

A SURVEY OF TENNESSEE PUBLIC ELEMENTARY AND MIDDLE SCHOOL
PRINCIPALS' ATTITUDES TOWARD THE SUPPORT OF
REQUIRED PHYSICAL
EDUCATION

By

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APPROVAL PAGE

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Purpose of the Study

The study's main purpose was to examine Tennessee public elementary and middle school principals' attitudes toward the requirement of physical education in the school curriculum. The study described possible factors of Tennessee's public elementary and middle school principals along, with the structure of the physical education program that might have an influence on the principals' attitudes. A total of 150 public elementary and 150 middle school principals were randomly selected and divided into two groups. Group one was comprised of 50 elementary school principals from each of the three regions, and group two was comprised of 50 middle school principals from each of the three regions for a total of 300 principals. The data was gathered using a background information questionnaire that investigated factors relating to each individual principal's professional background. The *Wear Physical Education Attitude Inventory, Form A* was used to assess the attitudes of the principals toward the requirement of physical education in the school curriculum.

Findings

Findings of the study showed there were no differences in attitudes between Tennessee public elementary and middle school principals. Elementary and middle school principals significantly favored physical education being required in the school curriculum. It was also found that no differences in attitudes existed between the two groups of principals based on regional location or school size. Principals from all three

the school curriculum. Elementary and middle school principals from all three categories of school enrollment sizes significantly favored physical education being required in the school curriculum.

Recommendations for Further Studies

Recommendations for further studies include determining the importance principals place on physical education as compared to other required subjects in the school curriculum. Another recommendation includes determining why no time or credit requirement exists for Tennessee elementary and middle public schools, but credit requirements are mandatory for Tennessee high school students. Finally, creation and adoption of a state law mandating physical education and other regulations for all schools in the state of Tennessee, along with a statewide assessment of physical fitness and students' cognitive learning of physical education should be implemented for grades 2, 4, 6, and 8.

ACKNOWLEDGEMENTS

As I reflect back on this huge endeavor, I would like to thank many individuals that were involved in the construction. To begin with, the main individual that helped in this journey is Dr. Jon MacBeth, the chairperson of my committee. Dr. MacBeth spent many hours both morning and night to accomplish this feat. His dedication and knowledge of writing helped me smooth the bumps and straighten the curves that were encountered along the road to completion. Other individuals that I would like to take time to acknowledge for their time and effort are Dr. Colby Jubenville, and Dr. Kim Shibinski.

I would like to also take time to thank all Tennessee Directors of Schools for allowing their principals to participate in this survey. A hand of thanks needs to be extended to all Tennessee Public Elementary and Middle School Principals that participated in this study. Without their time and effort of completing the surveys, this project could of never seen completion.

The last individual that needs to be highly recognized would be my wife, Leann Walker. She spent many waking hours with me to listen to my complaints and to encourage me to continue on when I was ready to quit. Every time an inconvenient situation arose whether at home or on this project, she was always there to tackle the problem. She inspired me to continue at all costs, thank you Leann.

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CHAPTER ONE

INTRODUCTION

The support of required physical education in public school systems in the United States appears dim. Even though professional educators agree that daily physical activity can have positive effects on a student's academic performance, only two states in the nation require daily physical education. Illinois is the only state that requires daily physical education for all kindergarten through twelfth (K-12th) grades, and only Alabama requires daily physical education for kindergarten through eighth (K-8th) grade (National Association of Sport and Physical Education, 2002). According to the 2001 edition of *Shape of the Nation*, published by the National Association of Sport and Physical Education (NASPE), fifty-eight percent of high schools in America allow substitution of another subject for physical education credit.

The California Association for Health, Physical Education, Recreation, and Dance (2002) published a study by the California Department of Education that found students' academic achievements are correlated with their levels of health-related physical fitness. A system-wide student survey conducted by the Metro School System in Davidson County, Tennessee, found in grades three, five, and seven that physical education ranked higher than any other subject in terms of favorite classes (Garton, 2003). Within this same survey, physical education ranked second only to technology as being a favorite among high school students in Metro Schools.

Currently, Tennessee has no enforcement of standards for physical education requirements at the federal, state, or local levels (NASPE, 2002) and there is no required physical fitness test for any grade level (Tennessee Office of School Health Programs, n.d.). According to the Tennessee Department of Education, at the elementary and middle school levels in Tennessee, a certified physical education specialist must teach physical education. In the absence of a certified physical educator, the classroom teacher is responsible for the teaching of physical education. For a student to obtain a Tennessee high school diploma, one credit of Wellness is required of all students, whereas at the elementary and middle school levels in Tennessee, physical education must be offered in the regular education curriculum in kindergarten through eighth grade, but there are no time or credit requirements for students (Tennessee Office of School Health Programs, n.d.).

With the pressure of recent federal and state accountability standards, such as the No Child Left Behind Act of 2001 (United States Department of Education, n.d.), state and local school administrators have the opportunity to bolster the enforcement of daily physical activity in the academic curriculum rather than “cutting it out” of the curriculum. Due to the limited enforcement of physical education requirements by the Tennessee State Department of Education for public elementary and middle schools, responsibility to ensure the standards are followed falls upon the school principal. If a principal shows a supportive attitude for the requirement of physical education, this could ensure the state standards would be followed. According to studies conducted by Wandzilak et al. (1988) and Lock, Telljohann, and Price (1995), some school principals have negative attitudes

toward physical education and would prefer that it not be included in the curriculum. If the principal shows a lack of support, then physical education may not be given the proper amount of attention.

Statement of the Problem

One of the main purposes of education is to provide traditional subjects such as reading, math, and English. Education should also include subjects, such as physical education, that would contribute to the overall health, well-being, and fitness of students. Since 1999, Tennessee is placing a greater emphasis on academic accountability in the basic subjects of reading, math, and English, along with greater importance on the first through eighth grade Terra Nova standardized test. Due to greater emphasis on these subjects, the importance of requiring physical education in the Tennessee school curriculum, especially at the lower grade levels, may become de-emphasized. This de-emphasis could escalate if a principal has a negative attitude toward the requirement of physical education since it is the sole responsibility of the principal to determine the amount of time that a student may participate in physical education.

The decreased populations in Tennessee public schools of principals who have been former coaches and/or physical educators may be another factor affecting the status of required physical education in the daily elementary and middle school curriculum. In earlier studies within other states, Gibson (1972), Barros (1982), and Graening (1983) found that principals who were former coaches and/or physical education teachers realized the importance of requiring physical education in the curriculum. However, to date no studies have been conducted to confirm this in Tennessee. Also, many of

Tennessee's elementary and middle school principals (who may or may not have a background in physical education) could believe that basic subjects need to have more time addressed to them. As a result, physical education classes may receive diminished time or may be dropped from the curriculum as a required subject.

Need for the Study

Don Sundquist, former Governor of Tennessee, expressed a positive attitude toward physical education when he proclaimed May 1-7, 2002, as *Physical Education and Sport Week* across Tennessee: "Physical education programs promote the health of all young Tennesseans, and participation in sports encourages the development of qualities that serve our children well both on and off the field. Without healthy bodies, young people cannot take full advantage of their educational opportunities" (Sundquist, 2002). This proclamation supported the need for required physical education in the state school curriculum.

Another factor supporting the need came from a system-wide student survey conducted by the Nashville Metro School System in which physical education ranked as the favorite subject among elementary and middle school students (Garton, 2003). Garton's (2003) article from *The Tennessean* quoted Tricia Craig, a teacher and principal-in-training at Greenbrier Middle School in Robertson County: "P.E. is number one, just because of the kids being active and involved. I think they're liking to exert energy and not having to sit down." The article further emphasizes, "Principals around the Midstate say the fondness for P.E. isn't just in Nashville."

The principals' overall attitudes toward required physical education must be supportive due to their playing a critical and vital role concerning school curriculum development. School principals have the ability to decide the fate of physical education programs; therefore, principals must be convinced of the importance that physical education plays in the school curriculum (Dodds & Locke, 1984; Taylor, 1985). One way school principals can show support for required physical education would be to have time and/or credit requirements that students participate in daily physical education. In Tennessee, there are no physical education time or credit requirements that elementary and middle school level students must participate in, compared to the high school level where one credit of Wellness is required for all students to graduate. When reviewing past educational reform acts in Tennessee, no evidence was found dealing directly with the requirement of physical education in the public school curriculum. In fact only one resolution has been passed vaguely suggesting physical education be implemented in the Tennessee school curriculum (*Joint Resolution 569*, 2002). The amount of time that physical education is offered is usually determined by the principal of the school. Therefore, a comprehensive study of Tennessee public school principals' attitudes toward required physical education in the school curriculum is needed.

Purpose of the Study

The main purpose of this study was to examine Tennessee public elementary and middle school principals' attitudes toward the requirement of physical education in the school curriculum. The study described possible factors of Tennessee's public elementary

and middle school principals along, with the structure of the physical education program that might have an influence on the principals' attitudes.

Research Questions Related to this Study

Principals' attitudes toward required physical education.

1. What are Tennessee public elementary and middle school principals' overall attitudes concerning the requirement of physical education in the school curriculum?
2. Are the attitudes of Tennessee public elementary and middle school principals toward the requirement of physical education in the school curriculum related to their respective regional locations (East, Middle, and West Tennessee)?
3. Is school enrollment size related to the attitudes of Tennessee public elementary and public middle school principals toward the requirement of physical education in the school curriculum?

Influencing factors of Tennessee's public elementary and middle school principals.

4. What percentage of Tennessee public school principals are male or female at the elementary school level? at the middle school level?
5. What percentage of Tennessee public elementary and middle school principals hold an undergraduate degree in physical education?
6. What percentage of Tennessee public elementary and middle school principals have coaching and/or athletic directing experience?

Structure of physical education programs.

7. What percentages of elementary schools and middle schools require students to take physical education?
8. How many minutes per week do students participate in physical education?
9. In what types of facilities are physical education classes taught?
10. How do elementary and middle school principals rate the quality of their school's physical education program?

Statements of Null Hypotheses

1. There will be no significant difference between the attitudes of Tennessee public elementary school principals and the attitudes of Tennessee public middle school principals toward the requirement of physical education in the school curriculum.
2. There will be no significant difference between the groups of public elementary school principals from the regions of East, Middle, and West Tennessee and public middle school principals from the regions of East, Middle, and West Tennessee in their attitudes toward the requirement of physical education in the school curriculum.
3. There will be no significant difference between the groups of Tennessee public elementary school principals and Tennessee public middle school principals in their attitudes toward the requirement of physical education in the school curriculum based on the enrollment size of the school.

Assumptions

The following assumptions of the study will be made.

1. The Tennessee elementary and middle school principals will answer questionnaires themselves and give honest answers reflecting their attitudes.
2. The Tennessee elementary and middle school principals will provide reliable and valid information.

Delimitations

1. The study population will be limited to all randomly selected public elementary and middle school principals in the state of Tennessee that respond to the questionnaire.
2. The study will be limited to the information that will be obtained from the written questionnaires.
3. The accuracy of the information will depend upon the responses given by Tennessee elementary and middle school principals.
4. All public schools in Tennessee that specialize solely with alternative behavior students or special education were excluded from this study.

Definition of Terms

Specific terms have been defined for the purpose of this investigation.

Accountability. Liable for a set of duties or responsibilities related to the teaching of students.

Athletic coaching or directing experience. One or more years of planning and managing, instructing, directing, and/or training of individuals for sports.

Attitude. A positive or negative response or feeling toward an idea. The idea in this study is a positive or negative feeling about physical education being required in the school curriculum.

Basic subject. The main subjects, such as English, mathematics, reading, science, and/or social studies, in the public elementary or middle school curriculum that result in the promotion or retention of a student.

Curriculum. A guide established by the Tennessee State Department of Education stating core and secondary subjects that must be offered at the elementary and middle school levels.

Director of Schools. A Tennessee State Department of Education certified individual employed full-time by a local education agency who is responsible for supervision and management of personnel, students, and daily operations of the entire school district. This position was originally called the superintendent of schools.

Elementary school. Any school facility that serves any combination of grades kindergarten through eight.

Elementary school principal. A Tennessee State Department of Education certified individual employed full-time by a local education agency who is responsible for supervision and management of personnel, students, and daily operations of a school facility that serves any combination of grades kindergarten through eight.

Middle school. Any school facility that serves any combination of grades five through eight.

Middle school principal. A Tennessee State Department of Education certified individual employed full-time by a local education agency who is responsible for supervision and management of personnel, students, and daily operations of a school facility that serves any combination of grades five through eight.

Physical education teaching experience. One or more years of regularly teaching and/or managing physical education instruction.

Required physical education. Mandatory instruction in the development and care of the body ranging from simple callisthenic exercises to a course of study providing training in hygiene, gymnastics, and the performance and management of athletic games.

Secondary subject. Secondary subjects in the public elementary or middle school curriculum that do not result in the promotion or retention of a student such as art, drama, music, physical education, and technology.

Sport. Referring to any athletic individual or team event.

Wellness. A secondary curricular subject that encompasses sixty percent of the curriculum in health and forty percent of the curriculum in physical education. One credit hour of Wellness is required for all high school students in Tennessee to receive a regular education diploma.

CHAPTER TWO

REVIEW OF LITERATURE

There have been many studies dating as early as the mid 1930s (Lapp, 1933) and as recently as 2001 (Guan, McBride and Xiang, 2001) pertaining to attitudes toward or about physical education as a requirement in public schools. A variety of studies dealing with students', parents', adults', and teachers' attitudes toward physical education in public schools have been investigated for many years. However, there are limited studies that have been conducted pertaining to principals' attitudes toward justifying the need for required physical education in the daily K-12 academic curriculum.

This literature review is divided into eight sections related to attitudes toward physical education, physical activity, and exercise by principals, teachers, college students, parents, adolescents, and special needs individuals. The review of literature also examines different attitude surveys developed for physical education and educational reform acts. Lastly, the review of literature prompted an investigation of factors of elementary and middle school principals that may affect their attitudes toward required physical education. The eight sections of the review of literature consist of: 1) physical education attitude surveys, 2) principals' attitudes toward physical education, 3) teachers' attitudes toward physical education, 4) college students' attitudes toward physical education, 5) combinational studies encompassing administrators', parents', adolescents',

and/or teachers' attitudes toward physical education, 6) special needs individuals' attitudes toward physical education, 7) Tennessee Educational Reform Acts, and 8) national, international, and other state educational reform acts.

Physical Education Attitude Surveys

Carr (1945) developed an instrument for measuring high school age girls' attitudes toward physical education. The instrument was based on answering questions that dealt with an individual's attitude toward physical education by choosing an answer of "agree" or "disagree" for each statement. The *Carr Physical Education Attitude Scale* was arranged with the first 37 statements being "desirable" and the final 47 statements being "undesirable." This instrument considered both desirable and undesirable statements that were answered in the final score.

Wear (1951) designed a study with the purpose of developing a valid and reliable instrument to assess individual and group attitudes toward physical education as an activity course. Wear's study was the first to develop and use an attitude scale to evaluate college males' attitudes toward physical education as an activity course. Wear's evaluative instrument took into account three different steps in the formulation of the final product. The subjects for the study consisted of 75 college students at the State University of Iowa. The *Wear Physical Education Attitude Inventory* consisted of 120 items with five possible responses on the Likert scale. From the original 120 items, a short form was created that consisted of 40 items. In the final analysis for the 120-item questionnaire, *Wear's Physical Education Attitude Inventory* had a .96 reliability. The

Short Form of the Inventory that was created with a 40-item questionnaire had a reliability of .94.

Wear (1955) created two physical education attitude scales that would be equivalent. The two forms, developed with the same techniques and procedures as the Short Form of *Wear's Physical Education Attitude Inventory* (Wear, 1951), contained 30 statements and are referred to as Form A and Form B. The statements of Form A and B were taken from a physical education attitude inventory that was also created by Carlos Wear (Wear, 1951). Two forms were made so as to measure a before and after change in students who were involved in physical education, such as listening to a talk, watching a demonstration, viewing a film, or taking part in some activity; the two forms could also measure shifts in attitude as a result of short- or long- term experiences of physical education. In the final construction, the forms showed high levels of reliability with scores of .94 for Form A and .96 for Form B. The two forms proved to have a high product-moment correlation with a value of .96.

Adams (1963) constructed an instrument for measuring both individual and group attitudes toward physical education. The instrument was developed for both males and females at the high school and college age level. The instrument was based on answering questions that dealt with an individual's attitude toward physical education by choosing an answer of "agree" or "disagree" for each statement. Only the agree statements were considered for scoring. The *Adams Physical Education Attitude Scale* had a reliability of .71 and a validity of .77.

Edgington (1968) devised a valid and reliable instrument for measuring the attitudes toward physical education. The instrument was administered three times during the development with each administration being a revised form. It was given to 107 ninth-grade boys the first time, to a different group of 109 ninth-grade boys the second time, then finally to a group of randomly selected 100 ninth-grade boys. The statements for the instruments were selected according to four general physical education objectives that were determined according to the review of literature, physical development, motor development, mental development, and human relations development. The final instrument contained sixty-six statements with a .92 reliability and is referred to as the *Edgington Attitude Scale*.

Kenyon (1968) composed scales for determining attitudes toward physical activity of both males and females. The subjects for the study were between 200 and 360 male and between 200 and 360 female college students from the State University of Wisconsin. Six subdomains for both men and women were analyzed for assessing attitudes toward physical activity. The subdomains were social experience, health and fitness, the pursuit of vertigo, aesthetic experiences, catharsis, and ascetic experiences. An instrument was constructed with statements dealing with social experience, health and fitness, vertigo, aesthetics, and ascetic. Physical activity as catharsis was determined unreliable.

McPherson and Yuhansz (1968) formulated an instrument to measure high school age through adult individuals' attitudes toward exercise and physical activity. The instrument uses a five point Likert scale for measuring fifty statements. These statements

are made up of common opinions, beliefs, attitudes, and fallacies that are commonly associated with exercise and physical activity. The Exercise and Physical Activity Scale instrument has a reliability of .72. "The validity was determined based on a significant difference at the .01 level that occurred between a criterion group presumed to have favorable attitudes and a criterion group presumed to have unfavorable attitudes."

Cheffers, Mancini, and Zaichkowsky (1976) invented a valid and reliable instrument that measured the attitudes of elementary students in grades one through six. This instrument was known as the Cheffers and Mancini Human Movement Attitude Scale. This instrument was administered to 93 elementary students and measured the children's attitudes toward the teacher, facilities, and certain processes in the human movement program. This instrument was different than other attitude scales in that it was made up of pictures; the answers the students were to give were expressed by facial expressions, with a frown being equal to "unfavorable," a smile equal to "favorable," or no facial expression being "neutral" toward the statement. The final results for the instrument found a test-retest reliability of .97 and a split-half reliability of .87.

Principals' Attitudes toward Physical Education

Gibson (1972) examined the relationship between selected background variables and principals' attitudes toward physical education. The subjects of this study were selected from 1,250 public elementary, junior high, and high schools from the state of Mississippi. The final number of subjects, after more research, encompassed 1,018 subjects for the study. The instruments that were used in the study were the Wear Physical Education Attitude Inventory and a questionnaire for obtaining background

information of participants. The study found that professional training of physical education, participation in high school or college athletics, coaching experience, and combined personal and professional variables of the principals and their attitudes toward physical education have a significant relationship.

Gordon (1973) studied administrators' attitudes toward physical education at the secondary level, along with the factors that are inherent in the positive and negative attitudes of the selected administrators. The subjects were northern California high school administrators. The study reached four conclusions. Administrators expressed significantly favorable attitudes due to the importance of physical activity in everyday life as well as physical education having general, emotional, social, and physical outcomes. At the high school level, credit should be given for physical education classes. Physical Education should be a required subject. Students should be assigned grades for physical education.

Gorman (1977) performed a study concerning the importance of selected factors in conducting quality physical education programs as perceived by high school principals, regional leaders in physical education, and officers of state associations of health, physical education and recreation. *Evaluative Criteria for the Evaluation of Secondary Schools* was the questionnaire administered to the administrators. The eight categories that were being evaluated for their importance in conducting a quality physical education program were instructional staff, nature of offerings, physical facilities, organization, outcomes, instructional materials, instructional activities, and methods of

evaluation. All three groups reported the categories, outcomes and due to the lack of accountability in education, as the least important for maintaining and/or conducting a quality program. The overall results found that the subjects within the study tended to choose the factors that were associated with their positions to be more important than factors that were associated with other roles. The findings revealed that in order to obtain a consensus among education leaders, an instrument needs to be designed to determine which factors are important in conducting quality physical education programs.

Barros (1982) conducted a study dealing with principals' attitudes toward physical education in the elementary school in relation to their background and experience in physical education. The *Wear Attitude Inventory* was the instrument used to survey 352 elementary principals in Brazil. The results indicated that principals who had participated in physical education had a more positive attitude concerning physical education in the elementary school. It was also found that principals believed there was a need for legislation concerning physical education and facilities for adequate physical education programs.

Graening (1983) assessed Arkansas high school principals' and superintendents' attitudes toward physical education and athletics, and the status of physical education and athletics in Arkansas high schools. The subjects, 702 Arkansas high school principals and superintendents, were assessed using a mailed questionnaire. From this research, Graening drew several conclusions. The conclusions that pertain to the current study are that (1) principals when compared to superintendents were more favorable toward

district principals toward physical education, (3) principals who held physical education degrees in comparison to those principals who did not hold physical education favored physical education more, and (4) principals and superintendents who had prior athletic coaching and/or athletic directing experience favored physical education and athletics more than those who did not. The findings of physical education and athletics were many, but the main conclusion was that both physical education and athletics were important for high school.

Thornburg (1986) researched the attitudes of Alabama secondary school principals toward physical education. The subjects consisted of 200 high school principals, 168 (84 percent) of whom returned the mailed questionnaire. The main findings were that principals thought physical education was an important and worthwhile subject for students. The author also found that physical education ranked fifth out of ten for importance of a subject.

Wandzilak, et al. (1988) looked at administrators' views of physical education for the 1990s. The subjects used in the study were 722 district superintendents, high school principals, and elementary principals in the state of Nebraska. The results of the study found that 95 percent of the administrators believed that physical educators should be knowledgeable in healthy living concepts, 85 percent believed physical educators should know about health behaviors, 93 percent believed physical educators should help students develop positive attitudes toward physical activities, and 89 percent of surveyed administrators were

percent of administrators were willing to offer physical education five times per week.

Scantling (1990) compared the relationship between program effectiveness and secondary principals' attitudes toward physical education. The study sample consisted of 80 randomly selected public high school principals in the state of Nebraska. Of the 80 selected, only 36 principals participated in the study. Two instruments were used for collecting data. The *Physical Education Attitude Survey for Principals* was used to evaluate the principals' attitudes, and the *Iowa Assessment Tool* was used to investigate physical education program effectiveness. Scantling found no significant relationship between principals' attitudes and program effectiveness. Scantling also found no significant difference between principals' prior physical education teaching experience and/or athletic coaching experience and attitudes toward physical education.

In 1994, Butler and Mergardt stated that administrative support was a critical factor in the success of physical education programs. They believed that administrative support came in many different forms. One such form was entrusting physical educators with decisions that involved their curriculum. Another way that the authors felt support could be shown was via the administration encouraging professional development and allowing physical educators to participate in special events, activities or projects during normal school days. A final example of administrative support would be when the administration informed teachers about professional matters.

Lock, Telljohann, and Price (1995) identified characteristics of elementary principals who support physical education. The participants in the study consisted of 500

randomly selected Indiana elementary principals and their physical education teachers. A mailed questionnaire of 20 items was administered to the principals to assess the principals' fitness and perceptions of physical education in elementary school. Along with the questionnaire, the principals were questioned about the types of exercise they engage in, the frequencies of the activities, and the time spent on the activities. A mailed questionnaire of 23 items was given to elementary physical education teachers to determine their perceived support for the physical education program by their principal. Sixty-four percent or 321 of the principals responded to the questionnaire, and 68 percent or 340 of the physical education teachers responded to their questionnaire. The study found limited support by the principals for physical education programs, and principals ranked physical education next to last in importance compared to other content areas. On the other hand, physical educators perceived their principals as supportive of their programs.

Sallis, McKenzie, Kolody, and Curtis (1996) selected 80 California district administrators' perceptions of elementary school physical education. Within the participating school districts, there were 1,000 students or more in grades one through eight of the ten most populated counties, from which 110 districts were randomly selected. The participants within the districts were superintendents or the highest-ranking authority over elementary physical education. The interviews were conducted by phone on 80 subjects with a 72 percent response rate. Discovery of four results were attempted. Result one dealt with the administrators' satisfaction level of the current physical education program meeting specified outcomes for children in their district. Of this result,

81 percent of administrators were satisfied that children enjoyed physical activity while 26 percent were satisfied that children were prepared for youth sports. Result two dealt with the administrators' belief in a high quality physical education program leading to desirable outcomes of educators. Sixty-nine percent believed that a quality physical education program improved concentration. Sixty-three percent believed that physical education decreased discipline problems, and 63 percent believed that physical education improved academic performance. Results three and four attempted to find administrators' belief in the single most important factor in implementing a quality physical education program and factors that are barriers to implementing quality physical education programs.

In 1997 within the Province of Manitoba, Canada, Poulton investigated the opinion of public school principals toward the physical education instructional program. A modified *Wear Attitude Inventory* survey was given to 677 principals with a 59 percent response rate. The variables of the study were gender, school location, school level, personal activity level, physical education degree, and Quality Daily Physical Education Award winners. The principals had an overall highly favorable opinion toward physical education, with principals of schools with early to middle years having a higher opinion toward physical education emotional outcomes. Other findings were that principals who held physical education degrees or whose school had received a Quality Daily Physical Education Award held a higher opinion toward physical education.

Williams' study in 1998 involved 97 Arkansas superintendents and 91 Mississippi superintendents and compared their attitudes toward kindergarten through sixth grade

physical education in public schools in their respective states. Williams stated that Arkansas requires elementary physical education to be incorporated within the school curriculum, while Mississippi has no physical education state mandates regarding the amount of time spent in physical education programs in elementary schools. These superintendents were administered the *Superintendents' Attitudes Toward Physical Education* questionnaire, which consisted of 28 Likert scale items dealing with implementation of programs, barriers to implementation, requirements to implementation, benefits of physical education programs and concerns with the physical education curriculum. The results were interesting. A larger number of Mississippi superintendents held undergraduate degrees in social studies compared to Arkansas superintendents who held a greater number of undergraduate degrees in physical education. Mississippi superintendents were more likely than Arkansas superintendents to support elementary physical education. There was a positive correlation between the length of years Arkansas superintendents were in education and whether or not they support kindergarten through sixth grade physical education. Inversely, Mississippi superintendents were more likely to support kindergarten through sixth grade physical education proportional to their years of time in education.

Teachers' Attitudes toward Physical Education

Smyth (1993) focused on how first year physical education teachers perceived their workplace, how the perceptions affected their first year of work, and how the understanding of these perceptions shaped their induction into the social and organizational context of the school. Interviews were conducted with twelve physical

education teachers. The results were profiles of two of the 12 participants and how their schools shaped their first year of teaching. The second set of results found five common workplace factors in shaping perceptions of physical education teachers. These factors were physical education facilities, the presence or absence of teaching colleagues, the physical education class scheduling, community environment, and the students.

Contextual factors such as the status of physical education in the school, the testing of values, teachers' sense of efficacy and the school as a social institution were also identified as forming perceptions of first-year physical education teachers.

A study by Cutforth (1995) viewed how one elementary school physical education teacher influenced the perception and status of physical education in her school community in Chicago, Illinois. This teacher was able to create a positive attitude toward physical education by establishing strict class schedules and routines, giving homework for fifth through eighth grades, and insisting on a respect for her gymnasium. The teacher also conducted a "gym show" that increased her visibility within the school and provided interactions outside the classroom to enhance the positive reputation for physical education.

Kulinna and Silverman (1999) questioned 121 physical education teachers to find out their attitudes toward four goals--physical activity and fitness, self-actualization, motor skill development, and social development--over a two year time period for physical education. The teachers were administered the *Teachers' Attitudes Toward Curriculum in Physical Education* instrument in the spring of 1996 and 1998. The results concluded that attitudes toward physical activity and fitness in the curriculum were

stable; according to the level of teaching over the two-year period, significant differences were found for self-actualization and social development.

Kulinna and Silverman (2000) explored teachers' attitudes toward various outcome goals for physical education programs. The domains of physical activity/fitness, motor skill development, self-actualization and social development were analyzed using a Likert scale attitude measuring instrument. The study involved 253 currently employed physical education teachers. The participants represented 18 states, with teaching experience ranging from 1 to 40 years, and teaching levels involving elementary, middle, and high schools. Several results within the study were found to be true. Middle and high school teachers placed a higher emphasis on physical activity and fitness than elementary teachers. Elementary and middle school teachers placed higher priority on motor skill and social development than high school teachers. Kulinna and Silverman's results concluded that teachers' belief systems are related to physical activity/fitness and that how those belief systems are formed needs to be further investigated.

Guan, McBride and Xiang (2001) compared Chinese teachers' attitudes toward teaching physical activity and fitness against the attitudes of United States teachers. The subjects consisted of 330 currently employed Chinese physical education teachers. These subjects were administered the *Teachers' Attitudes Toward Curriculum in Physical Education* instrument. This instrument was broken down into four factors: physical activity/fitness, social development, motor skill development, and self-actualization. The study found that physical activity was more important than all other factors to Chinese

and American teachers, both groups of teachers share core attitudinal values concerning their respective programs, and teachers with five years or less teaching experience placed a higher emphasis on physical activity than teachers with six or more years of experience in teaching.

College Students' Attitudes toward Physical Education

Brumbach and Cross (1965) guided University of Oregon male students in a study dealing with their attitudes toward physical education. The sample of students, consisting of lower division male students entering the university, were administered the *Wear Attitude Inventory, Short Form A* instrument. As a group, the results showed students to have favorable attitudes toward physical education. Within the group, athletes were found to be more positive than non-athletes toward physical education; it was also found that a student with more years of physical education in high school would have a more favorable attitude toward physical education than a student with less years. Lastly, the results showed that students who attended a high school with 300 or less students had better attitudes than students who attended larger high schools.

Payne (1974) measured attitudes of 100 physical education majors toward physical activity. Specifically, the study dealt with why physical education majors play and whether or not the gender of the student plays a role in the reasons for their play. The physical education majors were administered the *Kenyon's Attitude Toward Physical Activity Scale*. Data clearly indicated males and females show significant differences in their reasons for play. Males attributed the importance of physical activity as an aesthetic

experience while females played for health and fitness reasons. Also, female subjects did not view physical activity as a social experience as did male subjects.

In 1978, Pandey had athlete and non-athlete college students in India participate in a study to determine their attitudes toward physical education. The sample consisted of 50 male and 50 female undergraduate students with the use of a sixteen-item Likert-type questionnaire. The results found athletes to have more positive attitudes than non athletes toward physical education, and of the non-athlete group, males were more favorable toward physical education than females.

Haywood (1980) evaluated Samford University freshman to compare their self-concepts and attitudes toward physical education. The 327 subjects consisted of 145 males and 182 females. They were pre- and post-tested using the *Tennessee Self-Concept Scale* and the *Wear Physical Education Attitude Inventory, Form A and Form B*. The post-test resulted in 302--134 males and 168 females--with all useable results. The final results from the pre- and post-testing found three sets of results: a significant positive change of both males and females in their attitudes toward physical education, a positive insignificant change for both sexes regarding self-concepts, and no significant relationship of male and female fitness performance, attitudes, and self-concepts. Overall, the author concluded that the most significant factor responsible for positive change in attitudes was a one-semester course.

Hammonds (1981) assimilated undergraduate student's attitudes toward taking physical education as a required subject versus attitudes of those taking physical education as an elective course. The study also attempted to analyze whether or not the

results from the comparison had implications for the program at East Tennessee State University. The subjects were 424 undergraduate students attending East Tennessee State University. The subjects were allowed to randomly choose 1 of 25 beginning activity classes in the spring semester and were administered a pretest, the *Kneer Attitude Inventory*. Of the original 424 students, 375 were enrolled in the same physical activity course that was randomly selected for the pretest. The results found that there was no significant difference in students taking elected or required physical education courses, and both groups had favorable attitudes toward physical education.

Czelusniak (1981) determined attitudes toward physical education of university freshman in which these attitudes were based on their senior year experience while in high school. The *Edgington Attitude Scale* and a background questionnaire was mailed to 472 randomly selected University of Maryland freshmen with a two-week completion period. A one-way analysis of variance was used to measure the relationship of program and participation factors. The results found that participation factors, involvement in planning and selection of the program, participation in the college physical education program, and interscholastic athletics had a significant effect on students having a favorable attitude toward physical education. The factors had no significant effect on the attitudes of the freshman students: sex, class size, coeducational or non-coeducational classes, location and type of high school attended, number of years that physical education was required, number of years the student participated in physical education, if the student participated in intramurals or extracurricular activities, type of

high school physical education program that was administered or the opportunity to substitute another class for physical education credit.

Jamhaydary (1984) connected attitudes of freshman and senior black and white students who attended universities in San Diego, California, toward required physical education courses. Specifically, the purpose of the study was to determine to what effect the required courses had on the attitudes of students toward physical education and to find whether or not sex, race, level of activity, field of study, or physical education program type had any effect on differences in attitudes. The intent of the study was also to determine whether or not a significant relationship existed between students' attitudes and age or the number of completed physical education courses. The *Wear Attitude Inventory, Form A*, along with a background questionnaire was utilized and data was analyzed using a t-test and Pearson Product-Moment Correlation. The results showed an overall positive attitude from the subjects toward physical education. Seniors, along with social science students, had more significant positive attitudes toward physical education. Lastly, there were no significant differences in attitudes toward physical education determined by age, marital status, race, sex and number of completed physical education courses or type of physical education program.

Koslow (1988) reviewed expressed opinions of college students toward physical education. Koslow used a Likert scale questionnaire to evaluate the responses of 473 undergraduate students at two large universities. The findings suggest that college students perceive an undergraduate degree in physical education as the least difficult degree to earn and the least prestigious to possess. The article further states that these

attitudes are based on misunderstandings about the discipline, and physical educators must take an active role to educate the public and to dispel these misunderstandings.

Weinberg, Petrillo, Doering, Lund, and Rowe (2000) utilized 59 pre-service elementary teachers' attitudes, before and after the completion of an elementary physical education methods course, toward the importance of physical education being taught in the curriculum. The researchers pointed out that there have been no previous studies conducted that have related to this type of study. Two instruments, the *Subject Importance Inventory* and the *Subject Preference Inventory*, were used within the study to gather the data before the first class meeting and at the end of the final class meeting. The results found that participants' rating for "importance of physical education and preference for teaching physical education from the beginning of the course to the end" increased significantly. Due to the elementary physical education methods class, physical education was viewed as a very important class in the curriculum surpassed only by language arts.

Xiang, Lowy, and McBride (2000) appraised elementary pre-service students' before and after perceptions of elementary physical education upon completing an elementary physical education methods course within their program of study. There were 97 participants: 92 female and 5 male, all of whom were elementary education majors. Prior to and at the conclusion of the course, the students were asked to complete questionnaires pertaining to their perceptions toward physical education. The questionnaire was specifically designed to gain information about how physical education

was perceived in elementary school education. After completion of the course, the participants had positive changes in their perceptions of physical education in the elementary school. The study revealed that the two most important components of the course that contributed to changes of the students were observation of actual physical education lessons and the opportunity to teach in the setting of the physical education class. The overall findings suggest that the elementary physical education methods course can have a positive impact on elementary preservice students' perceptions toward physical education.

Combinational Studies Encompassing Principals', Parents', Adolescents', and/or Teachers' Attitudes toward Physical Education

Dayries and DeVrye (1974) observed 42 junior and senior physical education majors and their parents in order to compare their attitudes toward physical education. Both had very favorable attitudes toward physical education, but a difference in attitudes could not be distinguished between the parents and the students.

Ballance (1982) gauged the attitudinal differences of administrators, teachers, and ninth grade students. The instrument administered to all subjects for collecting the data was the *Wear Attitude Inventory*. The results that were found were threefold. First, administrators and teachers were "in strong agreement" and/or "agreement" toward physical education. Second, students were more "in agreement" to "undecided" toward physical education. Last, there was a significant difference between administrators', teachers', and students' attitudes toward physical education.

Poitras (1984) probed attitudes of French-and English-speaking students, parents, and teachers toward physical education. The subjects involved were 3,600 individuals in the province of New Brunswick, Canada. Eighteen hundred spoke French and eighteen hundred spoke English. The instrument used to gather the data was the *Wear Physical Education Attitude Inventory, Short Form*. The results concluded that attitudes did not significantly differ among students, parents, and teachers, and there was no significant difference in attitudes toward physical education when comparing French-and English-speaking students, parents, and teachers.

Foraker (1994) analyzed the perceptions of Iowa public school physical education teachers, principals, and superintendents toward selected issues of the physical education program, physical education curricula and future directions for physical education programs. The data was collected with the use of the *Physical Education Trends Questionnaire*, which was constructed specifically for this study. Four hundred subjects (200 physical education teachers and 200 principals) were randomly selected from 1,545 Iowa public schools. Foraker found that the respondents were in agreement with most of the NASPE standards, and with what it means to be a physically educated person. Principals and superintendents were in more agreement than physical education teachers that other groups should have input into the physical education curriculum content. The last finding was that physical fitness was ranked as the most important program for middle and high school levels with motor skills being the most important at the elementary level.

Tannehill, Romar, O'Sullivan, and England (1994) used 314 tenth and eleventh graders and 139 parents of the participating students to examine attitudes toward physical education programs. Within the study, students and parents did not have common attitudes about the importance of physical education. Parental support for physical education as a requirement was not as strong as student support, but the parents did recognize the importance the subject played in the educational process. The final conclusions were that high school physical education should reflect societal change, along with equity for all students to meet the educational reform challenges that have helped to decrease physical education in public schools.

Kwon (1995) completed a study comparing the perceptions of secondary school principals and secondary physical education teachers in Seoul, Korea, toward conducting quality programs in physical education. Eight categories were used to evaluate the quality of the physical education programs and were also used to comprise the *Korean Perceptions Toward Physical Education Perception Questionnaire* for use within this study. The subjects consisted of 243 teachers and 123 principals. Many significant findings were identified, but two of the more interesting results were a high degree of agreement between teachers and principals on the eight categories on the questionnaire. A third finding was principals had overall more positive perceptions than did the teachers toward conducting quality physical education programs. It was also found that the positive perceptions could be due to previous teaching experience of the principals.

Valdez (1997) tested middle school students' and their parents' attitudes toward physical education and examined any relationship between the attitudes of the two

groups. The *Physical Education Activity Attitude Scale* was administered to 207 seventh grade students enrolled in a Northern California urban middle school and the adult persons who were living at the child's principal residence. The results found a significant difference in the students' and parents' attitudes in the overall category scores, general attitude and scientific basis construct areas. There were no significant differences between gender, ethnicity, and socioeconomic status on attitudes toward physical education.

Mokgwathi (1998) considered perceptions and attitudes of students, parents, and school administrators toward physical education and health benefits of physical activity in Botswana. This study confirms what other studies had stated, that is, Botswana adults were not interested in physical activity. The author went on to state that even with a low level of interest toward physical activity, there is a positive attitude toward supporting the inclusion of the subject into the school curriculum by parents and school administrators. The conclusion was that all subjects involved in the study realized the value of physical education as a school subject, but it is up to the policymakers to institute a viable and defensible physical education program in the Botswana schools. It was further concluded that the best place for this to happen would be in the teacher education programs.

Barnd (1999) surveyed the viewpoint of physical education teachers and middle school principals on the perceived effects of separate sex, modified, and coeducational physical education environments for adolescent girls in Colorado. The variables that were analyzed were percentage of time that was taught in separate sex, modified, and coeducational environments, curriculum offerings, student outcomes, advantages and

disadvantages of each environment, and the preferred physical education environment of the school principal and the physical education teacher. The findings were that 70 percent of the time physical education teachers in Colorado teach in a coeducational environment, 16 percent teach in a separate sex setting, and 15 percent teach in a modified environment. There were significant differences in the preferred ideal environments between the physical education teacher and the middle school principal. Few differences existed in Colorado schools between the activities being taught in each of the three environments and the gender of the teacher. The study found that principals indicated that socialization was an important outcome for students to learn in physical education. Physical education teachers believed that skill development was the most important component for students to learn.

Special Needs Individuals' Attitudes toward Physical Education

Routon (1977) calculated the attitudes toward physical education and self-concept of 50 asthmatic and 74 non-asthmatic children. The children, fourth, fifth, and sixth graders of elementary schools in Denton, Texas, were administered three Instruments: *The Way I Feel About Myself Self-Concept Scale*, the *Children's Attitude Inventory Toward Physical Education* and the *Game of Pairs*. The results found both groups to have favorable attitudes toward physical education with no significant differences between the two groups in the areas of self-concept and attitudes toward physical education.

In 1981, Randall fashioned a study to see how physically gifted children in grades four through six are influenced by an enrichment program focused upon expressed

attitudes toward physical education. The enrichment program was a unit of innovative physical education activities administered to 19 randomly selected students in an experimental group. Nineteen other students were placed within a control group. Both groups were pre- and post-tested using the *Toulmin Elementary Physical Education Attitude Scale*. The experimental group were administered the innovative unit of physical education activities for eight weekly, one-hour lessons. The results found that the unit had no significant differences in attitudes toward physical education between the two groups.

Evans (1983) gathered information to measure middle school gifted students' attitudes toward physical education. The sample consisted of 201 boys and girls within six public school districts in the state of Connecticut. Eighty-one boys and 120 girls were administered *Fishbeins Expectancy-Value Model* to construct a testing instrument. The instrument that was developed incorporated 25 characteristics into four categories: learning, leadership, motivation, and creativity and probability statements that allows for expression of the previous characteristics in physical education. The results found there was no significant difference for sex or grade levels in attitudes toward physical education. Overall, gifted students showed a low positive attitude toward physical education.

Sherrill, Rainholt, and Ervin (1984) inspected visually impaired male and female persons' attitudes toward physical education and recreation. A total of 30 subjects were analyzed based on feelings toward physical education and recreation from childhood, adolescence and adulthood. The subjects were from 16 to 50 years of age and were

comprised of 10 males and 20 females. The answers were based on 22 open-ended questions that were tape recorded and rated by three judges as to being positive or negative. The results found that attitudes toward experiences from school were positive while attitudes were negative toward neighborhood, community, church and family experiences. Males compared to females had significantly more positive attitudes toward physical education and recreation.

Toon and Gench (1990) rated 381 disabled and non-disabled high school students, 14 to 18 years of age, regarding their attitudes toward physical education. The study consisted of 30 mental or physically disabled and 351 nondisabled students who participated in the same physical education classes. The results, a two-way analysis of variance, found a significant difference between the two groups with the nondisabled group having more positive attitudes toward physical education than the disabled group.

Silverman (1998) submitted a study that P. A. Portman conducted in 1995 on how low skilled students perceive physical education. Portman's study involved 13 sixth grade low-skilled students from three different school districts. The purpose of the study was to describe the experience in sixth grade physical education classes of low skilled students. The experiences were measured through the use of two small group interviews, one individual interview, and field observations. The two small-group interviews dealt with two separate motives: to obtain general information about physical education class, and to focus on feelings of ability, success, failure, self-performance expectation, and other expectations. When the data was analyzed, it produced four categories that described the experiences of the participants. These categories were the following: "I like physical

education when I am successful,” “I can’t because I can’t,” “Mostly nobody helps,” and “Mostly everyone yells at me.” All students in the study liked physical education when they were successful. Most of the low skilled students in the “I can’t because I can’t” category had mostly negative attitudes about their unsuccessful experiences. Other reasons for explaining failure were adverse criticism and the student’s attitude that the teacher would not help them. The lowest functioning students in the “mostly nobody helps” category felt that the teacher threw them out there to make it on their own. The final category, “mostly everyone yells at me,” emphasized public views of physical education and the low skilled students in competitive situations. The public felt that this is a major “stumbling block” to the lowest level student in physical education classes. The more the public criticized the low students the more they physically removed themselves. The author sums up the article by saying that physical education teachers play a pivotal role in helping a student’s success by making the environment positive and the feedback skill related.

Tennessee Educational Reform Acts

Drew (1988) published an article describing and discussing the origination and contents of the Tennessee Comprehensive Education Reform Act (CERA) of 1984. This act was passed under then Governor Lamar Alexander and is also known as the Tennessee Better Schools Program. Under this program, a ten-point education program was developed and became the basis for much of what is conducted in Tennessee public schools today. Emphasized points were basic skills that must be mastered by the student at each grade level before being promoted to the next grade, computer skills for students

to obtain computer literacy, kindergarten being offered and mandatory for all children, more mathematics and science at the high school level, the establishment of state schools for gifted and talented students, redevelopment of the high school vocational education curriculum so that students in grades 9-12 are better prepared to enter the occupational workforce, improved classroom discipline, job skill placement training under the State Board of Regents, Centers of Excellence at Universities, and a master teacher program that develops a career ladder system. Other highpoints of CERA were the instillation of teacher training, a principal-administrator academy, funding for teacher assistance, and a student assistant program that provides a tuition loan for students interested in teaching math and science in Tennessee public schools.

In 1992, Tennessee passed the Education Improvement Act under Governor Ned McWherter. This act dealt with guidelines for fair and equitable distribution of public funds to grades kindergarten through twelve. These fundings were devised to meet all state laws and regulations governing Tennessee public schools. Another name for this act is the Tennessee Basic Education Program. These funds are to cover such needs as operation and maintenance of schools, pupil transportation, teacher salaries, textbooks, measurable pupil improvement, and school food services.

In June 2001, Governor Don Sundquist signed the Tennessee Education Reform Act into law. The intent of the Act is to ensure that all children in Tennessee will be able to develop proficient reading and writing skills during their school experience and also to see that all children in Tennessee will be able to proficiently read by the end of their third grade year of school. Also included in this Act are guidelines for reading, criteria for the

selection of reading coordinators funded by this Act for each local education agency, provisions for professional development in reading, provisions for intervention programs for seventh and eighth grade students at risk of not being able to graduate, and other amendments dealing with improvement of reading and schools as a whole.

In May 2002, the Tennessee House of Representatives and Senate of the One Hundredth General Assembly passed Joint Resolution 569, which deals with physical education and activity as part of a students' educational process. The reason for the passage of this law was due to the following findings of the United States Center for Disease Control and Prevention's (CDC) *National Health and Nutrition Examination Survey*. Children and teenagers are increasingly becoming overweight. When adolescents become adults, there is a less-than-optimal well-being due to sedentary lifestyles and unhealthy dietary habits. As American children move through adolescence, they become less physically active, and the amount of physical education and activity that high school students have received from 1991 (42 percent participation of high school students) to 1999 (29 percent participation of high school students) has declined. This resolution maintains three statements: all school age children in Tennessee, as part of their elementary and high school educational experience, have access to and participate in daily physical education instruction and activity; physical education instruction focus on teaching students to develop habits and behaviors that deal with physical activity as to increase the longevity and quality of their lives, and Tennessee public schools promote the importance of a healthy lifestyle through physical activity.

National, International, and other State Educational Reform Acts

Smith (1993) discussed the United Kingdom's 1988 Education Reform Act and its impact on physical education. Within this article, Smith discusses whether or not the United States should develop a national physical education curriculum and describes how Great Britain in 1992 began implementing a national physical education curriculum due to the Education Reform Act that was passed in 1988. The Education Reform Act that the United Kingdom passed dealt with accountability, teacher education, pupil assessment, and attainment targets in the physical education curriculum. Smith concludes by stating that the success of the national curriculum was due to teacher accountability, the curriculum being mandatory, and the combined efforts of politicians and educators.

Fisher and Wood (1996) published an article in the journal *Education* wherein they described and discussed the Health Framework for California's Public Schools that was passed by the California Legislature in 1994. Within this framework, California has attempted to strengthen school health programs through teacher-centered educational reform. Four strategies focused on publication of the Health Frameworks; health instructional resource adoption for grades kindergarten through grade eight that support and reinforce the Health Frameworks; the initiation of three Physical Education-Health Projects in Los Angeles, San Diego, and San Francisco; and development of standards for teacher preparation programs in health science. Within this legislation, California has mandated that health education be a requirement for high school graduation.

The United States Department of Education posts on their website the No Child Left Behind Act of 2001. In 2002, President George W. Bush signed into law the

No Child Left Behind Act of 2001, a reauthorization of the Elementary and Secondary Education Act (ESEA) enacted in 1965. This act encompasses five principles: increased accountability, greater flexibility of control in the use of federal education dollars for states and the local education agency, more and expanded options for parents and students, more emphasis on reading, and putting forth the principles of the reauthorization of the ESEA of 1965 programs. One program under ESEA of 1965 that is being emphasized is the funding of the improvement of education, of which physical education is a part. This emphasis in physical education is known as the Carol M. White Physical Education Program or Physical Education for Progress (PEP) Act, Title V, Part D, Subpart 10. This program allows the Secretary of Education to offer a five million dollar appropriation of competitive grants to local education agencies and community-based organizations for initiating, improving, and expanding kindergarten through grade twelve physical education programs. To enable students to participate in physical education activities, these funds can be used in various capacities such as for the purchase of equipment, hiring and/or training of staff, and developing of curriculum.

CHAPTER THREE

METHODOLOGY

The main purpose of this study was to examine Tennessee public elementary and middle school principals' attitudes toward the requirement of physical education in the school curriculum. The study described possible factors of Tennessee's public elementary and middle school principals along, with the structure of the physical education program that might have an influence on the principals' attitudes.

Subjects

Of the 1,332 public elementary and middle school principals in the three regions of the state of Tennessee, 982 were elementary school principals and 350 were middle school principals. The three regions, east, middle, and west, were defined by the Tennessee Anytime website that is maintained by the state of Tennessee (State of Tennessee, n.d.). For the purpose of this study, a total of 150 public elementary and 150 middle school principals were randomly selected and divided into two groups. Group one was comprised of 50 elementary school principals from each of the three regions, and group two was comprised of 50 middle school principals from each of the three regions for a total of 300 principals.

Prior to any questionnaires and consent forms being mailed to Tennessee Directors of Schools, Middle Tennessee State University Institutional Review Board

(IRB) approval was granted (Appendix A). A permission request (Appendix B), copy of the questionnaires and consent for participation form (Appendix C), along with a self-addressed, stamped envelope, were mailed to 191 directors of the selected schools discussing the purpose of the study and asking for permission to include their school principals in the study. After a period of two weeks, a follow up phone call was made to those directors of schools who had not returned their consent form, encouraging their participation.

After permission was obtained from the directors, a participation letter (Appendix D) explaining the purpose of the study was mailed to each of the 300 randomly selected principals. The letter informed them that their director had granted permission for their school to participate in the study. Also included in the mailing was a background information questionnaire (Appendix E), the *Wear Physical Education Attitude Inventory, Form A*, with specific directions for completing (Appendix F), along with a self-addressed stamped envelope. After a period of two weeks, the schools that had not returned the questionnaires were given a courtesy phone call encouraging participation from the principal. Principals who had not returned the information after two weeks were mailed a second set of the background information questionnaire and the *Wear Physical Education Attitude Inventory, Form A*.

Instruments

The background information questionnaire instrument was used to gather and investigate factors relating to each individual principal's professional background. The purpose of this questionnaire was to see if these factors might have an influence on each

of the principal's attitude. The questionnaire also requested information pertaining to the requirements of the school's physical education program. The questionnaire was developed to collect information pertaining to a principal's gender, academic degree(s), teaching experience, and athletic coaching and/or directing. The questionnaire was also designed to examine the structure of the physical education program, which consisted of student enrollment, physical education requirements, sessions per week that students attend physical education, and minutes per week that physical education classes meet. Additional information included substitutions allowed for physical education, certification held by the physical education instructor, physical education class size, and number of physical education teachers on staff. One item on the questionnaire asked about whether or not the principal and instructor for physical education were familiar with the Tennessee Standards for Physical Education. Questionnaires also asked about the type of facilities in which physical education classes are held, and the principal's rating of the school's physical education program.

The *Wear Physical Education Attitude Inventory, Form A* was used to assess the attitudes of the principals toward the requirement of physical education in the school curriculum. Prior to the *Wear Physical Education Attitude Inventory*, there were no reports of studies that measured adults' attitudes toward physical education. Carlos L. Wear (1951) originally developed a 40-item survey, *Evaluation of Attitude Toward Physical Education*, to find a reliable and valid assessment of individual and group attitudes toward physical education as an activity course. In 1955, C. L. Wear attempted

to construct two equal physical education attitude inventories, known as forms A and B, to be used in objective assessments to measure shifts in attitude when an intervention is used to alter attitudes toward physical education. The two surveys that were created by C. L. Wear were the *Wear Physical Education Attitude Inventory, Form A and Form B*. The two physical education attitude inventories both deal with the assessment of attitudes toward physical education; the only differences in the two surveys are the questions that are asked the respondent. The scoring process for forms A and B are the same as the original inventory developed in 1951. Forms A and B of the *Wear Physical Education Attitude Inventory* use a Likert scale.

Data Collection Procedures

The *Wear Physical Education Attitude Inventory, Form A*, along with a background information questionnaire, was mailed to 300 public elementary and middle school principals randomly selected from the 2002-2003 Tennessee State Department of Education Directory. There were 50 elementary and 50 middle school principals from each of the east, middle and west regional areas. Each questionnaire was labeled with an identification number and date to monitor the response of the schools that mailed back the questionnaires and the schools that had not returned completed questionnaires. The identification number allowed for the principal's answers on the questionnaires to remain anonymous. After two weeks, those principals who had not returned the completed questionnaires were given a courtesy phone call and mailed a follow up letter including a second set of questionnaires. All subjects were made aware that participation in this study

was voluntary, and all completed and returned questionnaires along with uncompleted questionnaires were kept under lock and key for the duration of the study and thereafter. All data was collected and analyzed by the investigator.

Design and Data Entry Procedures

The investigation was a cross-sectional correlation design with randomly selected public elementary and middle school principals from the state of Tennessee. This design facilitated an analysis of the relationship of Tennessee public elementary and middle school principals. Data was entered into data files and converted to SPSS for analysis. To assist in the data entry process, programs were written with entry screens simulating the hard-copy data forms. These were developed using the EpiData 2.1b data entry program. Data entry programs identify and prohibit entry of data that are inconsistent with related responses or are out of the acceptable response range. To minimize error due to missing data, data entry programs take into account skip patterns within the instruments and automatically record missing data. Data entry logs track instruments; these logs allowed identification of the step each instrument is in at any point in time. After data entry, quality control programs were run to check for internal consistency of related variables.

Data Analysis Procedures

Descriptive statistics arranged in tabular form were used to summarize the responses from the background information questionnaires to develop the professional educational background of public elementary and middle school principals and to examine the structure of physical education programs in the state of Tennessee.

The principals' attitudinal data were collected with the use of the *Wear Physical Education Attitude Inventory, Form A*. Before the data could be analyzed, it was necessary to establish and assign numerical values to the possible responses for each individual item on the *Wear Physical Education Attitude Inventory, Form A*. The inventory is a Likert scale instrument with responses "strongly agree," "agree," "undecided," "disagree," and "strongly disagree." For positively worded questions, a response of "strongly agree" was recorded a point value of 5, "agree" received a point value of 4, "undecided" had a point value of 3, "disagree" had a point value of 2, and "strongly disagree" had a point value 1. Coding was reversed for negatively worded questions.

An analysis of variance was used to determine whether or not statistically significant differences existed in the attitudes between the groups of elementary and middle school principals with regard to the principals themselves, regional location, and school size. The acceptance level for the hypotheses was established at the $p < .05$ level of significance. The Levene's test was used to estimate homogeneity of variance of the groups.

CHAPTER FOUR

RESULTS

The main purpose of this study was to examine Tennessee public elementary and middle school principals' attitudes toward the requirement of physical education in the school curriculum. The study also described possible factors of Tennessee's public elementary and middle school principals along, with the structure of the physical education program that might have an influence on the principals' attitudes.

Permission was obtained from 100 percent (n=191) of Tennessee Directors of Schools to utilize the school principals selected for this study. The data for this study were collected using the *Wear Physical Education Attitude Inventory, Form A*, along with a background information questionnaire. For the purpose of this study, a total of 150 public elementary and 150 public middle school principals were randomly selected and divided into two groups. Group one was comprised of 50 elementary school principals from each of the three regions, and group two was comprised of 50 middle school principals from each of the three regions for a total of 300 principals.

Of the 300 questionnaires that were mailed to the school principals, 198 were completed and returned for a total return of 66 percent. The respondents included 105 public elementary and 93 public middle school principals. Table 1 shows a breakdown of elementary and middle schools principals who were utilized within the study according to the three Tennessee regions.

Table 1

Utilized Tennessee Public School Principals by State Regions/School Levels

Number Questionnaires	East Region	Middle Region	West Region	Total
Elementary and Middle Schools				
Total Mailed	100	100	100	300
Total Received	64	70	64	198
Total Percentage	64	70	64	66
Elementary Schools				
Mailed	50	50	50	150
Received	32	39	34	105
Percent of Return	64	78	68	70
Middle Schools				
Mailed	50	50	50	150
Received	32	31	30	93
Percent of Return	64	62	60	62

The results of this study were presented in three sections. All three sections encompassed public elementary and middle school principals from the three Tennessee regions, east, middle, and west. Section one examines differences in the attitudes of principals toward the requirement of physical education in the school curriculum. Specifically, a comparison of attitudes were studied between Tennessee public elementary and middle school principals overall, by regional location and by school size.

Section two describes factors that influenced Tennessee's public elementary and middle school principals. Section three studies the structure of physical education programs within Tennessee public elementary and middle schools.

Section one was analyzed using an analysis of variance with statistical significance at the $p \leq .05$ levels for the acceptance level. Section two was analyzed using descriptive statistics such as percentages, averages, and tables. Section three was analyzed using descriptive statistics such as percentages and tables. The results given in this chapter address the ten research questions presented in chapter one. Each of the research questions will introduce the section that it questions.

Section One: Attitudes of Tennessee Public Elementary and Middle School Principals toward the Requirement of Physical Education in the School Curriculum

The data for part one of the study were gathered using the *Wear Physical Education Attitude Inventory, Form A*. The inventory was a Likert scale instrument, and the subjects were to mark a response ranging from strongly agree (SA), agree (A), undecided (U), disagree (D), and strongly disagree (SD) for each of the thirty questions. For positively worded questions, a response of "strongly agree" received a point value of 5, "agree" received a point value of 4, "undecided" received a point value of 3, "disagree" received a point value of 2, and "strongly disagree" received a point value of 1. Coding was reversed for negatively worded questions.

Comparisons of attitudes toward the requirement of physical education in the school curriculum were made between the groups of elementary and middle school principals using the following variables: overall comparison, regional location, and

school size. An analysis of variance with statistical significance at the $p \leq .05$ to determine if the null hypotheses were accepted or rejected. The following three null hypotheses were tested:

1. There will be no significant difference between the attitudes of Tennessee public elementary school principals and the attitudes of Tennessee public middle school principals toward the requirement of physical education in the school curriculum.
2. There will be no significant difference between the groups of public elementary school principals from the regions of East, Middle, and West Tennessee and public middle school principals from the regions of East, Middle, and West Tennessee in their attitudes toward the requirement of physical education in the school curriculum.
3. There will be no significant difference between the groups of Tennessee public elementary school principals and Tennessee public middle school principals in their attitudes toward the requirement of physical education in the school curriculum based on the enrollment size of the school.

The research questions and results that support accepting or rejecting each of the hypotheses are presented below.

Principals' attitudes toward required physical education.

Research question one. What are Tennessee public elementary and middle school principals' overall attitudes concerning the requirement of physical education in the school curriculum?

Hypothesis one. There will be no significant difference between the attitudes of Tennessee public elementary school principals and the attitudes of Tennessee public middle school principals toward the requirement of physical education in the school curriculum.

When the overall attitudes between elementary school principals and middle school principals toward the requirement of physical education in the school curriculum were analyzed, with an alpha level of .05 there were no statistical significant differences between the groups, $F(1,195) = .018, p = .895$. The group of elementary school principals equaled a mean of 2.97, while the group of middle school principals equaled a mean of 2.97, yielding a total mean of 2.97. Elementary school principals had a standard deviation of .12, and the middle school principals had a standard deviation of .14 with a total standard deviation of .13. The data showed that there are no statistically significant differences at the ($p \leq .05$) levels between Tennessee elementary school principals and middle school principals in their attitudes toward the requirement of physical education in the school curriculum. Based on these results, the null hypothesis one was accepted. The results are presented in Table 2.

Table 2

Analysis of Variance for Overall Attitudes Between Tennessee Elementary and Middle School Principals Toward Required Physical Education

Total Avg. School Level	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>p</i>
Between Groups	1	.000	.018	.895
Within Groups	195	.017		
Total	196			

***Research question two.* Are the attitudes of Tennessee public elementary and middle school principals toward the requirement of physical education in the school curriculum related to their respective regional locations (East, Middle, and West Tennessee)?**

Hypothesis two. There will be no significant difference between the groups of public elementary school principals from the regions of East, Middle, and West Tennessee and public middle school principals from the regions of East, Middle, and West Tennessee in their attitudes toward the requirement of physical education in the school curriculum.

When analyzing the results of Tennessee elementary and middle school principals' attitudes toward the requirement of physical education in the school curriculum based on regional locations of the state with an alpha level of .05 were analyzed, there were no statistical significant differences between the groups $F(2,194) = .489, p = .614$. The East Tennessee region equaled a mean of 2.96, the Middle Tennessee region equaled a mean of 2.96, while the West Tennessee region equaled a mean of 2.98, yielding a total mean of 2.97. The East Tennessee region had a standard deviation of .13, the Middle Tennessee region a standard deviation of .12, and the West Tennessee region a standard deviation of .13. The total standard deviation equaled .13. Based on the data, elementary school principals and middle school principals from the three various regions of the state of Tennessee (east, middle, and west) had no statistically significant differences ($p \leq .05$ level) in their attitudes toward the requirement of physical education in the school curriculum. Due to these results, null hypothesis two was accepted.

these results, null hypothesis two was accepted. The results of hypothesis two are presented in Table 3.

Table 3

Analysis of Variance for Attitudes Between Tennessee Elementary and Middle School Principals Toward Required Physical Education Based on Region of the State

Total Avg. School Level	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>p</i>
Between Groups	2	.008	.489	.614
Within Groups	194	.017		
Total	196			

Research question three. Is school enrollment size related to the attitudes of Tennessee public elementary and public middle school principals toward the requirement of physical education in the school curriculum?

Hypothesis three. There will be no significant difference between the groups of Tennessee public elementary school principals and Tennessee public middle school principals in their attitudes toward the requirement of physical education in the school curriculum based on the enrollment size of the school.

Based on enrollment size for the 2002-2003 school year, each school was assigned to one of three categories. Category one was schools with an enrollment of less than or equal to 325 students, category two was schools that had an enrollment of 326-599 students, and category three was schools with an enrollment of 600 or more students.

(The results for hypothesis three are presented in Table 4). When the results of the data between the groups of elementary and middle school principals' attitudes toward requirement of physical education in the school curriculum based on enrollment size of the school were analyzed, at a significance level of .05 there were no statistically significant differences between and within the groups $F(2,194) = .293, p = .746$.

Category one schools equaled a mean of 2.96, category two schools equaled a mean of 2.98, and category three schools equaled a mean of 2.96, yielding a total mean of 2.97. The category one schools had a standard deviation of .11, the category two schools a standard deviation of .15, and the category three schools a standard deviation of .11. The total standard deviation equaled .13. The data showed that size of the school was not related to the attitudes of elementary or middle school principals toward the requirement of physical education in the school curriculum. Based on these results, null hypothesis three was accepted.

Table 4

Analysis of Variance for Attitudes Between Tennessee Elementary and Middle School Principals Toward Required Physical Education Based on Enrollment Size of the School

Total Avg. School Level	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>p</i>
Between Groups	2	.005	.293	.746
Within Groups	194	.017		
Total	196			

Section Two: Influencing and Non-Influencing Factors of Tennessee's Public Elementary and Middle School Principals

Tennessee public elementary and middle school principals were described with influencing factors along with non-influencing factors from the completed questionnaires. This description was accomplished with the use of percentages, averages, and tables. The research questions presented in Chapter One that relate to this section are presented below, along with the results that answer the research question. These research questions dealt with the influencing factors that had an effect on the attitudes of Tennessee public elementary and middle school principals toward the requirement of physical education in the school curriculum. Tables were designed to show the statistics that described each influencing factor. Following the section on influencing factors, a second section dealt with factors that did not have an effect on principals' attitudes toward the requirement of physical education but dealt with information that described elementary and middle school principals. The three influencing factors that had an effect on Tennessee public elementary and middle school principals' attitudes toward the requirement of physical education were gender, undergraduate degrees, and number of years as an athletic coach or athletic director. Other non-influencing factors that were measured in the study were number of years of teaching experience, number of years as a principal, and the principals' familiarity with the Tennessee Standards for Physical Education. Responses were received from 70 percent (n=105) of the elementary school principals and 62 percent (n=93) of the middle school principals.

Influencing factors of Tennessee public elementary and middle school principals.

Research question four. What percentage of Tennessee public school principals are male or female at the elementary school level? at the middle school level?

Gender.

The percentage of gender makeup of elementary and middle school principals according to state regions and school levels is shown in table 5.

Table 5

Percentage of Gender Makeup of Principals According to State Regions/School Levels

Gender	East Region	Middle Region	West Region	Statewide
Elementary Schools				
Men	56%	49%	41%	49%
Women	44%	51%	59%	51%
Total	100%	100%	100%	100%
Middle Schools				
Men	75%	58%	77%	70%
Women	25%	42%	23%	30%
Total	100%	100%	100%	100%

Statewide in Tennessee elementary schools, women comprised 51 percent and men comprised 49 percent of the principal positions held. In Tennessee elementary schools according to the three regional locations, men held 56 percent in the east, 49

percent in the middle, and 41 percent in the west of the elementary principals positions. From these same three regional locations, women held 44 percent in the east, 51 percent in the middle, and 59 percent in the west of the elementary school principal positions.

Statewide in Tennessee middle schools, men comprised 70 percent and women comprised 30 percent of the principal positions held. In Tennessee elementary schools according to the three regional locations, men held 75 percent in the east, 58 percent in the middle, and 77 percent in the west of middle school principal positions. From these same three regional locations, women held 25 percent in the east, 42 percent in the middle, and 23 percent in the west of middle school principal positions.

Research question five. What percentage of Tennessee public elementary and middle school principals hold an undergraduate degree in physical education?

Undergraduate Degrees.

The percentage of Tennessee elementary and middle school principals who possess an undergraduate degree in physical education according to state regions and school level are presented in table 6.

Table 6

Percentage of Principals with Undergraduate Degree in Physical Education According to State Regions/School Levels

School Level	East Region	Middle Region	West Region	Statewide
Elementary	12.5%	15.4%	8.8%	12.4%
Middle	15.6%	19.4%	26.7%	20.5%

An undergraduate degree in physical education was held by 16.5 percent of Tennessee elementary and middle school principals statewide. Of the elementary school principals, 12.4 percent held undergraduate degrees in physical education. Of the middle school principals, 20.5 percent held undergraduate degrees in physical education.

The regions of the state of Tennessee were further broken down to analyze the elementary and middle school principals who held undergraduate degrees in physical education. Of the 12.4 percent of elementary school principals who held undergraduate degrees in physical education, 12.5 percent were from the eastern region, 15.4 percent from the middle region, and 8.8 percent from the west region. Of the 20.5 percent of middle school principals who held undergraduate degrees in physical education, 15.6 percent were from the eastern region, 19.4 percent from the middle region, and 26.7 percent from the western region. In addition to an undergraduate degree in physical education being held by Tennessee public elementary and middle school principals, the respondents within the study mainly held two different undergraduate degrees. The different undergraduate degrees were in elementary education and secondary education. Statewide in Tennessee, an undergraduate degree in elementary education was held by 49.5 percent of elementary school principals. Statewide in Tennessee, an undergraduate degree in secondary education was held by 40.9 percent of middle school principals.

Research question six. What percentage of Tennessee public elementary and middle school principals have coaching and/or athletic directing experience?

Athletic Coaching and/or Athletic Directing Experience of Tennessee Principals.

The percentage of Tennessee elementary and middle school principals that had athletic coaching and/or athletic directing experience according to statewide and school level are presented in table 7. Of the elementary and middle school principals in the study, 126 of the 198 respondents (63.6%) reported having no years of experience as an athletic coach and/or athletic director. Of the elementary school principals, 74 of the 105 respondents (70.5%) reported having no years of experience as an athletic coach and/or

Table 7

Percentage of Principals with Athletic Coaching and/or Athletic Directing Experience According to Statewide and School Levels

Experience	Statewide
	Elementary Schools
Yes	29.5
No	70.5
	Middle Schools
Yes	44.1
No	55.9

athletic director. Of the elementary school principals, 31 of the 105 respondents (29.5%) reported having one or more years of experience as an athletic coach and/or athletic director. Of the middle school principals, 52 of the 93 respondents (55.9%) reported having no years of experience in athletic coaching or directing. Of the middle school

principals, 41 of the 93 respondents (44.1%) reported having one or more years of experience as an athletic coach and/or athletic director.

Non-influencing factors of Tennessee public elementary and middle school principals.

Graduate Degrees.

The percentage of the highest degree obtained that was reported by Tennessee elementary and middle public school principals according to state regions and school levels are shown in table 8. Statewide 49.5 percent of elementary school principals and 58.1 percent of middle school principals held a master's degree. Statewide 11.4 percent of the elementary school principals and 11.8 percent of the middle school principals held a doctorate degree.

Teaching Experience of Tennessee Principals.

Statewide elementary school principals have an average of 17.1 years of teaching experience. According to the three regions of the state of Tennessee, elementary principals in the eastern region have 16.2 years of teaching experience, 19.2 years of teaching experience in the middle region, and 15.6 years of teaching experience in the western region. Statewide middle school principals have an average of 15.5 years of teaching experience. According to the three regions of the state of Tennessee, middle school principals in the eastern region have 13.9 years of teaching experience, 18.6 years of teaching experience in the middle region, and 14.1 in the western region.

Table 8

Percentage of Principals with Highest Degree Obtained According to State Regions/School Levels

Degree	East Region	Middle Region	West Region	Statewide
Elementary Schools				
Master's	43.8%	35.9%	70.6%	49.5%
Master's +30	-----	2.6%	5.9%	2.9%
Master's +45	9.4%	17.9%	8.8%	12.4%
Master's +90	3.1%	-----	-----	.9%
Educational Specialist	21.9%	33.3%	2.9%	20.0%
Doctorate	15.6%	10.3%	8.8%	11.4%
Total*	93.8%	100.0%	97.0%	97.1%
Middle Schools				
Master's	50.0%	48.4%	76.7%	58.1%
Master's +30	-----	3.2%	-----	1.1%
Master's +45	-----	9.7%	13.3%	7.5%
Educational Specialist	28.1%	22.6%	-----	17.2%
Doctorate	15.6%	12.9%	6.7%	11.8%
Total*	93.7%	96.8%	96.7%	95.7%

* The percentages that do not equal 100 percent are due to the subjects who did not answer the question on the survey of the school.

Principal Experience of Tennessee Principals.

Tennessee public principals' average years of principal experience by state regions and school levels are shown in table 9. This experience could have been gained by being a principal in the state of Tennessee or any other state.

Table 9

Principals Average Years of Principal Experience According to State Regions/School Levels

Experience	East Region	Middle Region	West Region	Statewide
Elementary Schools				
Total Average Experience	10.4 years	13.2 years	13.1 years	12.3 years
Middle Schools				
Total Average Experience	10.4 years	8.9 years	10.1 years	9.8 years

The data indicated Tennessee public elementary principals with a statewide average of 12.3 years. When the data were divided according to state region, elementary principals from the eastern region had an average experience of 10.4 years. Elementary principals from the middle region had an average experience of 13.2 years. Elementary principals from the western region had an average experience of 13.1 years.

The data for middle school principals indicated Tennessee public middle schools with a statewide average of 9.8 years. When the data were divided according to state regions, middle school principals from the eastern region had an average experience of 10.4 years. Middle school principals from the middle region had an average experience of

8.9 years. Middle school principals from the western region had an average experience of 10.1 years.

Principals' Familiarity with Tennessee Standards for Physical Education.

The percentage of Tennessee elementary and middle school principals who indicated familiarity with the Tennessee Standards for Physical Education is shown in table 10.

Table 10

Percentage of Principals' Familiar with Tennessee Standards for Physical Education According to State Regions/School Levels

Familiarity	East Region	Middle Region	West Region	Statewide
Elementary Schools				
Those Familiar	81.3%	92.3%	85.3%	86.6%
Those Not Familiar	18.7%	7.6%	14.7%	13.3%
Total*	100.0%	99.9%	100.0%	99.9%
Middle Schools				
Those Familiar	100%	93.5%	93.3%	95.6%
Those Not Familiar	0%	6.5%	6.6%	4.3%
Total*	100%	100.0%	99.9%	99.9%

* The percentages that do not equal 100 percent are due to the subjects who did not answer the question on the survey of the school.

Overall 86.7 percent of elementary and 95.6 percent of middle school principals were familiar with the Tennessee Standards for Physical Education. The data revealed

that 13.3 percent of elementary school principals statewide reported not being familiar with the Tennessee Standards for Physical Education. Of these 13.3 percent of elementary school principals not familiar, 18.7 percent were from the eastern region, 7.6 percent were from the middle region, and 14.7 percent were from the western region.

The data indicated that 4.3 percent of middle school principals statewide reported not being familiar with the Tennessee Standards for Physical Education. Of these 4.3 percent of middle school principals not familiar, 0 percent were from the eastern region, 6.5 percent from the middle region, and 6.6 percent from the western region.

Section Three: Structure of Physical Education Programs at all three Tennessee Regions: East, Middle, and West

Section three studied the structure of the physical education program in specific schools. The results of this section were analyzed through the use of percentages and tables to describe the structure of the physical education programs. The research questions presented in Chapter One that relate to this section are presented below, along with the results that answer the research question. These four research questions dealt with specific areas of the structure of physical education programs within Tennessee public elementary and middle schools. These areas were the requirement of physical education, number of minutes per week attended by students, type of facilities used for physical education, and a rating of the physical education program. Tables were designed to show the statistics that described each structure of physical education programs.

The second portion of section three dealt with other areas dealing with the structure of physical education programs of Tennessee public elementary and middle

schools. These other areas were substitutions allowed, number of sessions attended by students per week, physical education personnel, and physical education class size averages. Responses were received from 70 percent (n=105) of the elementary school principals and 62 percent (n=93) of the middle school principals relating to this section.

Structure of physical education programs.

Research question seven. What percentages of elementary schools and middle schools require students to take physical education?

Requirement of Physical Education.

The percentage of Tennessee elementary and middle schools that require students to take physical education is shown in table 11.

Table 11

Percentage of Tennessee Public Elementary and Middle Schools That Require Physical Education

Requirement	
	Elementary Schools
Yes	99.3%
No	.6%
	Middle Schools
Yes	89.5%
No	10.5%

The background questionnaire asked both elementary and middle school principals whether or not physical education was required in the school. The data revealed that 99.3 percent of the schools at the elementary level required students to take physical education classes while only one elementary school in the middle region of Tennessee (.6%) did not require students to take physical education. At the middle school level, the data showed 89.5 percent of the schools required students to take physical education, and 10.5 percent of schools had no requirement for physical education.

Research question eight. How many minutes per week do students participate in physical education?

Required Time of Physical Education.

The percentage of schools according to state regions and statewide that have students participate in physical education by minutes per week is shown in table 12. In rows one through three, statewide 84.7 percent of elementary schools participated in less than 60 to 120 minutes per week of physical education. In rows four through six, statewide 13.3 percent of elementary schools participated in 121 to 2100 minutes per week of physical education. However, in rows one through three, statewide 37.7 percent of middle schools participated in less than 60 to 120 minutes per week of physical education. In rows four through seven, statewide 56.9 percent of middle schools participated in 121 to 2100 minutes per week of physical education.

Table 12

Percentage of Schools Dealing with Physical Education by Minutes per Week

Min./Wk	East Region	Middle Region	West Region	Statewide
Elementary Schools				
<60	43.8%	41.0%	52.9%	45.7%
61-90	50.0%	38.5%	17.6%	35.2%
91-120	----	2.6%	8.8%	3.8%

121-150	3.1%	15.4%	11.8%	10.5%
151-180	3.1%	----	2.9%	1.9%
226-2100	----	----	2.9%	.9%
Other	----	2.6%	2.9%	1.9%
Total	100.0%	100.0%	99.8%	99.9%
Middle Schools				
<60	31.3%	19.4%	20%	23.7%
61-90	9.4%	6.5%	----	5.4%
91-120	3.1%	3.2%	20.0%	8.6%

121-150	6.3%	3.2%	13.3%	7.5%
151-180	3.1%	3.2%	3.3%	3.2%
181-225	31.3%	25.8%	6.7%	21.5%
226-2100	9.4%	35.5%	33.3%	24.7%
Other	3.1%	3.2%	3.3%	3.2%
Total	97.0%	100.0%	99.9%	97.8%

Research question nine. In what types of facilities are physical education classes taught?

Types of Facilities Used for Physical Education.

On the background questionnaire, elementary and middle school principals marked the type of facility that the physical education classes utilized. This section allowed for more than one response to be selected. The choices for type of facility were as follows: gymnasium, cafeteria/multipurpose room, outdoors, regular classroom, and other. Other accounted for a combination of the above or other areas not specified. Table 13 shows a percentage of schools that used the specific facility for physical education class according to state region and school level. Combinations of facilities were widely used in the western region among elementary schools, 58.8 percent. Combinations of facilities were also used in two regions of middle schools. These regions were the eastern region with 75 percent and western region with 60 percent.

Research question ten. How do elementary and middle school principals rate the quality of their school's physical education program?

Principals' Rating of Physical Education Programs.

Both elementary and middle school principals were asked to rate the quality of the physical education program within their school. This was a 1 to 5 rating with 1 being the lowest rating "poor," 2 as being "needs improvement," 3 as being "average," 4 as being "above average," and 5 being the highest rating, "superior."

Table 13

Percentage of Schools That Use the Specific Facility for Physical Education Class According to State Regions/School Levels

Facility Type	East Region	Middle Region	West Region
Elementary Schools			
Gymnasium	71.9%	48.7%	38.2%
Cafeteria	6.2%	5.1%	2.9%
Other	21.9%	46.2%	58.8%
Total*	100.0%	100.0%	99.9%
Middle Schools			
Gymnasium	21.9%	54.8%	40.0%
Other	75.0%	45.2%	60.0%
Total*	96.9%	100.0%	100.0%

* The percentages that do not equal 100 percent are due to the subjects who did not answer the question on the survey of the school.

Table 14 shows a percentage of principals who rated the physical education program on a 1 to 5 scale. One school in the middle region of elementary schools did not answer this specific question.

Within Tennessee elementary schools, the results showed that statewide 89.5 percent of elementary school principals expressed a rating of 3 or more for the quality of the physical education program within the school. A rating of 2 or less for the quality of the schools physical education program was expressed by 8.6 percent of elementary school principals. Statewide a rating of 3 was expressed by 20 percent, a rating of 4 was

Table 14

Percentage of Principals That Rated the Physical Education Program According to State Regions/School Levels

Rating	East Region	Middle Region	West Region	Statewide
Elementary Schools				
1	3.1%	2.6%	---	1.9%
2	3.1%	5.1%	11.8%	6.7%
3	31.3%	15.4%	14.7%	20.0%
4	31.3%	51.3%	52.9%	45.7%
5	31.3%	20.5%	20.6%	23.8%
Total*	100.0%	94.9%	100.0%	98.1%
Middle Schools				
1	3.1%	3.2%	---	2.2%
2	6.3%	6.5%	10.0%	7.5%
3	28.1%	22.6%	36.7%	29.0%
4	40.6%	45.2%	30.0%	38.7%
5	18.8%	22.6%	23.3%	21.5%
Total*	96.9%	100.0%	100.0%	98.9%

* The percentages that do not equal 100 percent are due to the subjects who did not answer the question on the survey of the school.

expressed by 45.7 percent, and a rating of 5 was expressed by 23.8 percent of elementary school principals.

Within Tennessee middle schools, the results showed that statewide 89.2 percent of middle school principals expressed a rating of 3 or more for the quality of the physical

education program within the school. A rating of 2 or less for the quality of the schools physical education program was expressed by 9.7 percent of middle school principals. Statewide a rating of 3 was expressed by 29 percent, rating of 4 was expressed by 38.7 percent, and a rating of 5 was expressed by 21.3 percent of middle school principals.

Other Areas Dealing with the Structure of Physical Education Programs of Tennessee Public Elementary and Middle Schools

Substitutions Allowed for Physical Education.

Even though schools at both the elementary and middle levels indicated that physical education was a requirement, a large variety of substitutions were given to students for both medical and non-medical reasons. Examples indicated by the data were: health, computers, guidance, office assistant, drama, chorus, Spanish I, and a variety of art-related concept classes. Some academically related substitutions for physical education were: academically related, such as makeup work, life skills, FOCUS (which is a study skills class), and BRIDGES labs (which teach academic concepts such as definitions, multiplication tables, parts of speech, and other rote concepts through physical movement). One school indicated that in place of taking physical education, students could elect to take health and safety, music, and guidance in a three-week rotation.

Number of Sessions Attended by Students Per Week.

The number of sessions per week that students participated in physical education at the elementary level varied across the regions. The data were analyzed regionally and

statewide. Table 15 shows the percentage of schools by state region and statewide that have students participate in physical education by sessions per week.

Table 15

Number of Sessions Attended by Students/Week According to State Regions/School Levels

Sessions/Wk	East Region	Middle Region	West Region	Statewide
Elementary Schools				
<1-1	21.9%	5.0%	32.4%	19.1%
2	56.9%	56.4%	23.5%	45.7%
3-5	9.0%	23.1%	29.4%	20.9%
Other	12.5%	15.4%	14.7%	14.3%
Total*	100.0%	99.9%	100.0%	100.0%
Middle Schools				
<1-1	6.3%	0%	3.3%	3.2%
2	6.3%	0%	20.0%	8.6%
3-5	71.9%	51.6%	50.0%	58.1%
Other	15.6%	48.4%	26.6%	30.1%
Total*	100.0%	100.0%	99.9%	100.0%

* The percentages that do not equal 100 percent are due to the subjects who did not answer the question on the survey of the school.

At the elementary school level, principals reported that 19.1 percent of students attend physical education classes less than one to one session per week, 45.7 percent two sessions per week, and 20.9 percent three to five sessions per week, statewide.

statewide. The remaining category, other, is a combination of different schedules for physical education as well as the principals who did not answer this question on the questionnaire, which comprised 14.3 percent.

At the middle school level, middle school principals reported that 3.2 percent of students attend physical education classes less than one to one session per week, 8.6 percent met two sessions per week, and 58.1 percent three to five sessions per week, statewide. The remaining category, other, is a combination of different schedules for physical education as well as principals who did not answer this question on the questionnaire, which comprised 30.1 percent.

Physical Education Personnel.

On the background questionnaire, three questions dealt with the physical education personnel. The sections on the questionnaire were the certification of the individual teaching the physical education curriculum, the number of physical education teachers on staff, and whether or not the physical education teacher was familiar with the Tennessee Standards for Physical Education.

The first question regarding physical education personnel on the background questionnaire dealt with the individual teaching the physical education curriculum. When analyzing the data of the individual teaching the physical education curriculum in elementary schools, statewide, only three schools had a non-certified physical educator teaching the physical education curriculum. A certified physical education teacher in 100 percent of the eastern region elementary schools, 97 percent of the middle region

elementary schools, and 92 percent of the western region elementary schools taught the physical education curriculum. The data from middle schools within the study statewide and regionally showed that 100 percent of physical education classes were taught by certified physical education teachers.

The second question regarding physical education personnel on the background questionnaire dealt with the number of physical education teachers on staff that were reported by each school in the study. Table 16 shows a distribution according to state region and school level of the number of schools that reported having one, two, three, or some other number of physical education teachers on staff. The other section consisted of responses that stated more than three physical education teachers, a part-time physical education teacher, no requirement of physical education, or having the homeroom teacher or a certified teacher assistant teach the physical education class.

Statewide, 61 elementary school principals reported having one physical education teacher on staff, while 29 elementary school principals reported having two physical education teachers on staff. Statewide, 21 middle school principals reported having a physical education teacher on staff and 43 middle school principals reported having two physical education teachers on staff.

On the background questionnaire regarding physical education personnel, question three addressed the familiarity of the physical education faculty with Tennessee Standards for Physical Education Standards. When analyzing the elementary schools statewide, only four schools responded with the following: no requirement of physical education, the teacher not being familiar with the state standards, or not answering the

Table 16

Number of Physical Education Teachers on Staff According to State Regions/School Levels

Teacher on Staff	East	Middle	West	Statewide
Elementary Schools				
1	23	19	19	61
2	5	13	11	29
3	2	2	1	5
other	2	5	3	10
Total schools	32	39	34	105
Middle Schools				
1	8	6	7	21
2	16	13	14	43
3	6	8	7	21
other	2	4	2	8
Total schools	32	31	30	93

question. Statewide, 96 percent of the elementary principals responded that the person instructing physical education in the school was familiar with the state standards. When analyzing the middle schools within the study, 99 percent of the principals responded that the person instructing physical education in the school was familiar with the state standards.

Physical Education Class Size Averages.

On the background questionnaire, elementary and middle school principals marked the class size averages of the physical education classes in the school. Table 17 shows the percentage of physical education classes of each size. Class size averages are

Table 17

Average Physical Education Class Size According to State Regions/School Levels

Class Size Avg.	East Region	Middle Region	West Region	Statewide
Elementary Schools				
< 20 students	34.4%	20.5%	23.5%	25.7%
20-25 students	62.5%	71.8%	52.9%	62.9%
26-30 students	3.1%	2.6%	2.9%	2.9%
31 or more students	----	2.6%	20.6%	7.6%
Other	----	2.6%	----	----
Total	100.0%	100.1%	99.9%	99.1%
Middle Schools				
< 20 students	9.4%	6.5%	----	5.4%
20-25 students	40.6%	32.3%	43.3%	38.7%
26-30 students	37.5%	45.2%	33.3%	38.7%
31 or more students	9.4%	16.1%	23.3%	16.7%
Total*	96.9%	100.1%	99.9%	99.5%

* The percentages that do not equal 100 percent are due to the subjects who did not answer the question on the survey of the school.

determined by the Tennessee State Department of Education. The categories for class size averages are less than 20 students per class, 20-25 students per class, 26-30 students per class, and 31 or more students per class. The other was for a school that does not require physical education. When analyzing class sizes within the study, statewide 62.9 percent of the elementary schools reported having physical education class size averages of 20-25 students per class, while statewide 38.7 percent of middle schools reported having physical education class size averages of 20-25 students per class.

CHAPTER FIVE

DISCUSSION

The main purpose of this study was to examine Tennessee public elementary and middle school principals' attitudes toward the requirement of physical education in the school curriculum. The study described factors of Tennessee's public elementary and middle school principals, along with the structure of the physical education program that might have an influence on the principals' attitudes.

Permission was obtained from 100 percent (n=191) of Tennessee Directors of Schools to utilize the school principals selected for this study. The data were collected using a background information questionnaire, along with the *Wear Physical Education Attitude Inventory, Form A*. The subjects consisted of a total of 150 public elementary and 150 middle school principals who were randomly selected and divided into two groups. Group one was comprised of 50 elementary school principals from each of the three regions, and group two was comprised of 50 middle school principals from each of the three regions for a total of 300 principals. Within this study, 198 principals (105 public elementary and 93 middle school principals) completed and returned the questionnaires for a total return rate of 66 percent.

In the effectiveness of a school, the principal plays a critical and vital role. According to Thornburg (1986), the principal plays a key role in curriculum development and is a facilitator of change in the educational process. In Tennessee schools, one of the

critical roles of the principal is to determine time allotments for physical education classes. According to Dodds and Locke (1984) and Taylor (1985), school principals have the ability to decide the fate of physical education programs; therefore, principals must be convinced of the importance that physical education plays in the school curriculum. In Tennessee elementary and middle schools, physical education is required but there are no restrictions pertaining to the amount of time that a student must participate. The amount of time that physical education is offered to students is usually the responsibility of the school principal. Hence, if a principal feels that physical education is a worthwhile subject in the school curriculum (meaning that the principal has a positive attitude toward required physical education), then physical education has a better opportunity of being required for students.

Conclusions

The results that were found for the three hypotheses in chapter four indicated key conclusions for the attitudes of principals toward the requirement of physical education in the school curriculum.

Principals' attitudes toward required physical education.

Hypothesis one. There will be no significant difference between the attitudes of Tennessee public elementary school principals and the attitudes of Tennessee public middle school principals toward the requirement of physical education in the school curriculum.

Research question and hypothesis one conclusion.

1. Elementary and middle school principals significantly favored physical education being a requirement in the school curriculum. Both elementary and middle school principals reflected a high positive attitude toward required physical education in the school curriculum ($p = .895$).

Hypothesis two. There will be no significant difference between the groups of public elementary school principals from the regions of East, Middle, and West Tennessee and public middle school principals from the regions of East, Middle, and West Tennessee in their attitudes toward the requirement of physical education in the school curriculum.

Research question and hypothesis two conclusions.

2. The regional locations of Tennessee did not have an effect on either elementary or middle school principals' attitudes toward the requirement of physical education in the school curriculum.
3. Principals from all three regional locations of Tennessee significantly favored physical education being a requirement in the school curriculum.

Hypothesis three. There will be no significant difference between the groups of Tennessee public elementary school principals and Tennessee public middle school principals in their attitudes toward the requirement of physical education in the school curriculum based on the enrollment size of the school.

Research question and hypothesis three conclusions.

4. The enrollment size of the school in Tennessee did not have an effect on either elementary or middle school principals' attitudes toward the requirement of physical education in the school curriculum. Schools with less than or equal to 325 students had the same attitude toward the requirement of physical education in the school curriculum as schools with enrollment sizes of 326-599 and 600 or more students.
5. Elementary and middle school principals from all three categories of school enrollment sizes significantly favored physical education being a requirement in the school curriculum.

Influencing factors of Tennessee's public elementary and middle school principals.

Research question four conclusion.

6. There were no differences between the attitudes of women who were elementary principals compared to men who were elementary principals toward the requirement of physical education in the school curriculum.

Research question five conclusion.

7. Not having an undergraduate degree in physical education had no effect on the overall attitudes of principals toward the requirement of physical education in the school curriculum.

Research question six conclusion.

8. Not having athletic coaching and/or directing experience had no effect on the overall attitudes of principals toward the requirement of physical education in the school curriculum.

Structure of physical education programs.

Research question seven conclusion.

9. Principals at the elementary and middle school levels required physical education in the school curriculum.

Research question eight conclusion.

10. Students at the middle school level spent twice the number of minutes per week in physical education than students at the elementary school level.

Research question nine conclusion.

11. There was a small difference between elementary and middle schools in the type of facilities that physical education was taught. The difference was not considered significant.

Research question ten conclusion.

12. There was a small difference between elementary and middle school principals' rating of the physical education program within their school. The difference was not considered significant.

Recommendations for Further Studies

Although many general recommendations can be made from this study, many questions still remain unanswered and additional research in this area is needed. Specific recommendations from this study and suggestions for further research are presented.

1. A further study should be conducted to determine how important these principals feel that required physical education is compared to other required subjects in the school curriculum.
2. Tennessee Directors of Schools should be studied to assess their attitudes toward the requirement of physical education in the school curriculum.
3. A further study is needed on why no time or credit requirement exists for Tennessee elementary and middle public schools, but credit requirements is mandatory for Tennessee high school students.
4. A study should be conducted investigating Tennessee private elementary and middle school principals' attitudes toward the requirement of physical education in the school curriculum.
5. A nationwide study of elementary and middle public school principals should be undertaken to assess their attitudes toward the requirement of physical education in the school curriculum.
6. A follow up study should be conducted in yearly increments to monitor any changes or trends relating to the requirement of physical education that may take place in Tennessee school systems.

7. The data in this study should be shared with professional organizations associated with physical education.
8. A survey should be conducted to determine the percentage of Tennessee public elementary and middle school principals who know whether or not Tennessee requires physical education at the K-8th grade level.

APPENDICES

APPENDIX A

Middle Tennessee State University Institutional Review Board Approval (IRB)

Department of Philosophy



P.O. Box 73
Middle Tennessee State University
Murfreesboro, Tennessee 37132
(615) 898-2907

George L. Walker 266-67-7760

December 12, 2002

Effect of Tennessee Elementary and Middle Public School Principal's Attitudes Toward
the Requirement of Physical Education Programs

Protocol: 03-127

Dear George L. Walker,

The MTSU Institutional Review Board, or representative of the IRB, has reviewed your research proposal identified above. It has determined that the study poses minimal risk to subjects and qualifies for an expedited review under 45 CFR 46.110 and 21 CFR 56.110.

Please note that any unanticipated harms to subjects or adverse events must be reported to the Office of Sponsored Programs at (615) 898-5005.

Approval is granted for one (1) year from the date of this letter for 300 subjects

Please note that any change to the protocol must be submitted to the IRB before implementing this change.

Sincerely,

A handwritten signature in black ink, appearing to read 'R. Hood', written in a cursive style.

Robert Hood
IRB Chair
Department of Philosophy
Middle Tennessee State University
rhood@mtsu.edu

APPENDIX B

Tennessee Director of Schools Permission Request

Appendix B

Dear Director of Schools,

I have been a principal in Jackson County School System specifically Dodson Branch Elementary in Gainesboro, Tennessee for the past four years. I am writing to ask for your professional assistance. Currently, I am a doctoral student at Middle Tennessee State University in Murfreesboro, Tennessee. I am conducting a study in the state of Tennessee as a requirement for my dissertation. This study deals with Tennessee's public elementary and middle school principals' attitudes toward the requirement of physical education in the school curriculum.

_____ that is in your district has been randomly selected to participate in the study. I am writing to request your permission to contact the building principal at the school and have them complete a questionnaire along with the *Wear Physical Education Attitude Inventory, Form A*.

I would greatly appreciate your assistance with this project. Please sign and return the consent form, giving your permission to contact the building principal. A self-addressed, stamped envelope has been provided for the return of the consent form. Thank you in advance for your assistance.

Sincerely,

George Walker
Principal
Dodson Branch Elementary
Jackson County School District
Upper Cumberland Region

APPENDIX C

Tennessee Director of Schools Consent for Participation Form

Appendix C

Tennessee Director of Schools Consent for Participation Form

I grant my permission to George Walker so that he may contact the building principal at _____ school to complete a background questionnaire, and the *Wear Physical Education Attitude Inventory* pertaining to Tennessee elementary and middle public school principals attitudes toward requirement of physical education in the school curriculum.

Signature, Director of Schools

School District

Date

APPENDIX D

Tennessee Principal's Participation Letter

Appendix D

Dear Principal,

I am a fellow principal in the Jackson County School District of Tennessee at Dodson Branch Elementary. Permission was obtained from your Director of Schools to contact you as principal. Your school was randomly selected to partake in this study. I am writing to ask for your professional assistance in conducting a study concerning principals' attitudes toward the requirement of physical education in the school curriculum.

Currently, I am a doctoral student at Middle Tennessee State University in Murfreesboro, Tennessee and am conducting a study across the state as a requirement for my dissertation. My study involves an examination of Tennessee's public elementary and middle school principals' attitudes toward the requirement of physical education in the school curriculum. In order to complete this study, I need you as principal to complete the enclosed questionnaires that are to be returned in the self-addressed, stamped envelope that is provided. All information that you provide will be strictly voluntary and confidential. Also all completed and returned questionnaires along with uncompleted questionnaires will be kept under lock and key for the duration of the study and thereafter.

Thank you in advance for your assistance with this project. I will be happy to provide you with the results at the conclusion of the study. In this day of accountability, these results could become useful to all of us.

Thank you for your assistance and time in this process.

Sincerely,

George Walker
Principal
Dodson Branch Elementary
Jackson County School District
Upper Cumberland Region

APPENDIX E

Background Information Questionnaire of Tennessee Public Elementary and Middle
School Principals

Appendix E

ID Number _____ Date ____/____/____

BACKGROUND INFORMATION OF TENNESSEE PUBLIC ELEMENTARY AND
MIDDLE SCHOOL PRINCIPALS

Please mark the appropriate line or write in the necessary information for each item.

1. _____ Elementary School Principal _____ Middle School Principal
2. _____ Male _____ Female
3. Is your school considered to be: _____ Rural _____ Urban
4. Indicate your undergraduate degree: (Please do not abbreviate the major and minor)

Degree Earned	Major	Minor
5. Indicate all of your graduate degrees: (Please do not abbreviate the major and minor)

Degree Earned	Major	Minor
6. How many years of experience have you had in the follow position? Round off to the end of this year (Please fill in all that apply to you)

_____	Total number of years of teaching experience
_____	Total number of years as a principal (Tennessee or other)
_____	Total number of years as a certified physical education teacher
_____	Total number of years as an athletic coach or athletic director
7. _____ Total number of students in your school

The following questions relate to the physical education program in your school.

8. Is physical education **required** in your school?
 _____ Yes _____ No
 If yes, how often do students attend per week?

_____ < 1 session/week	_____ 1 sessions/week	_____ 2 sessions/week
_____ 3 sessions/week	_____ 4 sessions/week	_____ 5 sessions/week
_____ Other (specify) _____		

9. What is the total number of minutes per week that the physical education classes meet?
- Less than 60 minutes 61-90 minutes 91-120 minutes
 121-150 minutes 151-180 minutes 181-225 minutes
 226 or more minutes
10. What substitutions are allowed for the physical education requirement?
(Check all that apply)
- Athletics Band Music Library Art
 Another course (explain) _____
 No substitutions are allowed
 Other (specify) _____
11. Who teaches the physical education curriculum?
- Certified physical education teacher
 Other (specify) _____
12. How many physical education teachers are on your staff?
- One Two Three
 Other (specify) _____
13. What are the physical education class size averages?
- < 20 students/class 20-25 students/class
 26-30 students/class 31 or more students/class
14. Are you familiar with the Tennessee standards for physical education?
- Yes No
15. Is the individual(s) who instructs physical education in your school familiar with the Tennessee standards for physical education?
- Yes No
16. What type of facility is used for physical education in your school?
- Gymnasium Cafeteria/Multi Purpose Room
 Outdoors Regular Classroom
 Other (specify) _____
17. How would you rate the quality of physical education in your school?
1 = Poor 2 = Needs Improvement 3 = Average 4 = Above Average 5 = Superior
- 1 2 3 4 5
18. Would you like a copy of the survey results?
- Yes No

19. Would you be willing to participate in a follow up interview based on your answers to some of the above questions?

Yes No

Please add any additional comments on this page. Thank you for your participation in this survey.

APPENDIX F

Wear Physical Education Attitude Inventory, Form A

Appendix F

ID Number- _____ Date ____ / ____ / _____

Wear Physical Education Attitude Inventory, Form A

Directions- Please Read Carefully: Below you will find some statements about physical education. We would like to know how you feel about each statement. You are asked to consider physical education only from the standpoint of its place during a regular class period. No reference is intended in any statement to interscholastic, intercollegiate or intramural athletics. People differ widely in the way they feel about each statement. There are no right or wrong answers.

Please read each statement carefully. Circle the abbreviation of the word that best expresses your feeling about the statement in which you read. In case you are undecided (neutral) concerning your feeling about the statement, circle the undecided (U). Try to avoid an answer of undecided (U) in very many cases. Wherever possible, let your own personal experience determine your answer.

Statements

Please circle your answer as to whether you:

Strongly Agree (SA), Agree (A), Undecided (U), Disagree (D), or Strongly Disagree (SD)

1. If for any reason a few subjects have to be dropped from the school program, physical education should be one of the subjects dropped.

SA A U D SD

2. Physical education activities provide no opportunities for learning to control the emotions.

SA A U D SD

3. Physical education is one of the more important subjects in helping to establish and maintain desirable social standards.

SA A U D SD

4. Vigorous physical activity works off harmful emotional tensions.
SA A U D SD
5. I would take physical education only if it were required.
SA A U D SD
6. Participation in physical education makes no contribution to the development of poise.
SA A U D SD
7. Because physical skills loom large in importance in youth, it is essential that a person be helped to acquire and improve such skills.
SA A U D SD
8. Calisthenics taken regularly are good for one's general health.
SA A U D SD
9. Skill in active games or sports is not necessary for leading the fullest kind of life.
SA A U D SD
10. Physical education does more harm physically than it does good.
SA A U D SD
11. Associating with others in some physical education activity is fun.
SA A U D SD
12. Physical education classes provide situations for the formation of attitudes which will make one a better citizen.
SA A U D SD
13. Physical education situations are among the poorest for making friends.
SA A U D SD

14. There is not enough value coming from physical education to justify the time consumed.
- SA A U D SD
15. Physical education skills make worthwhile contributions to the enrichment of living.
- SA A U D SD
16. People get all the physical exercise they need in just taking care of their daily work.
- SA A U D SD
17. All who are physically able will profit from an hour of physical education each day.
- SA A U D SD
18. Physical education makes a valuable contribution toward building up an adequate reserve of strength and endurance for everyday living.
- SA A U D SD
19. Physical education tears down sociability by encouraging people to attempt to surpass each other in many of the activities.
- SA A U D SD
20. Participation in physical education activities makes for a more wholesome outlook on life.
- SA A U D SD
21. Physical education adds nothing to the improvement of social behavior.
- SA A U D SD
22. Physical education class activities will help to relieve and relax physical tensions.
- SA A U D SD

23. Participation in physical education activities helps a person to maintain a healthful emotional life.

SA A U D SD

24. Physical education is one of the more important subjects in the school program.

SA A U D SD

25. There is little value in physical education as far as physical well-being is concerned.

SA A U D SD

26. Physical education should be included in the program of every school.

SA A U D SD

27. Skills learned in a physical education class do not benefit a person.

SA A U D SD

28. Physical education provides situations for developing desirable character qualities.

SA A U D SD

29. Physical education makes for more enjoyable living.

SA A U D SD

30. Physical education has no place in modern education.

SA A U D SD

Thank you for your participation in this survey.

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