

\*If you responded "Strongly Agree" or "Agree" to #33 above, please explain why:

---

34. I like physical education class because \_\_\_\_\_

---

35. I dislike physical education class because \_\_\_\_\_

---

APPENDIX B

Informed Consent

**East Tennessee State University  
Veterans Affairs Medical Center**

**INSTITUTIONAL REVIEW BOARD**

**PRINCIPAL INVESTIGATOR:** Shannon C. Sullivan

**TITLE OF PROJECT:** *Perceptions of Seventh- and Eighth-Grade Girls Toward Coeducational Physical Education Classes in Five Middle Schools in East Tennessee*

**PURPOSE:** The purpose of this study is to examine seventh- and eighth-grade girls' participation rates in physical education classes in five different middle schools and to examine factors that they perceive to relate to their participation and enjoyment of those classes. This study was designed to deepen and further clarify an understanding of factors that contribute to seventh- and eighth-grade girls' decisions and feelings about participation in physical education classes and to focus on those areas in which limited research has been conducted. It is hoped that this study will provide recommendations and practical applications for physical educators in the future.

**DURATION:** The duration of each student's participation will be approximately 30 minutes to answer the questionnaire provided by the researcher.

**PROCEDURES:** The first step in this study was to request permission from the county school superintendent in order to conduct this study with middle school students. After receiving permission from the superintendent, permission was requested by the researcher to the principals of the participating middle schools. Upon receiving permission from the principals' to conduct this study, each prospective student, along with their parent and/or legal guardian will be asked to sign the informed consent form. Next, each student participating in the study will answer a questionnaire during a physical education class. The students' physical education teacher will distribute and collect the questionnaire, which will be sealed in an envelope and picked up by the researcher the same day.

**POSSIBLE RISKS/DISCOMFORTS:** No risk factors have been identified in this study, although; students' may feel uncomfortable answering several of the questionnaire items.

**POSSIBLE BENEFITS AND/OR COMPENSATION:** There are no student benefits or forms of compensation included in this study. Each school participating in this study will receive a copy of the completed study, which will include findings from the researcher.

**CONTACT FOR QUESTIONS:** If you have any questions, problems, or research-related medical problems at any time, you may call Shannon C. Sullivan at xxx-xxx-xxxx, Dr. Ron Lindahl at xxx-xxx-xxxx, or Dean Martha Collins at xxx-xxx-xxxx. You can also contact the Chairman of the Institutional Review Board at xxx-xxx-xxxx for any questions you might have about your rights as a research participant.

**CONFIDENTIALITY:** Every attempt will be made to ensure study results are kept strictly confidential. Fictional names of participants and schools will be used in this study. The results of this study may be presented or may be published without naming you as a participant. Data and records will be kept confidential according to current legal requirements and will not be revealed unless required to do so by law. Student responses will be anonymous.

**COMPENSATION FOR MEDICAL TREATMENT:** East Tennessee State University will pay the cost of emergency first aid for any injury that might happen as a result of you being a part of this study. East Tennessee State University will not pay for any other medical treatment. Claims against East Tennessee State University or any of its agents or employees may be submitted to the Tennessee Claims Commission. These claims will be settled to the extent allowable as provided under TCA Section 9-8-307. For more information pertaining to claims call the Chairman of the Institutional Review Board of East Tennessee State University at xxx-xxx-xxxx.

**VOLUNTARY PARTICIPATION:** The nature of risks, demands, and benefits of this study have been explained to me as known. I clearly understand what participation is involved in this study. I understand I am free to ask questions that arise and to withdraw from this study at anytime without penalty. I have read the informed consent form and fully understand the form. I sign this form freely and voluntarily. If requested, a signed copy of the form will be given to me. Your record will be kept in strictest confidence according to current legal requirement and will not be revealed unless required to do so by law.



## APPENDIX C

### Letter to Parent or Guardian

Dear Parent or Guardian,

My name is Shannon Sullivan, and I am a physical education teacher at Pigeon Forge High School and a doctoral candidate at East Tennessee State University. I have been given permission by the Superintendent of the Sevier County School System to conduct a study entitled *Perceptions of Seventh- and Eighth-Grade Girls Toward Coeducational Physical Education Classes in Five Middle Schools in East Tennessee*. This study will attempt to determine if girls at the middle school level prefer and/or participate more in a coeducational physical education class or if they would prefer and/or participate more in a same-gender physical education class. This letter and informed consent form request permission for your daughter to participate in this study and to answer questions pertaining to her physical education class.

A questionnaire will be distributed to your daughter during a part of her physical education class. There are no risks to your child in taking part in this study. The identity of participants will be kept confidential. Your child's participation in this study is voluntary; however, in order for your child to participate in this study, you must sign the enclosed form. A copy of the questionnaire has been included in this document.

Thank you in advance for allowing your child to participate in this study. I hope this research will provide helpful recommendations for physical educators in the near future. Please return this form tomorrow or as soon as possible to your child's physical education teacher. If you have any questions pertaining to this research study, please feel free to contact me at (xxx) xxx-xxxx or e-mail me at xxx@xxx You can also contact your daughter's physical education teacher at xxx-xxxx.

Sincerely,

Shannon Sullivan  
Doctoral Student  
East Tennessee State University



APPENDIX E

Letter to Principal

XXXXX XXXXX

Principal

XXXXX School

Dear Principal XXXXX,

As a doctoral student at East Tennessee State University, I am currently involved in my dissertation phase of the Educational Leadership and Policy Analysis doctoral cohort program. My dissertation is entitled, *Perceptions of Seventh- and Eighth-Grade Girls Toward Coeducational Physical Education Classes in Five Middle Schools in East Tennessee*. This study will attempt to determine if girls at the middle school level prefer and/or participate more in a coeducational physical education class or would they prefer and/or participate more in a same-gender physical education class.

I would like your permission to survey seventh- and eighth-grade girls in your school. Parents will be asked to sign an informed consent form to allow their girls permission to participate in this study. A questionnaire will be given to the girls who bring back their permission form signed by their parents during one physical education class. The identity of the children involved in this study will be kept confidential.

In preparation for this study, I plan on meeting with each principal to discuss the most appropriate means of distributing my questionnaire and to request permission to conduct my study. The distribution of the questionnaire and the collection of data will be conducted in a manner to limit the disruption of normal school activities.

Thanks for your cooperation.

Sincerely,  
Shannon Clabo Sullivan

I \_\_\_\_\_ give Shannon C. Sullivan permission to conduct her study entitled, *Perceptions of Seventh- and Eighth-Grade Girls Toward Coeducational Physical Education Classes in 5 Middle Schools in East Tennessee*, at xxxx Grammar School in xxxx, Tennessee.

\_\_\_\_\_/\_\_\_\_\_  
Signature of Director                      Date

APPENDIX F

Child Assent Form

Dear Student,

My name is Shannon Sullivan and I am a physical education teacher at Pigeon Forge High School. I am currently a doctoral student at East Tennessee State University. I am working on a research project entitled The Perceptions of 7<sup>th</sup> and 8<sup>th</sup> Grade Girls Toward Coeducational Physical Education Classes in Five Middle Schools in East Tennessee. In this study, I am attempting to find out whether girls your age would prefer having physical education with both boys and girls (coeducational), or if girls your age would prefer having physical education with all girls. It would really help my study tremendously if you would agree to participate.

In order for you to participate, you must sign and date the permission form below. If you agree to participate in this study, you will be given a questionnaire during one of your physical education classes to fill out. No one will know what you answered on your questionnaire because your name will not be on it. If you feel uncomfortable answering a particular question, do not answer that question. You are not required to participate in this study.

Thank you for taking part in this study. I hope my research will provide information that physical education teachers can use to make their classes better. Please return this form, along with the informed consent form signed by your parent/guardian, to your physical education teacher tomorrow or as soon as possible. If you have any questions about this study, please call me at (865) 908-6987 or e-mail me at [sulls2@chartertn.net](mailto:sulls2@chartertn.net)

Sincerely,

Shannon Sullivan  
Doctoral Student  
East Tennessee State University

I \_\_\_\_\_ agree to participate in Shannon Sullivan's doctoral study entitled The Perceptions of 7<sup>th</sup> and 8<sup>th</sup> Grade Girls Toward Coeducational Physical Education in Five Middle Schools in East Tennessee.

\_\_\_\_\_ Date



## VITA

Shannon Clabo Sullivan

- Personal Data:      Date of Birth: December 17, 1969  
Place of Birth: Knoxville, Tennessee  
Marital Status: Married to Jerry Sullivan
- Education:          Carson-Newman College, Jefferson City, Tennessee;  
Bachelors of Science in Physical Education/Health;  
1991
- Lincoln Memorial University, Harrogate, Tennessee;  
Master of Science in Educational Administration/Supervision;  
1995
- Lincoln Memorial University, Harrogate, Tennessee;  
Educational Specialist in Educational Administration/Supervision  
1997
- East Tennessee State University, Johnson City, Tennessee;  
Educational Leadership and Policy Analysis, Ed. D.,  
2003
- Professional Experience      Seymour Middle School, Seymour, Tennessee  
Physical Education Teacher  
1992-2001
- Pigeon Forge High School and Primary School, Pigeon Forge, Tennessee  
Physical Education Teacher, Varsity Volleyball Coach, Varsity  
Assistant Basketball Coach  
2001- Present
- Honors and Awards:          Delta Kappa Gamma, Gamma Iota Chapter Second Vice-President,  
1999-2001,  
Inducted into The Honor Society of Phi Kappa Phi, 2001