

CHAPTER 1

THE PROBLEM

Context

Since the publication of Goals 2000, citizens, educators, and business leaders have been concerned with standards and accountability in schools (Ravitch, 1995). Goals 2000: The Educate America Act (1994) had several objectives for all education. These objectives included improving school safety, increasing parental support and participation, encouraging more community involvement, increasing the role of technology, and focusing on higher student achievement (United States Congress, 1994).

To meet the goals set forth in Goals 2000, change is needed in schools (National Association of Secondary Principals, 1996). If change is to be effective in schools, leaders must carefully plan and prepare for the relearning which takes place slowly over time (Lewin, 1947; Fullan & Steigelbauer, 1991).

The Southern Regional Educational Board (SREB) in 1992 announced that schools should teach skills to young people to prepare them to adapt to a changing society. Young people need to learn to cooperate, work on a team, apply basic skills in the work place, think for themselves, and problem solve in challenging situations. These skills are goals of most athletic programs at the high school level. According to the National Federation of High Schools (1998), the goals for education in Goals 2000 (United States Congress, 1994) are consistent with the goals and objectives of participation in sports. The primary goal of athletic participation is the personal growth and enrichment of each participant (Virginia High School League, 1997). It is expected that youth who participate in sports will become better team workers, self-thinkers, and productive thinkers.

Sports programs in high schools are designed to teach students the skills of the sport, but they teach students such life skills as working well in a group, thinking positively about self, handling stress, developing healthy relationships, building character, and practicing physical activities throughout life (Paul Palombo, athletic director Virginia Beach Public Schools, and Debra Rocke, athletic director Norfolk Public Schools, personal interview, June 22, 1999).

Supreme Court Justice Byron White (Barron, Ewing, & Waddell, 2000) described sports in high school as educational activities that can not be duplicated in a classroom. He described

the skills taught as “thinking and acting quickly and efficiently under pressure and forcing students to meet their inadequacies face-to-face and do something about them as nothing else does” (p. 409).

In the United States, youth are participating in various sports in tremendous numbers. High schools in the United States had 14,510,000 students in 1996. Of that population, 50.3% participated in a sport at the varsity level, yet 25% of all adults are not currently physically active (United States Department of Health and Human Services, 1996). What happens when America’s youth become adults?

The National Center for Chronic Disease Prevention and Health Promotion reported in 1997 that physical activity or participation in sports is linked to enhanced health and reduced risk of serious disease development. Despite this knowledge, many adults in the United States are sedentary or less active than is recommended.

Sports psychologists agree that continued physical activity can increase mental health. They believe that physical activity is associated with reduced stress, decreased depression, fewer neuroses, less anxiety, and positive emotional effects for both genders (International Society of Sport Psychologists, 1992).

Lifespans for Americans are expected to increase during the first half of the 21st century (Haskell, 1996). The population of the United States will have greater numbers of people over age 65. Keeping these older adults healthy will be a challenge. One of the most significant strategies to promote healthy longevity is to continue or increase the physical activity in older people (Haskell). Participation in sports is a physical activity for youth that may promote the likelihood of greater physical activity in adulthood.

Historically, researchers have shown that participation in sports has an effect on high school students (Holland & Andre, 1987). Studies involving self-concept, self-confidence, delinquent behavior, achievement, and attitude show that participation in sports positively affects students (Dowell, Badgett, & Hunkler, 1972; Goodenow & Grady, 1994; Kirsch, 1999; Landers & Landers, 1978).

Motivation theory (Roberts, 1992) and personal investment theory (PIT) (Maehr & Braskamp, 1986) are explanations for why people participate in sports and continue later in life. These theories need to be utilized in the early education process to promote more continued

activity in adults. Knowledge about what motivates young people to continue to participate in sports needs to be made public so athletic programs can provide these motivators.

Studies involving size of school, location, classes taken, number of sports played, and relationships with a coach or another adult show positive effects on students who participate in sports (Basinger, 1999; Crain, 1981; Grabe, 1976; Kirsch, 1999; Slavin & Madden, 1979).

Despite what seems to be overwhelming positive results from sports participation and continued activity by adults, state boards of education and local school boards are focusing on academics, placing new academic standards on athletes, and cutting back sports programs' resources and opportunities. In August of 1991, the Chicago school board cut the athletic budgets of its 64 high schools from \$6,700 per school per year to \$750 per school per year (Barron, Ewing, & Waddell, 2000). High schools in Ohio had to abolish several sports for a year (Diringer, 1993). The Ohio school systems could no longer afford to put students on the fields and playing courts; provide transportation from school, games, and home; purchase uniforms; and provide insurance against injury. Even the famed Sports Illustrated in 1995 printed, "It's hard to imagine a world where boys and girls can't play. But it's getting easier. More schools are dropping sports programs" (Sports Illustrated, 1995, inside front cover of special collector's series).

One example of new academic standards for athletes occurred in Virginia in 1993 when the Virginia High School League (VHSL) agreed to support the Virginia State Board of Education by not allowing any student who had not passed all three portions of the Literacy Passport Test (a test given initially to sixth grade students that had to be passed before the student could graduate) to participate in a VHSL sanctioned activity (Ken Tilley, Executive Director of the Virginia High School League, telephone interview, November 14, 1999).

Other academic changes for athletes include increasing the requirements for graduation from high school and requiring the athlete to maintain a higher grade point average to participate in sports than what is required of students to graduate (Virginia Department of Education, 1998). Credit is not awarded for sports participation, regardless of the student's performance. The increase in the number of credits needed and the emphasis placed on grades received may push sports further out of the realm of possibility for young people. Many school districts have increased graduation requirements and mandated a 2.0 cumulative grade point average for any

student participating in extracurricular activities such as sports (Jimmy Williford, supervisor for athletics and physical education, Portsmouth Public Schools, and Bert Harrell, Director of Athletics, Norfolk Public Schools, telephone interview, October 22, 1999).

Purpose

The problem that emerges from the current context for this study is that school systems in the United States are considering cut backs and changes in athletic activities to put more resources into increasing student achievement. The legislature in Texas mandated by law that an athlete must have a C or better average before participation in sports would be permitted. This law, commonly known as the “No pass-no play” Act of 1984, was passed during a special session in the summer of 1984 in which Governor Mark White spoke highly of the “no pass-no play” law. He felt that for years Texas had been getting the job done on the football field, disregarding the classroom. He spoke of the changed world. Texas had scored on the fields but had been outsmarted in the classroom. He convinced the legislature to pass a law forcing Texas students to pay more attention to their grades (Bonnie Northcutt, Director of Policy, Texas High School League, personal communication, September 6, 2000).

The National Federation of State High Schools surveyed its members in 1994 and found that 25 percent charged students to play sports (Hardy, 1997). In Poquoson, Virginia, athletes must pay to play. In an interview with Dave Nelson, athletic director at Poquoson High School, on December 17, 1999, he stated that this measure was primarily necessary to offset the rising costs of insurance.

The author conducted this study to identify the long-term effects of participation in high school sports as perceived by former participants. This information can be utilized by policy makers and administrators of high schools to determine whether to decrease the sports offerings, continue to offer the current variety of sports, or increase the sports offerings. Concern exists that with a new era of achievement accountability, standards, and associated pressures placed on administrators to raise student and school performance levels, athletic opportunities may be cut from high school programs. The information found in this report provides a base for further study of the lifelong effects of participation in high school sports. The findings of this study provide evidence of what our youth are getting and keeping from their participation in sports programs in our high schools.

Theoretical Framework and Related Literature

Organizational factors and personal factors affect a student's participation in sports, and participation in sports affects the adult life of the participant. Communication of the long-term effects of high school sports participation to school systems is critical to the Bechtol Sports Participation Theory (BSPT) around which this project was conducted. This communication of the effects is part of the theoretical framework. The theory was developed using the available literature and thoughts from the researcher. A diagram of the BSPT is in Figure 1. Literature on each component of the theory is reviewed in this section.

Organizational Factors Affecting Participation in High School Sports

Organizational factors are not controlled by the individual. They are the influences of the organization on the members of that organization. In this case, the organization is the high school, and the factors are size of school, the influential adults who had an effect on the student, the geographical location (state) of the school, the racial mix of the student population, and the course content of the classes taken by the participant while in the school. Each of these factors may affect the participation of a student in athletics. Participation in athletics, in turn, may affect the life of the individual.

Size of School

Mr. Michael Caprio, principal of Granby High School (2,200 enrollment), Norfolk, Virginia, and Mrs. Marge Stealy, principal of Norview High School (1,000 enrollment), Norfolk, Virginia, said that the size of their schools contributes to the amount of extracurricular participation (personal communication, October 25, 1999). Smaller schools tend to have a larger percentage of their student population participate in an extracurricular activity than do larger schools.

Grabe (1976) studied high school students in 15 small schools and five large schools to determine if size of the school was a variable in extracurricular participation. He found that students from small schools had more variability in self-concept than those from large schools, $F(1,1054) = 12.49, p \leq .01$. He determined that students in small schools were more likely to

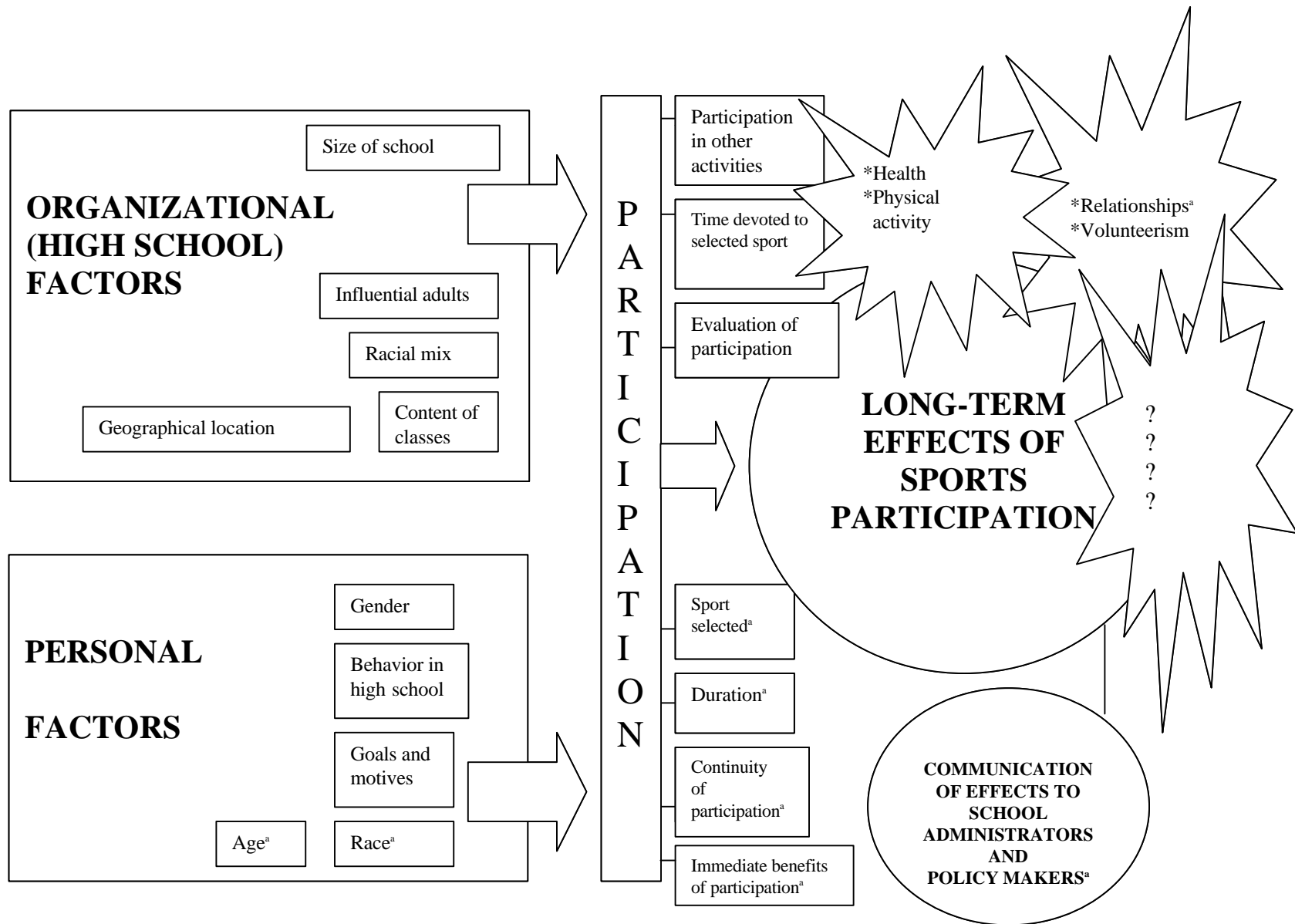


Figure 1. Initial conceptual model of the factors that influence participation in sports and the long-term effects of that participation. Question marks refer to long-term effects to be found in the study. ^a Refers to factors or features expected by the researcher to contribute to the long-term effects of sports participation in high school. No literature was found on these factors or features.

participate in extracurricular activities than students in large schools. Grabe found that students in small schools felt more pressure to participate and be successful in extracurricular activities than students in large schools.

Influential Adults

The coach is important in the high school sports environment. The coach usually has a significant effect on the student athlete. This effect can be positive or negative. The coach often sees more of the student than most family members. Members of a sports team spend a great deal of time with their fellow team members and the coach. This relationship can be a source of negative or positive growth for the student.

In 1972, Snyder completed a study of 270 high schools in Ohio to determine how influential the coach had been in the high school players' decision about further education. He surveyed the basketball coaches at each of these high schools. Two randomly selected varsity seniors from each team completed a survey. He received a 64.5% response from the coaches and a 50% response from the players. The players ranked the coach's influence on their future educational plans right behind the mother (1) and the father (2). Coaches ranked their high school coach number one with mother and father falling to second and third, respectively. The coach was found to be more influential in the lives of lower socioeconomic students than upper socioeconomic students.

Snyder looked at the relationship between player and coach again in 1975. He used the same 270 high schools in Ohio. This time he randomly selected two players from the varsity basketball teams and sent them questionnaires. He studied the relationship between the intensity of team involvement--defined as a substitute, a starter, or a star--and educational plans, the amount of advice about college selection given by the coach, and the players' perception of the coach's influence. The findings were reported in percentages of the substitutes and the starters. Snyder provided no data on the stars. The conclusion Snyder drew from this study was that the influence of a coach on a player increases as the player progresses from substitute to starter. Snyder suggested that future researchers could investigate the relationship between player and coach over time. The results of Snyder's study are in Table 1.

Table 1

Players' Perceptions of the Coach's Influence, the Coach's Advice, and Players' College Plans by Team Involvement

	Team involvement	
	Substitute % (N=71)	Starter % (N=125)
Coach's influence		
Great	31	60
Some	54	30
Little or none	15	10
Coach gave advice whether to attend college		
Often	26	57
Seldom	43	31
Never	31	12
Players' decision on college attendance		
Probably and definitely will attend	80	93
Probably and definitely will not attend	20	7

Note. Adapted from Snyder, E. E. (1975). Athletic team involvement, educational plans, and the coach-player relationship. Adolescence, X, 191-200.

High school coaches today believe that they have much more impact later in life than at the time they are coaching the students. In personal interviews with three current high school coaches, all discussed the number of students coming back five to ten years later to thank them (Ann Laughner, Herman Sawyer, & Dave Houdak, personal interview, June 14, 1999). They believed their roles to be important, but not observable nor measurable by the student until time had elapsed.

Racial Mix

Another organizational factor that influences participation is racial mix of the student population of a school. Participation on an athletic team with both white and African-American students increases the positive relationships among the races (Crain, 1981). This positive relationship among races may transfer to adulthood.

In 1981, Crain discovered in desegregated schools in the South that students who participate in sports have a better relationship with people of different races. Crain identified 200 schools at random, administered interviews to the principals, and sent questionnaires to 10 teachers from each school and 55 students in each school. He used regression analyses to predict school success, defined as black and white students having positive relationships. Crain regressed school success (criterion variable) on the schools' programs (predictor variables) one at a time. He found that most programs did not show a positive regression coefficient with school success.

The major problem Crain (1981) found in the schools was the lack of a social program to integrate the races. Most of the students claimed that racial tensions made high school life harder. His conclusion was that the most important difference between successful (having good relations between the races) and unsuccessful (having poor race relations) high schools was that successful schools had higher levels of student participation in extracurricular activities (among white students the difference was 44% in unsuccessful schools to 83% in successful schools and among black students the difference was 38% in unsuccessful schools to 78% in successful schools). Crain determined that the black and white students who participated together in a club or on a team had a better relationship than those who were just in class together. Crain concluded, "But whatever techniques are used, the most important step is the first one: The school administration must decide that the extracurricular program is not a ~~frill~~, but a key element of a successful school" (p. 126).

Crain (1981) did not report the regression coefficients. His conclusions are based on data not available to the reader.

Geographical Location

A similar study to that of Crain in 1981 was done in 1979 by Slavin & Madden using desegregated high schools from two regions, the North and South. They were interested in whether the region made a difference in the racial relationships of high school students. They found that students who worked with persons of other races in class or on a team had better racial relationships than those who did not. The authors stated there were no differences between students from the North and students from the South, but they concluded that cooperative activities such as what happens on a team are the most important factors in promoting cross-racial positive contact.

The National Federation of High School Associations (1998) found that states in the western United States have more high school sports participants than states in the South, Midwest, Northeast, and Southwest. High School sports participants by region are in Table 2.

Table 2

Number of High School Sports Participants by Region of the United States in 1997

Region of the United States	Number of participants
West	1,637,539
Midwest	1,516,385
Northeast	1,202,236
South	1,093,625
Southwest	903,044

Note. Compiled from National Federation of High School Associations. (1998). 1998-1999 handbook. Kansas City, MO: Author.

Course Content of Classes Taken

Students participating in a class called Promoting Achievement in School through Sport (PASS) had higher test scores, attendance, and self-concept in several California schools than did those students not participating in PASS (McClendon, 1998). McClendon used t-tests to see if differences existed between participants and nonparticipants with respect to grades, grade point averages, and attendance. Her sample size was 900. She found differences in grades and grade point averages but no differences in attendance. She found PASS students' grades and grade point averages were higher than students not in PASS. Her specific data were not available pending copyright regulations.

PASS is based on an assumption that all students can improve in academic areas through the use of sport culture. The PASS class is an elective taught for credit to any student. The student does not have to be an athlete. The PASS curriculum uses eight fundamentals of athletic mastery to teach students how to achieve in all areas of their lives not just on the playing fields or courts (American Sport Institute, 1998).

Mid-Continent Regional Educational Laboratory conducted a study of 680 PASS students and 680 control group students (McCombs & Lauer, 1998). They found nine percent more PASS students than control group students improved their grade point average. Grades were collected at the beginning of the year and at the end of the year. Forty-seven percent of the PASS students improved their grade point averages compared to 38 percent of the control group. Ten percent of the PASS students improved by one grade point compared to five percent of the control group. PASS students out performed the control group on all measures.

Personal Factors Affecting Participation in High School Sports

Personal factors affecting sports participation include gender, behavior of the participant while in high school, and goals and motives for playing sports. Initially, this researcher believed that the age of a participant and a participant's race may affect participation in high school sports. No pertinent literature relating age or race of participant to the long-term effects of participation was discovered.

Gender

A discussion of sports and gender would not be complete without a reference to Title IX of the Education Act Amendments of (1972). This act guaranteed equal opportunity for females

in the sports arena. Prior to 1972, sports in most schools were gender segregated, and the opportunities were not equal. In 1971, seven percent of all high school athletes were females; by 1981, 35% of the total were females (Phillips, 1993). In 1999, 41% of all athletes in high schools were females (National Federation of High School Associations, 1999).

Litigation over equality of opportunity for both sexes continues today. Schools are trying to comply by providing equal resources and opportunities to both male and female athletes. The relevance of Title IX information for this study involves primarily opportunity. Prior to 1972, many high schools did not offer a large selection of female sports. Some schools did not offer any sports for women with the exception of cheerleading. Today, more high schools have equivalent opportunities for females and males, including several co-educational sports opportunities such as golf, wrestling, and cheerleading (Virginia High School League, 1999).

Behavior in High School

Another personal variable that affects participation is that of delinquent behavior or discipline problems. Does participation in a sport lessen the frequency of delinquent behaviors? Landers and Landers (1978) used analysis of variance and chi-square and found no differences between participants and nonparticipants with respect to committing delinquent acts. However, Sokol-Katz and Braddock (1999) found opposite results. They regressed school related delinquency on sport participation, school size, public or private school affiliation, school environment, standardized test scores, degree of being at risk, and peer values. They found sports participation was a greater predictor of delinquent behaviors (Beta = .32, $p \leq .001$ in males and Beta = .22, $p \leq .001$ in females) than the other predictor variables. Sports participants had fewer school related delinquent behaviors. The difference in the findings of these authors may be associated with sampling error. Landers and Landers used 521 students from one high school in the late 1970s while Sokol-Katz and Braddock used the data from the National Education Longitudinal Studies (NELS) for the United States in the late 1990s. Sokol-Katz and Braddock sampled 4,035 females and 3,746 males.

Whitley and Pressley (1996) sampled students from all high schools in North Carolina. They conducted t-tests to determine if differences existed between athletes and nonathletes with respect to graduation rate, drop out rate, attendance, grade point average, and discipline. In 21 out of 22 t-tests the athletes performed better. The authors concluded that if more students

participated in sports, there would be fewer discipline problems in the high schools in North Carolina.

Goals and Motives

The goals and motives of students may influence their participation in sports. Goodenow and Grady (1994) found that sense of belonging to something correlated positively with friends' values ($r = .44, p \leq .05$), with school work ($r = .55, p \leq .05$), and with motivation ($r = .46, p \leq .05$). Their sample size was 301. The idea of being a part of something motivates students to get involved while in school. Persons who belong to something in school can look forward to increased life successes according to Maslow (1943). In his hierarchy of needs, he proposed that the need to belong is a strong motivator and must be met at an acceptable level before self-actualization emerges as a motivator.

White, Duda, and Keller (1998) conducted a study of 192 youth (100 males and 92 females) participating in sports. The students were involved in various sports. Two questionnaires were administered, one to determine goal orientation and the other to determine perceived purpose of the sport. The authors found that task-oriented students perceived success as mastery or personal improvement. The ego-oriented students perceived success as winning or being the best at the sport. The authors suggested that the task-oriented person is most likely to demonstrate adaptive sports behaviors of playing longer, striving for personal skill within the sport, and healthy competitiveness. Gender differences for goal orientation were analyzed with a multiple analysis of variance (MANOVA), and no differences between males and females in goal orientation [$F(1, 158) = 2.75, p > .05$] or ego orientation [$F(1, 158) = 0.07, p > .05$] were found.

In the White et al. (1998) purpose-of-sport survey, seven factors emerged from the student responses. One of the factors worried the authors because it captured items related to using illegal ways to get ahead in life and to developing superior attitudes about themselves. Differences between males and females on the seven perceived purposes were analyzed with MANOVA. Differences were revealed between males and females. Males were higher than females on sports as a vehicle to (1) heighten status and popularity with peers [$F(1, 107) = 4.85, p \leq .05$], (2) teach deception and superiority over peers [$F(1, 107) = 8.40, p \leq .005$], and (3) encourage competitiveness [$F(1, 107) = 9.03, p \leq .005$]. One may conclude from these data that teaching children to be task oriented may be more critical for males than females.

Another study on ego and task orientation was done by Ntoumanis and Biddle (1998). Participants were 146 university athletes (male=84 and female=62) from England. The authors found that task-oriented athletes were inclined towards mastery, and ego-oriented athletes were inclined toward performance and self-concept. Hierarchical regression analysis was utilized to test the link between task orientation and motivation. No relationships were found by these authors.

Gill, Williams, Dowd, Beaudoin, and Martin (1996) looked at competitive orientation and motives for adult participation in sports. They found that motivation and competitiveness are in line with earlier studies using student populations. The authors used three different samples (a running club, $N=43$; two exercise classes, $N=35$; and a cardiac rehabilitation program, $N=44$). A gender-by-sample group MANOVA on three competitiveness scores revealed gender [$F(3,99) = 6.73, p \leq .001$] and sample group [$F(6,198) = 3.82, p \leq .001$] main effects and no interaction effects. The MANOVA on motive scores revealed gender [$F(10, 85) = 3.77, p \leq .001$] and sample group [$F(20, 170) = 3.09, p \leq .001$] main effects and no interaction effects. The results from this study benefit the current research because the sample was adults not students. Previous researchers have focused on student athletes.

Gray-Lee & Granzin (1997) conducted a study of 211 adult males and females to explain the extent of participation in sports and the type of sport participation. They used Personal Investment Theory (PIT) (Maehr & Braskamp, 1986) as a tool for the interpretation of their data. They used Wilks= λ to test relationships between sport behavior and the 11 constructs of PIT. The authors conducted three discriminate analyses. A MANOVA was done using the PIT constructs (11) and produced a Wilks' Λ of .571 ($p \leq .001$). The second discriminate analysis involved the antecedents-to-meanings concept of the PIT (personal experience, age stage, and performance) and produced a Wilks' λ of .736 ($p \leq .001$). The third analysis examined the relationships between demographic variables and extent of participation. In this analysis, a positive relationship between socioeconomic status and increased participation existed. As socioeconomic status increased so did the participation.

Features of Participation in High School Sports

Several features of a participant's participation in high school sports are relevant. These include the person's participation in other activities while in school and the amount of time

devoted to the sport (daily, yearly, per-game, and era played). The participant's evaluation of the experience may affect participation. The researcher expected additional areas that may affect the participation of a student to include the sports played, the duration played, the continuity of participation, and the immediate benefits of participation. All of these features of participation may be associated with the long-term effects of participation in high school sports.

Participation in Other Activities

The number of activities a student participates in can affect academic performance. If a student who participates in athletics and other activities does better academically in high school than the student who just plays sports, then schools need to encourage multiple activity involvement. Feltz & Weiss (1984) used analysis of covariance to demonstrate that students who participated in one sport and no other activity had lower American College Test (ACT) scores than those who participated in a sport and at least five other activities. This study may indicate that a student who participated in a sport and other activities would score higher on the ACT test. The authors did not provide data on the other activities.

Time Devoted to Selected Sports

A person who played a sport for many years may be expected to be involved in sports as an adult. At the very least, the adult would be physically active and supportive of sports programs. Robinson (1993), in the American's Use of Time Project at the University of Maryland, asked 2,500 adults to rank the activities they liked to do and those they did not like to do. Averages were used and a scaled score given from 0-10 with a standard deviation of 2.4. The second highest ranking activity on the scale was playing sports (9.2). It is not known whether these adults played sports in high school, but a large number of adults enjoy participation in sports.

Evaluation of Participation in Sports

How students evaluated their sports participation experiences may affect their participation. Dowell, Badgett, and Hunkler (1972) used Pearson correlations to determine if sports participation correlated higher with a positive self-concept than non-participation. Participation correlated higher than non-participation with emotional and physical self-concept, but participation correlated negatively with intellectual self-concept. The terms physical, emotional, and intellectual self-concept were not defined, nor did the authors provide the

correlation coefficients for the reader. The authors' conclusions seemed to indicate that the participants felt better about their physical capabilities than their intellectual capabilities.

Participation in High School Sports and Its Long-Term Effects on Adults

Some of the possible effects of sports participation on adult life have been studied by earlier researchers. The effects most often studied were volunteerism, physical activities, and health. The researcher expected to find building relationships to be a long-term effect; however, no relevant literature relating to relationships and long-term effects of sports participation were discovered.

Volunteerism

Likelihood of involvement and volunteering to serve are possible outcomes of participation in sports. Hanks (1981) studied 10,245 high school seniors to look at whether sports participation increased their likelihood of political involvement as an adult. Using multiple regression he found that participation in yearbook, participation in student government, and participation in service clubs were greater predictors of volunteer service in adult life than participation in sports. He did not provide the regression coefficients for the reader.

Lindsay (1984) used National Educational Longitudinal Studies (NELS) data in a multiple regression analysis and concluded that sports participation was a significant predictor of social participation as an adult. The instrument he used was a questionnaire of adult social participation behaviors. The participants were surveyed one year, two years, four years, and seven years after graduation. The hypothesis for his study was that participation in high school activities is associated with participation in social activities as adults. He found the direct effect of high school participation on adult participation, controlling for other variables, was $\text{Beta} = .225$ ($p \leq .001$). The next most influential determinant was educational attainment at $\text{Beta} = .172$ ($p \leq .001$). Lindsay stated, "The most important finding is that students who participate in extracurricular activities during high school are more likely to participate in a broad range of social activities as an adult" (p. 81).

Physical Activity

A high school sports participant who put a great deal of time into the sport would be expected to continue some form of physical activity as an adult. Duda and Tappe (1988) used middle-aged and older adults to investigate the relationships between predictors of personal

investment and physical activity. The authors regressed personal investment, sense-of-self, and incentive variables on present level of activity and expected future activity. Future activity was determined by asking the participants their activity plans six months into the future.

Forty-seven adults aged 50-81 were a part of this study. First, a present level of activity was determined. Next, activity incentives were assessed. The results yielded seven possible incentives. A sense-of-self score was determined by questionnaires. Finally, a perception-of-opportunities score was derived. The means for all independent variables were calculated, and recognition was found to be the best predictor (Beta = .145, $p \leq .05$) of physical activity. A multiple regression to predict intended level of physical activity in the future found exercising for mastery or self-improvement to be the best predictor (Beta = .192, $p \leq .01$).

Health

A preponderance of literature has been written on the health effects of sports participation. Virtually every medical journal regularly has an article about physical activity or exercise and the importance of both to good health.

The National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention (1997) made ten recommendations for promoting lifelong physical activity. The center recommended that sports in schools and recreational leagues should continue and expand to meet the needs of all students. It encouraged continuous evaluation of programs to ensure the offerings meet the needs of society.

Other health benefits of sports participation are reduced risk of cardiovascular disease, lower body fat, and more efficient use of oxygen by the body (Kavanaugh & Shephard, 1990).

A panel of doctors writing for the Centers for Disease Control and Prevention and the American College of Sports Medicine summarized the reasons for participation in sports for adults. The panel stated that physical activity in regular quantity and duration could decrease coronary heart disease, hypertension, non-insulin-dependent diabetes, osteoporosis, colon cancer, anxiety, and depression. They revealed that 250,000 deaths per year could be attributed to a lack of regular physical activity (Pate, Pratt, Blair, Haskell, Macera, Bouchard, Buchner, Ettinger, Heath, King, Kriska, Leon, Marcus, Morris, Paffenbarger, Patrick, Pollock, Rippe, Sallis, & Wilmore, 1995). Unlike other doctors, this panel of leading doctors believed that shorter bouts of intermittent physical activity could be accumulated over a day and create the same benefits as a

30-minute daily session. They recommended that a person build up to one 30-minute session of physical activity per day.

The panel found that demographics affect a person's amount of physical activity. Men are more likely than women to engage in physical activity and sports. The total amount of time spent engaged in sports decreases as age increases. African Americans and other minorities are less active than white Americans, and this difference in activity is more prominent in women. People with higher levels of education participate in more leisure activities than those with less education (Pate et al., 1995).

Given that participation in sports may influence adolescent physical, emotional, and intellectual development in a positive manner, one may predict that persons would be affected as adults. Persons who participated in a high school sport may not continue to play as an adult, but they may have acquired personal beliefs, skills, or actions that affect their adult lives (Holland & Andre, 1987).

Communication of Effects to School Administrators

The effects on adults from participation in high school sports may or may not be important enough to an individual to warrant alerting the school system. If an individual wanted to let the school know of the impact sports had on one's life, what would be said and in what manner? These concerns are addressed in items used in the interviews conducted by this researcher.

Summary of the Literature Related to the Theoretical Framework

Table A1 in Appendix A is a summary of the literature and findings related to the initial Bechtol Sports Participation Theory (BSPT) depicted in Figure 1. The information in the review and the researcher's ideas contributed to the development of the theory on which this study is based. From the literature came the domains of organizational and personal factors that affected participation in high school sports and the participation features of participation in other activities, time, and evaluation of the experience. The review of literature provided few effects of participation. The intent of this researcher was to test the initial BSPT and determine the long-term effects of participation in high school sports as perceived by the selected sample of top-ten Fortune 500 company employees.

Guiding Questions

The major question of interest in this study was: What are adults' perceptions of the long-term effects of participation in high school sports? The following related questions guided the study to completion. The questions are in five major categories with questions under each category.

1. What organizational factors affect the participation of high school students in sports?
 - a. How does the size of the school affect the participation of students in sports?
 - b. How does the geographical location of the school affect the participation of students in sports?
 - c. How does the racial mix of the school population affect the participation of students in sports?
 - d. How do influential adults affect the participation of students in sports?
 - e. How does the content of classes taken while in high school affect the participation of students in sports?
2. What personal factors affect the participation of high school students in sports?
 - a. How does gender affect participation of students in sports?
 - b. How do the goals and motives affect participation of students in sports?
 - c. How does the behavior affect participation of students in sports?
 - d. How does the race affect participation of students in sports?
 - e. How does the age affect participation of students in sports?
3. What participation features affect the participation of high school students in sports?
 - a. How does the type of sport played affect participation in sports?
 - b. How does the time devoted to sports affect participation in sports?
 - c. How does the duration and continuity in sports affect participation in sports?
 - d. How does the participation in other activities along with sports affect participation in sports?
 - e. How does the evaluation of the participation experience affect participation in sports?
4. What are the long-term effects of participation in high school sports?
 - a. What are the effects of sports participation on one's health?
 - b. What are the effects of high school sports participation on one's physical activity?

- c. What are the effects of high school sports participation on one's ability to build relationships?
 - d. What are the effects of high school sports participation on one's willingness to volunteer in organizations?
5. How would communication of the long-term effects of high school sports participation be made to school administrators and policy makers?
- a. What would be said to the school administrators?
 - b. What would be said to the policy makers of school divisions?

Definition of Terms

For the purpose of this study several terms have unique definitions. The terms are defined in Table 3. The interview protocol items are in Appendix D.

Overview of the Report of the Study

Chapter two is a description of the methodology used for this study. Chapter three contains a narrative of the findings and data matrices with relevant raw data. The researcher's conclusions, discussion, implications for educational leaders, and recommendations for further areas of research are in chapter four. The references, appendices, and vita follow chapter four.

Table 3

Definitions of Unique Terms Used in This Study

Term	Definition	Interview protocol item ^a
Participation in sports	Being a member of a high school competitive archery, baseball, basketball, cheerleading, crew, cross-country, field hockey, football, golf, gymnastics, ice hockey, lacrosse, soccer, softball, swimming, tennis, track, volleyball, or wrestling team. Managing any of the teams.	7
Size of school	Small school 1-500 students, medium school 501-1000 students, and large school more than 1000 students.	4
Geographical location	State in the United States in which the school is located.	2
Type of locality	Location of school is urban, rural, or suburban	3
Racial mix	The percentage of black and white students in the high school at the time the participant attended.	6
Coach of the team	The adult who was responsible for the team.	15
Duration of participation	The number of years of sports participation.	10

(table continues)

Table 3 (continued)

Term	Definition	Interview protocol item ^a
Type of participation	Starter, regular, or reserve player.	14
Continuity	Consecutive years of participation in sports.	10
Age	The age at the time of initial sports participation.	9
Evaluation	The person's perception of whether the sports experience was positive or negative.	11
Time devoted to sports	The amount of daily time, years, or individual playing time of the participant and the era in which participation occurred.	8
Other activities	Other areas of participation while in high school in addition to sports.	25

^aThe interview protocol is Appendix D.

CHAPTER TWO

METHODOLOGY

The methodology in this study is qualitative. Qualitative researchers seek to reveal how parts of a phenomenon (sports participation) coexist to create a different phenomenon (effects on adults) (Merriam, 1998). The research strategy is multiple case studies. A case is both a process and a unit to be studied (Yin, 1994).

Population and Sample

The population for this study was adult males and females in upper-management positions (as defined by the corporation) in a top-ten Fortune 500 corporation. Ten participants (five men and five women) were selected using purposeful sampling based on the following criteria: (1) The person had participated in a high school competitive sport. (2) The person was a top-ten Fortune 500 upper-management employee or a retired upper-level management employee. (3) The person was not a professional athlete.

These criteria were chosen to enable the target audience of school administrators and policy makers concerned with sports programs in high schools to trust and respect the opinions of the participants. Males and females were included to be certain the effects on both genders were shared. The researcher chose to add the criteria of being a non-professional athlete to eliminate bias due to a longer participation time period.

The population created a challenging issue of access. Fortune 500 employees were highly visible and on tight time schedules. The researcher had difficulty scheduling appointments of sufficient time to conduct a thorough interview.

An initial contact was attempted by telephoning the top-ten Fortune 500 companies. The researcher introduced herself and explained the purpose of the study. In all ten Fortune 500 companies, the procedure ended at this point. The researcher could not get through via telephone to an employee of the corporation.

Another method of accessing the population was required. This method included sharing the names of the top-ten companies with acquaintances, friends, and family members of the researcher and soliciting assistance to locate the Fortune 500 employees. This procedure was successful. Names and phone numbers of employees were forwarded to the researcher. When an employee was suggested for participation and willing to participate, a telephone call or electronic

mail message was sent to the employee. This procedure continued until a qualified participant was found in each of the top-ten Fortune 500 companies.

After the initial and follow-up telephone calls, a letter was sent to each participant that included a timeline for possible interviewing, a request for permission to audiotape the session, information on the ability to withdraw from the study at any time, and a promise of complete confidentiality. A statement of support for the study from the Virginia High School League (Appendix B) was included with the letter. The last step prior to conducting the interview was a telephone call or electronic mail message to set up the date and time for the interview.

Data Collection

Data were collected with three methods: interviewing, reviewing high school yearbooks, and observing. In this section interviewing is described, the construction and structure of the interview items are reviewed, the process of obtaining content validity of the interview items is explained, the process of conducting the interview is detailed, the process for reviewing the yearbooks is described, and the process for observing the offices is delineated.

Interviews

Interview questions were constructed to gain information pertaining to the organizational factors that affected participation, the personal factors that affected participation, the features of participation, the long-term effects of high school sports participation, and the communication of the findings to school administrators and policy makers. The interview was semi-structured. The protocol included 33 structured questions and several probes for many of the questions.

Construction and Structure of the Interview Protocol

The interview questions were developed around the five major domains in the theoretical framework for the study: organizational factors, personal factors, features of participation, long-term effects of sports participation, and communication of effects to school administrators and policy makers.

Questions or opened-ended statements were created for each factor or feature within the five domains. At least one question was created to secure a response related to each factor or feature.

The final set of interview items is in Exhibit 1. The items are divided into the five domains and the factors or features within each domain as described in the initial BSPT. The items are numbered to reflect the order in the interview protocol in Appendix D.

Checking the Validity of the Data

All research requires validity and reliability checks. Merriam (1998) refers to this as trustworthiness. Can the reader trust this research? In this study, validity was checked by utilizing review panels; conducting member checks; keeping an audit trail of dates, events, and significant happenings related to the interviews recorded in a journal; and conducting pilot studies.

Utilizing review panels. A content validity check was conducted on the interview protocol. This was done by using the instrument in Appendix C. The purpose of this instrument was to validate each item in the interview. The items were first identified as being connected to a domain, then the degree of association with that domain was rated, and finally the clarity of the statement was judged.

The initial review panel consisted of 29 doctoral candidates, 12 females and 17 males, in summer residence at Virginia Tech. The second review panel consisted of 10 labor relations employees for the government. There were seven females and three males on this panel. Seventy percent of these employees had participated in a high school sport. The third review panel consisted of 15 former high school athletes who were currently working and considered themselves successful in business. This panel consisted of 8 females and 7 males.

These validity checks were continued until 80% of the panel put the item in the expected domain, and rated the clarity of the statement a three. The items were revised after each review panel.

Exhibit 1

Interview Questions by Domain and Variable

DOMAIN: ORGANIZATIONAL FACTORS AFFECTING PARTICIPATION IN HIGH SCHOOL SPORTS

Geographical Location

2. Where in the United States did you attend high school?
3. Was your high school locality urban, rural, or suburban?

Size of School

4. How many students were in your high school?
13. Do you recall the division level of your school 1A, 2A; 1, 2, 3; or A, AA, AAA?

Racial Mix

6. Describe the racial mix of students in your school. Probes: Was your student population predominately white? Was your population predominately black? Approximately what percentage were black and what percentage were white?

Influential Adults

26. Was there an adult in your high school life who impacted the rest of your life? Tell me more about that person and what he or she did for you? Probe: Who were the adults that influenced you while you were in high school?
20. Did you have any adults in your life while in high school who played a significant role in your decision to play sports? If so, tell me about those persons.

(exhibit continues)

15. Tell me what you remember most about your coach.

Content of Classes

18. Did any of the classes you took in high school prepare you better than others for competition in your sports endeavors? How?

DOMAIN: PERSONAL FACTORS AFFECTING PARTICIPATION IN HIGH SCHOOL SPORTS

Gender

Gender: male or female. (Not an interview item)

19. Tell me how being (male, female) may have affected your participation in sports while in high school.

Goals and Motives

17. I am going to give you a statement and I would like you to respond: Winning was the most important thing about sports to me when I was in high school.

16. Tell me about the reasons you played sports. Probes: Why did you play sports? How important were sports to you? What did you receive from playing sports?

Age

9. How old were you and in what grade when you began to play sports?

Behavior in High School

11. Describe your experiences while in high school? Probes: Tell me about your social life, your relationships with other students, and your relationships with teachers and administrators. Tell me about the worst times. Tell me about the best times. How would you describe your behavior in school? How would teachers describe your behavior?

(exhibit continues)

DOMAIN: FEATURES OF PARTICIPATION

Sports Played

7. While in high school, on what sports teams were you a member?
12. How successful were your teams? What were your records? Did you win any championships?

Time Devoted to Selected Sport

8. Let's focus for a few minutes on your involvement in (baseball, for example). How much practice and play time did you put into this sport? Daily? Years?
5. In what years did you attend high school?
10. Was your participation time continuous from when you began to play til the end of high school? Probes: Tell me why or why not. How many years did you play?
14. Would you describe your playing time as reserve, regular, or starter and why?

Participation in Other Activities

25. While in high school, in what activities other than sports did you participate? Probe: Rank these activities from most enjoyable to least enjoyable.

Evaluation of Participation

21. Looking back to your high school days, how did you feel about your participation in sports? Why?

DOMAIN: LONG-TERM EFFECTS OF PARTICIPATION IN HIGH SCHOOL SPORTS

27. If you currently have any sports paraphernalia or memorabilia in your office, tell me about it. Probes: What meaning do they have for you? Do others ask about them?
24. Tell me about your current physical and sports-related activities. Probes: Do you still play? Are you a spectator? Are you a supporter? Do you coach?

(exhibit continues)

- 23. What do you think would be lost to adults if schools were to cut back on sports offerings?
- 31. How did sports participation affect your adult life? Probes: health, physical, relationships, time management, career, volunteerism, commitment, leisure, leadership, communication, or opportunities.
- 28. Tell me some of the ways sports philosophy has become part of your life (physical, verbal or written terms, child-rearing).
- 22. What do you think about high school sports today? Would you want your son or daughter to play competitive sports in high school? Why or why not?

DOMAIN: COMMUNICATION OF EFFECTS TO SCHOOL ADMINISTRATORS AND POLICY MAKERS

- 29. What would you say to students in the United States regarding the long-term effects of participating in competitive sports in high school?
- 30. If you could share your current opinions with policy makers in school districts regarding participating in competitive sports in their schools, what would you say about the long-term effects?
- 32. What advice can you give me on how I might best communicate the long-term effects of participation in competitive high school sports to school administrators and school boards?

DEMOGRAPHIC DATA

Name_____ Date_____

Corporation_____

Position_____ Age_____

Educational degrees_____

Gender_____ Marital status_____ Children_____

How many hours per week do you work?_____

How many hours per week do you spend in leisure activity?_____

How do you spend these leisure hours?_____

The results of the first validity check indicated that 80% of the panel thought that 17 of the 33 questions fit well in the expected domain. These 17 questions were rated a two or three for clarity. The other 16 questions were reworded, and the definitions of the domains were refined for the second review panel.

Eighty percent of the second review panel correctly placed 20 of the 33 items in their expected domains. These 20 items were rated a two or three for clarity. Following a third revision, the items were administered to another panel, all of whom played a sport in high school. Eighty percent of the third review panel placed all 33 items in the expected domains, and all 33 items were rated a three for clarity. The validity check results are displayed in Table 4.

Conducting member checks. This validity check was done by allowing participants to read over their transcripts for accuracy. Any response that was not transcribed accurately was adjusted until the interviewee was satisfied with the accuracy of the transcription. Changes were made in two of the transcripts.

Keeping an audit trail. All data and analyses of data were kept as if an auditor were watching the entire process. Audiotapes and transcripts were kept along with all the charts from the constant-comparative analyses. The dates and times for scheduled interviews, member checks, or any contacts relating to this study were entered into a journal kept by the researcher. Any significant happening related to this study was recorded by date in the journal. This journal was kept as if it were being audited.

Conducting pilot studies. Two pilot case studies were conducted to add to the content validity of the interview protocol. These cases were selected using convenience sampling. Two male executives were selected as subjects. These men participated in at least one high school sport, agreed to be a part of the study, had never been a professional athlete, and were currently corporate employees. The piloting was done to determine if the needed data would be collected with the questions and probes; to establish a more appropriate order to the items; to give the author an opportunity to practice interviewing, recording, and transcribing; and to determine the approximate time needed for each interview. The pilots resulted in reordering the questions,

Table 4

Content Validity Data: Trial 1, Trial 2, and Trial 3 Results

Item ^a	Trial 1 (N=29)		Trial 2 (N=10)		Trial 3 (N=15)	
	% selecting expected domain	Mean clarity ^b	% selecting expected domain	Mean clarity ^b	% selecting expected domain	Mean clarity ^b
1	77.0	3.0	90.0	3.0	100.0	3.0
2	70.0	2.0	60.0	2.0	86.6	3.0
3	93.5	3.0	90.0	3.0	86.6	3.0
4	70.0	2.0	90.0	3.0	86.6	3.0
5	100.0	3.0	90.0	3.0	100.0	3.0
6	96.7	3.0	100.0	3.0	100.0	3.0
7	93.5	3.0	80.0	3.0	93.3	3.0
8	70.0	2.0	40.0	2.0	80.0	3.0
9	61.0	2.0	30.0	2.0	86.6	3.0

(table continues)

Table 4 (continued)

Item ^a	Trial 1 (N=29)		Trial 2 (N=10)		Trial 3 (N=15)	
	% selecting expected domain	Mean clarity ^b	% selecting expected domain	Mean clarity ^b	% selecting expected domain	Mean clarity ^b
10	58.0	2.0	70.0	2.0	80.0	3.0
11	67.0	2.0	70.0	2.0	86.6	3.0
12	80.6	2.9	60.0	2.0	93.3	3.0
13	80.6	3.0	100.0	3.0	93.3	3.0
14	90.3	3.0	80.0	2.9	86.6	3.0
15	77.0	3.0	80.0	3.0	93.3	3.0
16	67.0	2.0	100.0	3.0	93.3	3.0
17	45.0	2.0	50.0	2.0	86.6	3.0
18	41.0	3.0	50.0	3.0	80.0	3.0
19	70.0	3.0	40.0	2.0	86.6	3.0

(table continues)

Table 4 (continued)

Item ^a	Trial 1 (N=29)		Trial 2 (N=10)		Trial 3 (N=15)	
	% selecting expected domain	Mean clarity ^b	% selecting expected domain	Mean clarity ^b	% selecting expected domain	Mean clarity ^b
20	100.0	3.0	100.0	3.0	80.0	3.0
21	80.6	3.0	100.0	3.0	80.0	3.0
22	87.0	3.0	90.0	3.0	96.6	3.0
23	100.0	3.0	100.0	3.0	96.6	3.0
24	100.0	3.0	100.0	3.0	96.6	3.0
25	100.0	3.0	100.0	3.0	100.0	3.0
26	87.0	3.0	90.0	3.0	100.0	3.0
27	58.0	3.0	60.0	3.0	80.0	2.8
28	93.5	3.0	90.0	3.0	100.0	3.0

(table continues)

Table 4 (continued)

Item ^a	Trial 1 (N=29)		Trial 2 (N=10)		Trial 3 (N=15)	
	% selecting expected domain	Mean clarity ^b	% selecting expected domain	Mean clarity ^b	% selecting expected domain	Mean clarity ^b
29	38.0	2.0	30.0	3.0	80.0	3.0
30	80.6	3.0	80.0	3.0	96.6	3.0
31	70.0	2.0	60.0	3.0	80.0	3.0
32	80.6	2.0	90.0	3.0	80.0	3.0
33	64.0	2.0	70.0	3.0	86.6	3.0

^a Exact item can be found in Appendix C. ^b Mean refers to the total of all respondents' answers divided by the number in that trial.

modifying the wording of ambiguous questions, deleting one question perceived by both participants to be redundant, and adding probes where necessary to get the needed data.

Conducting the Interviews

Upon completion of the content validity checks the interviews were scheduled. The interviewees were asked to set aside one hour to complete the interview so that a limited number of interruptions would occur. They were asked to bring copies of their high school yearbooks to the interview.

Interviews were conducted face-to-face or by telephone. Participants in Virginia, Pennsylvania, and North Carolina were interviewed face-to-face. Participants in Michigan, New Jersey, and Arkansas were interviewed over the phone. Figure 2 contains the type of contact for each interview. During the interview, an effort was made to make it flow as if it were a conversation. Permission was sought for each of the interviews to be audiotaped by the researcher for later transcription.

Upon completion of each interview the participant was thanked, given a token of appreciation representing Virginia Tech, and reminded that a copy of the transcript would be sent to them for their verification. Each participant was told that the tapes, documents, analyses,

Participant	Type of interview
01	face-to-face
02	face-to-face
03	face-to-face
04	telephone
05	face-to-face
06	face-to-face
07	face-to-face
08	telephone
09	telephone
10	face-to-face

Figure 2. A description of the type of interview conducted.

and notes would be safely kept in the researcher's home until one year from completion of the study. After each interview the notes and tapes were transcribed.

Yearbooks

Another source of data was each participant's high school yearbook. These books were perused to verify the sports the person participated in, the period of time the person participated, the number of years the person participated, the success of the team, and the type of participation. The data relating to these issues were recorded by the researcher during the interview. The interviewee stopped at any time to show and explain to the researcher an item in the yearbook.

Observations

In the face-to-face interviews, observation was included to gather information related to sports that existed in the participants' offices. Pictures, plaques, trophies, awards, and fan paraphernalia from high school, college, or professional sports were observed. In the interviews done by telephone, the participant was asked to describe any sports-related items that were currently in their office. In both situations these data were taken in the form of notes and transcribed by the researcher.

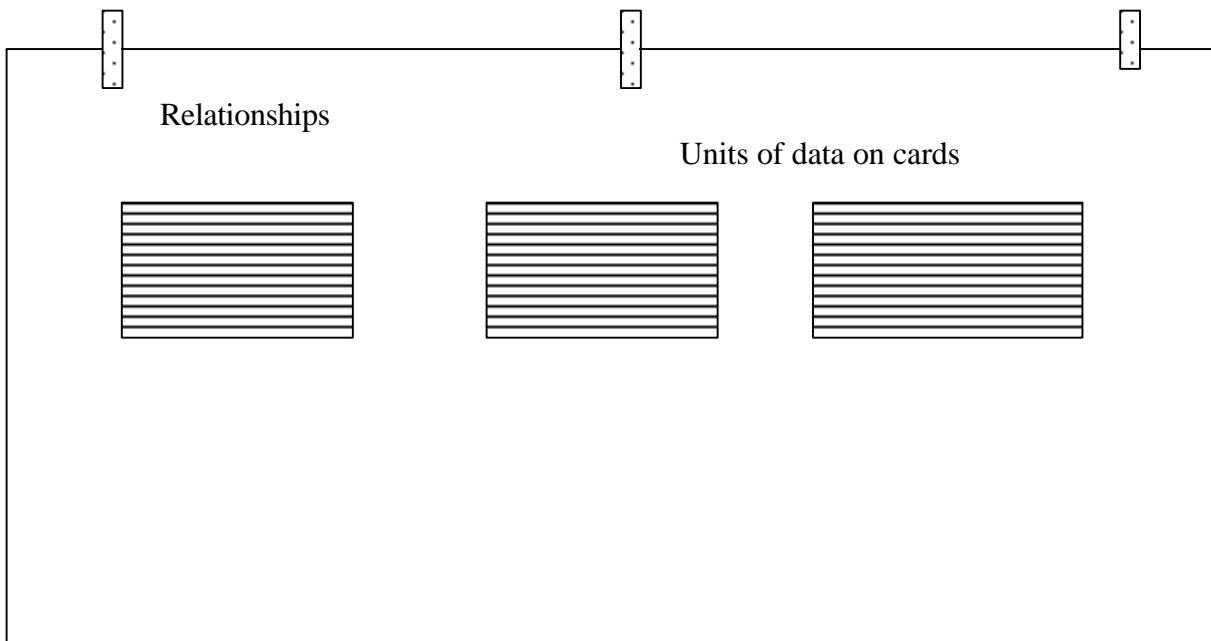
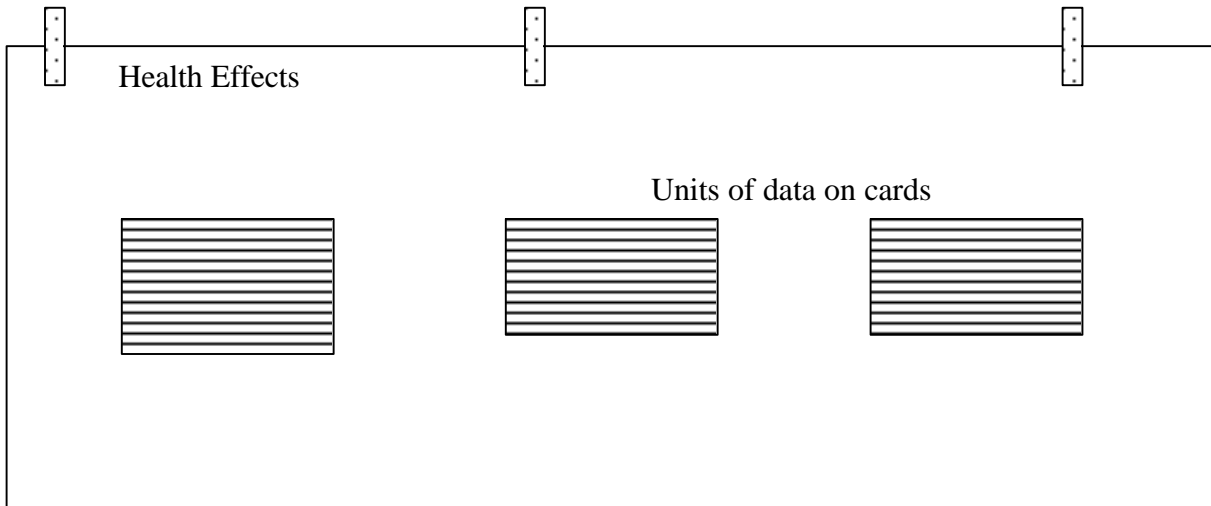
Data Analysis: Constant-Comparative Method

The data collected from the interviews, yearbooks, and observations were analyzed using the constant-comparative method (Maykut & Morehouse, 1994). This qualitative data analysis method is a kinesthetic way of comparing and identifying the common themes found in the interviews.

The process began by transcribing the notes from each interview. When transcribing the data, the lines in the transcript were numbered for easy identification of who said what. When transcription was complete, a photocopy enlargement of the transcript was made.

The next step was unitizing the data on index cards, then placing each categorized and coded card on a large wall chart. The charts were labeled with phrases or words to describe the identified domains. Each unit on a card had demographic information on the back for use in the written narrative. This visual method of coding and categorizing allowed the relevant themes to emerge. Coding and categorizing continued until all the data units were placed on wall charts. These charts are part of the audit trail. Exhibit 2 is a graphic of what the charts looked like on a wall.

Exhibit 2
Examples of Constant-Comparative Analysis Charts



After several cards appeared in one category, a rule for inclusion was written. Only those data units that fit the rule were then placed in the category. These rules became the long-term effects that are the outcomes of this study. They appeared unconnected at first, but were merged to create the narrative of the constant-comparative analysis of the data. This method enabled better organization of themes and effects and resulted in a higher quality written narrative. The raw data from each domain of the BSPT are displayed in tables within this narrative. These tables are raw data matrices and contain the relevant raw data from the transcripts (Miles & Huberman, 1994).

CHAPTER 3

FINDINGS

The results of ten interviews, six observations, and nine analyses of participants' yearbooks are in this chapter. A description of each participant is presented prior to the discussion of the themes that emerged from the data.

The Participants

Participant 01 was a black male who attended high school (grades 10-12) from 1969-1972 in a suburban area of a southern state. He wrestled in a school of 2,200 students, 66% of whom were white. He began participating competitively at age 11 and continued through college.

Participant 02 was a white male who attended high school (grades 10-12) from 1968-1971 in an urban area of a southern state. Among other sports, he participated in football for a school of 2,700 students, that after integration was 50% white and 50% black. He began competitive participation at the age of 14 and continued through college. He did not participate during his junior year in high school because his parents pulled him off the team due to falling grades.

Participant 03 was a white male who attended high school from 1947-1951 in a suburb of a city in a midwestern state. He participated in football for three years at a high school with about 1,800 students, 98% of whom were white and the remaining 2% Asian. He began to play competitive sports at age 14 and played until he reached his senior year in high school.

Participant 04 was a white male who attended high school (three years) from 1971-1974 in a suburb of a midwestern state. He participated in football at a school with 1,200 students, 82% of whom were white, 15% black, and 3% Asian. He began to play football at age 14 and played through his high school career. He graduated from high school after his junior year.

Participant 05 was a white male who attended high school (grades 10-12) from 1960-1963 in an urban locality of a northeastern state. He participated in football at a school of approximately 1,800 students all of whom were white. He began playing competitive sports at the age of 10 and continued through college.

Participant 06 was a white female who attended high school in a rural community of a northern state from 1976-1983. Her high school was grade six through twelve and had 1,200 students. There were no minority students in her school. Participant 06 began competitive sports at age 13 and ran track during eighth and ninth grades.

Participant 07 was a white female softball player from a suburb of a northern state. She attended high school from 1971-1975. Her high school had 1,500 students, 99% of whom were white with the remaining percentage black. Participant 07 began to play softball at age 15 and continued through high school.

Participant 08 was an Asian female who attended high school in a suburb of a southern state during 1982-1986. Her predominately white high school had 1,000 students with a large population of Asians. Among other sports, Participant 08 played softball from age 11 through college.

Participant 09 was a white female who attended high school in a rural town in a southern state from 1983-1987. She attended a school of about 1,000 students, 80% of whom were white and 20% black. Participant 09 was a cheerleader for her high school. She began competitive participation at age 11. During her freshman and sophomore years she stopped cheering and resumed during her junior year.

Participant 10 was a white female who attended high school in a suburb of a southern state during 1994-1998. She attended a high school of 2,500 students with a good mix of white, black, and Filipino races. She began to play competitive sports at the age of five. Participant 10 played volleyball during her entire high school career.

Nine of the participants were employees of the top-ten Fortune 500 companies during 1999-2000, one participant was retired from a top-ten Fortune 500 company, and all were considered to be among top management personnel by his or her Fortune 500 company. All participated in a varsity-level sport while in high school. Of particular note is the fact that there is a participant in this study who attended high school during each of the past six decades. Figure 3 is a chart of the participants and the decades they were in high school.

DECADE	YEARS ATTENDED	PARTICIPANT
1940s	1947-1951	03
1950s	1947-1951	03
1960s	1960-1963	05
	1968-1971	02
	1969-1972	01
1970s	1968-1971	02
	1969-1972	01
	1971-1974	04
	1971-1975	07
	1976-1983	06
1980s	1976-1983	06
	1982-1986	08
	1983-1987	09
1990s	1994-1998	10

Figure 3. Participants attended high school during each of the past six decades. Participants 01, 02, 03, and 06 attended during two decades.

Coding of the Data

Data from transcripts, observations, and yearbooks of the participants were coded. The code for a transcript included a capital T (for transcript) and the number assigned to the participant followed by a slash, then a number referring to the page of that transcript followed by a slash, and finally a number referring to the line of that transcript. An example of a transcript code is (T03/5/178). The data cited would be from the transcript of Participant 03 on page 5, line 178. A citation to an observation has the capital letters OBS and the participant number followed by a slash and the date of the observation. An example of a citation of an observation is (OBS09/July 1, 2000). A yearbook citation has YB and the participant number (YB02).

Emergent Themes

The themes that emerged from the data are presented according to the Bechtol Sports Participation Theory (BSPT) that is in Chapter 1, Figure 1. The organizational factors affecting participation in high school sports are presented first, the personal factors affecting participation in high school sports are presented second, then the features of participation which provide a description of the respondents' participation are presented. Next, the themes that emerged from the data on participation in high school sports are presented. To become an effect theme, at least two of the participants had to mention the lasting attribute. Finally, the suggestions from the participants on how to communicate this information to school administrators and policy makers are discussed.

Organizational Factors Affecting Participation in High School Sports

The organizational factors that may affect participation in high school sports were identified from previous research as content of classes, size of school, influential adults, geographic location, and racial mix. A summary of the raw data on the organizational factors found to affect participation in high school sports is in Table 5.

Content of Classes

The first factor affecting participation in high school sports in the organizational domain was the content of the classes taken while in high school. Five of the ten participants saw a connection between class content and participation or competition. The courses mentioned were math (Participants 01 and 02), gym (Participants 04 and 08), and journalism (Participant 03).

Table 5

Raw Data Matrix: Organizational Factors Affecting Participation in High School Sports

Participant	Content of classes	Size of school	Influential adults	Geographical location	Racial mix
01 Male	“Math prepared me for everything” (T01/6/134).	“10 th , 11 th , and 12 th , about 2,200 ballpark figure” (T01/2/27).	“Coach. He treated us like sons (T01/7/ 153) and we treated him like kin-folk” (T01/7/161).	Suburban Virginia	“Roughly 66% white and 33% black” (T01/2/34).
02 Male	“Math always pushed me to try harder. . . .The classes [math] helped me from the standpoint of continuing to challenge myself” (T02/5-6/124-127).	“Because we were going through integration. . . .It went from 1,800 to 2,700” (T02/1-2/24-26).	“Coach. . .he spent a lot of time. . . .He was always after usHe had a significant influence from the standpoint that he wasn’t just a coach” (T02/6/139-146).	Urban Virginia	“Predominately white, then we merged, say 50% white, 50% black” (T02/2/31-33).
03 Male	“Journalism, because it was a little competitive” (T03/7/157-158).	“About 1,800” (T03/1/20).	“I didn’t have any adult who played a role in my decision to play” (T03/7/172).	Suburban Illinois	“Virtually all white, I’d say 98% white and 2% Asian” (T03/1/25).
04 Male	“Gym class would have pushed me competitively” (T04/5/102).	“About 1,200” (T04/1/21).	“No, not at all” (T04/5/112).	Suburban Ohio	“Predominately white, few Hispanics, as far as blacks, I’d say 15%” (T04/2/35).

(table continues)

Table 5 (continued)

Participant	Content of classes	Size of school	Influential adults	Geographical location	Racial mix
05 Male	“I never saw a connection between academics and athletics--only to stay eligible” (T05/4/90).	“Approximately 1,600-1,800” (T05/1/22).	“My dad always encouraged us to play. . . He was an icon in the valley” (T05/5/99-100).	Urban Connecticut	“100% white” (T05/2/28).
06 Female	“No” (T06/4/83).	“Approximately 1,200. . . Small school, very competitive [with the larger schools] we didn’t have a lot come out [for track]” (T06/1/20).	“My father, who was a basketball coach and wanted me to be involved” (T06/4/92).	Urban Pennsylvania	“No black, all white” (T06/2/26).
07 Female	“No” (T07/3/73).	“1,500” (T07/1/20).	“My parents. . . Our whole family was sports oriented” (T07/4/80).	Suburban Pennsylvania	“Predominately white, I’d say 99% to 1% black” (T07/1/25).
08 Female	“I guess PE taught us how to compete” (T08/4/89).	“Maybe 1,000” (T08/1/22).	“No. I decided on my own” (T08/4/98).	Suburban Virginia	“Ethnically diverse, we had a lot of Asian, but predominately Caucasian” (T08/2/27-28).

(table continues)

Table 5 (continued)

Participant	Content of classes	Size of school	Influential adults	Geographical location	Racial mix
09 Female	“I don’t believe so” (T09/5/101).	“Approximately 1,000” (T09/1/20).	“My cheering sponsor and my mom” (T09/5/119).	Rural Virginia	“80% white, 20% black” (T09/1/25).
10 Female	“Probably not” (T10/4/89).	“A lot, almost 2,500” (T10/1/22).	“My coach. . . He kept pushing me” (T10/4-5/98-100).	Suburban Virginia	“It was a good mix of white , black, and Asian (predominately Filipino). Equal percentages of all” (T10/2/27-28).
Summary	Five of the participants saw a connection between course content and participation or competition. Two participants mentioned math, two mentioned gym or PE, and one mentioned journalism.	One of the participants thought that size of school affected participation because her school was small and participation limited, yet the teams were competitive with larger schools. The others did not discuss size in relation to participation. The size range of the schools was 1,000 to 2,700 students.	The participants were influenced by adults to participate in sports. Four said a coach influenced them to play by asking or by encouraging them to continue, four had a parent to influence them through support and encouragement, and three had no influence from an adult.	There was no discussion of geographic area and its effect on participation. Five of the participants were from the South, two were from the Midwest, and three were from the North. Six participants said they lived in suburban areas, three urban, and one rural.	There was no discussion of whether the racial mix affected participation in sports. Seven of the participants were from mostly white schools, two from ethnically diverse student populations, and one said after merging 50% white and 50% black.

Note. In the citations, the T represents transcript. The first number is the participant’s identification number, the second number is the page, and the final number is the line number.

One comment by Participant 02 was, “Math always pushed me to try harder. . . . The classes [math] helped me from the standpoint of continuing to challenge myself” (T02/5-6/124-127).

Size of School

The high schools of the participants in this study ranged from 1,000 students to approximately 2,700 students. One participant felt that the size of the high school affected her participation in sports. She said that since her school was small, there was a strong competitive atmosphere. Her school was one of the smallest in the area, yet its teams competed with all the larger schools and experienced success. Due to her school’s small enrollment, not many students came out for the track team (T06/1/20); thus, she was able to participate on a varsity-level team while in grade nine.

Influential Adults

Four of the ten participants believed that their coaches had a significant impact on their decision to participate in sports in high school. Participant 01 stated how important the relationship with his coach had been in his decision to wrestle in high school. His coach allowed him to come from the junior high to wrestle as a freshman and encouraged him to work hard to become better. He stated, “Coach treated us like sons (T01/7/153). . .and we treated him like kin-folk” (T01/7/161).

Four of the ten participants believed that a parent had an impact on their participation. Two of these participants felt their fathers were influential in their decision to participate, one said her mother influenced her, and one felt both her parents had encouraged her by being a very sports-oriented family. Participant 06 said that her father was the boys’ basketball coach and he wanted his daughter involved in sports. Participant 05 stated, “My Dad always encouraged us to play. . . . He was an icon in the valley” (T05/5/99-100). His encouragement came by reputation. Three of the participants did not feel that an adult had influenced them to participate in high school sports.

Geographical Location

There was no discussion with any of the participants on whether they thought the locality in which they lived had an effect on their participation. Five of the participants were from high schools in the South which, according to the National Federation of High School Associations (1998), was fourth among five regions in the United States for numbers of participants in high school sports. Two of the respondents were from the Midwest, and three were from the North. Of the ten participants, six attended high school in a suburban area, three thought their community was urban, and one said she grew up in a rural area.

Racial Mix

The participants did discuss the racial make up of the student body while they attended high school, but no one discussed how that mix affected their participation in sports. Seven of the participants stated that they had attended a high school with a student population that was mostly white (Participants 01, 03, 04, 05, 06, 07, and 09). One participant said “50% white, 50% black” (T02/2/31-33), and two referred to their schools as being ethnically diverse (Participants 08 and 10).

Although five factors were previously identified as influencing participation, this researcher found content of classes, size of school, and influential adults to affect participation in high school sports.

Personal Factors Affecting Participation in High School Sports

Earlier researchers found three personal factors that may affect participation in high school sports. These factors were gender, behavior in high school, and goals and motives. This researcher felt that the factors of race and age may affect participation. The raw data relating to the personal factors that may affect participation in high school sports are in Table 6.

Gender

All of the male participants believed that their gender affected their participation in high school sports. They were expected to play sports. Some statements made by the male participants included, “Boys played sports” (T02/6/131-136), “It was a guy thing” (T03/7/166-169), “Being a male, it was expected that you’d participate in sports” (T05/4/95-96). During the decades the males participated in sports, there were not as many options for their female classmates.

Table 6

Raw Data Matrix: Personal Factors Affecting Participation in High School Sports

Participant	Gender	Behavior in high school	Race	Age	Goals and motives
01 Male	“I was able to participate in every sport I wanted. . . . I can’t see any difference [between genders]” (T01/6/144-148).	“Carefree. . . . Voted most likely to succeed. . . . Teachers thought pretty decent of me” (T01/3-4/72-81).	“My junior high was mostly black and the high school was mostly white. I hesitated to play” (T01/3/66-67) . . . My best friends were white” (T01/8/182).	“6 th or 7 th grade, about 11” (T01/2/46).	“To interact with all my peers. . . . Fellowship. . . . I played for the challenge” (T01/5/106-108).
02 Male	“I was expected to play football. I was expected to be a jock. . . . Boys played sports” (T02/6/131-136).	“Accepted by students. . . . My grades fell and I had to drop off the team” (T02/3-4/61-75).	“They integrated with the all black school. . . . Changed our team name and mascot” (T02/2/31-33).	“8 th grade, about 14” (T02/2/46-47).	“I enjoyed it. . . . I was good at it. . . . It got me a scholarship” (T02/5/104-105).
03 Male	“If I wasn’t male, I wouldn’t have participated. . . . No female sports at the time. . . .It was a guy thing” (T03/7/166-169).	“Shy. . . . Two detentions in four years, I wasn’t a behavior problem I wasn’t in trouble” (T03/3/54-67).	School was virtually all white—no discussion on race affecting participation.	“Freshman in high school--13” (T03/2/37).	“I loved sports. . . . All the kids were into sports. . . . I grew up loving sports” (T03/5/115-121).

(table continues)

Table 6 (continued)

Participant	Gender	Behavior in high school	Race	Age	Goals and motives
04 Male	“Sports were male dominated. . . . Society ‘approved’ of it” (T04/5/107-108).	“I received straight A’s. . . . My relationship with teachers was wonderful. . . . I was an aide in science and gym. . . .With the faculty, no issues” (T04/3/54-58).	No discussion on race and its effect on participation.	“8 th grade--14” (T04/2/46).	“I enjoyed it, I had fun doing it” (T04/4/90).
05 Male	“Being a male, it was expected that you’d participate in sports” (T05/4-95-96).	“I went to the principal’s office a lot. . . . I was clowning around trying to attract girls. . . .I was asked to leave many classes” (T05/2-3/45-50).	No discussion on how race affected participation as school was 100% white.	“Little League--10 years old” (T05/2/37).	“My father was an outstanding athlete. . . . It was the thing to do to be cool. . . . My peer group were all athletes” (T05/4/76-80).
06 Female	“Boys were expected to play. . . . If we were better than males, we would be harassed or made to feel uncomfortable” (T06/4/87-90).	“All-around good student. . . . Got along with teachers. . . . I was their pet” (T06/2-3/41-50).	No discussion on how race affected participation since the school was all white.	“8 th grade--13” (T06/2/33).	“My dad wanted me to play basketball. I was too short. . . . All I could do was run. . . . I enjoyed it” (T06/3/70-73).

(table continues)

Table 6 (continued)

Participant	Gender	Behavior in high school	Race	Age	Goals and motives
07 Female	“I couldn’t play the sports I wanted to. . . . No interest in sports [girls] until someone asked me to play” (T07/3-4/75-77). “Girls didn’t have the opportunities. . . . I felt gyped” (T07/3/64).	“Good, I put up a good front. Teachers believed that. . . I just didn’t like being a teenager” (T07/2/41-46).	No discussion on how race affected participation as the school was 99% white.	“10 th grade--15” (T07/2/33).	“Sports were real important to me growing up. . . . I wanted to play baseball, but couldn’t. Someone asked me to play softball” (T07/3/63-68).
08 Female	“I didn’t see any discrimination. . . except the males had more people come and watch. You had to pay to see them play” (T08/3/93-95).	“Talked a lot. . . . Teachers always asked ‘why I wasn’t like my sisters’. . . . Social butterfly and athlete. . . . Voted friendliest and funniest” (T08/3/52-55).	“Team made it feel like family. . . . The day I got my citizenship they gave me a shirt with American flags all over. . . . I felt welcomed” (T08/5/104-109).	“5 th grade--11” (T08/2/37). “As I got to middle school I played more and it became more competitive” (T08/2/37).	“To meet new friends. It was also a way to be unique from my sisters” (T08/4/81-82).

(table continues)

Table 6 (continued)

Participant	Gender	Behavior in high school	Race	Age	Goals and motives
09 Female	“Girls’ teams [were] very little attended. . . . None of us wanted to cheer for the girls’ games” (T09/5/106-110).	“Good relationships with friends and teachers. . . not very competitive with girls” (T09/2-3/46-52).	There was no discussion on how race affected participation (YB09).	“6 th grade--11” (T09/2/35).	“I always wanted to be a cheerleader since fourth grade and watching the Dallas Cheerleaders” (T09/4/82-83).
10 Female	“My school was most known for girls’ basketball. . . then volleyball. . . . We made it big. . . . We got more positive attention than the boys” (T10/4/91-96).	“Teacher’s pet. . . buddies with all the administrators” (T10/2/47-48).	There was no discussion on how race affected participation (YB10).	“5 years old. I always played something” (T10/2/37-38).	“Sports were always the best and quickest way to make friends and get involved” (T10/4/75-76).

(table continues)

Table 6 (continued)

Participant	Gender	Behavior in high school	Race	Age	Goals and motives
Summary	The five male participants thought males were expected to play sports. Two female participants thought there was less fan attendance at girls' sports, one female was harassed by males, and one felt that girls got more attention than boys.	One participant connected his behavior to participation in sports. He dropped sports because of grades. The participants were well behaved, but minor behavior problems were mentioned by one.	Race was discussed by one participant as it related to his participation: He was hesitant to play in a mostly white high school. The others did not discuss race and how it affected participation.	The age of initial competition for the participants ranged from five to fifteen. Eight participants began to play a sport prior to entering high school.	The reasons for playing were for fellowship or to make friends, mentioned by three participants; a challenge, mentioned by one; enjoyment, mentioned by four participants; for the love of sports, mentioned by one; to be cool, mentioned by one; to be involved, mentioned by one; to be unique, mentioned by one; to do something one always wanted to do, mentioned by one; to please dad, mentioned by one; and to earn a scholarship to college, mentioned by one.

Note. In the citations, the T represents transcript. The first number is the participant's identification number, the second number is the page, and the final number is the line number. YB in a citation refers to yearbook and the number is the participant number.

The female participants had fewer opportunities than the males to participate in sports. Another gender issue was that although a fee was charged for admission to most male sporting events, the attendance was higher than at female events (Participants 08 and 09). Participant 06, a female track participant, was harassed by the males that were slower than she. Another female participant bragged that the girls' basketball and volleyball teams in her school were always better than the boys' teams, and the girls got all the positive attention. Participant 07, a female, stated, "I couldn't play the sports I wanted to . . ." (T07/3/75), and "Girls didn't have the opportunities. . . I felt gypped" (T07/3/64).

Behavior in High School

The data on behavior in high school are descriptive, and only one participant saw a relationship between his behavior and his sports participation. Nine of the ten participants said their behavior in high school was good. One male participant mentioned minor behavior problems for which he spent a lot of time in the principal's office. He clowned around trying to attract girls (T05/2-3/45-50). He did not connect these behavior problems to participation.

One participant connected his behavior to sports participation. He let his grades drop, and his parents made him quit the team for a year. He explained that he did get his grades back up so he could continue to play his senior year and go on to earn a scholarship to play in college (T02/3/50-54).

Race

Four of the male participants were white and one was black. Four of the female participants were white and one was Asian. The black male participant discussed his race and its effect on his participation in sports. He admitted that he had attended an all-black middle school and was hesitant to try out for the high school wrestling team because they were integrated. Even the coach was white. He feared what that would mean. Participant 01 (black male) stated, "My best friends were white" (T01/8/182). He did not think that would have been true had he not wrestled. He played for the white coach to whom he still refers as family and to whom he attributes his admission to college. Participant 01 believes that his participation in sports enabled him to make friends with students of other races.

Age

There is a large range in the age of initial competition among the participants. One of the participants began to play competitively at age five (Participant 10), and one did not begin until age 15, after entering high school (Participant 07). Eight of the ten participants had competed in sports prior to high school. One participant said, “I always played something” (T10/2/40). Age was not discussed by any of the participants as affecting their participation in high school sports.

Goals and Motives

A variety of responses on goals and motives can be categorized as playing for pleasure, playing for advancement, and playing to please others. Some played for a combination of reasons. Participant 02 stated, “I enjoyed it. . . . I was good at it. . . . It got me a scholarship” (T02/5/104-105). Participant 06 played because her father wanted her to play basketball, but she was too short. She played track to please her father. Participant 07 said, “Someone asked me to play softball” (T07/3/68). One said she played to be involved in something and to make friends (Participant 10). One participant with several siblings said she played to be unique. Her sisters were academicians [sic] and she wanted to be different (T08/4/82-83).

Of the previously discovered personal factors that may affect participation in high school sports, this researcher found gender, behavior in high school, and goals and motives to have a direct effect on participation. Race, a new finding, had an affect on the participation of one of the participants.

Features of Participation in High School Sports

The data that emerged from the participation domain are descriptive. This is a result of the way the questions were asked. The researcher did not probe for the connections between the participation features and the long-term effects of sports participation on the lives of the interviewees. Thus, the data are descriptions of the interviewees’ participation in sports while in high school. The participation features that emerged from the data are summarized in Table 7.

Table 7

Raw Data Matrix: Features of Participation in High School Sports

Participant	Sport selected ^a / other sports played	Duration of high school participation in selected sport	Continuity of participation in all sports	Evaluation of participation	Time devoted to selected sport	Participation in other activities	Immediate benefits
01 Male	“Wrestling/ baseball” (T01/2/36, YB01).	4 years (T01/2/43)	“Baseball, 6 th and 7 th grades, stopped, then picked it [wrestling] up in 9 th grade” (T01/2/53-54).	“I wouldn’t trade it for anything. It was the best thing that happened to me. . . . It showed me how to get along with others. To achieve” (T01/7/164-166).	“Two and a half to three hours per day, except Sunday, during the season. . . . Many holidays and summer camps” (T01/2/40-43).	“Choir—all my friends were in the choir” (T01/9/201-203, YB01).	“How to succeed. . . . How to overcome failures” (T01/5/113-115).
02 Male	“Football/ track, soccer” (T02/2/34-35, YB02).	3 years (T02/3/50-52)	“No, I stopped during junior year due to falling grades” (T02/3/50-55).	“Meet new people. . . . Create bonds” (T02/7/158).	“Two hours per day. . . . I’d say 12 hours per week” (T02/2/42-43).	“Piano. . . . Church. . . . Work” (T02/9/203-208).	“Gave me opportunities [college]” (T02/5/109).

(table continues)

Table 7 (continued)

Participant	Sport selected ^a /other sports played	Duration of high school participation in selected sport	Continuity of participation in all sports	Evaluation of participation	Time devoted to selected sport	Participation in other activities	Immediate benefits
03 Male	“Football” (T03/2/26, YB03).	3 years (T03/3/28)	“No. I dropped football my senior year because I wasn’t getting enough playing time” (T03/2/41-42).	“I enjoyed it. . . .It felt good. . . . It was a pleasant experience” (T03/8/176-178).	“Three hours everyday except Sunday. . . . Didn’t do the things they do now [weight room]. We just practiced” (T03/2/30-34).	“Newspaper” (T03/9/207).	“Personal enjoyment. . . . Good relationships” (T03/6/131-132).
04 Male	“Football/ wrestling, track, basketball, weightlifting” (T04/2/36-39, YB04).	3 years (T04/2/41)	“8 th grade through graduation” (T04/2/46-49).	“Ego booster. . . girls liked guys who started on sports teams” (T04/5/122-123).	“Two weeks of camp—seven hours a day. Three hours a day during the season” (T04/2/42-44).	“No clubs or anything but sports. . . . It’s the reason I wasn’t a National Merit Scholar” (T04/7/149-150).	“Camaraderie. . . being with friends” (T04/4/91-92).
05 Male	“Football/ basketball and baseball” (T05/2/30, YB05).	4 years (T05/2/34)	“Age 10 through high school” (T05/2/37-40).	“I think it was a positive experience” (T05/5/104).	“Two to three hours August to Thanksgiving. That was the season” (T05/2/32-34).	“Student Council, Catholic Organization, and work” (T05/6/134-136).	“Self-esteem. . . . Some things I didn’t think I could do” (T05/5/106-107).

(table continues)

Table 7 (continued)

Participant	Sport selected*/other sports played	Duration of high school participation in selected sport	Continuity of participation in all sports	Evaluation of participation	Time devoted to selected sport	Participation in other activities	Immediate benefits
06 Female	“Track” (T06/2/270).	2 years--eighth and ninth grade (T06/2/33)	“I chose [to quit track] to be a majorette” (T06/2/36) “. . . because I was harassed by the guys for beating them” (T06/4/98).	“I wasn’t comfortable. The guys who ran didn’t think we [females] should be there” (T06/4/98-99).	“Everyday after school for about two hours” (T06/2/31).	“I was a majorette [band] and I sang in the choruses” (T06/5/121).	“I enjoyed just being outdoors (T06/3/63). . . . It pleased my Dad” (T06/3/70).
07 Female	“Softball” (T07/2/26, YB07).	3 years (T07/2/28)	10 th grade through 12 th grade [started late after being asked to play] (T07/2/33, YB07)	“It made me feel more a part of the school. . . . I didn’t like school, but in the spring it was different” (T07/4/85-87).	“In season—two and a half hours per day, for five days a week, but I did practice in the winter to keep my arm loose” (T07/42/29-30).	“Just work” (T07/5/103).	“Made school seem better. . . . I didn’t like being a teenager” (T07/2/45-47).
08 Female	“Softball/ field hockey, basketball, wrestling manager” (T08/2/29-32, YB08).	4 years (T08/2/35)	“5 th grade through 12 th grade” (T08/2/35,40).	“I’m really glad I did it. . . . It taught me skills I didn’t learn in the classroom” (T08/5/101-102).	“Daily, 6 days a week for 4 years” (T08/2/34-35).	“Yearbook staff and French club” (T08/6/148, YB08).	“Meet new friends. . . . Be unique from my sisters” (T08/4/82).

(table continues)

Table 7 (continued)

Participant	Sport selected*/other sports played	Duration of high school participation in selected sport	Continuity of participation in all sports	Evaluation of participation	Time devoted to selected sport	Participation in other activities	Immediate benefits
09 Female	“Cheering/ softball” (T09/2/27, YB09).	2 years (T09/2/27)	“There was a break between my freshman and junior years [she wanted cheer on the varsity level and at her school you had to be a junior]” (T09/2/39-41).	“It was good. . . . It gave me lots of self-confidence” (T09/5/122-123).	“Practice two nights a week and games on Fridays. . . Basketball had two games a week. . . I’d say 20 hours a week” (T09/2/30-33).	“Flag corp [band], French club, math club, student council, and class vice-president for three years” (T09/7/155-157, YB09).	“Attention and friends” (T09/4/85-86).
10 Female	“Volleyball/ softball” (T10/2/30, YB10).	4 years (T10/2/30, YB10)	“I always played something from age five through 17” (T10/2/40).	“I was proud to be a part of it. . . . I don’t know what I would’ve done if I hadn’t played sports” (T10/5/103-104).	“Team practice five days a week. . . I practiced the other two” (T10/2/34-35).	“Just sports” (T10/6/125).	“Friends” (T10/4/75).

(table continues)

Table 7 (continued)

Participant	Sport selected ^a /other sports played	Duration of high school participation in selected sport	Continuity of participation in all sports	Evaluation of participation	Time devoted to selected sport	Participation in other activities	Immediate benefits
Summary	Four participants selected football, two softball, one wrestling, one cheering, one track, and one volleyball. Other sports that participants played in high school included boys' track, soccer, boys' and girls' basketball, weightlifting, baseball, and field hockey. One served as a wrestling manager.	Four of the participants played the selected sport for four years in high school. Four of the participants played for three years in high school, and two of them played for only two years in high school.	Once they began to play any sport, five of the participants played until high school graduation. Three of the participants changed the sport they played. Once participation began in high school, six continued without interruption until graduation. One stopped due to grades. Another stopped because he was not getting enough playing time. One quit because she was harassed, and one stopped during grades nine and ten because she did not want to be on the junior varsity team.	Nine of the participants felt they had good experiences. Four felt it was a very positive experience. Participants said it was an ego booster, wouldn't trade it, it was the best thing. Five felt it was a positive experience. It made them feel good. They enjoyed it. One spoke negatively of her experience, and quit as a result of the rejection by the guys on her team.	One participant practiced or played seven days a week. Four practiced or played six days a week. Two participated five days a week. One played or practiced three days a week, and two were unclear about the days. The hours per week ranged from 10 to 20. One participant said about 20 hours, two said 18, two said 12, one said 10, and four were unclear on the number of hours. Two mentioned participating at camps and one practiced on holidays.	Eight of the participants were involved in other activities while playing sports. The activities included work, chorus or choir, student council, flag corp, majorette, church activities, French club, math club, newspaper, yearbook, piano lessons, Catholic organization, and class officers. Two of the participants were involved in no other activities, three participated in one other activity, two participated in two other activities, two participated in three other activities, and one was in five activities other than sports.	Five participants discussed relationships or friends as an immediate benefit. Two mentioned confidence builders such as being successful or doing things previously thought to be not possible. Two mentioned enjoyment as an immediate benefit. One said it gave them an opportunity for college. The following were immediate benefits mentioned by one participant: overcoming failure, self-esteem, made school seem better, pleased dad, made me unique, brought attention.

Note. In citations, the T represents transcript. The first number is the participant's identification number, the second number is the page, and the final number is the line number. YB refers to yearbook and the number is the one assigned to the participant.

^aSelected sport refers to the sport the participant decided to use for discussion in this study. The participant may have played more than one sport, but selected one for focus in the interview.

Sport Selected

The data on the sports played do not contain information on how playing particular sports affected the lives of the participants. Some of the participants played more than one sport and in that case they had to select the one they wanted to use for this study. The ten participants played a total of fourteen sports: football, wrestling, boys' track, soccer, boys' basketball, weightlifting, baseball, softball, field hockey, girls' basketball, cheerleading, girls' track, volleyball, and wrestling manager. Six of the ten participated in more than one sport while in high school. Four of the participants chose to discuss football. Three of the four had played another sport, yet selected football for use in this study. Two participants selected softball, one of them participated in another sport. One participant selected cheering over softball for focus during the interview. Three participants played only one sport while in high school, so there was no discussion as to which one they preferred to use. The selected sports of the participants were cheering, football, softball, track, volleyball, and wrestling.

Duration of High School Participation in Selected Sport

The duration data for the selected sports were more descriptive than useful in determining long-term effects of participation in high school sports. Four of the ten participated during their entire high school career. Four participants played for three years. Two of the participants played only two years. Table 8 contains duration data of the selected sports in years in column three and the grades of participation for all sports in column four.

Continuity of Participation In All Sports

The data for the continuity factor is descriptive and not related to the long-term effects from participation in high school sports. Once participation began in any sport, five of the participants continued through high school. Once participation started in high school (not until grade 10 for one participant) six of the ten continued uninterrupted through their high school careers. Four of the participants were discontinuous in their participation during high school. Participant 02 had to stop football during his junior year due to falling grades (T02/3/50-55). Participant 03 did not play football his senior year because he thought he wasn't getting enough playing time (T03/2/42-44). Participant 06 stopped running track before her sophomore year

Table 8
Duration of Participation in Selected Sports and Grades of Participation in All Sports by Each Participant

Participant	Gender	Duration in years of selected sport ^a	Grades of participation for all sports
01	Male	4	6, 7, 9, 10, 11, 12
02	Male	3	8, 9, 10, 12
03	Male	3	9, 10, 11
04	Male	3	8, 9, 10, 11
05	Male	4	8, 9, 10, 11, 12
06	Female	2	8, 9
07	Female	3	10, 11, 12
08	Female	4	5, 6, 7, 8, 9, 10, 11, 12
09	Female	2	6, 7, 8, 11, 12
10	Female	4	K, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12

^aSelected sport refers to the sport that the participant chose to discuss for the purpose of this study.

because she had experienced harassment from the guys on the team that she beat and felt uncomfortable (T06/4/98). Participant 09 took a break from cheering for her freshman and sophomore years because she wanted to cheer for varsity, and at her school she had to be a junior to be on the varsity squad (T09/2/39-41).

Evaluation of Participation

The data from the evaluation of participation in sports is descriptive, but there are implications for the long-term effects of participation. Despite varying experiences, nine of the ten participants felt the experience of participating on a high school sports team was good. Participant 02 (who did not play his senior year because he did not get enough playing time during his junior year) still spoke positively about the overall experience, stating it allowed him to “meet new people . . . and create bonds” (T02/7/158).

Four of the participants felt that they had very positive experiences playing sports in high school. Participant 01 stated, “I wouldn’t trade it for anything. It was the best thing that happened to me” (T01/7/164-166).

Five of the participants felt playing sports had been a positive experience. The experiences enhanced their self-confidence, improved interpersonal skills, and made them feel better about school. Participant 03 stated, “I enjoyed it. . . . It felt good. . . . It was a pleasant experience” (T10/5/103-104). Participant 07 stated, “It made me feel more a part of the school. . . .” (T07/4/85).

Only Participant 06 had a negative evaluation. She stated, “I wasn’t comfortable. The guys who ran didn’t think we [girls] should be there” (T06/4/98-99). If she happened to be faster than they were, they would harass her continuously. She did not think this negative experience carried over to adult life. Despite her experiences, she encourages her children to participate in little league activities (T06/5/103-108).

Time Devoted to Selected Sport

The data on time devoted to the selected sport were descriptive rather than related to the long-term effects of sports participation. The participants devoted three days per week to seven days per week to the selected sports. Participant 09 practiced two days per week during the season and played one night (T09/2/30-33). Participants 07 and 10 discussed that they practiced out of season and on Saturdays and Sundays (T07/42/29-30, T10/2/34-35). Participants 01 and

04 talked about the summer camps they attended as being intense practices seven days a week (T01/2/40-43, T04/2/42-44). Participant 01 discussed practicing on holidays. Two of the participants were unclear about the number of days they devoted to the sport.

The participants reported devoting from 10 to 20 hours per week to the selected sport. One participant devoted 20 hours per week, two spent 18 hours per week, two spent 12 hours per week, and one devoted 10 hours per week to the selected sport. Four participants were unclear about the number of hours per week devoted to the sport.

Participation in Other Activities

Eight of the ten participants were involved in some other school activity while participating in sports. The other activities included school clubs, French and math; school governance organizations, student council and grade-level officers; the arts, flag corp, majorette, chorus, and piano; literary organizations, newspaper and yearbook; church-related activities; and work. Participant 04 only played sports and was told that his lack of participation in other activities was the reason he did not win a National Merit Scholarship (T04/7/149-150). Two of the participants were involved in sports only. Three participants played a sport and were in one other activity. Two were involved in two other activities. Two participants were involved in three activities other than sports. One of the participants played sports and was involved in five other activities. The other activities each respondent participated in while in high school are in Table 9.

Immediate Benefits of Participation

The participants were asked what they thought the immediate benefits of participation in a high school sport were while they were in high school. The answers varied, but one clear theme related to the making of friends and creating relationships was evident in five of the ten responses (Participants 03, 04, 08, 09, and 10). There is an implication here for the long-term effect of making friends.

Another theme that emerged was the confidence building that sports enhanced. Participants believed that the ability to overcome failure, to succeed, to increase one's opportunity to attend college, and to do what one previously thought could not be done were immediate benefits.

Table 9

Activities Participated in Other than Sports While in High School

Participant	Gender	Other Activities
01	Male	School choir
02	Male	Church activities, work, piano
03	Male	Newspaper
04	Male	None
05	Male	Student council, Catholic organization, work
06	Female	Majorette, school chorus
07	Female	Work
08	Female	Yearbook, French club
09	Female	Student council, class vice-president, flag corp, French club, math club
10	Female	None

Personal enjoyment and attention were additional immediate benefits. Participant 06 stated, “I enjoyed just being outdoors” (T06/3/63). Participant 06 enjoyed the benefit of pleasing her father (T06/3/70). Other benefits mentioned were self-esteem (Participant 05), it made school seem better (Participant 07), made me unique (Participant 08), and brought attention (Participant 09).

Participation in High School Sports and Its Long-Term Effects on Adults

The long-term effects of participation in high school sports are presented in this section. A rule statement was established for relating data to a theme in accordance with the constant-comparative analysis method. Unitized data were considered to be a theme if two or more participants mentioned similar long-term effects. The thirteen effects found in this study are: being competitive, being goal oriented, being physically active, making friends, developing leadership skills, enhancing self-esteem, displaying sports paraphernalia, practicing sports philosophy, working as a team, acquiring skills not taught in the classroom, managing time, volunteering, and working with diverse groups. The raw data from each participant and the thirteen themes are in Table 10.

Being Competitive

Eight of the ten participants mentioned competitiveness as continuing to be a part of their lives. The participants saw themselves as competitive in their jobs within the Fortune 500 company. Participant 02 stated, “Life is full of winning and losing. Just like in football, life is full of competition” (T02/10/242). Participant 08 said, “I’m as competitive [as I always was], I’m just not as good as I used to be” (T08/6/142-143). Participant 10 stated, “I have a healthy sense of competition here [in the corporate world]” (T10/5/110). The eight participants who felt that competition remained in their lives implied that this competition carried over from their participation in high school sports.

Being Goal Oriented

Four of the participants implied that being a goal setter both personally and on the job was a lasting effect from high school sports participation. Participant 01 says that the goal setting done in wrestling allowed him to keep an objective in mind and constantly work toward that objective (T01/11/260-261). Participant 02 stated, “You can accomplish anything if you

Table 10

Raw Data Matrix: Long-Term Effects of Participation in High School Sports

Participant and Selected sport	Theme one--being competitive	Theme two--being goal oriented
01 Male Wrestling		“Sports taught me to keep in mind the objective where you want to be and always work toward that objective. I do that today” (T01/11/260-261).
02 Male Football	“Life is full of winning and losing” (T02/10/242). “Just like in football, life is full of competition” (T02/11/250).	“You can accomplish anything if you stay after it. A football lesson that’s helped me many times in life” (T02/5/101).
03 Male Football	“Try your best, it is not so much about outcome of the game” (T03/7/153).	“Just like in football, I still set goals from a work standpoint” (T03/12/289).
04 Male Football		
05 Male Football	“Americans love winning. I do not accept less than winning” (T05/4/84-85).	
06 Female Track	“There’s much competition [in life]” (T06/6/140).	
07 Female Softball	“I’m competitive. . . . I like to kick my opponent’s ass” (T07/6/130).	
08 Female Softball	“I’m as competitive [as I always was], I’m just not as good as I used to be” (T08/6/142-143).	
09 Female Cheering	“I think the world revolves around competition” (T09/6/134).	
10 Female Volleyball	“I have a healthy sense of competition here [in the corporate world]” (T10/5/110).	“You set goals for yourself in sports. . . . In most jobs you set goals for yourself, also” (T10/7/162-163).

(table continues)

Table 10 (continued)

Participant and selected sport	Theme three--being physically active	Theme four--making friends
01 Male Wrestling	“I play golf, I ski, I play softball and basketball. I still workout and I jog” (T01/8/196-198).	“Sports allowed me and showed me how to interact with other people” (T01/7/165-166).
02 Male Football	“Take care of your body and health. . . . I’m in the gym three days a week. I workout, run, some weightlifting” (T02/8/192-193).	“To meet new people. . . . The basis for everything else I’ve done, including advancement in my career” (T02/7/158-159).
03 Male Football		
04 Male Football	“At an advanced age, I’m in better physical condition from playing sports than I would be otherwise. The only active sport I participate in now is Tae Kwon Do karate” (T04/8/174-175).	
05 Male Football	“I workout at the YMCA a couple times a week--can’t play, knees” (T05/6/128-129).	
06 Female Track		“I learned about relationships. I think you make friends easier” (T06/6/141).
07 Female Softball	“I golf, I jog” (T07/4/99). “My health is great as far as I know. I keep in shape. I would play if there were teams” (T07/6/129).	“I make friends easily now, and I was shy before softball” (T07/5/120).
08 Female Softball	“I’m really health conscious now” (T08/9/208). “I run on a regular basis” (T08/6/144).	“I meet new friends easily” (T08/4/81-82).
09 Female Cheering		
10 Female Volleyball	“Health is a big one. When you quit playing, your body transforms into something you don’t want. I am playing club volleyball” (T10/7/171-172).	“I make friends easily now” (T10/7/154).

(table continues)

Table 10 (continued)

Participant and selected sport	Theme five--developing leadership skills	Theme six—enhancing self-esteem
01 Male Wrestling		“It [wrestling] taught me that I wasn’t a failure. Sports gave me the ability to feel good about myself” (T01/12/282-286).
02 Male Football		
03 Male Football		
04 Male Football		
05 Male Football		“Sports gave me self-esteem. Athletics have been one of the fundamental reasons for my success” (T05/5/105-108).
06 Female Track		“It [participation] gave me confidence and increased my self-esteem” (T06/7/152).
07 Female Softball		
08 Female Softball	“I have leadership skills that I got from sports participation. I learned negotiation skills. . . . I remember getting that nervous feeling in my stomach just like now giving a presentation to your colleagues. You learn skills to get over that nervousness. You learn to lead” (T08/8-9/197-203).	
09 Female Cheering		“As a result of sports activities, I have lots of confidence and self-esteem” (T09/5/122-123).
10 Female Volleyball	“From sports I learned responsibility as a leadership skill” (T10/8/175).	

(table continues)

Table 10 (continued)

Participant and selected sport	Theme seven--displaying sports paraphernalia
01 Male Wrestling	Plaque from college with record on it from the coach. Plaque with mascot and team record on it (T01/10/228-231).
02 Male Football	
03 Male Football	Corporate softball trophy, individual tennis trophy, numerous football coaching trophies, Senior Basketball League trophies, sports spectator diploma, Cubs baseball program, Cubs hologram, Atlantic Coast Conference basketball, and a Duke notepad (OBS03/May 23, 2000).
04 Male Football	
05 Male Football	Collects sports hats, but not in office.
06 Female Track	Penn State football memorabilia on the desk and bookshelf that her father made for her (OBS06/June 26, 2000).
07 Female Softball	A picture of her racing motorcycles after high school (OBS07/July 1, 2000).
08 Female Softball	“My new office doesn’t have all the sports trophies, plaques, and posters that my California office had. Here on the East coast I just have a big, big, big, tennis shoe--the size of Shaquille O’Neal. . . . It was an award for a company project. . . . It has the autographs of the entire team, technical team of programmers. It is huge” (T08/7/167-172).
09 Female Cheering	“I am a big Dallas Cowboy football fan—you know the cheerleaders and the whole nine yards. I have a football, a picture of Troy Aikman [the quarterback], and a Cowboy helmet” (T09/7/172-174).
10 Female Volleyball	“I have a lot, but can not keep it here [in the office]” (T10/6/141-142).

(table continues)

Table 10 (continued)

Participant and selected sport	Theme eight—practicing sports philosophy
01 Male Wrestling	Expressions “if you think you can’t, it’s a cinch you won’t, and quitters never win and winners never quit” (T01/10/245-250).
02 Male Football	“I teach teamwork in the business. . . . Sports values are the same and are expressed in our company value statement. I say to employees and my children, ‘Step up to the plate’” (T02/10/228-238).
03 Male Football	“I think sports philosophy has permeated my life forever. I fall back on that basic sports philosophy of trying to accomplish, but not getting distraught when you don’t. I also say, ‘Time to back up and punt’” (T03/11/256-260).
04 Male Football	“I use the expressions, ‘Three strikes, you’re out’ and ‘Work together like a team’” (T04/7/166-167).
05 Male Football	“I tell my son, ‘One more rep’. . . . I stress closure, finish the job. I learned that in blocking. . . . I realize the importance of the cliché, ‘There is no I in team,’ and I frequently say, ‘Step up to the plate’” (T05/7/154-158).
06 Female Track	“Just that I am still a fan in my spare time” (T06/6/144-145).
07 Female Softball	“Encourage working together, and I say ‘If you want to play hardball, bring your bat’” (T07/5/114-115).
08 Female Softball	“I am flexible, driven. . . . I’m sensitive to the team players’ needs and concerns. . . . I say, ‘Just do it,’ and I use the expressions, ‘This isn’t a spectator sport’ and ‘Take one for the team’” (T08/8/176-188).
09 Female Cheering	“I use the expression, ‘Time-out’. . . . I teach in the corporation . . . [and] use quotes from Lou Holtz and Don Shula. What coaches use on the fields, the leaders in our company should use in managing people. I say, ‘Practice makes perfect’” (T09/8/178-198).
10 Female Volleyball	“My number [jersey] was 12. . . . Everytime I am asked for a password or pin number I use 12. My e-mail is moonshine12. I also say, ‘slamdunk’” (T10/6/144-147).

(table continues)

Table 10 (continued)

Participant and selected sport	Theme nine--working as a team	Theme ten--acquiring skills not taught in a classroom
01 Male Wrestling	“It was all about working as a team” (T01/6/127).	“Sports taught wisdom as opposed to academic knowledge. You don’t get that in the classroom” (T01/11/267-270).
02 Male Football	“It [sports] gave me teamwork, which is essential in the business environment” (T02/6/149).	“Determination, drive, and competitiveness is [sic] learned on the field. . . . Administrators and teachers can’t do that in the classroom” (T02/12/290-294).
03 Male Football	“In the corporation you have the ability to work with others, to be a part of a group or team” (T03/12/293).	
04 Male Football	“I always worked as a team. . . . In business now we are a team. . . . I learned how to unite as a team” (T04/6/136-139).	
05 Male Football	“Sports provided a concept of working together as a team to achieve a common goal that is used by all of us in this corporation” (T05/5/106).	
06 Female Track		
07 Female Softball	“I think sports teaches you how to work with a team, which carries over to every part of your life, especially here at work where that’s almost a requirement to experience success” (T07/4/94-97).	
08 Female Softball	“I still use the skill of teamwork” (T08/5/118).	“You learn skills not taught in the classroom. I don’t know where students tomorrow will get these skills if sports are cut back” (T08/5/117-119).
09 Female Cheering	“I think that being a part of a team has made me the person I am today” (T09/9/202-203).	
10 Female Volleyball	“Sports taught me how to be a team player. You’ve got to get along with everybody or else it doesn’t work” (T10/7/158-159).	

(table continues)

Table 10 (continued)

Participant and selected sport	Theme eleven—managing time	Theme twelve—volunteering
01 Male Wrestling		
02 Male Football	“Sports taught me how to deal with multiple facets and make it all work. . . You have to fit all the pieces together” (T02/11/269-270).	
03 Male Football		“I volunteer for something to get it accomplished. I think this is something that’s grown out of sports” (T03/12/290-292).
04 Male Football	“Because of sports I had to accept responsibility for time commitments” (T04/8/192).	
05 Male Football		
06 Female Track		“I still volunteer even though my participation was limited and not very pleasant for my children” (T06/6/144).
07 Female Softball		
08 Female Softball		
09 Female Cheering		
10 Female Volleyball	“You learn a lot about time management when you have to do a lot of things” (T10/8/177-178).	

(table continues)

Table 10 (continued)

Participant and selected sport	Theme thirteen—working with diverse groups
01 Male Wrestling	“I learned to get along with white kids. . . . We associated together. . . . It gave us a common bond. I learned to accept others’ differences which is a key to my success with this Fortune 500 company” (T01/8/181-191).
02 Male Football	“Sports gave me opportunities to know people of different socio-economic groups, . . . an important value in my work” (T02/11/257-263).
03 Male Football	
04 Male Football	
05 Male Football	
06 Female Track	
07 Female Softball	
08 Female Softball	
09 Female Cheering	“It [cheering] got me ready for the differences in people that I run into everyday now” (T09/6/130).
10 Female Volleyball	

Note. In the citations, the T represents transcript. The first number is the participant’s identification number, the second number is the page number, and the final number is the line number. YB in a citation refers to yearbook and the number is the one assigned to the participant. OBS in a citation refers to an observation and the participant number followed by the date.

stay after it. That's a football lesson that's helped me many times in life" (T02/5/101).

Participant 03 stated, "Just like in football, I still set goals from a work standpoint" (T03/12/289).

Participant 10 said, "You set goals for yourself in sports. . . . In most jobs you set goals for yourself, also" (T10/7/162-163).

Being Physically Active

The participants' current involvement in sporting activities led to the long-term effect theme of being physically active. The participants who consider themselves active are involved in individual non-competitive activities, individual competitive sports, or team sports. Seven of the ten participants discussed sports they currently play or physical activities in which they are involved. The other three participants said they did not currently do anything physical or sports related. Four of the participants still jog or run on a regular schedule. Three of the participants work out at a gym facility. Two of the participants play golf. Two of the participants still play team sports. Participant 04 is active in Tae Kwon Do karate. Participant 05 stated that he worked out two or three times a week at the YMCA, but that due to very bad knees, from football, he can't play anything now (T05/6/128-129). Participant 08 stated, "I'm really health conscious now (T08/9/208). . . . I run on a regular basis" (T08/6/144). Participant 01 stated, "I play golf, I ski, I play softball and basketball with my company teams" (T01/8/196-198).

Making Friends

The ability to make friends quickly or interact with others was a theme observable in the data of six participants. All of the participants in this study played on a team sport in high school where camaraderie was a key to success. Five of the participants had stated earlier that making friends was an immediate benefit while in high school, but six believed that it is something that has become a long-term effect. It is easier to make friends now was mentioned by four of the participants (Participants 06, 07, 08, and 10). Participant 01 said, "Sports allowed me and showed me how to interact with other people" (T01/7/165-166). Participant 02 shared, "It [sports] taught me to meet new people . . . the basis for everything else I've done, including advancement in my career" (T02/7/158-159).

Developing Leadership Skills

Participation in high school sports has an effect on the development of leadership skills in an individual. Participants in sports may learn how to be more responsible as well as learn

techniques for stress reduction. A sports participant may learn skills for successful negotiation. Leadership skills that developed from participation in sports were mentioned by two of the participants. Participant 08 talked at great length about what sports had done for her leadership skills. She stated, “I have leadership skills that I got from sports participation, I learned negotiation skills. . . . I remember [before games] getting that nervous feeling in my stomach just like now when giving a presentation to your colleagues. You learn skills to get over that nervousness. You learn to lead” (T08/8-9/197-203). Participant 10 stated, “From sports I learned responsibility as a leadership skill” (T10/8/175).

Enhancing Self-Esteem

The enhancement of self-esteem was a theme in the data from this study. Sports made the participants feel good about themselves and instilled confidence. Four of the ten participants believed that their self-esteem was positively affected by their participation in high school sports. Participant 05 said, “Sports gave me self-esteem. Athletics have been one of the fundamental reasons for my success” (T05/5/105-108). Participant 06 stated, “It [participation in track] gave me confidence and increased my self-esteem” (T06/7/152). Participant 09 felt that sports participation gave her “. . . lots of confidence and self-esteem” (T09/5/122-123).

Displaying Sports Paraphernalia

The researcher believed that if an employee within a top-ten Fortune 500 company displayed sports paraphernalia in his or her office it symbolized a lasting effect that sports had on his or her life. There were three types of paraphernalia discussed or observed: personal items, team artifacts given by family members, and professional sports artifacts. Eight of the ten participants discussed sports paraphernalia that they owned, but only six displayed it in their offices. Participant 01 discussed the two plaques that were on the wall in his office. One represented his wrestling record in college and was given to him by his coach, and the other one had his team record with the mascot’s picture (T01/10/228-231). Participant 03 picked up and described each item as the researcher observed. He discussed a corporate softball trophy, an individual tennis trophy, numerous football coaching trophies, several Senior Basketball League trophies, a sports spectator diploma from his daughter, a Cubs baseball program, an Atlantic Coast Conference basketball, a Cubs baseball team hologram from his granddaughter, and a Duke

University notepad (OBS03/May 23, 2000). Participant 07 showed the researcher a picture on the office wall of her on a racing style motorcycle (OBS07/July 1, 2000).

Participant 06 described and displayed items given to her by her family. She had Penn State football items that her father had made for her on her desk (OBS06/June 26, 2000). The items included a helmet, a football, and a mug.

The professional sports-related artifacts came from Participants 08 and 09. Participant 08 described the story behind the one piece of sports-related paraphernalia currently in her new office. Her office in California had many sports trophies, plaques, and posters, but she had not put them out in the new east-coast office. Her description stated, “I have a big, big, big, tennis shoe. The size of Shaquille O’Neal. . . . It was an award for a company project. . . . It has the autographs of the entire team, technical team of programmers. It is huge” (T08/7/167-172). Participant 09 is a big Dallas Cowboy football fan, and everything in her office is cowboy related. She has a football, a picture of Troy Aikman [the quarterback], and a cowboy football helmet (T09/7/172-174).

The remaining four participants did not have sports-related items in their offices. Two of these four, Participant 05 and Participant 10, stated they had sports paraphernalia displayed in their homes, but not in the offices.

Practicing Sports Philosophy

The sports philosophy theme emerged from the data describing the participant’s current use of philosophies that relate to sports. This was the only theme in which every participant mentioned something in the interview that fit the theme. Philosophies included using sports expressions, teaching teamwork principles in the company, using sports attitudes on the job, supporting sporting events, and continuing use of the participant’s jersey number.

Most of the data were expressions used daily by the participants. Many of the expressions used do not come from the sport played. Some of the expressions used are: “If you think you can’t, it’s a cinch you won’t,” “Quitters never win and winners never quit,” and “ballpark figure” (Participant 01), “Step up to the plate” (Participants 02 and 05), “It’s time to back up and punt” (Participant 03), “Three strikes-you’re out” and “Work together like a team” (Participant 04), “If you want to play hardball, bring your bat” (Participant 07), “Just do it” and “Take one for the team” (Participant 08), and “Time-out” and “Practice makes perfect” (Participant 09).

Participant 02 taught teamwork for his company and believed that sports values are the same as corporate values and are expressed in his corporation's value statement (T02/10/228-238). Participant 07 pushed her colleagues to work together as a team and believed that mentality came from sports participation (T07/5/114-115). Participant 08 stated, "I am flexible, driven . . . I'm sensitive to the team players' needs and concerns" (T08/8/176-188). She said this came from her sports experiences in high school. Participant 09 teaches in the corporation and frequently used quotations from coaches Lou Holtz (current football coach at the University of South Carolina) and Don Shula (retired football coach of the Miami Dolphins) in her classes. She stated, "What coaches use on the fields, the leaders in our company should use in managing people" (T09/8/178-179).

Participant 03 stated, "I think sports philosophy has permeated my life forever. I fall back on that basic sports philosophy of trying to accomplish, but not getting distraught when you don't" (T03/11/256-260). Participant 05 stressed closure--finish the job. He believed he learned that from blocking rules in football (T05/7/154-158).

The philosophy of supporting teams was discussed by one participant. Participant 06 supported as many teams as she could in her spare time (T06/6/144-145).

Participant 10 continued to use her jersey number any time she was requested to give a personal identification number or a password. She explained that her number '12' is a part of her e-mail address (T10/6/144-147).

Working as a Team

Nine of the ten participants believed that teamwork is something they learned from being a part of a team sport in high school that has carried over into their professional and personal lives. The participants mentioned teamwork as an attribute of their personal or professional lives. All of the participants in this study played a team sport in high school. They learned the effects of teamwork. Participant 02 said, "It [sports] gave me teamwork, which is essential in the business environment" (T02/6/149). Participant 04 stated, "In business now we are a team. . . . I learned how to unite as a team" (T04/6/136-139). Participant 07 added, "I think sports teach you how to work with a team, which carries over to every part of your life, especially here at work where that's almost a requirement to experience success" (T07/4/94-97). Finally, participant 09

believed, “I think that being a part of a team has made me the person I am today” (T09/9/202-203).

Acquiring Skills not Taught in the Classroom

Three of the participants believed that sports taught them something they could not have gotten in the classroom. Participant 08 expressed, “You learn skills in sports not taught in the classroom. I don’t know where students tomorrow will get these skills if sports are cut back” (T08/5/117-118). Participant 01 said, “Sports taught wisdom as opposed to academic knowledge. You don’t get that in the classroom” (T01/11/267-170). Participant 02 stated, “Determination, drive, and competitiveness is [sic] learned on the field. . . . Administrators and teachers can’t do that in the classroom” (T02/12/290-294).

Managing Time

Three of the participants believed that time management was learned as a result of sports participation while in high school and that it is a skill they practice daily. Only one of these participants juggled other activities in addition to academics and sports while in high school. Participant 02 (church, work, piano) revealed, “Sports taught me how to deal with multiple facets and make it all work. . . . You have to fit the pieces together” (T02/11/269-270). Participant 04 stated, “Because of sports I had to accept responsibility for time commitments made” (T04/8/192). Participant 10 said, “You learn a lot about time management when you have to do a lot of things” (T10/8/177-178).

Volunteering

Two of the participants felt that their life-long activity of volunteering had stemmed from their participation in sports. Participant 03 said, “I volunteer for something to get it accomplished. I think this is something that’s grown out of sports” (T03/12/290-292). Participant 06 felt that her desire to volunteer at her children’s events evolved in spite of her limited negative sports involvement in high school (T06/6/144).

Working With Diverse Groups

Three of the participants believed that sports gave them the skills needed to work with diverse populations. Diversity was not a part of the high school population for four of the participants. Participant 01 discussed at great length his being black and going to a white high school. He had to wrestle for a white coach. He stated, “I learned to get along with white

kids. . . . We associated together . . . it [sports] gave us a common bond. I learned to accept others' differences, which is a key to my success with this Fortune 500 company" (T01/8/181-191). Participant 02 stated, "Sports gave me opportunities to know and understand people of different socioeconomic groups, . . . an important value I use in my work" (T02/11/257-263). Participant 09 said, "It [cheering] got me ready for the differences in people that I run into everyday now" (T09/6/130).

Long-Term Effects of Participation in High School Sports Mentioned by One Participant Only

There were four long-term effects mentioned by one participant, thus they did not qualify as themes. These four effects were being committed, being disciplined, coping with losing, and being patient. The researcher felt they belonged in this report even though they were not themes. The raw data of these effects are in Table 11.

Being Committed

The ability to commit to something was mentioned by Participant 09 as a long-term effect from her participation in cheering in high school. She believed strongly that her commitment to cheering and the lengthy practices involved helped her stick with her Fortune 500 company. She discussed how hard her job was at first and how tired she always was. She felt what she had learned about commitment from cheering helped her to stick with her job. She stated, "I remember my practicing routine as a cheerleader. . . . Without that ability to commit I would have quit after my first day [with this Fortune 500 company]. . . . Now it is my career" (T09/9/219-221). "My job is like being captain of the cheering squad. We need to work til we get this done" (T09/10/229-230).

Table 11

Raw Data Matrix: Long-Term Effects of Participation in High School Sports Mentioned by One Participant

Participant	Sport selected^a	Being committed	Being disciplined	Coping with losing	Being patient
02 male	Football		“It [sports] taught me discipline, that is the main thing” (T02/7/170).		
09 female	Cheering	“Practicing. . . I would have quit after my first day [with this Fortune 500 company]. . . . Now it is my career” (T09/9/219-221). “My job is like being captain of the cheering squad. We need to work til we get this done” (T09/10/229-230).		“I think the team taught me how to feel when you lose, something you need later in life” (T09/6/128).	
10 female	Volleyball				“Have patience, not everyone’s going to pick things up as quickly as you do” (T10/7/161).

Note. In the citations, the T represents transcript. The first number is the participant’s identification number, the second number is the page, and the final number is the line number.

^a Selected sport refers to the sport the participant decided to use for discussion in this study. The participant may have played more than one sport, but selected one for focus in the interview.

Being Disciplined

Participant 02 discussed being disciplined as an outcome of sports participation. He believed, “It [sports] taught me discipline; that is the main thing I learned from high school sports” (T02/7/170).

Coping With Losing

The feelings one gets after a loss in sports and how to cope with them were mentioned by participant 09 as a long-term effect. She felt that as a cheerleader for a losing team she had experienced loss quite often. She stated, “I think the team taught me how to feel when you lose, something I’ve needed in life” (T09/6/128).

Being Patient

Participant 10 mentioned patience as something she had maintained from her sports experiences. She believed it is a skill everyone in business must have. She stated, “In business you must have patience, not everyone’s going to pick things up as quickly as you do” (T10/7/161).

Participants’ Suggestions on the Best Method to Communicate Long-Term Effects of Participation in High School Sports to School Administrators and Policy Makers

The last guiding question for this study encouraged the ten Fortune 500 company employees to discuss how they thought the information gathered in this study could best be communicated to the audience of school administrators and policy makers. The participants answered this question with specific methods for collection and communication. The suggestions are in Table 12.

The suggestions are categorized for discussion as factual and emotional. Five of the participants gave factual suggestions and five gave emotional suggestions. The factual suggestions included Participant 03 who said to tell school administrators and policy makers that the obvious solution to this athletic problem is fuller funding of overall academic and athletic programs (T03/13/311-315). Participant 04 suggested doing a statistical analysis

Table 12

Raw Data Matrix: Participants' Suggestions on the Best Method to Communicate Long-Term Effects of Participation in High School Sports to School Administrators and Policy Makers

Participant	Suggestion
01 Male	“You need to get the facts, some examples, then draw conclusions” (T01/12/293).
02 Male	“Tell them that giving the children a chance to do something outside of what their normal life would have been will open up many opportunities to them they can not get any other way” (T02/13/301-303).
03 Male	“I don’t know how you’d communicate it, but it is something people believe it or not. . . . The obvious solution to this is fuller funding of overall academic and athletic programs” (T03/13/311-315).
04 Male	“It would be an interesting statistical analysis to compare where those who played sports versus those who didn’t are today. . . . I don’t know if you can draw those conclusions from this sample size” (T04/8-9/195-202).
05 Male	“I would use best practices as the theme for communicating. Look at John Glenn and George Bush, they are always talking about their extra-curricular activities” (T05/8/180-183).
06 Female	“Explain that it could be the difference in whether a child gets in trouble, causes trouble, or not” (T06/7/153-156).
07 Female	“I’d tell them it could change kids’ lives to participate. . . . Like it did mine” (T07/6/134-136).
08 Female	“I would figure out the non-academic skills you learn while playing on a sporting team, then figure out the types of skills you need to succeed in a corporate environment. I’d see if there were any matches. . . . I’m very analytical. . . . I’d want to see the skills” (T08/9/214-218).
09 Female	“I’d ask them to reflect back on their high school experience. I bet you could line 10 people up in business America today and you could say [to them], ‘You played sports, and you didn’t.’ Their personality is stronger, their self-esteem, self-confidence, and communication skills are higher. . . . Everything revolves around competition and that’s what people remember. . . . You remember the smell of your team’s first football game” (T09/10/235-246).
10 Female	“I am sure there are a lot of rags-to-riches stories to share; we get a lot from sports” (T10/8/181).

Note. In the citations, the T represents the transcript. The first number is the participant’s identification number, the second number is the page, and the final number is the line number.

comparing where those who played sports are today versus where those who did not play are today. He didn't think this researcher should draw those conclusions from this sample size (T04/8-9/195-202). Participant 05 suggested using a best practices theme of presenting famous persons such as John Glen and George Bush who always talk about their extracurricular activities as examples (T05/8/180-183).

The second category of suggestions was emotional. Participants 06 and 07 wanted to tell the school administrators that sports could keep kids out of trouble and change their lives (T06/7/153-156, T07/6/134-136). Participant 10 wanted the rags-to-riches stories about sports participation shared with the administrators and policy makers (T10/8/181). Finally, participant 09 felt that the researcher should ask each of them [the school administrators and policy makers] to reflect back on their high school days. She stated, "I bet you could line ten people up in business America today and you could say [to them]: you played sports and you didn't. Their personality is stronger, their self-esteem, self-confidence, and communication skills are higher. . . . Everything revolves around competition and that's what people remember. . . . You remember the smell of your team's first football game" (T09/10/235-246).

Summary of Findings

The five major guiding questions for this research project were answered according to the final model of the BSPT in Figure 4. The organizational factors that impacted participation were the content of classes, size of school, and influential adults. The personal factors that had an impact on participation were gender, behavior in high school, race, and goals and motives. The participation features were descriptive of the participants' experiences more than influential in determining long-term effects. The long-term effects were being competitive, being goal oriented, being physically active, making friends, developing leadership skills, enhancing self-esteem, displaying sports paraphernalia, practicing sports philosophy, working as a team, acquiring skills not taught in the classroom, managing time, volunteering, and working with diverse groups. There were four long-term effects mentioned by one participant. Those were being committed, being disciplined, coping with losing, and being patient. Data on how to communicate the findings of this study to school administrators and policy makers were categorized as factual and emotional.

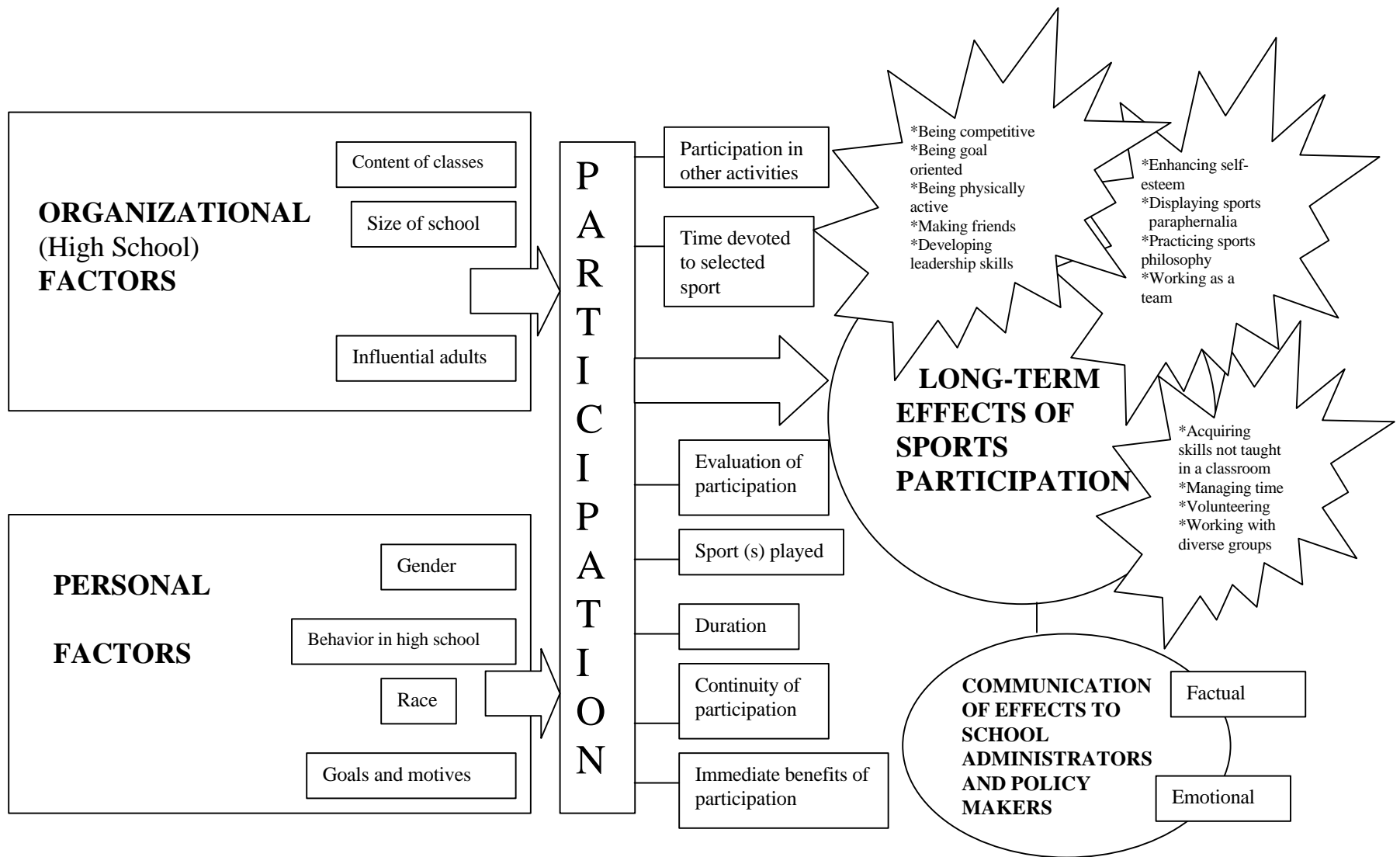


Figure 4. Final conceptual model of the Bechtol Sports Participation Theory identifying the factors that influence high school sports participation and the long-term effects of that participation.

CHAPTER 4

CONCLUSIONS, DISCUSSION, IMPLICATIONS FOR EDUCATIONAL LEADERS, AND RECOMMENDATIONS FOR FURTHER AREAS OF RESEARCH

A qualitative study on the long-term effects of participation in high school sports was conducted. The constant-comparative analysis method was used. In this chapter, the conclusions are explained, the challenges and rewards encountered are discussed, the implications for educational leaders' are explored, and recommendations for further areas of research involving the long-term effects of participation in sports are outlined.

Conclusions

The conclusions from this study are organized around the five domains of the Bechtol Sports Participation Theory (BSPT). These domains are: organizational factors that affect sports participation in high school, personal factors that affect sports participation in high school, features of participation in high school sports, the long-term effects of sports participation in high school, and the methods to communicate the long-term effects to policy makers and school administrators.

Organizational Factors Affecting Participation in High School Sports

Previous researchers concluded that there were five organizational factors that may affect the participation of a student in high school sports (Crain, 1981; Grabe, 1976; McClendon, 1998; Slavin & Madden, 1979; Snyder, 1972; and Snyder, 1975). These factors were content of classes, size of the school, influential adults in the school, the geographical location of the school, and the racial mix of the student population. Three of those factors were found to affect this population's participation in high school sports. These factors were size of the school, influential adults, and content of classes.

The size of the high school attended affected participation according to one of the participants. She was the only participant who attended a small school. She felt her school was small, but still competitive with larger schools' teams. Students at her school felt pressure to participate. This finding is consistent with Grabe (1976) who determined that students who attended small schools were more likely to participate in extracurricular activities. Knowing that the size of one's school may affect the participation of students in sports can be beneficial to coaches and administrators who are encouraging youth to participate in high school sports.

Seven participants in this study felt an adult had been influential in their decision to play sports in high school. Four of the ten participants believed their coach was influential in their decision to play and three of the ten felt a parent was most influential in their decision to participate in sports. These data are consistent with Snyder's findings (1972) that varsity seniors felt their coach was influential, but the mother was the most influential with father being second. The coach was third. Parents and coaches must realize how influential they are in a student's decision to participate in sports. Today, many children are being raised by someone other than a parent. This researcher believes that these persons may be as influential as the parents would have been.

Five of the ten participants believed there was a part of their high school curriculum-- two mentioned math, two mentioned gym class, and one mentioned journalism--that affected their participation in sports. They felt there were parts of the curriculum that prepared them for the competitiveness they faced in sports. This adds significance to the work of McClendon (1998) who studied a special program called Promoting Achievement in School Through Sport (PASS) that used sport philosophy in the curriculum and improved student performance in selected California schools. This program not only prepared students for sports participation, but the program used sport culture to enhance nonathletes' performances in other courses.

None of the participants discussed the geographical area, the type of locality, or the racial mix of the student population as factors influencing their participation. Information on these variables was descriptive only.

Personal Factors Affecting Participation in High School Sports

The personal factors that affect participation in sports were determined by previous researchers to be gender, behavior in high school, and goals and motives for playing. Gender, behavior in high school, and goals and motives were found in the current research to be influential in the participants' decisions to play sports. This researcher concluded that race of the participant was an additional factor in the decision to participate in sports.

The males believed they were expected to play. The females had different views, but four of them did not feel that being female affected their participation. One female thought she was discriminated against because she was not permitted to play the sport she loved, which was

baseball. Two of the females felt that more people attended the male events, but that did not deter them from playing.

None of the participants discussed any personal delinquent behavior during high school. They all perceived themselves as good students and rarely got into trouble. One had to quit football because of his grades, but poor discipline did not seem to be an issue with any of the participants in this study. This finding is in agreement with the finding of Whitley and Pressley (1996) that students who participate in a sport are less likely to be discipline problems. Sokol-Katz and Braddock (1999) found sports participation to be the greatest deterrent for delinquent behaviors in high school students. This information is vital to schools where discipline is a problem. This researcher concludes that playing sports may lessen a participant's behavior problems while in high school.

Goals and motives have an effect on the lasting results of sports participation (Ntoumanis & Biddle, 1998; White, Duda, & Keller, 1998). If the reason for playing is task oriented as opposed to ego oriented, the person is more likely to continue participation later in life. Ego reasons were defined as relating to winning and being the best. None of the ten participants in this study believed that to win was why they played. Five of the participants played for the sheer pleasure or enjoyment, four played to make friends, and one played because she was asked. Teaching task orientation in youth sports may increase the likelihood of sports participation later in life.

Features of Participation in High School Sports

Nine of the participants felt their experience was good. One quit because of a bad experience, but she is not negative about the overall long-term effects of sports. All of the participants felt there were immediate benefits of sports participation. Making friends, building confidence, and personal enjoyment were some of the immediate benefits mentioned. The other participation features were descriptive. No data connecting them to the long-term effects were gathered.

From the descriptive data, it was found that five of the ten participants played their entire high school careers and five of the ten played continuously from when they began until they graduated. Seven of the ten participants played more than one sport, and eight of the ten participated in activities other than sports while in high school.

Long-term Effects of High School Sports Participation

What students retain over time from their participation in sports varies, but 13 themes emerged as long-term effects. The long-term effects are: (1) being competitive, (2) being goal oriented, (3) being physically active, (4) making friends, (5) developing leadership skills, (6) enhancing self-esteem, (7) displaying sports paraphernalia (8) practicing sports philosophy, (9) working as a team, (10) acquiring skills not taught in the classroom, (11) managing time, (12) volunteering, and (13) working with diverse groups. Recognizing these possible effects of sports participation may enable better maintenance and development of high school sports programs and allow school administrators and policy makers to make more informed decisions regarding resources for these programs.

Communication of Long-Term Effects of High School Sports Participation to School Administrators

The participants in this study had a variety of thoughts on the best manner to convey the findings of this study to the school administrators and policy makers. One participant said to get the facts and show some examples, another wanted a statistical analysis done, and another said to use famous persons who had played a sport in high school as examples. Other participants felt that the personal stories about high school sports experiences should be shared and that the policy makers themselves should be asked to reflect on their high school days. One participant said to have the policy makers and school board members reflect back to the smell of the first fall football game. The participants agreed that the information in this study is worthy of telling to the people who make the decisions for schools. They disagreed on exactly what should be told. This researcher believes that a combination of emotional stories with factual and statistical data would be the best method to communicate the findings of this study to the target audience.

Discussion

In this section, the challenges, rewards, and interesting facts from this study are discussed. Finally, the researcher shares her thoughts on the conclusions from this study.

The first challenge encountered by the researcher was that many of the questions were not asked so as to elicit a response that connected the factor to the participants' participation. In the domain of participation features, the data were descriptive, but that was due to the researcher's error in not connecting the feature to the participation for the interviewee. For example, the researcher asked each participant what age they began to play sports, rather than asking if the age

they began had an effect on their participation in high school. Another example of error in questioning involves the question of size of high school. The researcher asked the size of the student population, but should have asked, Did the size of your school influence your participation? The flaws in the questions limited the researcher's ability to draw conclusions about the relationships between participation and the long-term effects. The flaws in the questions did not limit the thoughts and perceptions of the participants about the long-term effects of sports participation.

Another challenge in conducting this study was getting in contact with the ten persons from the top-ten Fortune 500 companies. The researcher did not want to go lower than the top-ten, and this made finding the top-level management persons more difficult. The initial contact via telephone to the corporate headquarters did not work in any of the ten companies. The persons who answer corporate telephones are only interested in whom one needs. The researcher did not always have a name. Lack of a name resulted in a failed connection. Ultimately, the best method of finding people in top management was for the researcher to share the names of her ten Fortune 500 companies with everyone she met on a daily basis. Acquaintances then led the researcher to friends, family, or friends of friends who were working in the appropriate companies. Once a contact was made, if the person was not in top-level management, they helped the researcher find a person who qualified to participate in the study. In addition to phone calls and letters, electronic mail and fax transmissions were used for pre-interview discussions and for establishing the dates and times of the interviews.

A reward that came from this study was the willingness of high school media specialists to share yearbook data with the researcher. While conducting the interviews, five of the participants did not have personal copies of their yearbooks. With permission of the participant, the researcher contacted the high schools, and all five of them sent the needed materials. The researcher was pleased to have such cooperation from the high school personnel.

Another reward for this researcher has been the local and national interest from the athletic associations in the findings of this research. The Virginia High School League and the National Association of Athletic Administrators have requested a copy of the results as soon as they are available.

An interesting fact that came from this study was that every decade from 1940 to the present was represented by the dates the participants were in high school. Sports opportunities for females changed in the 1970s with Title IX of the Education Act Amendments (1972). None of the females in this study played prior to that date, but some of the males did note that if they had been girls, there would have been no opportunities to play.

Another interesting fact that came out in the analysis of the data was that every participant played on a team sport. None of the participants in this study participated in individual sports. This was not a requirement for the study, but was common to all ten participants.

This researcher believes that while sports may be good for some, they are not the choice of all students. Sports participation and activities that use sport philosophies can be used by school systems to achieve many of the goals for education in Goals 2000.

There are long-term effects from high school sports participation that are positive and leave positive, lasting impressions on those who participate. These positive attributes should be duplicated in some manner for those who do not choose to participate in sports. One way to assure that more students are exposed to these attributes is through the awareness of what the long-term effects can be. When parents, teachers, coaches, and administrators become aware of what the long-term effects are, especially the skills learned, they can better prepare themselves for the task of teaching these skills to every student.

Another way to increase exposure is through a curriculum such as Promoting Achievement in School Through Sport (PASS). This curriculum utilizes sport culture in the classroom to help all students with academics. This may increase the students' positive benefits from sports without increasing the numbers of students who participate in high school sports.

Title IX has increased the awareness of inequities for females in sports. It has opened the doors for many opportunities previously not available for females. While the playing field has not been leveled, resources, exposure, and opportunity are much more equitable for females now than before 1972.

The "no pass-no play" law from Texas and the stricter grade point average requirements for student participation in sports are steps towards addressing the academic accountability issue facing schools in the 21st century. This researcher believes that the student athlete should not have to make better grades than the nonathlete, but that they should all have strict grade

requirements. Any student should not be allowed to graduate with a grade point average lower than what is required of the athlete.

High schools faced with budget problems that would mean cutting sports programs need to seek alternative resources to ensure that as many students as possible are exposed to a wide variety of sports. Those systems forced with moving funds from sports programs to academic programs might benefit from looking at the positive outcomes of their athletic programs before making that cut. We do not need a generation of students not afforded the opportunity to participate in high school sports.

Implications for Educational Leaders

The long-term effects of participation in high school sports are relevant for today's educators. Knowing the long-term effects of sports participation will make it easier for coaches and athletic directors to choose areas of emphasis for current participants. School system administrators, policy makers, and coaches need to know that the curriculum, the size of the school, the adults who influence the students, the school's geographical location, the racial mix of the student population, the student's gender, the students' behavior in high school, the students' race, the age the student begins competition, and the goals and motives for playing sports might affect the participation rate in their schools. School division policy makers and athletic program supervisors and directors may benefit from knowing that the lasting effects of their high school sports programs on students who participate are being competitive, being goal oriented, being physically active, making friends, developing leadership skills, enhancing self-esteem, displaying sports paraphernalia, practicing sports philosophy, working as a team, acquiring skills that can not be taught in the classroom, managing time, volunteering, and working with diverse groups.

School systems should use these lasting effects as a basis for the focus they put on their sports programs. School systems that are thinking about cutting sports programs may be able to justify keeping them if they can demonstrate the long-term effects. According to this research, playing a sport in high school is much more than winning and losing.

One implication applies to more than just educators. Athletic directors, principals, coaches, and parents need to realize early in a child's life the importance of teaching students to be more task-oriented. Task orientation enhances the students' healthy attitude and encourages physical activity later in life. This study shows that there are 13 perceived lasting effects from

sports participation. When asked, every participant said they encouraged or would encourage their own children to participate in sports while in high school.

Recommendations for Further Areas of Research

While conducting this research, the researcher found several areas that need further investigation. It is suggested that the relationship of coach to student be studied to see if differing relationships while in high school create different long-term effects. Does the gender of the participant or the sport played impact the player-coach relationship and the lasting impact of that relationship?

Although a preponderance of the previous research has been done using students, generally, this researcher suggests a more current study of today's urban youth and the perceived benefits from sports participation. Do sports keep students motivated to stay in school? Does participation in sports cause greater college acceptance? Do students who play sports perform better on standardized tests than those who do not participate? Does the specific sport played make a difference in the long-term effects? Why do students today participate in sports?

Another research project would be to use the findings of this study as the variables to do a comparison between Fortune 500 company executives who played a sport and those who did not. Would the executives who did not play a sport in high school exhibit any of the effects found from this study despite having not played a sport in high school?

Finally, this researcher suggests conducting a qualitative study that investigates the effects Title IX, stricter accountability initiatives, "no pass-no play" laws, and mandatory grade point averages have had on sports at the high school level. This research could be done using interviews, observations, and analysis of documents housed in the schools.

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APPENDIX A

TABLE A1 SUMMARY OF STUDIES AND FINDINGS

Table A1

Summary of Studies and Findings

<u>Author</u>	<u>N</u>	<u>Analytical method</u>	<u>Summary of findings</u>
Crain (1981)	10,000	Multiple regression	High rate of activity participation greater predictor of improved racial relations.
Dowell, Badgett, & Hunkler (1972)	475	Pearson correlation	Athletic achievement correlated positively with physical and emotional self-concept, but negatively with intellectual self-concept.
Duda & Tappe (1988)	47	Multiple regression	Greatest predictor of personal investment is current level of exercise and future level of activity; incentive of recognition was the greatest predictor for physical activity.

(table continues)

Table A1 (continued)

Author	N	Analytical method	Summary of findings
Feltz & Weiss (1984)	934	Analysis of covariance	Athlete-only had lowest scores on the American College Test (ACT). Athletics participation and five other activities accounted for the most variability in ACT scores.
Gill, Williams, Dowd, Beaudoin, & Martin (1996)	209	MANOVA	Gender by sample MANOVA on three competitiveness scores-gender $F(3,99)=6.73$, $p \leq .001$ and sample $F(6,198)=3.82$, $p \leq .001$. MANOVA on motivation scores-gender $F(10,85) = 3.77$, $p \leq .001$ and sample $F(20,170)=3.09$, $p \leq .001$.
Goodenow & Grady (1994)	301	Correlation	School belonging correlated with friends' values $r=.44$, $p \leq .001$, value of school work $r=.55$, $p \leq .001$, and motivation $r=.46$, $p \leq .001$.
Grabe (1976)	759	Analysis of variance	Small schools reported more variability in number of sports participants than large schools $F(1,1054)=12.59$, $p \leq .01$.

(table continues)

Table A1 (continued)

Author	N	Analytical method	Summary of findings
Gray-Lee & Granzin (1997)	211	Analysis of variance and MANOVA	Three measures of participation with the 11 constructs of Personal Investment Theory gave a Wilks' lambda (multivariate F) of .571, $p < .001$; ANOVA found an interaction between SES and the group with greatest participation.
Hanks (1981)	10,245	Multiple regression and path analysis	Participants in clubs, yearbook, and had greater political involvement than participants in just sports.
Holland & Andre (1987)	NR ^a	NR ^a	Review of literature on extracurricular participation and school success. Sports participation correlated with higher levels of self-esteem, improved race relations, involvement in social activity as an adult, academic ability and grades, educational aspirations, feelings of control, and lower delinquency rates.

(table continues)

Table A1 (continued)

Author	<u>N</u>	Analytical method	Summary of findings
Kavanaugh & Shepard (1990)	756	Comparisons by age	Summary of physical activities that will slow the aging process. Moderate sports participation is positively associated with enhanced physical functioning.
Kirsch (1999)	NR ^a	Means	Comparison of students in Promoting Achievement in School through Sport (PASS) program and those not in a PASS program. PASS students mean scores were higher than non PASS students in all areas measured.
Landers & Landers (1978)	521	Analysis of variance	No significant difference between sports participants and non participants with respect to delinquent acts.

(table continues)

Table A1 (continued)

Author	<u>N</u>	Analytical method	Summary of findings
Lindsay (1984)	8,952	Multiple regression and path analysis	High school sports participation was the greatest predictor of young adult social participation.
Maehr & Braskamp (1986)	NR ^a	NR ^a	Book explaining Personal Investment Theory. It helped to explain why people participate in sports.
Maslow (1943)	NR ^a	NR ^a	Book on theory of hierarchy of needs.
McClendon (1998)	900	t-tests	Promoting Achievement in School through Sports (PASS) students had better grades and attendance than non PASS students.
McCombs & Lauer (1998)	4 PASS classes	Survey	PASS classes were found to be learner-centered and recognized as a model for total school reform by the California Department of Education.
National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention (1997)	NR ^a	NR ^a	Guidelines for promoting lifelong physical activity an expected effect of sport participation.

(table continues)

Table A1 (continued)

Author	<u>N</u>	Analytical method	Summary of findings
Ntoumanis & Biddle (1998)	146	Descriptive statistics and regression	Task-oriented people are mastery conscious and concerned about personal improvement and ego-oriented people are performance conscious.
Pate, et al. (1995)	NR ^a	NR ^a	A recommendation from a panel of 20 experts on physical activity for life.
Robinson (1993)	2,500	Means converted to scale scores	Survey to find activities most liked by Americans. Playing sports ranked second in the total list scoring a 9.2 on a 10.0 scale.
Slavin & Madden (1979)	2,384	Multiple regression	Working with other races in classes and on teams was greatest predictor variable for improved race relations.
Snyder (1972)	270 players 174 coaches		Students ranked mother, father, coach, respectively, in amount of influence. Coaches ranked their coach then mother and father, respectively.
Snyder (1975)	300	Gamma	Team involvement and status were positively related to plans, advice, and perception.

(table continues)

Table A1 (continued)

Author	N	Analytical method	Summary of findings
Sokol-Katz & Braddock (1999)	4,035 females 3,746 males	Multiple regression	Varsity sports participation was the greatest predictor of delinquent acts in school. Sports participants had fewer delinquent acts in school.
White, Duda, & Keller (1998)	192	MANOVA and correlations	Task-oriented students saw success as mastery and ego-oriented students saw success as being the best in the sport.
Whitley & Pressley (1996)	126,000	t-tests	Athletes' grade point average, drop-out rate, attendance, graduation rate, and discipline statistically better than nonathletes'.

Note. ^aNR = not reported.

APPENDIX B

LETTER OF SUPPORT FROM THE VIRGINIA HIGH SCHOOL LEAGUE

VHSL

VIRGINIA HIGH SCHOOL LEAGUE, INC.



1642 State Farm Blvd., Charlottesville, Virginia 22911-8809

804-977-8475 • 804-977-5943 (fax) • www.vhsl.org • admin@vhsl.org

EXECUTIVE DIRECTOR

Kenneth G. Tilley

ASSISTANT DIRECTORS

Claudia L. Dodson

Larry Johnson

Robert L. Button

DIRECTOR OF DEVELOPMENT

Hannah Catherine Munro

April 2000

Dear Fortune 500 Executive:

Even though I know your schedule is extremely busy and your time is precious, I hope you will take a few minutes to assist Susan Bechtol in her project relative to the long-term effects of participation in high school sports.

Your input will be of tremendous value because people respect your accomplishments and are interested in knowing what experiences and values were instrumental in shaping your career success.

Those of us who work directly with interscholastic sports and activities have always believed them to be worthwhile in providing direction to boys and girls at a time when they most need such guidance. We feel that young people learn lessons on the playing fields and courts that will last a lifetime and that can help them become better citizens and community leaders.

I hope you agree that your experiences as a high school athlete were positive ones and that you will take time to participate in this project. Thank you for considering this request to meet with Susan Bechtol and be part of her study on the effects of high school sports participation. I can assure you that the results of this study will benefit all of us in the fields of education and athletic administration.

Sincerely,

Kenneth G. Tilley

Kenneth G. Tilley

KGT/lbb

APPENDIX C
THE CONTENT VALIDITY INSTRUMENT

THE LONG-TERM EFFECTS OF HIGH SCHOOL SPORTS PARTICIPATION ON ADULTS Content Validation for Interview Protocol

This content validation instrument is designed to assist Susan Bechtol with the development of an interview protocol. This instrument will be used in a study that will investigate the long-term effects of high school sports participation on adults. Items on this instrument are in five major categories with 15 sub-domains: (1) organizational factors--*size, location, and ethnicity of school; classes taken; and adults who had an impact on students while in school*; (2) personal factors--*gender, goals and motives, positive or negative experiences, and discipline*; (3) participation--*which sports, how much time, age, and other activities*; (4) *effects on adults*; and (5) *communication of effects to school administrators*.

Instructions

Please review the contents of the items and respond as follows: ❶ Select and print the number of the domain (1-15) in which you think the item fits best. ❷ Rate how strongly you think the item is associated with that domain. ❸ Rate the clarity of the item. ❹ Finally, please complete the demographic items at the conclusion of the instrument. Thank you for your cooperation.

Domains and Definitions

Using the definitions below, categorize each item by placing the domain number in the column labeled ADomain. Leave blank any item that does not fit a domain. Listed below are the 15 domains and their definitions.

DOMAIN

DEFINITION

Organizational

1. Size
Refers to the size of the high school population and division size of your high school teams
2. Location
Refers to the geographic location of your high school
3. Ethnicity
Refers to the ethnicity of the school population at the time you attended
4. Adults who had an impact on students
Any adult that made an impact on you while in high school
5. Classes
Any references to the classes you took while in high school

Personal

6. Gender
You are male or female
7. Goals and motives
The reasons you played or your motives for participation, what about sports was important to you then
8. Positive or negative experience
Your evaluation of the sports experience
9. Discipline
Refers to your behavior while in high school

Participation

10. Sport
Refers to the names and records of the sports teams you participated in while in high school
11. Time
Refers to your amount of daily time, or number of years, or your playing time, and the decade in which you played
12. Age
The age you began to play competitive sports
13. Other activities
Any reference to other school activities you participated in while in high school

14. Effects on adults

Any reference to an effect, belief, opinion, practice, attitude, activity, or philosophy that you currently use; physical artifacts or memorabilia, verbal expressions, or physical actions

15. Communication of effects to school administrators

Refers to any manner or method of communicating long-term effects to school administrators or policy makers

Association Rating

Please indicate how strongly you feel that each item is associated with the domain in which you categorized it. Place an X on the appropriate number in the column labeled AAssociation.@ Use the following scale to make your determination: 1 = very weak, 2 = weak, 3 = strong, and 4 = very strong.

Clarity Rating

In the column labeled AClarity,@ indicate how clear you think the item is by placing an X on the appropriate number using the following scale: 1 = not clear, (delete); 2 = somewhat clear, revise; and 3 = clear, leave as is.

THE LONG-TERM EFFECTS OF HIGH SCHOOL SPORTS PARTICIPATION ON ADULTS

Directions: Write in the domain number and place an X on the number of the appropriate response.

Domain: *1-size, 2-location, 3-ethnicity, 4-adult who had an impact on student, 5-classes, 6-gender, 7-goals and motives, 8-positive or negative experience, 9-discipline, 10-sport, 11-time, 12-age, 13-other activities, 14-effects on adults, and 15-communication of effects to school administrators.*

Association rating: 1 = very weak, 2 = weak, 3 = strong, 4 = very strong

Clarity rating: 1 = not clear, (delete); 2 = somewhat clear, revise; 3 = clear, leave as is
If you rate an item a 1 or 2, please make recommendations for changes. Use the back of the sheet if necessary.

<i>ITEM</i>	<i>DOMAIN</i>	<i>ASSOCIATION</i>	<i>CLARITY</i>
1. <i>While in high school in what activities other than sports did you participate?</i>		① ② ③ ④	① ② ③
2. <i>Let's focus for a few minutes on your involvement in (baseball, for example). How much time did you put into this sport?</i>		① ② ③ ④	① ② ③
3. <i>How old were you when you began playing competitive sports?</i>		① ② ③ ④	① ② ③
4. <i>Was your participation time continuous from when you began to play until the end of high school?</i>		① ② ③ ④	① ② ③
5. <i>Describe the ethnicity of the students in your high school.</i>		① ② ③ ④	① ② ③
6. <i>Describe your high school locality as urban, rural, or suburban?</i>		① ② ③ ④	① ② ③

ITEM	DOMAIN	ASSOCIATION	CLARITY
7. <i>Tell me what you remember most about your coach.</i>		① ② ③ ④	① ② ③
8. <i>If you currently have any sports paraphernalia or memorabilia in your office, talk to me about what it is and why you keep these items around you.</i>		① ② ③ ④	① ② ③
9. <i>Tell me about your current daily physical or sport-related activity.</i>		① ② ③ ④	① ② ③
10. <i>How could you convey your current philosophy and attitude to school administrators who are considering sports cut backs or abolishment?</i>		① ② ③ ④	① ② ③
11. <i>What is your current opinion on what would be lost to adults if schools were to cut back on sports offerings?</i>		① ② ③ ④	① ② ③
12. <i>How did sports participation affect your adult life?</i>		① ② ③ ④	① ② ③
13. <i>Do you feel that sports participation was a positive or negative experience and why?</i>		① ② ③ ④	① ② ③
14. <i>Tell me about the classes you took while in high school. Were they college preparatory, vocational, business, or just general, and did they help you in your sports endeavors?</i>		① ② ③ ④	① ② ③
15. <i>Tell me some of the more common ways you implement sport philosophy into your current lifestyle (physical, verbal, or written terms, child-rearing)?</i>		① ② ③ ④	① ② ③
16. <i>Respond to: Winning was the most important thing about sports to me when I was in high school.</i>		① ② ③ ④	① ② ③

ITEM	DOMAIN	ASSOCIATION	CLARITY
17. <i>Talk with me about ways to communicate to schools the lasting effects of participation in high school sports on adults.</i>		① ② ③ ④	① ② ③
18. <i>What would you say to students in the United States regarding the long-term effects of sports participation in high school?</i>		① ② ③ ④	① ② ③
19. <i>If you could share your current opinions with policy makers in school divisions regarding participating in sports in their schools, what would you say about the long-term effects?</i>		① ② ③ ④	① ② ③
20. <i>Did you have any adults in your life while in high school who played a significant role in your decision to play sports? If so, tell me about those persons.</i>		① ② ③ ④	① ② ③
21. <i>Describe your behavior in terms of how much trouble you were in while in high school.</i>		① ② ③ ④	① ② ③
22. <i>Tell me about the reasons you played sports.</i>		① ② ③ ④	① ② ③
23. <i>Where in the United States did you attend high school?</i>		① ② ③ ④	① ② ③
24. <i>How many students were in your high school?</i>		① ② ③ ④	① ② ③
25. <i>Gender: male or female. (Not an interview item)</i>		① ② ③ ④	① ② ③
26. <i>While in high school, on what sports teams were you a member?</i>		① ② ③ ④	① ② ③

ITEM	DOMAIN	ASSOCIATION	CLARITY
27. <i>How successful was your team? What was your record? Did you win any championships?</i>		① ② ③ ④	① ② ③
28. <i>Was there an adult in your high school life who impacted the rest of your life? Tell me more about that person and what he or she did?</i>		① ② ③ ④	① ② ③
29. <i>Would you describe your playing time as reserve, regular, or starter and why?</i>		① ② ③ ④	① ② ③
30. <i>Tell me how your gender may have inhibited or enhanced your participation in sports while in high school.</i>		① ② ③ ④	① ② ③
31. <i>Describe your current attitude towards high school sports.</i>		① ② ③ ④	① ② ③
32. <i>In what years did you attend high school?</i>		① ② ③ ④	① ② ③
33. <i>Do you recall the division level your school played in such as 1A, 2A; 1, 2, 3; or A, AA, AAA?</i>		① ② ③ ④	① ② ③

Please complete the following demographic data concerning yourself:

Gender: Male Female I participated in a competitive sport in high school. Yes No
 Indicate the sports in which you participated._____

Ethnicity: Caucasian African American Hispanic Other

My current job position and company is_____.

APPENDIX D
THE INTERVIEW PROTOCOL

INTERVIEW PROTOCOL

Introduction

Before beginning the interview questions, I would like to thank you for allowing me this opportunity to speak with you concerning your participation in high school sports. I have an agreement for you to read and sign that promises to maintain your confidentiality. On behalf of Virginia Tech, the Department of Educational Leadership and Policy Studies, and my committee chairman, Dr. Parks, I thank you ahead of time for signing this form. As we discussed earlier, I will be audio recording this interview for later transcription. During the interview, feel free to refer me to pictures from the yearbooks that I asked you to bring to today's meeting. Do you have any questions before we get started?@

Questions

1. Would you please state your name, current employer, and position within the corporation?
2. Where in the United States did you attend high school?
3. Was your high school locality urban, rural, or suburban?
4. How many students were in your high school?
5. In what years did you attend high school?
6. Describe the racial mix of students in your high school. Probes: Was your student population predominately white? Was your population predominately black? Approximately what percentage was black and what percentage was white?
7. While in high school, on what sports teams were you a member?
8. Let's focus for a few minutes on your involvement in (name the sport). How much practice and play time did you put into this sport? Daily? Years?
9. How old were you and in what grade when you began to play competitive sports?
10. Was your participation time continuous from when you began to play until the end of high school? Probes: Tell me about why or why not? How many years did you play?
11. Describe your experiences while in high school. Probes: Tell me about your social life, your relationships with other students, and your relationships with teachers and administrators. Tell me about the worst times. Tell me about the best times. How would you describe your behavior in high school? How would teachers describe your behavior?

12. How successful were your teams? What were your records? Did you win any championships?
13. Do you recall the division level of your school 1A, 2A; 1,2,3; or A, AA, AAA?
14. Would you describe your playing time as reserve, regular, or starter, and why?
15. Tell me what you remember most about your coach.
16. Tell me about the reasons you played sports. Probes: Why did you play sports? How important were sports to you? What did you receive from playing sports?
17. I am going to give you a statement and I would like you to respond: Winning was the most important thing about sports to me when I was in high school.
18. Did any of the classes you took in high school prepare you better than others for competition in your sports endeavors? How?
19. Tell me how being (male, female) may have affected your participation in sports while in high school.
20. Did you have any adults in your life while in high school who played a significant role in your decision to play sports? If so, tell me about those persons.
21. Looking back to your high school days, how did you feel about your participation in sports? Why?
22. What do you think about high school sports today? Would you want your son or daughter to play competitive sports in high school? Why or why not?
23. What do you think would be lost to adults if schools were to cut back on sports offerings?
24. Tell me about your current physical and sports-related activities. Probes: Do you still play? Are you a spectator? Are you a supporter? Do you coach?
25. While in high school, in what activities other than sports did you participate? Probe: Rank these activities from most enjoyable to least enjoyable.
26. Was there an adult in your high school life who impacted the rest of your life? Tell me more about that person and what he or she did for you. Probe: Who were the adults that influenced you while you were in high school?
27. If you currently have any sports paraphernalia or memorabilia in your office, tell me about it. Probes: What meaning do they have for you? Do others ask about them?

28. Tell me some of the ways sports philosophy has become part of your life (physical, verbal or written expressions, child-rearing).
29. What would you say to students in the United States regarding the long-term effects of participating in competitive sports in high school?
30. If you could share your current opinions with policy makers in school districts regarding participating in competitive sports in their schools, what would you say about the long-term effects?
31. How did sports participation affect your adult life? Probes: health, physical, relationships, time management, career, volunteerism, commitment, leisure, leadership, communication, or opportunities?
32. What advice can you give me on how I might best communicate the long-term effects of participation in competitive high school sports to school administrators and school boards?
33. This concludes the questions I have for you. Are there any questions you have for me?

Again, I want to thank you for your time today. I look forward to reviewing your information. Upon completion of the transcript of today's interview, I will send you a copy for verification. I will be happy to provide you with a final report on the study. My projected date of completion is May 2001.

DEMOGRAPHIC DATA

Name_____ Date_____

Corporation_____

Position_____ Age_____ Educational degrees_____

Gender_____ Marital status_____ Children_____

How many hours per week do you work?_____ Leisure?_____

How do you spend these leisure hours?_____

VITA

Susan Smith Bechtol was born on March 6, 1958. After living most of her life in Lee County, Virginia, and graduating as Valedictorian from Jonesville High School in 1976, she attended James Madison University where she received a Bachelor of Science Degree in special education in 1980.

Susan started her teaching career in Portsmouth, Virginia, at the Individualized Learning Center. From there she moved to Southeastern Cooperative Educational Programs (SECEP) where she met her husband Marty. After two years with SECEP, Susan and Marty moved to the Norfolk Public School Division. Susan taught special education for 10 more years at Willoughby Elementary, Ocean View Elementary, and Northside Middle School.

During 1986-1988, Susan attended George Washington University and received a Master Science Degree in Human Relations and Supervision. During her tenure at Northside Middle School, Susan became a Dean of Students. In 1993, Susan moved as a Dean to Lafayette-Winona Middle School.

During the school year of 1996, Susan accepted a position as assistant principal for Woodrow Wilson High School in Portsmouth. This was the same year that she began her doctoral studies at Virginia Tech. Susan served as assistant principal at Wilson until she took a year off in 2000 to fulfill her residence requirement in Blacksburg and complete the Ph.D. in May 2001.

Susan and her husband Marty currently reside in Norfolk, Virginia.