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# The Influence of Student Engagement and Organizational Structures on Athletic Participation and Academic Achievement in the Department of Athletics (DOA). A Case Study

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# THE INFLUENCE OF STUDENT ENGAGEMENT AND ORGANIZATIONAL STRUCTURES ON ATHLETIC PARTICIPATION AND ACADEMIC ACHIEVEMENT IN THE DEPARTMENT OF ATHLETICS (DOA)

A CASE STUDY

By

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Doctoral Candidate, ***NAME***, has successfully defended and made the required modifications to the text of the doctoral dissertation for the *EdD/PhD* during this Summer Semester 2009.

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## Abstract

School leaders must modernize and evaluate athletic programs to better support the academic achievement of student athletes in an age of increased accountability, sports commercialization, and fiscal constraints. This study used an applied non-experimental research design and mixed methodology to update research on the influence that student engagement variables have on the academic achievement of student athletes, to test organization theory, and increase literature on program outcomes. The study focused on one high school district (N = 343) Department of Athletics (DOA) in New Jersey.

Quantitative data showed that strong positive associations and statistical significance existed between cumulative GPA and PSAT or SAT scores across all levels of athletic participation ($n \leq 3$). Somewhat weak negative associations and statistical significance were found when disciplinary referrals and attendance were paired with cumulative GPA, PSAT, or SAT scores. The influence of student engagement variables on the amount of athletic participation and gender was inconclusive. Scholarship attainment by unilateral athletic participation (n = 29) showed that three female students received partial academic or athletic aid with no conclusive evidence that student engagement variables influenced the outcome. Qualitative data showed that the DOA monitored academic achievement rigorously, and maintained a nurturing environment.

The findings suggest that schools should maintain databases on student engagement variables, discourage sports specialization and commercialization, and pursue evaluation models of athletic organizations to make effective leadership, management, and policy decisions.

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# Dedication

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# Chapter I

## INTRODUCTION

The fascination of athletic competition has reached global proportions. Whether watching the World Cup in soccer on TV, socializing at a neighborhood Super Bowl party, or young boys and girls playing Little League baseball, family lifestyles, expectations to succeed, and the emergence of technology have transformed athletic competition into a 24/7 industry.

The rigor of extended seasons and unilateral obsession of student athletes to specialize in one sport has spawned a feeder industry dedicated to sparse scholarship attainment on the collegiate level. Athletic participation originally dedicated to increasing sound body and mind functions with roots in the ancient Greek city-states of Athens and Sparta (Strothers, 1991), has been replaced by fierce societal competition for limited scholarships, litigation to protect individual civil liberties and property rights, the emergence of controlling-type and celebrity-style coaches, and infringement by parents in team dynamics. High school athletes are facing obstacles in balancing their studies and sports involvement possibly due in part to more rigorous academic requirements, longer seasons, the absence of organizational skills, and/or peer adolescent distractibility. Academics and career aspirations have been skewed by yearlong participation in athletic competition. The National Collegiate Athletic Association (NCAA, 2008) reported that two out of 100 high school athletes will ever participate in collegiate sports, and only one out of 12,000 high school athletes will ever become professional players.

Howard and Gilles (2007) reported from a survey sponsored by The National Federation of State High School Associations (NFSHA) that 7,342,910 or 54% of

students enrolled in grades 9 through 12 in the United States participated in high school athletics. Flocco (2004) found that many students were overscheduled, creating time-management problems in balancing school, sports, community activities and family obligations. The researcher observed that students with traditional school schedules had higher levels of stress than students in block schedules.

School leaders are also discovering the constraints of budgets, increased academic requirements, and proven, yet underutilized theory based organizational frameworks to effectively support student athletes. Vagueness on the manifestation of those organizations or how they operate has created gaps in education literature. Where education research has established the benefits of athletic participation on academic achievement, health and wellness, and time management, a comprehensive multi-faceted and combination of methodologies to evaluate those experiences in New Jersey is long overdue. Failure, moreover, rest in current research to connect program outcomes and the experiences students have in school athletic setting.

The problem, therefore, compels this researcher to determine the influence of non-traditional student engagement variables and to evaluate the organizational structures of a single site high school athletic department. A suburban high school district in New Jersey is the setting for the research, with potential leadership, management, and policy implications for athletic conferences in the area, and 15 similar District Factor Group (DFG) schools (see Appendix A).

## Problem Statement

Empirical research, discussed later in Chapter II, on whether the organizational structures of school districts have a significant influence on the academic achievement of student athletes is negligible. The problem is that school leaders must continue to modernize and evaluate their athletic programs to better support the academic achievement of student athletes in an age of increased academic accountability, sports commercialization, and fiscal constraints. This researcher has found that contemporary research, literature, and theory testing are long overdue on the academic achievement of student athletes, the organizations in which they participate, and program evaluation, especially in New Jersey.

JacAngelo (2003) found that: (a) athletes were absent fewer days from school than non-athletes were absent; (b) athletes earned a significantly higher cumulative GPA than did non-athletes, and (c) standardized tests scores were significantly higher for $10^{th}$ grade tests as compared to their scores as $8^{th}$ graders in both reading and math. Spoor (2007) found that high school wrestlers had better grade point averages (GPAs) and attendance, and lower discipline referrals during in-season competition than out-of-season. Corbett (2007) found that the degree of participation by students involved in extracurricular activities (ECAs) was the strongest predictor of GPA, student aspirations, communication with parents, adult wishes for positive student outcomes, time spent on homework, student effort in class, and misbehavior.

Gould, Chung, Smith and White (2006) found that coaches who are also teachers increased the level of participation and satisfaction of student athletes because of the dual leadership role. According to the New Jersey State Interscholastic Athletic Association

(NJSIAA, 2007), the independent management body for high school athletics, six out of 10 students participate in some form of ECAs in New Jersey. Hoy and Sweetland (2001) found that nurturing, enabling structures have a positive effect on the outputs and outcomes of organizations when rules and regulations do not replace professional judgment in decision-making processes. The question persists as to why this relationship exists. What do these organizations look like where the improvements occur? Are the student athletes succeeding in academics irrespective of current conditions in the athletic department or school environment as a whole?

Moreover, gaps exist in education literature and data, where some student athletes are trapped in failing structures despite generic findings that suggest ECAs provide positive results in student engagement variables. By analyzing student engagement data and evaluating the organization structures student athletes participate in, the problem of implementing effective leadership, management, and policy decisions suggest potential to strengthen academic outcomes and transform athletic programs through product evaluation. Therefore, the problem addressed in this study is to: (a) update research on the influence of student engagement variables on the academic achievement of student athletes; (b) test organization theory, and (c) increase evaluation literature on product outcomes in one high school athletic setting in New Jersey.

## Purpose of the Study

The researcher's purpose for this study is to determine the influence that student engagement variables have on the academic achievement of high school athletes using an applied non-experimental research design in one New Jersey school district (N = 343).

The researcher will also evaluate the organization structures of the Department of Athletics (DOA) using: (a) interview protocols; (b) organization theory testing; (c) personal observation, and (d) product outcomes.

## Research Questions

Research questions guiding the present study for quantitative purposes using student engagement variables cumulative Grade Point Average (GPA), Preliminary Scholastic Aptitude Test (PSAT) scores, Scholastic Aptitude Test (SAT) scores, disciplinary referrals, and attendance records based on gender and the amount of athletic participation ($n \leq 3$) are:

1. What influence do student engagement variables have on athletic participation in the DOA?

2. What relationship exists between student engagement variables and the amount of athletic participation in the DOA?

3. What influence does unilateral athletic concentration in one sport have on academic achievement and collegiate scholarship attainment?

Research questions guiding the present study for qualitative purposes using interview protocols and program evaluation are:

4. How does the DOA function from a theoretical framework of structure, human resource allocation, community relations (the greater political sphere), and in a symbolic nature?

5. What leadership, management, or policy initiatives are in place to support student athletes in the DOA?

## Pilot Study

A pilot study was conducted to ascertain: (a) the appropriateness of the self-generated research interview questions and subsequent qualitative data based on triangulated theory testing; (b) the potential or cumbersome issues involved with interview protocols, tape recording procedures, and transcribing the collected qualitative data; (c) the validity of the interview instrumentation by gaining feedback through member checks and audit trails, and (d) the diligence in which the research questions illuminated the problem statement through a peer review conducted by a school administrator holding a doctorate level degree.

Pilot interview questions were given to one Athletic Director (AD), one high school coach, one student-athlete, and one school administrator at a similar school in New Jersey as the proposed study is later to be completed. Prior to the interview beginning, guided theory-driven questions, organization theory outlines, and sample informed consent and permission to tape-record forms were provided. The interviews lasted 1 hour. Data was transcribed later that evening. Member checks were mailed out to the four individuals the next day in a self-addressed stamped envelope complete with a form that provided general feedback, and the addition, deletion, or modification of any further data that the interviewee deemed appropriate. All data collected was stored on a USB memory stick and secured in a locked filing cabinet in the home of the researcher.

Holloway (1997) found that pilot studies were advantageous to determine whether proposed instruments and methods were appropriate and not too convoluted. Patton (2002) found that pilot interview guides, member checks, audit trails, and peer

reviews assist researchers in the relevancy of topics and the dependability of research questions.

## Brief Statement of Study Design and Methodology

The design of the present single site study is non-experimental (Johnson, 2001) positivist inquiry to determine the influence of student engagement variables on the academic achievement of student athletes, and a formative program evaluation of the DOA.

Applied research was used to correlate the influence of student engagement variables on the academic achievement of student athletes. Formative and product evaluation methods will use interviews, observations, and access to budgetary and mission statement documents to assess outcomes of the DOA. Patton (2002) found that triangulated theory testing and multiple data collection procedures guide research questions for effective product evaluation and program improvement.

## Significance of the Study

Research on the high school experience has generally failed to address what it means to be a student athlete in New Jersey, what and how the structures supporting achievement operate, and other than compliance, evaluate product outcomes in the DOA. The present study draws one "I" DFG school system located in suburban New Jersey, portraying the uniqueness of the school district and affiliation with the NJSIAA, other Group 1 type schools, and adaptations for athletic conferences in New Jersey. The proposed case study evaluation offers robust opportunities to measure academic

achievement, and evaluate product outcomes and improve program dynamics for student who participate in athletics and for educators who lead them.

## Delimitations of the Study

The researcher imposed the following delimitations:

1. The study of a single school district, grades 7-12 in New Jersey with a DFG designation of "I".

2. A time frame of two months for quick reconnaissance to formally evaluate the DOA (Patton, 2002).

3. The use of the following student engagement variables: (a) cumulative grade point average (GPA) (n = 343); (b) discipline referrals (n = 343); (c) Preliminary Scholastic Aptitude Test (PSAT) scores (n = 82) of 11th grade students (d) Scholastic Aptitude Test (SAT) scores (n = 73) of $12^{th}$ grade students (e) gender, and (e) attendance records (n = 343).

4. The possibility of the student engagement variables measuring uni-dimensional and/or multi-dimensional constructs based on Cronbach Alpha (SPSS, 2009) reliability analyses.

5. Research questions were of a non-casual nature, and theory-based.

6. The study offers generalization of results, made to theory and not strictly to populations (Yin, 1994), reducing bias.

7. Only administrators who volunteered to be interviewed participated.

8. Only teachers who were athletic coaches in the district and volunteered to be interviewed participated.

9. Only student-athletes who were identified as, but not limited to team captains, recognition such as All-County or All-League honors, involvement in peer leadership activities or community service, and/or academically eligible to participate in ECAs, and who volunteered to be interviewed participated.

10. All data produced by the student engagement variables were coded, providing confidentiality of individuals enrolled in the school district.

## Limitations of the Study

1. Due to the small sample size of the high school district (N = 343), results compiled by correlation of student engagement variables might not generalize beyond "I" DFGs in New Jersey.

2. Due to the small, non-random sample size of school administrator/athletic coach and student athlete interviews, results might not accurately reflect the opinions of all members in the community or equate to a consensus on the problem of student engagement, organizational structures, and/or the academic achievement of student athletes in the DOA.

3. A non-experimental design, used in correlation studies may leave the actual reason for the associations unclear (Price, 2000).

## Definition of Terms

*Attendance* (n = 343) is the total amount of days not present in school based on 180, which equals the total number of day's school is in session. Correlation outputs will be listed as "Days Absent from School."

*Discipline Referrals* (n = 343) are written school district documents that show intervention has occurred from administrators, guidance personnel, or district designees because of observable violations of school rules or regulations, including tardiness by students.

*District Factor Groups* (DFGs) as depicted in Appendix A.

*Grade Point Average* (GPA, n = 343) is the cumulative average grade of all subjects taken by students per semester and tabulated annually based on a denominator of 100. No designation will be presented in the data to depict letter grade equivalencies.

*PSAT* scores (n = 82) math and language art skills from 11$^{th}$ grade students, where available. The PSAT measures: (a) critical reading skills; (b) math problem-solving skills, and (c) writing skills. The test does not require students to recall specific facts from specific academic subjects (The College Board, 2008a).

*SAT* scores (n = 73) math and language art skills of 12$^{th}$ grade students, where available. The SAT has three sections: (a) critical reading section that includes short and long reading passages. Some questions are not based on reading passages, but ask the test taker to complete sentences; (b) the writing section which includes multiple-choice questions on sentence improvement, paragraph design, and error identification such as diction, grammar, sentence construction, subject-verb agreement, proper word usage, a short essay to demonstrate organizational skills, expression, support for a main idea, and use of appropriate word choice and sentence structure, and (c) mathematics topics from third-year college preparatory courses such as exponential growth, absolute value, functional notation, linear functions, manipulations with exponents, tangent lines, estimation and number sense measured by multiple-choice and response questions,

formerly measured in a quantitative comparison format (The College Board, 2008b). Each section has a denominator of 800 for a total combined score not to exceed 2400.

## Organization of the Study

In Chapter I, this researcher provided an introduction, problem statement, and purpose of the study, research questions, an outline of a pilot study, brief statements on design and methodology, significance, delimitations and limitations of the study, and definition of terms.

Chapter II provides a review of research, theory, and literature, including the theoretical framework used in the present study. A select summary of recommendations and limitations of the research, theory and literature provide closure to the chapter.

Chapter III provides the design, methodology, data collection, instrumentation, validity, reliability, and data analysis for the present study.

Chapter IV contains a narrative of the high school district, correlation variables used, and data analyses from program evaluation of the DOA.

In Chapter V, the researcher summarizes the study findings, draws conclusions, adds brief discussions where appropriate or applicable, and offers recommendations for program improvement. Future study suggestions, referenced materials, and appendices conclude the study, and provide practical replication for other researchers.

# Chapter II

## REVIEW OF RESEARCH, THEORY, AND LITERATURE

Chapter I provided an introduction, problem statement, the purpose and significance of the study, delimitations and limitations of the research, a pilot study that was conducted, and organization of the study connecting the influence of student engagement variables and organization structures in the DOA. This chapter incorporates education leadership, management, and policy works to show the success of student athletes and academic achievement with organization structures.

Chapter II includes research, theory, and literature pertinent to the purpose of the study. Works from various state departments of education websites, the US Department of Education (USDOE), national coaching associations, sports academy journals, state and national high school athletic associations and local school district policies were reviewed. Chapter II concludes with a theoretical framework. Three categories were merged to provide a parsimonious association to the problem statement raised in the present study: (a) research from national or large-group studies, state and regional studies, local or community-based studies on the academic achievement of student athletes, litigation and legal briefs on ECAs, drug testing, coaching abuse, and athletic injuries; (b) organization theory used as part of the theoretical framework, and (c) literature on opinions and ideas concerning ECAs and student athletic participation, including the influence of sports commercialization, sports psychology, and the status of high school athletics in New Jersey.

## National and Large Scale Studies

Since the late 1980s, studies on athletic participation and academic achievement have focused on gender inequities, the disparities in academic achievement of urban students, self-actualization of student-athletes toward school and community, and future trends in athletic participation of students in higher education programs. Research on the cost of ECAs endured by school districts and academic achievement and scholarship attainment has proven inconclusive. Nationally, research on the achievements and failures of student athletes has ranged from longitudinal studies to blue ribbon panels established to address issues uniformly.

Jergovic (2001) tested a causal theory that athletic participation facilitated the academic achievement of high school students. The findings suggested that high school athletes were associated with high energy levels motivating them to participate, but cited a rare elevated rate of delinquency in the sample group. The author proposed further policy studies to include: (a) the effects of gender, race and SES, and (b) the relationship of those variables to athletics and student achievement.

Dvorak (2003) studied 89 school districts in the US that implemented a random drug testing to determine if the program deterred abuses of illicit narcotics, alcohol, or steroids. School districts that were willing to self-report their data by telephone interviews and complete a survey by the American Drug and Alcohol Survey (ADAS) were included. The study explored: (a) the relationship between random drug testing and the frequency of drug use by high school students; (b) the relationship between random drug testing and the number of participants in high school athletics, and (c) the relationship between random drug testing and the frequency of drug and alcohol training

rule violations by high school athletes. The researcher found: (a) the program had no effect on the number of participants in athletics; (b) a small effect on the number of drug and alcohol rule violations; (c) no statistically significant decrease in the drug use of ninth and tenth-grade students, and (d) no significant difference in the drug use by eleventh and twelfth-grade students.

In 2004, the National Associations of State Boards of Education (NASBE) commissioned a study entitled *Athletics and Achievement: High School Athletics in an Era of Reform.* The Commission reported on: (a) the relationship between students who participated in sports and academic achievement; (b) the impact of sports specialization; (c) the role of coaches and their impact on the ethical, academic, and physical development of students; (d) the role of state athletic associations to assure equitable opportunities for athletic participation, and (e) the role of state boards of education in overseeing high school athletics. The NASBE used data from a study in North Carolina that covered athletes and non-athletes under five criteria: (a) GPAs; (b) attendance rate; (c) discipline referrals; (d) dropout rates, and (e) graduation rates. The researchers found that students who participated in athletics consistently had higher GPAs, better attendance, fewer disciplinary referrals, were less likely to drop out, and graduated from high school at higher rates than non-athletes (Whitley, 1996).

The study had limitations, such as voluntary participation that made causal conclusions difficult, but it did combine several student engagement variables that suggested athletes were better students academically than non-athletic students. The NASBE (2004) report called on state boards of education to exercise oversight to ensure that athletic activities do not undermine academic standards and rigorous accountability

measures established by the USDOE and individual states over the past decade. The researchers found a dramatic amount of deferment by state boards of education to state athletic associations in the administration, rules, and regulations of sports programs. The NASBE (2004) report concentrated on the role of state governing bodies in overseeing athletic participation while assuring that academics were not compromised in the process. The Commission Chair said, "Athletics have become such an integral part of schools and that state boards of education must be more proactively involved to ensure that sports programs…compliment student learning and do not compromise the ideals of public education" (p. 31).

The panel confronted conflicting and controversial sets of academic eligibility rules administered by state associations. The NASBE recommended "athletic eligibility should be dependent on the student's progress towards the successful completion of high school education as defined by the state" (p. 12). The Commission declared, "Athletics is one of the largest non-academic school programs in which students participate. Yet historically state boards [of education] have not exercised their authority…in determining academic eligibility criteria for student-athletes" (p. 15).

The NASBE (2004) recommended the following changes at the state level: (a) statewide eligibility standards for students participating in interscholastic sports, especially in light of state academic standards, assessments, and graduation requirements; (b) a "no pass - no play" policy; (c) monitor the effects that the No Child Left Behind Act of 2002 (NCLB) has had on school choice provisions and athletics. NCLB was declared unconstitutional in January 2008; (d) determine whether interscholastic athletics are a fundamental component of the state's obligation to provide students with a free public

education; (e) monitor state enforcement of Title IX provisions that address gender equity requirements; (f) allow home schooled students to participate in local schools athletic programs, and (g) monitor the impact of sports specialization on young adults (pp. 42-43) (see NCLB, Appendix C). The NASBE also recommended that state associations should adopt policies to include: (a) full and equitable student participation; (b) the relationship of high school athletics to private sports leagues; (c) testing for steroids; (d) professional qualifications of coaches, and (e) equitable financing across SES districts (pp. 43-44).

Carlson, Scott, Plenty, and Thompson (2005) used the National Center for Educational Statistics (NCES) secondary data from 2000, and found that potential for greater earning power eight years after high school graduation existed based on engagement levels student athletes demonstrated. A sample from the National Education Longitudinal Study (NELS: 88) of 10th-grade students in 1990, who were seniors in 1992 provided information about education, labor market status, and health history in 2000. Persons who reported participation in high school athletics and who indicated involvement in school sports from 1990 to 1992 were compared to outcomes for persons who did not report any high school athletic participation. Outcomes from four different types of high school athletes were studied: (a) team captains; (b) most valuable players (MVPs) as voted by coaches and peers; (c) varsity athletes, and (d) junior varsity (JV)/intramural athletes.

Carlson et al (2005) concluded that: (a) team captains, MVPs, and varsity high school athletes were more likely than non-athletes to pursue post-secondary education and to have earned an undergraduate degree by 2000; (b) team captains, MVPs, and varsity high school athletes were more likely than non-athletes to be employed and

employed full time in 2000; (c) team captains, MVPs, and varsity high school athletes earned higher incomes in 1999 than those who did not participate in high school athletics; (d) team captains, MVPs, varsity, and JV athletes were more likely than non-athletes to participate in physical fitness activities in 2000, and (e) team captains, MVPs, and varsity athletes were less likely to be smokers in 2000 than were non-athletes to be smokers, but were more likely to binge drink in 2000 than non-athletes were likely to binge drink. Adversely, specialized athletic participation, discussed later in this chapter, has failed to measure the attainment of collegiate athletic scholarship.

## State and Regional Studies

Staggs (2001) surveyed high school coaches, teachers, and students on perceptions of how academic eligibility requirements impacted student academic achievement. There were 513 usable surveys returned from 629 distributed for an overall return rate of 82%. The researcher analyzed responses to open-ended statements. Statistically significant differences were found that indicated: (a) coaches disagreed at a greater rate than did teachers or students with the statement; "Athletic participation results in students making lower grades" (b) coaches disagreed at a lesser rate than did teachers or students with the statement; "Students who are involved with athletics make better grades than those who are not involved" (c) students disagreed at a lesser rate than did coaches or teachers with the statement; "Teachers feel pressure from administrators or coaches to pass athletes because of academic eligibility requirements"; (d) students disagreed at a lesser rate than did coaches or teachers with the statement "Being an athlete or non-athlete influences teachers' computation of a student's grades", and

(e) students had a greater awareness than did coaches and teachers that no-pass/no-play rules cause athletes to be less likely to enroll in honors classes than in regular classes.

The researcher concluded that: (a) a high majority of coaches, teachers, and students perceived that no-pass/no-play rules should not be abolished; (b) coaches, teachers, and students agreed that academic eligibility rules influence athletes to make better grades, and (c) coaches, teachers, and students perceived that the eligibility rules do not cause athletes to drop out of school (Staggs, 2001).

Research from state and regional studies has been more detailed and law briefs more rigorous interpreting the role of ECAs, student athlete rights, and safety issues than have national studies. Several states such as Colorado, Iowa, and North Carolina have completed studies on the academic achievement of student athletes with results demonstrating positive outcomes associated with extracurricular participation and academic achievement.

Gould, Chung, Smith, and White (2006) examined issues that high school coaches identified as required knowledge and roles they should play to develop player life skills. North Carolina high school head coaches (N = 497) from seven sports were randomly selected. The public schools varied in size and location. One hundred fifty four of the coaches returned useable surveys that had six parts: (a) demographics; (b) coaching objectives; (c) character development; (d) problems in sports today; (e) the role of coaches, and (f) coaches influence on athletes. Four coaching outcomes were sought: (a) a winning team; (b) for student-athletes to have fun; (c) to develop and learn physical skills, and (d) to develop psychological and social skills. The survey confirmed that

coaches strive to assist players to: (a) develop psychologically and socially; (b) develop physically and learn physical skills; (c) have fun, and (d) be on a winning team.

The return rate of 31% limited the findings, and the use of surveys as opposed to direct observations or interviews skews reliability. The results, however, illustrated high school coaches placed importance on the psychological and social development of student athletes contrary to the assumption that many coaches were involved in athletics to win at all costs. The coaches acknowledged their unique influence on student athletes. The survey revealed that teamwork, a good work ethic, time management, and setting goals were essential to develop successful student athletes (Gould et al., 2006).

## Local and Community-Based Studies

Small-scale studies in the last 15 years have suggested a relationship between academic achievement and extracurricular participation, and in some situations, a strong connection to a sound body makes a sound mind theme. The findings have influenced school districts to promote athletics and academics conjugally.

Reeves (as cited by Sindelar & Tafoya, 2007) reported that Woodstock High School in Woodstock, IL showed a four-hundred percent increase in ECA participation, reduced disciplinary referrals, improved relationships between teachers and students by simply learning all the names of students and by attending games and activities when the school district added in-school suspension, in-school tutoring, and ECA options. The researchers found that the greatest impact on improved student behavior was improved relationships among teachers, administrators, and students. Sindelar and Tafoya stated, "If we have six or seven students interested in something, we'll start a new club. We want

students to find a reason to get up and come to school. Whatever trips their trigger is what our teachers and administration are willing to do" (p. 87). The data confirmed that students who participated in three or four ECAs had dramatically better grades than those students who did not participate in ECAs. Reeves (2008) concluded that when schools increase ECA participation and options, students often move from no participation in ECAs to engagement in three or four such activities with no harm to academic performance.

Despite waging war on each other for centuries, Sparta and Athens have influenced Western culture, especially in the US. The Clovis Unified School District (CUSD) in California adopted an organization philosophy from the ancient Greek city-states of Sparta and Athens. Student development was built on sound body/sound mind practices. Spartan society centered on developing a strong body directing one to action, power, and austerity. Athenian civilization stressed the utility of the mind for strict intellectual advancement of the culture and arts. Education leaders at CUSD combined the two Greco creeds into a third doctrine. The curricula emphasized knowledge, beauty, wisdom, and the arts for a well-developed mind through bravery, truthfulness, and industriousness, aiding a strong body, "where philosophy, sculpture, education, and drama flourished and exercise, health, strength, fortitude, and integrity were paramount" (Strothers, 1991, p. 16).

Through 2009, CUSD continues to accentuate sound body/sound mind philosophy in its everyday curricula. CUSD is not unique in pursuing the relationship of mind and body, but the use of spirit has generally gone undetected in secularist society. CUSD Superintendent of Schools (1969-1991) Dr. F. Buchanan described the body mind

relationship at CUSD as inter and intra-personal meaning, self-discipline, motivation, or community activism. Clovis Sparthenian philosophy included three domains: (a) wellness – the body; (b) the mind – cognitive, and (c) affective – the spirit (Strothers, 1991, p. 21). Since implementation, CUSD has earned 24 Blue Ribbon School awards, 42 California Distinguished Schools Award, and a combined 550 league, valley, state, and national athletic championships ( see www.cusd.com/about/awards.htm, 2007).

Promoting Achievement in School through Sports (PASS) sponsored by the American Sports Institute was designed to help athletes attain greater academic success, while improving field performance. A high school in Northern California was the focal point for the study. The class was open to all students with an interest in athletics, especially those with below average academic performance or who had attitude or attendance problems. PASS provided teachers successful instructional methods of learning on the athletic field to be transferable into the classroom. Results of the three-year program showed that PASS students had higher grades and better attendance. Parents observed greater confidence, personal initiative, and self-discipline in their children. The AD reported that students who lost eligibility to play sports regained their privileges (Griffin, 1992).

Griffin (1992) suggested (as Strothers, 1991 earlier concluded) that the PASS program, which advocates a strong body aids a strong mind concept in Spartan-Greek traditions, made the difference in achievement of student athletes. Despite the age of the study limiting the influence of its findings, Griffin (1992) successfully predicted the trends toward the commercialization of athletics and one of the earliest calls for the centrality of the athletic experience in an academic environment.

Emmons (1995) conducted research to determine if students performed better academically when not competing in athletics. Data revealed that over four years of high school, student-athletes performed as well in English, mathematics, science, and social studies during athletic competition as they do when not competing in athletics.

In 1997, the largest school district in Colorado participated in a study on whether high school students who participated in ECAs were different from non-participants in ECAs. GPA, attendance, gender, ethnicity, and participation in the reduced lunch program were the variables used to show the relationships. Data on 19,543 participants showed that students who participated in ECAs had significantly higher GPAs and significantly lower levels of absenteeism than did students who did not participate in ECAs. Differences did exist, however, for gender, ethnicity, and SES levels. The results for ethnicity and SES suggested lower levels of participation for non-White or Hispanic students, while stronger effects of ECAs were demonstrated in statistically higher GPAs and lower absenteeism for White/non-Hispanic students. Findings showed patterns of participation that differed for members of different ethnicities, suggesting that cultural differences were responsible for the participation differentials. Females had more days absent in high school whether or not they participated in ECAs; however, females who participated in ECAs had fewer days absent than did non-participants (McCarthy, 2000).

Newman (1999) studied the influence that athletic participation has on the academic success of student-athletes. The researcher's problem was to develop a plan to enhance the GPAs of male student-athletes at one Maryland high school. Correlation measured the relationship between the GPAs of 137 student athletes during in-season and out-of-season. Fifteen coaches were also interviewed. The researcher found that student-

athlete GPAs for in-season and out-of-season were higher, with the fall and winter seasons being the highest. There was low or no measurable influence between coaches, the student-athlete's families and the academic success of male student-athletes. The interviews did show that athletes rated 76% of the coaches as individuals who had the greatest influence on their academic success. This study demonstrated limitations in student academic achievement variables used and gender isolation of males.

Black (2002), Fredricks and Eccles (2006), Fujita (2006), and Holloway (2002) all found strong associations between student participation in ECAs and improved attendance rates, fewer disciplinary referrals, and higher academic performance. The researchers, (as Reeves, 2008 earlier suggested) confirmed the usefulness of the findings to support future policy initiatives of ECA participation and expansion.

Lippert (2003) explored policy issues between athletic participation and academic achievement. Five phases established the research design: (a) comprehensive school profile; (b) 17 open-ended interview sessions with five administrators, six teachers and six teacher-coaches using 17 questions; (c) interview data to perform content analysis; (d) another researcher conducting content analysis to establish reliability and validity, and (e) interaction issues and policy implications between athletic participation and academic achievement. The researcher found seven interaction issues and two policy implications between athletic participation and academic achievement: (a) developmental theory; (b) educational and coaching leadership; (c) gender and sport-specific differences; (d) a community identity value system; (e) uni-directional transfer from athletics to academics; (f) status attainment, and (g) parental involvement.

Feldman and Matjasko (2005) found several themes associated with school-based ECAs and adolescent development. The researchers concluded that adolescents develop positive outcomes in: (a) higher academic performance and attainment; (b) reduced dropout rates; (c) lower substance abuse; (d) less sexual activity among girls; (e) better psychological adjustment, including self-esteem, less worry about the future, reduced social isolation, and (f) reduced delinquency behavior. The researchers found gaps in the literature such as: (a) consensus on the measurement of activities; (b) different SES environments where ECAs occur; (c) participation levels, and (d) differentiation in ECAs as athletic or non-athletic.

## Court Cases on ECA Participation, Drug Testing, Safety, and Negligence

Litigation stemming from disciplinary actions of student athletes resulting in suspension or dismissal from teams has been on the rise over the last three decades. Hallmark cases have often cited property rights protected under the Fourteenth Amendment and unreasonable search and seizure under the Fourth Amendment as fundamental to the denial of due process.

In 1997, the Supreme Court of Montana ruled in Kaptein *v. Conrad School District* that "participation in extracurricular activities was not a fundamental right." The court ruled in favor of the school district in preventing a private school student from participating in his hometown public school athletic program, thus restricting access to those students actively enrolled in public school (La Morte, 2007).

In 1989, *Palmer v. Merluzzi*, U.S. Court of Appeals, Third Circuit, 868 F.2d90, the Court ruled that extracurricular participation was not a property right. The case arose

from a football player at Hunterdon Central Regional High School in New Jersey who was suspended for an additional 60 days from extracurricular participation on top of the ten day out of school suspension for violating the drug and alcohol policy of the Board of Education (BOE). While attending an unsupervised assignment with several other students at the school radio station on BOE property, Palmer and several other students left evidence behind that they had consumed beer and smoked marijuana. Palmer, the next day, admitted to the infraction. An additional 60-day extracurricular suspension was imposed. Palmer argued unsuccessfully that the extra 60 days unduly violated his property right to play football (La Morte, 2007)

Academic policies that require students to maintain a certain GPA to participate in ECAs is often referred to as "no pass no play" rules. Federal and state courts have consistently denied plaintiff contentions that academic requirements to play ECAs violates the Equal Protection Clause or property rights interest outlined in the US Constitution. Decisions upholding the policies include: (a) *Montana v. Board of Trustees of School District No. 1,* 726 P.2d 801 (Montana, 1986); (b) *Spring Branch Independent School District v. Stamos,* 695 S.W.2d 556 (Texas, 1985), and (c) *Bailey v. Truby*, 321 S.E.2d 302 (West Virginia, 1984). Nabers (2007) noted that the Texas State BOE policy recently amended their no-pass, no-play laws to exclude student eligibility in advanced classes deemed non-academic in nature, and required that advanced placement or honors classes are in core academic subjects only. The author suggested that more students would find themselves ineligible because of the new restrictions.

In a 6-3 ruling, *Veronia School District 47J v. Acton,* 57Crl2200, 1995WL373274, 115 U.S. Supreme Court 2386 (1995), upheld that random drug testing

of Ohio high school athletes does not violate 4th Amendment protection against unreasonable search and seizure (La Morte, 2007).

In *Todd v. Rush County* (1998), the US Supreme Court let stand a 7th Circuit Court of Appeals decision allowing an Indiana school district to randomly drug test all students who participate in ECAs. In *Anderson Community School Corp. v. Willis* (1998), the U.S. Supreme Court declined to review 7th Circuit decision in Indiana that said forcing suspended students to submit to drug testing before returning to school violated their privacy rights. The 7th Circuit affirmed that unlike students who voluntarily chose to play sports or engage in ECAs, students who were suspended for five days for fighting and refused to submit to a urine test had not surrendered privacy rights (La Morte, 2007).

In *Independent School Dist. 92 of Pottawatomie County v. Earls* (2002), a 5-4 decision upheld random drug testing of all students participating in ECAs. The crux of the Board of Education (BOE) policy included students tested prior to participation and testing based on reasonable suspicion. Court dissenters cited less risk for non-athletic students using drugs than for athletes using drugs (La Morte, 2007).

State athletic associations have begun mandatory, random drug testing of high school students to determine eligibility to participate in ECAs and/or athletic competition. New Jersey implemented a mandatory drug-testing program in 2006 for student athletes whose team qualified for state tournament competition. The crux of the program originated from a case involving the New Jersey Commissioner of Education removal of a student athlete in *C.R.R verses Board of Education of Holmdel.* The decision endorsed the action of the BOE in excluding a student from participating in interscholastic athletics for the remainder of the season after being found under the influence of alcohol during

baseball practice. The Commissioner (as cited in Celso, 2002) noted that: "Athletic participation is a privilege, not a right...students do not enjoy an unfettered right to participate in school activities and may be prevented from doing so for failure to adhere to school rules" (p. 266). Mandates for drug testing and increased parental activism have placed an enormous strain on the organizational philosophy, structure, and priorities of athletic departments across the country.

Pate (1994) studied appellate lawsuits across the US from 1920 to 1994 that alleged negligence by high school coaches. Thirty-eight cases nationwide had a relationship between injuries of public school athletes and a lack of basic competency requirements for coaches. Data indicated that as injuries increased and qualification requirements for coaches decreased, litigation increased and the negligence by coaches was shown to be proximate causes of injuries.

The next year, Pate (1995) presented historical research on the accounts of athletic injuries and litigation. The purpose for that study was to develop recommendations that coaches could adopt to decrease student athletic injuries and limit litigation. Many lawsuits against coaches centered on student athletic injuries and the failure of coaches, athletic departments or administrators to take precautionary measures.

The researcher used appellate case history involving high school and collegiate level charges of coaches' negligence by injured athletes to find trends and develop safety recommendations. Fifty-four cases from 1929 to 1994 were analyzed. The cases were divided into three categories: (a) first aid and emergency care; (b) supervision, and (c) facilities and equipment. Eight college cases were grouped separately. In every category, trends showed an increase in the number of lawsuits as each decade advanced.

Furthermore, the data showed an increase by decade in the number of cases where governmental immunity was abrogated. The recommendations targeted safety training for coaches as a means to reduce injuries to student athletes and to increase funding for athletic trainers on site during and after ECAs (Pate, 1995).

## Organization Theory in the Present Study

This section presents the triangulated organization theories used to frame research questions, interview protocols and questions, data analyses, findings, conclusions, and recommendations for the present study. Theories used were: (a) 4MAT Organization (McCarthy, 2007a, 1980), and (b) *Reframing Organizations* (Bolman & Deal, 2003).

The 4MAT theory of instructional and organizational leadership design (McCarthy, 2007a, 2007b, 1980) has assisted teachers and school administrators in differentiated learning strategies to: (a) engage learners; (b) provide expert knowledge in content areas; (c) develop fluency with new learning; (d) facilitate creative expression, and (e) create student-centered assessments and grouping. 4MAT theory purports four identified learning styles and essential questions: (a) analytical learning, asking: What is the problem? (b) imaginative learning, asking: Why is the problem important? (c) common sense learning, asking: How is the problem solved? and (d) dynamic learning, asking: What if the solution is attempted?

Over the past 20 years, 4MAT has integrated research models for business instruction, leadership, and organizational initiatives ( see also McCarthy, 2007b). Table 1 shows the learning quadrant, leadership style, action plans with potential outcomes, and paramount questions that provided guidance for research inquiry. 4MAT is accepted

theory and practice endorsed by the Association of Curriculum and Supervision Development (ASCD), the Yonkers (NY) Public Schools, and the Chicago Public Schools.

Martin and Gaskin (2004) theorized an integrated approach to coaching athletes called Teaching Games For Understanding (TGFU) based on the 4MAT System and the experimental learning from Kolb (1984). Bunker and Thorpe (1982) were the first researchers to attempt the model.

Martin and Gaskin (2004) found that successful coaches provide players the ability to make successful decisions and self-awareness technically and tactically during competition. The triangulated theories emphasized active involvement, player learning styles, and team-oriented decision-making on the field. Influenced by Kolb (1984) in triangulation theory, the researchers focused on athletic experience as trans-formative learning that provides meaning and greater return than typical linear learning. TGFU placed skill learning and relevance in game context. The researchers suggested that using the 4MAT-learning model would strengthen the development of effective coaching techniques.

Bolman and Deal (2003) constructed four theoretical frameworks (see Table 2) viewing organizations as "factories, families, jungles, and temples" (p. xv). The structural frame describes the factory model of organizations as places of rules, regulations and vertical hierarchy. The human resource frame describes organizations as places where people find belonging, goals and objectives are designed, and commitment and motivation are important. The political frame describes organizations as places where spheres of influence, agendas, and expertise control take shape.

Table 1

*4MAT leadership styles for organizational action*

| Leadership type | Leadership style | Action plan - outcomes | Paramount question |
|---|---|---|---|
| Innovative | Personal meaning, connect learning to self<br>Effective leadership: cooperative learning, integration of content | Communication – Nurturing<br>Build community | Why is this problem important? |
| Analytic | Acquiring facts to deepen understanding<br>Effective leadership: traditional learning from lectures, self-inquiry, data analysis, experts in the field | Analyzing – defining patterns & planning | What structure in organization requires adjustment? |
| Common Sense | How things work, tangible, experiential<br>Efficient leadership: manipulation, kinesthetic | Doing –allocating resources, building and monitoring feedback | How can people take action and develop their skills? |

(table continues)

Table 1 (continued)

| | | | |
|---|---|---|---|
| Dynamic | Self-directed discovery, rely on intuition, teach self and others<br>Effective leadership: Independent study simulations, role-playing, competition | Challenging – evaluating<br>Pushing boundaries and celebrating victories | What if the compelling vision of the future excites others to follow? |

Source: Adapted from Leadership Behavior Inventory (LBI), About Learning, Inc., 2007.

The symbolic frame describes organizations as places where personal meaning and activities thrive, events and processes are unique and artistic expression more important than production.

The authors portrayed various schools, non-profits, and businesses in a particular frame to demonstrate successful traits or failures in those organizations. The theories behind the frames were supported through stages of societal developments, influential authors, and historical incidents over the past 100 years.

The four frameworks from Bolman and Deal (2003) have guided the research questions to test organization theory as part of the non-experimental design of the present study. The goal of the theory testing is to: (a) add to the knowledge base or refute claims of organization or leadership theory; (b) formulate program improvement; (c) induce further studies on student athletes, and (d) provide recommendations to school leaders to improve the academic achievement of student athletes.

Hoy and Sweetland (2001) conducted research on organizational theory and the problems associated with bureaucratic structures when rigidity of rules is substituted for professional judgment. The authors focused on describing two contrasting theories that demonstrated bureaucracies that alienate and frustrate and those that increase job satisfaction and efficiency. A 24-item questionnaire was given to education administrative doctoral students (N = 61) to assess two bureaucratic dimensions of formalization (an enabling structure) and centralization (a coercive structure). The survey results revealed that students that perceived enabling structures has trust while centralized bureaucratic structures promote powerlessness, role conflict, dependence on rules and hierarchy, and coerciveness that spin truth. Education management and policy

Table 2

*Organization theory in the present study*

| Framework | Theoretical outcomes |
|---|---|
| Structural | Achieve goals and objectives |
| | Efficiency and performance. |
| | Specialization and division of labor |
| | Coordinate and control |
| | Rationality used rather than personal preferences |
| | Design fits goals, technology, and environment |
| | Performance through analysis and restructuring |
| Human resource allocation | Places of business exist to serve human needs |
| | People who require careers, salaries and opportunities |
| | Organizations need ideas, energy, and talent |
| | Organizations fail when people are poorly trained |
| | Exploitation occurs when communication lacks |
| | Success happens when individuals find meaning |

(table continues)

Table 2 (continued)

| Framework | Theoretical outcomes |
|---|---|
| Political | Coalitions of individuals and interest groups |
| | Differences exist in values, interests, and perceptions |
| | Decisions involve allotment of scarce resource |
| | Conflict and power are persistent |
| | Decisions emerge through bargaining and negotiation |
| Symbolic | Organizations are places with meaning |
| | Multiple events & meaning are interpreted differently |
| | Symbols increase predictability and direction |
| | Expression is more important than production |
| | Cultural tapestry forms through secular myths and rituals |
| | Ceremonies and stories provide purpose and passion |
| | Culture glues people to shared values and beliefs |

Source: Bolman & Deal, 2003, pp. 45, 116, 187, & 242-243.

recommendations included that school leaders evaluate the organization structure, various student achievement variables, and school improvement research in formative manners using the two conflicting theories. The authors commented that better schools are possible when the "key ingredient to more effective schools is a school structure that enables participants [teachers] to do their jobs more creatively, cooperatively, and professionally" (p. 319).

## Literature and History of ECAs

By two years of age, some children are participating in athletic and exercise routines. The emergence of club sports in lacrosse, soccer, hockey, and baseball has created year-round venues of competition generally for middle school to high school aged athletes. The foundation to qualify for these teams is for athletes with above average skill levels to hone their abilities in a single sport, and pursue collegiate, semi-pro, or professional careers through rigorous exercise routines usually in organized off-season clubs, high school summer leagues or prep schools. Bracken (2007) found that the probabilities of competing in randomly selected NCAA athletics after high school were: (a) three percent for male basketball; (b) three percent for female basketball; (c) six % in football; (d) six percent in baseball; (e) 11 percent in male ice hockey, and (e) six % for male soccer.

When local parent groups or vested coaches do not subsidize club teams, the choice organization for sponsorship is the Amateur Athletic Union (AAU), one of the largest, non-profit, volunteer, sports organizations in the US. A multi-sport organization, the AAU is dedicated exclusively to the promotion and development of amateur sports

and physical fitness programs. The AAU was founded in 1888 to establish standards and uniformity in amateur sport. During its early years, the AAU served as a leader in international sports representing the US in the international sport federations. Over 500,000 participants and 50,000 volunteers share the philosophy of "Sports for All, Forever" (AAU, 2007).

In Europe, athletic competition of high school-aged students is mainly non-school organized, often sponsored by local community centers or social clubs. The US conversely, is one of the few countries high schools are the focal point for ECAs supplemented by local property taxes.

The Entertainment and Sports Programming Network (ESPN) established in 1979, is a cable TV station dedicated to the sports junky. The network has surfaced as the prototype for 24-hour sports action. ESPN and its spin off affiliates (ESPN2, ESPN3, ESPNEWS, ESPN U, ESPN Classics, ESPN.com, ESPN Radio, and ABC Sports) have used satellite TV to bring instantaneous results of sporting events, tragedy in competition, and the latest trends or news. It has brought the local lore of global sports phenomenon into the American household. ESPN extends to the regular American who might not just like football or baseball, but maybe tennis, darts, fly fishing, poker, or hunting. It has also supported a subculture of sport fanatics who participate in fantasy leagues where fictitious teams are drafted and managed, often with financial rewards for the victors at the end of the season. ESPN, through technology, has grabbed the psyche of the American people and their passion for athletic competition.

The phenomena of sports TV and all-sport radio stations have filtered down to high school athletic competition. Whether the professional athletes embrace it, fight it, or

show indifference to it, they are revered and scrutinized by the public, and often emulated by younger generations. Violence on TV is no longer relegated to the late show, but broadcast throughout the day on cable TV, and frequently involves athletes in college games, professional leagues, semi-pro organizations, local high school games, or club teams. The thirst to get it first and get it right has created a new spectacle in YouTube; where minutes during or immediately after an event, controversial plays, fights, wrong calls by officials, or tragic accidents are transmitted across the Internet.

Holm (2009) found that commercialism and professionalism have seeped into collegiate and sub-collegiate levels since the beginning of school-sponsored sports. The author suggested that reform movements have been cyclical at best where "problems are identified, recommendations are made and little, if anything, changes" (p. 10). The author concluded that academic integrity while supporting athletics is possible if various stakeholders share clarity of purpose for their institutions.

Roberts (2007) suggested that a seductive commercialism and persuasive professionalism has filtered down into scholastic athletics and non-school or community youth sports. The growth in collegiate and professional sports in America has paralleled the introduction of television, creating an obscured purpose of sports participation. The results have pushed athletes toward competition at younger ages, longer seasons, and sports specialization. The Amateur Sports Act of 1978 removed the stranglehold of the AAU on the U.S. Olympic Committee (USOC) and the participation by athletes in international sports. Roberts stated:

> The law empowered newly created individual sports federations…ranging from basketball to gymnastics to soccer, to organize and to some degree to regulate a

> sport from top to bottom, except for the programs of schools and colleges. The growth of these programs eventually led to a proliferation of youth sports camps, leagues, and tournaments across a wide range of sports. (p. 280)

Roberts (2007) found that state associations such as in Iowa, Ohio, and Wisconsin have modified their charters to permit increased participation, longer seasons, more travel, and single state champions. New Jersey and California have allowed the extra travel and participation at will for those whose school administrators petition their associations in the proper manner. Additionally, courts have ordered changes from societal pressures, with state athletic associations caving or failing to exhaust appellate review.

Since 1920, the mission of the National Federation of State High School Associations (NFSHSA) had been to pursue the best interests of high school athletics. Today, the NFSHSA coordinates and administers the rules, regulations, and development for 22,000 schools, 330,000 coaches, and 4.5 million high school athletes in the USA (NJSIAA, 2007a).

Roberts (2007) however, cited the NFSHSA with relaxing oversight of interstate competition, no mileage limitations, and independent schedules. Furthermore, Roberts suggested that "the National Federation has undercut the policies of its members by flirting with national promotions and even national high school championships" (p. 280), failing to follow its own policies toward commercialism. Roberts reminded state associations that their original mission necessitates redirection stating:

> ...voluntary associations of schools have the privilege of democratically determining, without judicial interference, the policies and procedures that govern

> voluntary, competitive, extracurricular interscholastic athletics for which no right of participation exists....[Michigan has promoted the view] that local competition, both at the sub-varsity and varsity levels, is of primary value. It is the cross-town, not cross-country trip that is the driving force of school sports. (pp. 281-282)

The Michigan High School Athletic Association (MHSAA) implemented rules to restrict or reduce the tide of commercialization of sports by: (a) limiting travel; (b) limiting compensation for coaches and prohibition of monetary incentives to participate in tournaments, camps, or recruiting visits; (c) restrictions on telecasts, video distribution, and complementary fees, and (d) current technological restrictions already in place. Most associations have not followed Michigan's departure from the trend toward commercialization in high school athletics. As JacAngelo (2003) stated, the benefits of athletic participation in Florida, such as better attendance, higher cumulative GPA, and better standardized test scores for athletics than non-athletes. JacAngelo (2003) also suggested a more active role by that state association than the observed passive policy initiatives of recent times.

Budig (2007) affirmed that secondary school officials fear an athletic arms race because of sports commercialization in their communities. Budig observed the overexposure of athletic events from: (a) Friday night football games; (b) the phenomenon of athletics as a source of community pride and competition; (c) the centrality of athletics in secondary schools; (d) the building spree of athletic facilities; (e) the increase of attendance at scholastic events; (f) the celebrity status of some high school coaches, and (g) the increase of radio and TV broadcasts.

## High School Athletics in New Jersey

New Jersey had 386,273 students, grades 9-12, enrolled in high school during the 2005 – 2006. NJSIAA (2007a) data showed that 247,332 students participated in one or more athletic programs between grades 9 to 12 accounting for 59% of all enrolled students. Athletic participation crossed all SES demographics and DFGs, and fairly denominational along gender lines. For every 15 male athletes in 17 sanctioned sports, there were over 10 female athletes in 20 sanctioned sports.

The NJSIAA (2007b) instituted a random drug testing policy for all high school athletes if they reached the state-playoff level. Tests were given at the end of a contest. School officials knew before the game what athletes were to be tested; players and coaches do not have prior notification. The NJSIAA (2007b) stated that 500 athletes in NJ had been screened, with only one athlete testing positive for illicit drug use. Preliminary outcomes have suggested that the policy might be an effective deterrent. State athletic officials caution against drawing strong conclusions too early. Samuels (2006) researched in New Jersey and found that implications of future drug testing might be comprised of increased legal costs, and possible cuts in state funding currently at $175 per test and $100,000 currently budgeted.

## Emerging Trends in Scholastic Sports

Sports psychology has been an emerging field in the development, understanding, and support of student athletes. Presently, in-depth support networks have remained in the realm of higher education; literature and research gaps exist on sport psychology programs in secondary school settings. Local colleges such as Montclair State University

and Seton Hall University have offered career tracks, majors, and symposiums on the expanding trend for interested students in pursuing sports management, athletic training, or coaching techniques. Current research has focused on performance-enhancement techniques and skills with professional, amateur-elite, and collegiate athletes.

Weissman (2003) suggested that a sports psychology program could be successfully implemented in the secondary school setting. The purpose of Weisman's study was to expand the literature in school sport psychology. The author utilized a case study design to evaluate the first known public school sport psychology program for high school student-athletes and coaches. The researcher found that sport psychology programs supported by experts in the field should include: (a) team education sessions; (b) individual education sessions, and (c) on-site consultations.

Watts (2002) found that overlapping seasons, such as between football and basketball, contribute to the sport specialization, identified earlier by club sport popularity and the AAU circuit. Lynn (2006) found that athletic specialization was on the rise because: (a) parents and athletes believe it increases the likelihood of a collegiate scholarship; (b) it is required by their coaches; (c) it enhances the likelihood of winning, and (d) parents believe it provides an advantage against potential competition. Despite the assumptions, about 5%, or 345,000 athletes ultimately compete on the NCAA level out of 6,900,000 total high school participants (NCAA & NFHS, 2003).

Beckett (2002) tested the effects of participation in ECAs on the academic achievement of high school students. The researcher explored potential links that such participation contributed to academic success. The study showed that participation in some ECAs improved academic achievement, while participation by other students in

ECAs diminished academic achievement. Participation in interscholastic sports promoted student development and social ties among students, parents, and schools, which explained the positive effect of participation on academic achievement.

Beckett suggested that social capital theory enabled student athletes to have "a stronger sense of control over their lives and a value system that is concordant with the American educational system" (p. 86). The theory however, was flawed because secondary data from NELS: 88 limits making concrete empirical connections to the academic achievement of student athletes.

## Student Engagement

Finn (1993) equated student engagement with participation in the classroom and outside school activities, and whether students value school relevant outcomes or feel they belong. Subsequently, Finn and Owings (2006) examined the relationship of high school student engagement factors and attainments with post high school outcomes. The researcher identified three academic risk factors as antecedent to school and work related difficulties in post high school years: (a) poor grades; (b) low test scores, and (c) dropping out of school.

Masse (2002) found that student engagement in academic achievement and cognitive development experienced by *Abecedarian Compact* children provided sound investment, contributed to poverty reduction, and aided equitable distribution of income and opportunity. McMillan and Chavis (1986) observed seven variables that allow student engagement to thrive in communities: (a) the closeness of people; (b) quality interaction; (c) closure to events that stipulates ambiguous interaction (d) shared event or

crisis intervention that facilitates group bonding; (e) investment beyond boundary maintenance and cognitive dissonance that provides communities important time and energy of people; (f) effect of honor and humiliation that provides personal responsibility, and (g) a spiritual or symbolic bond, difficult to describe, but present in all communities. The authors described these observations as a psychology sense of community (PSOC).

## Summary of Research, Theory, and Literature Review

The preceding review of research, theory and literature connected the problem statement of the academic achievement of student athletes to student engagement variables and organizational structures from national, state, and local perspectives. The organizational theories contributed to a theoretic framework to help the researcher evaluate the DOA. The history of ECAs in New Jersey and court cases demonstrated issues pertinent to the daily routines of athletic participation on the secondary level. Historical perspectives described relevant contributions from various national and international organizations to ECA participation, issues with commercialization and specialization, and policy initiatives.

Table 3 provides external validity from selected authors, documenting the strengths and weaknesses of various studies both qualitatively and quantitatively. Gaps in empirical evidence have shown: (a) deficiencies in what and how organizations function; (b) the lack of rigor of student engagement variables used in previous studies, and (c) the need for current and relevant research.

Table 3

*Selected literature reviewed and recommendations supporting leadership, management, and policy initiatives of ECAs*

| Research problem | Recommendation(s) or findings | Education realm | Author(s) examples | Research limitations |
|---|---|---|---|---|
| Sports psychology | Successful with stakeholder input | Policy | Weissman, 2003 | Assimilation unmeasured |
| ECA status | Assert centrality of athletics & reject commercialization | Policy | Griffin, 1992 | Study outdated, yet predictable of recent trends |
| Student engagement<br>Organizational structures<br>Education leadership | Need for life skills<br>Increase knowledge of sports psychology<br>Provide training in parental relations | Leadership<br>Management<br>Policy | Gould, et al, 2006 | Sports psychology innovative, yet untested in schools |

(table continues)

Table 3 (continued)

| Research problem | Recommendation(s) or findings | Education realm | Author(s) examples | Limitations |
|---|---|---|---|---|
| Collegiate participation/ scholarship attainment | Low probability of participation in college athletics | Policy | Bracken, 2007 | Participation based on estimated data |
| Student Engagement | Early manifestation of risk factors<br>Risk factors: SES, behavioral and academics | Policy | Finn, 1993<br>Finn & Owings, 2006 | Use of NELS: 88 secondary data |
| Student engagement<br>Professional development<br>Organization structures | Institute study hall<br>Coaches continue education in athletics<br>Parental strategies to assist athletes<br>Provide career choices | Policy<br><br>Management | Newman, 1999 | Cost to implement |

(table continues)

Table 3 (continued)

| Research problem | Recommendation(s) or findings | Education realm | Author(s) examples | Limitations |
|---|---|---|---|---|
| Student engagement<br>Education leadership<br>Future research | Use data combining ECAs and academic outcomes<br>Promote adolescent development<br>Causal perspectives to supplement correlation studies on ECAs | Leadership<br>Policy | Feldman & Matjasko, 2005 | Few studies have tested hypothesis |
| Student engagement | Athletics facilitated favorable academic outcomes for student athletes more than students who did not participate | Policy | Jergovic, 2001 | NCES secondary statistics used |
| Program evaluation | Promote formalized organization structures instead of centralized | Leadership<br>Management<br>Policy | Hoy & Sweetland, 2001 | Theories based on survey data |

## Theoretical Framework

Chapter II concludes with the theoretical framework and positivist inquiry guiding the present study. Studies have been incomplete, inadequate, outdated, or non-existent to illustrate the academic achievement of student athletes from a triangulated theory testing design. The research questions first discussed in Chapter I, and later expanded in Chapter III allow the reader to connect the use of theory triangulation to guide inquiries and program evaluation of the DOA, studied in the present research.

Bolman and Deal (2003) theorized that organizations could be modeled in four frameworks to function efficiently: (a) structure; (b) human resource allocation; (c) political influence, and (d) symbolism. McCarthy (2007a, 1980) combined theories of learning styles with leadership and management techniques to make practical education decisions through the 4MAT System. Figure 1 depicts a flow chart of Bolman and Deal (2003) theories used to conduct one part of theory triangulation. Figure 2 provides a circular matrix of instructional leadership and management theory from the 4MAT system (McCarthy, 2007a, 1980) used as the second part of theory triangulation.

The use of positivist inquiry completes the theory triangulation framework of student engagement variables and organization structures in the DOA. Patton (2002) found that positivist inquiry strengthens theory triangulation and formative evaluation designs. The positivist perspective in social sciences has roots in the work of late 19th Century and early 20th Century theorists Comte and Durkheim. Positivism is a theory that "seek[s] the facts or causes of social phenomenon apart from the subjective states of individuals" (Patton, p. 69). Patton stated that positivism is "truth and reality oriented correspondence theory" (p. 9) with foundational questions as follows: "What is really

going on in the real world? What can we establish with some degree of certainty? What are plausible explanations for verifiable patterns? What is the truth insofar as we can get at it? How can we study a phenomenon so that our findings correspond, insofar as it [is] possible to the real world" (p. 69)?

Carroll (2007) explained that positivist theory relies on logical philosophical movements and verifiable observations. Logical empiricism is a theory in contrast to theological and metaphysical laws, which do not believe observations can be proved true or false. Verifiability principles, a basis of logical empiricism, can be proved or disproved by experience. Table 4 provides a summation of theory triangulation strategies, data collection procedures, significant authors used, and influences for education leadership, management, and policy.

In Chapter III, this researcher introduces the non-experimental design and mixed methodologies used in the present study. Patton (2002) stated that mixed methodologies provide case studies added strength, validity, and reliability, and help the researcher to conduct robust, meaningful, and significant research. The chapter concludes with participant and sampling information, student engagement variables used, validity and reliability issues, data collection procedures, instrumentation and data analyses protocols.

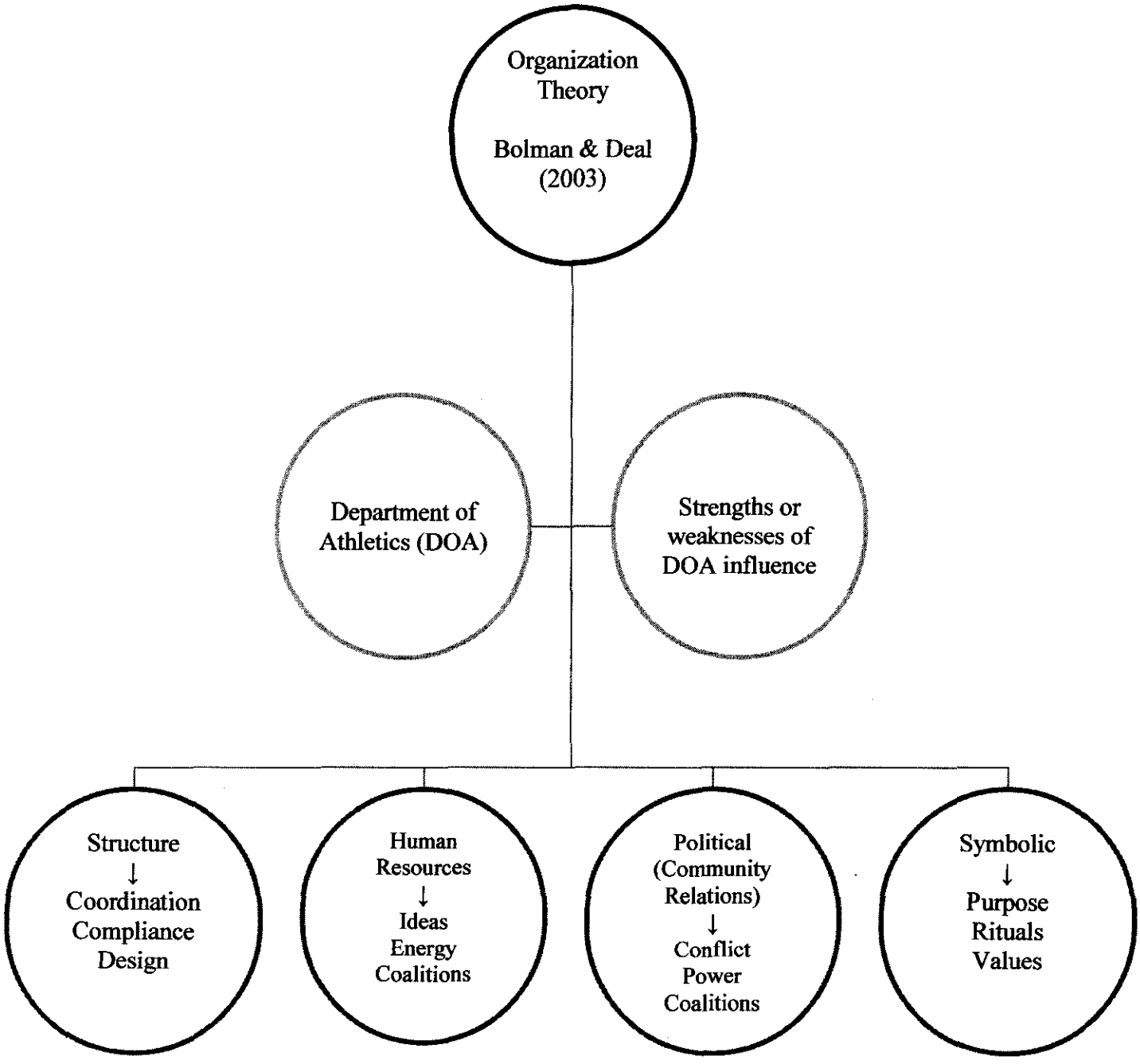


*Figure 1.* Reframing organization theory in the present study.

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Source: *Reframing Organizations*, Bolman & Deal, 2003.


*Figure 2.* 4MAT Organization as theoretical framework in the present study.

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Table 4

*Theory triangulation in the present study*

| Organization theory/construct | Data | Educational realm | Authors/ references |
|---|---|---|---|
| Structures<br>Human resource allocation<br>Political<br>Symbolic | DOA<br>(daily function, physical plant, financial allocation, hiring practices, and community relations) | Leadership, management, and policy | Bolman & Deal, 2003 |
| 4MAT Organization design | Professional development of staff and academic supports for athletes | Leadership and management | McCarthy, 2007, 1980 |
| Positivist theory | Student engagement variables – GPA, PSAT scores, SAT scores discipline referrals, attendance, athletic participation | Policy | Patton, 2002 |

Matrix Source: Patton, 2002, p. 322.

# Chapter III

# DESIGN AND METHODOLOGY

## Introduction

In the previous chapter, this researcher reviewed research, theory, and literature to support the problem statement that school leaders must evaluate their athletic programs to support the academic achievement of student athletes better. The chapter concluded with a theoretical framework guiding the present study.

Chapter III presents the research design and methodology, participants and sampling strategies, instrumentation, correlation variables, pilot study used for validity and reliability, data collection, and data analysis. Research questions were used instead of hypotheses to frame student engagement variables, and applied theory testing to evaluate the organization structures of the Department of Athletics (DOA).

## Research Design

The research design is a non-experimental (Johnson, 2001) case study using correlation and program evaluation to determine the influence of student engagement variables and organization structures of the DOA in one New Jersey high school. This researcher used formative evaluation to gather interview data, direct observation, and analysis of product outcomes in the DOA for program improvement.

Johnson and Christensen (2004) described non-experimental design as a study that lacks random assignments of the subjects and manipulation of treatment. The design triangulates data sources and tests organization theory using applied research that Patton (2002) stated "illuminates societal concerns" (p.213). Yin (1994) suggested that case

studies should offer generalization of results, made to theory and not to populations, thus reducing bias. Yin identified four components of case study design used by this researcher: (a) research questions aligned with theoretical propositions; (b) clear unit(s) of analysis; (c) linking of data to propositions, and (d) criteria for interpreting findings.

Feagin, Orum, and Sjoberg (1990) suggested that the quintessential characteristic of case studies should be holistic understanding of cultural systems of action. Stake (1995) identified six sources of evidence in case studies: (a) documents; (b) archival records; (c) interviews; (c) direct observation; (d) participant-observation and, (e) physical artifacts.

Patton (2002) stated that formative evaluations are aimed at improving programs (p. 218) and rely heavily on qualitative data sources. The researcher found emerging strategies that included: (a) a theory to action continuum, and (b) generalized knowledge of best practices when applied research is part of case studies.

Research questions guiding the present study for quantitative purposes using student engagement variables or data collected from the DOA are:

1. What influence do student engagement variables have on athletic participation in the DOA?

2. What relationship exists between student engagement variables and the amount of athletic participation in the DOA?

3. What influence does unilateral athletic concentration in one sport have on academic achievement and collegiate scholarship attainment?

Research questions guiding the present study for qualitative purposes using interview protocols, direct observation, and program evaluation are:

4. How does the DOA function from a theoretical framework of structure, human resource allocation, community relations (the greater political sphere), and in a symbolic nature?

5. What leadership, management, or policy initiatives are in place to support student athletes in the DOA?

## Research Methodology

The researcher's purpose for this study is to examine the influence of student engagement variables on the academic achievement of high school athletes, and program evaluation of the DOA in one New Jersey high school district.

The present case study evaluation is a mixed methodology of quantitative and qualitative research. Quantitative methods used correlation to: (a) determine the influence that student engagement variables have on the academic achievement of student athletes; (b) determine the relationship between athletes and non-athletes and academic achievement, and (c) determine the influence between the amount of athletic participation ($n \leq 3$) and academic achievement of student athletes and non-athletes ($N = 343$). Hinkle, Wiersma, and Jurs (2003) formulated correlation coefficient interpretations used as a basis in present study, and are depicted in Appendix E.

Table 5 depicts the amount of athletic participation of students in the present study. The level of athletic participation ($n = 0, 1, 2,$ or 3) held individual values for each category presented in the correlation analysis. No double counting was used when determining the amount of athletic participation. All students who participated in athletics are first counted and categorized as athletes ($n = 1$, but not greater than 3) only in

Appendix E (N = 235) and never counted twice or combined in any other manner. Non-athletes (N = 0) are first depicted in Appendix E, and never combined with any other correlation output discussed in the present study.

Johnson and Onwuegbuzie (2004) defined mixed methods "as the class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts, or language into a single study" (p. 17). The researchers suggested that methods should follow research questions to obtain meaningful answers. Johnson and Turner (as cited in Johnson & Onwuegbuzie, 2004) called the fundamental principle of mixed research as "a way that the resulting mixture or combination [of quantitative and qualitative research] is likely to result in complementary strengths and no overlapping weaknesses" (p.18). Price (2000) found that correlation studies are conventional because the discovery of association suggests the possibility of cause. Correlation will determine the degree to which student engagement variables tend to co-occur or are related to the academic achievement of student athletes in the DOA.

Qualitative methods will use theory-driven triangulation to: (a) determine the influence that organization structures have on the academic achievement of student athletes; (b) interview protocols of coaches, administrators, and student athletic leaders to determine the influence organization structures have on the academic achievement of student athletes, and (c) program evaluation of defined criteria such as mission statements and district athletic policies associated with the objectives of the DOA. Feagin, Orum, and Sjoberg (as cited in Tellis, 1997) asserted that triangulation can occur with data, investigators, theories, and methodologies.

Table 5

*Amount of student athletic participation in the present study*

**Amount of Athletic Participation[1]**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 Participation | 108 | 31.5 | 31.5 | 31.5 |
| | 1 Sport Participation | 97 | 28.3 | 28.3 | 59.8 |
| | 2 Sport Participation | 102 | 29.7 | 29.7 | 89.5 |
| | 3 Sport Participation | 36 | 10.5 | 10.5 | 100.0 |
| | Total | 343 | 100.0 | 100.0 | |

Note[1]: Athletic participation was only combined when all students were counted and categorized as athletes (n = 1, but not greater than 3) and non-athletes (n = 0). See Appendix E, Table E8 that first combined all athletic participation (N = 235).

Marzano (2003) suggested that program evaluation should concentrate on: (a) school level factors such as safety, collegiality, and professionalism; (b) teacher level factors such as management [of facilities] and program design; (c) student level factors such as motivation and background knowledge, and (d) implementation and the critical role of leadership to affect change.

Crosswalk evaluation methods will be used to strengthen the evaluation portion of the study. O'Sullivan (2004, 1991) found that crosswalk evaluation methods provide: (a) interactive discussion among stakeholders and researchers concerning appropriate and meaningful research questions; (b) transparency of documentation requests, and (c) tightened evaluation design by deleting or adding research questions based on multiple data sources. Table 6 outlines the non-experimental design and mixed methodology used for multiple data sources, the purpose of the study, desired results from the findings, assumptions for stakeholder action, and benchmarks for minimal implications of education practice.

## Participants and Sampling

One school district in New Jersey grades 9 through 12 participated in the quantitative analysis (N = 343). The BOE agreed to provide coded student engagement variables, and divide the students between athletes (n = 1, 2, or 3) and non-athletes (n = 0), male and female (M = 1, F = 2) to correlate the existing associations, and scholarship attainment data for Grade 12 graduating seniors. During the collection process, 15 students were deleted from the sampling pool due to one or more of the following conditions found: (a) extreme outliers such as chronic truancy and excessive disciplinary

Table 6

*Typology of research design and methodology in the present study*

| Typology | Data source | Purpose | Desired results | Assumptions | Benchmark |
|---|---|---|---|---|---|
| Non-experimental Case study design | Quantitative and qualitative information | Academic achievement of athletes/ non-athletes | Policy prescriptions Program improvement | Research lacking in demographic area | Replication of study provides opportunities |
| Quantitative methodology<br><br>Applied research | Correlation Student engagement variables Time dimensional | Suggests influence of student engagement Questions important for athlete development | Strength or weakness of relationship<br><br>Collect data and apply to case scenarios | Research and theory generally show strong/weak association and varied significance | Associated variables determine level of significance |
| Theory triangulation Positivist theory | Cross sectional | Theories provide framework to collect data | Contribution of theories for program improvement | Problems solved with knowledge | Rigor and theoretical insights |

(table continues)

Table 6 (continued)

| Typology | Data source | Purpose | Desired results | Assumptions | Benchmark |
|---|---|---|---|---|---|
| Qualitative methodology | Organization structures of DOA | Strategies for program improvement | Cost effective recommendations | Schools improve practice | Realism to sustain change |
| Formative program evaluation | Outcomes/ observations of DOA | Monitors progress of study | Multiple sources of evaluation data | Review is on-going and data driven | Comparison of outcomes to design |
| Crosswalk evaluation | Client and researcher collaboration | Strengthens evaluation methods | Meaningful evaluation data | Predisposes audience to action | Worthwhile knowledge generated |

Source: Adapted from Patton, 2002, p. 224, Johnson, 2001, pp. 9-10, and O'Sullivan, 1991, pp. 43-49.

referrals; (b) transient populations; (d) missing or undocumented data, and (e) attendance by students on the rolls part-time or full-time at area charter schools or county technical academies while also participating in athletics at those schools of choice.

Qualitative data will be provided by voluntary interviews with no less than three school administrators, five district teacher-coaches, and eight student athlete leaders divided evenly among males and females (N = 16). Additionally, program evaluation concentrated on BOE policies, budget documents, mission statements, and direct observation of the DOA procedures and protocols. The sampling strategy of athletes and non-athletes will allow generalization from the population it represents from a quantified perspective. Purposeful sampling will use a theory-based construct to provide qualitative evaluation data from multiple stakeholders.

Patton (2002) found that intensity sampling provides rich information to manifest the phenomenon being studied. Tellis (1997) found that the unit of analysis is a critical factor in case study methods, and tends to be a system of action rather than an individual or group of individuals. Tellis found that case studies tend to be selective, focusing on one or two issues fundamental to the system examined. Yin (1994) argued that case studies should contain no parameters of sample size, and can applied to all research venues based on established objectives.

## Variables

This researcher used student engagement variables as a quantitative unit of analyses from students in grades 9 to 12. The high school BOE provided coded student engagement independent variables on: (a) GPA (n = 343); (b) PSAT scores (n = 82) for $11^{th}$ grade students where applicable; (c) SAT scores for $12^{th}$ grade students where

applicable; (d) discipline referrals (n = 343), and (e) attendance records (n = 343). Correlation was used to determine the influence of academic achievement associated with athletes and non-athletes. The significance level for testing in this study was set at $p \leq .05$. Student-athletes will be stratified ($n \leq 3$) based on sport seasons divided into three different time frames (Fall, Winter, and Spring), and non-athletic students (n = 0), describing no participation in athletic activities, as depicted in Table 5. The dependent variables in the study were gender, athletes and non-athletes. DOA data and frequency tables of Grade 12 students who have unilateral athletic participation will determine scholarship attainment.

## Validity of the Research

Data from student engagement variables, cross sectional interviews, theory triangulation, crosswalk evaluation, and a pilot study will be used to strengthen validity and findings of the study. Evaluation needs will be extracted from education decision makers to act upon the study findings.

O'Sullivan (2004, 1991) found that crosswalk evaluation methods promote "increased responsiveness to a client's evaluation need [resulting] in improved utilization of evaluation results" (p. 43). Yin (1994) proposed three remedies to counteract validity issues: (a) use of multiple sources of evidence; (b) establish a chain of evidence, and (c) create a draft case study report reviewed by key informants. Stake (1995) found triangulation methods ensure accuracy and alternative explanations. The author argued that triangulation evolved from ethical needs to confirm validity of the processes studied, and that case studies accomplish this by using multiple sources of data. Denzin (as cited

in Patton, 2002) found that triangulation overcomes intrinsic biases because of the multiplicity of data, theories, and methods to reveal different aspects of empirical reality. Price (2000) found that cross-sectional interviews have demonstrated validity in describing the prevalence of ideas, behaviors, and conditions of certain phenomenon happening in organizations. Table 7 provides a review of the research questions and triangulated data sources used to assure validity. Sagor (2000) found that triangulation of data sources assisted action researchers with robust information and provided education leaders a basis for policy initiatives.

## Reliability of the Research Findings

This researcher addressed reliability issues of the study in the following ways: (a) the use of Cronbach Alpha (SPSS, 2009, 1999) that determines how well a set of variables measure a single uni-dimensional latent construct or factor analyses for multi-dimensional constructs; (b) clearly defined fieldwork procedures discussed earlier in the design and methods section; (c) aligning research questions with theory constructs; (d) designing a case study that is flexible to generalize findings to similar populations; (e) 23 years experience as a high school teacher, coach, game official, and associate leader in area athletic organizations; (f) familiarity of athletic departments in New Jersey public schools; (g) testing and retesting the correlation outcomes, and (h) the completion of a pilot study and peer review focusing on potential qualitative data modifications of research questions and interview protocols.

Yin (1994) stated that reliability of information should be reproducible. The researcher found that four major protocols asserted the reliability of case study research:

(a) an overview of the study in terms of objectives, issues, and topics investigated; (b) fieldwork procedures in terms of the credentials of the researcher's access to sites and sources of information; (c) keeping research questions in mind during data collection, and (d) a case study report to include an outline and format for the narrative. Yin (as cited in Tellis, 1997) suggested that case studies should establish meaning rather than location.

## Data Collection

Data will be collected by: (a) statistics provided by the Guidance Department on student engagement variables and the DOA on scholarship attainment; (b) triangulated organization theory using pilot tested interview questions; (c) program evaluation, and (d) crosswalk evaluation methods. The inferential statistical data will focus on interpretations about student engagement variables and their influence on student athlete academic achievement through time dimensional and cross sectional means. Precautions will be used to maintain student anonymity by coding all student engagement variables and general data collected. Stake (1995) favored coding data and identifying the issues during analysis. Eisner and Peshkin (1990) placed high priority on direct interpretation of events, and less on interpretation of measurement data.

Voluntary interview protocols will be strictly followed for all participants. Appendix C outlines all applicable protocols for athletic coaches/school administrators, parents/guardians of student athlete leaders, and student athlete leaders that include letters of solicitations, informed consent forms, and permission to tape record. Interviews will generally last 1 hour. Transcripts of the interview will use member checks to allow the

Table 7

*Data triangulation in the present study*

| Research questions | Triangulated data sources | | |
|---|---|---|---|
| Influence of student engagement on athletic participation | Student engagement variables | Athletes<br>Non-athletes<br>N = 343 | Gender |
| Influence of student engagement on extent of athletic participation | Student engagement variables | Athletic participation<br>n ≤ 3 | Non-athletes<br>n = 0<br>Gender |
| Organization of Athletic Department | Evaluation based on organization theory | Coach, administrator and student-athlete interviews | Direct observation<br>BOE policy<br>Mission statement |
| Influence of athletic specialization on achievement and scholarship attainment | Student engagement variables | Athletic scholarships attained | Student interviews |

(table continues)

Table 7 (continued)

| Research questions | Triangulated data sources | | |
|---|---|---|---|
| Influence of ECAs on scholarships | Student engagement variables | Coach and administrator interviews | Student interviews |
| Leadership, management, or policies that support student athletes | Academic achievement of athletes | Program evaluation | BOE policy<br>Direct observation |

Matrix Source: Sagor, 2000.

addition, deletion, or modification of any further data that the interviewee deemed appropriate, and will be mailed out with 2 days in a self-addressed stamped envelope. Audit trails will be used to maintain reliability of data collected, and act as a written diary by the researcher. All data will be collected and stored on a USB memory stick, and secured in a locked filing cabinet in the home of the researcher.

This researcher will use direct observation of no less than two different occasions, and obtain documents for program evaluation such as mission statements, goals and objectives, and budgetary files from the AD. Data collection will be conducted to assure the daily work of the school district avoids compromise. Time issues will employ short-term fieldwork for qualitative purposes, and rapid reconnaissance for quantitative purposes (Patton, 2002).

O'Sullivan (1991) found that data collection using crosswalk evaluation methodology is an effective tool to insure that evaluation questions are answered with evidence from more than one source. Table 8 depicts a flow chart of the problem statement, programs reviewed, variables used, evaluation of the data, and implications for educational decision-making.

## Instrumentation

Research questions were designed from student engagement variables using correlation for quantitative purposes, and from organization theory using interview protocols and program evaluation for qualitative purposes. Correlation will be tested and retested to insure reliability. Interview questions were pilot tested and peer reviewed by a

Table 8

*Flow chart of student engagement and organization structures in the present study*

| Problem→ | Programs→ | Variables→ | Evaluation→ | Implications→ |
|---|---|---|---|---|
| Student engagement<br>Collegiate scholarship attainment<br>Level of ECA participation | One high school district in New Jersey | Athletes[1] (n = 1, 2, or 3)<br>Non-Athletes[1] (n = 0)<br>Gender<br>Discipline referrals<br>Attendance<br>GPA<br>PSAT scores<br>SAT scores | Correlation<br>Positivist theory<br>Scholarship attainment<br>Academic achievement of student athletes | Policy implications<br>Future research |
| Organization structures<br>Academic achievement | Department of Athletics (DOA) | ECA participation ($n \leq 3$) | Formative/program evaluation<br>Interviews<br>Direct observation | Leadership skills<br>Management styles |

Note[1]: Athletic participation was only combined when all students were counted and categorized as athletes (n = 1, but not greater than 3) and non-athletes (n = 0). See Appendix E, Table E8 that first combined all athletic participation (N = 235).

doctorate level school administrator with an athletic coaching background, independent of the study and dissertation committee.

Guiding interview questions (see Appendix D) were given to each athletic coach, school administrator, and student athlete leader who volunteered to participate, prior to the initial 1-hour session. The interview guides were developed from research questions, the literature review, and theory-based constructs. Additional interview modifications occurred from the pilot study, and peer reviewed by a doctorate level school administrator with an athletic coaching background.

Jones (2000) used interview guides in a case study analysis to evaluate an existing organization framework for the purpose of systems development. The researcher used methods that included: (a) a pilot study; (b) instrument review with committee members of a project under development to finalize design issues; (c) interviews scheduled, conducted, and transcribed verbatim from audiotapes, and (d) analysis of interview data.

This researcher used similar interview methods to strengthen instrumentation by: (a) supplying a pilot-tested instrument as an interview guide to potential volunteers, and (b) allowing the participants to expand or focus ideas and experiences in a semi-structured format. Every question was asked of each participant, but each question asked was tailored to the participant to minimize bias and maximize thick data collection.

The pilot study confirmed that: (a) the interview guides promoted conversational style responses with the interviewees and detailed informative data; (b) the need to provide guiding interview questions and theoretical frameworks in lay terms prior to the scheduled meeting; (c) a need to reword some of the theory-driven interview questions to provide clarity to the information being sought, especially among student-athletes, and

(d) increased focus on crosswalk evaluation methods (O'Sullivan, 1991) to benefit the DOA, and (d) more time for this researcher to transcribe answers and gain feedback from the interviewees.

The peer reviewer recommended that: (a) language used in the research should remain objective and unbiased; (b) research questions should assess how athletes actually perform better through influences of the DOA, and (c) additional research citations should be included in the introduction and problem statement to intensify the connection between student engagement variables, academic achievement, scholarship attainment, and the influences of organizational structures and theory.

Tellis (1997) found that interviews are important sources of data for case studies to: (a) gather information; (b) propose solutions; (c) provide insight, or (d) corroborate evidence obtained from other sources. Tellis stressed that researchers must avoid dependency of single informants, but seek data from multiple sources to verify authenticity. Crosswalk evaluation methods (O'Sullivan 2004, 1991) will assist the researcher and school district in monitoring and implementing assessment outcomes. Crosswalk methods will assure that the data collected are meaningful and predispose stakeholders to action upon completion of the study.

## Data Analysis

Data will be analyzed from student engagement variables, statistics on athletic scholarship attainment supplied by the DOA, theory based interview questions, direct observations, access to documents, and product evaluation of mission statements and outcomes of the DOA.

Data analyses will be conducted in reference to each research question for quantitative purposes in the following manner:

1. What influence do student engagement variables have on athletic participation the DOA?

1A. Quantitative data collected by the student engagement variables in research question 1 will be answered by the use of correlation, a common inferential statistic methodology.

2. What relationship exists between student engagement variables and the amount of athletic participation?

2A. Quantitative data collected for research question 2 will use correlation to determine the level of influence student engagement variables have on the amount of athletic participation ($n \leq 3$) by student athletes in the DOA, and by students who do not participate in the DOA ($n = 0$). Student who participate in more than one sport will be counted again if they participate in two sports, and once again if the student athletes participate in a third sport during any single academic year.

3. What influence does athletic participation have on collegiate scholarship attainment?

3A. Research question 3 will assess the inferential statistical obtained from unilateral athletic participation and scholarship attainment for Grade 12 males and females.

Data analyses will be conducted in reference to each research question for qualitative purposes in the following manner:

4. How does the DOA function from a theoretical framework of structure, human resource allocation, community relations (the greater political sphere), and from a symbolic nature?

4A. Qualitative data collected for research question 4, based on school administrator, teacher/coach, and student-athlete interviews, personal observation, and access to product outcomes will be used to evaluate the DOA. Organization theory by Bolman and Deal (2003) summarized in Table 2 and Figure 1, and leadership and management theory by McCarthy (2007a, 1980), depicted in Figure 2 by 4MAT Organization, will guide the interview, observation, and program evaluation of the DOA.

5. What leadership, management, or policy initiatives are in place to support student athletes in the DOA?

5A. Research question 5 will use qualitative data from mission statements, goals and objectives, and budgetary information to interpret product outcomes of the DOA.

Yin (1994) encouraged researchers to produce an analysis of high quality. The researcher stated four principles to achieve that goal: (a) show that the analysis relied on relevant evidence; (b) include major rival interpretations in the analysis; (c) address the most significant aspect of the study, and (d) use the researcher's prior, expert knowledge to further the analysis.

## Summary of Design and Methodology

Chapter III provided brief historical perspectives of case study research. The chapter detailed the non-experimental design and mixed methodology, participants and

sampling strategies, correlation variables used, instrumentation used, data collection procedures, validity and reliability issues, and an outline of data analysis procedures.

Chapter IV provides a review of Chapter III methods and design, an introduction to the analyses of the data collected a narrative of the high school district being studied, a brief discussion of the New Jersey School Report Card, and analysis of the quantitative and qualitative data collected.

# Chapter IV

# ANALYSIS OF THE DATA

## Introduction

The purpose of this study was to determine the influence that student engagement variables have on the academic achievement of high school athletes using an applied research design in one New Jersey high school district (N = 343). This researcher also evaluated the organization structures in the Department of Athletics (DOA) using: (a) interview protocols of coaches, administrators, and student athletes; (b) organization theory testing; (b) personal observation of the Athletic Director (AD), and (c) product outcomes analysis in relation to goals and objectives of the DOA.

In Chapter III, this researcher provided the design and methodology guiding the present study. Chapter IV reports an analysis of quantitative data carried out using correlation from the statistical software package SPSS 17.0, and results from qualitative data collected through interview protocols, direct observation, and product outcomes in the DOA.

The research questions that guided the analysis of the data for quantitative purposes were:

1. What influence do student engagement variables have on athletic participation ($n \leq 3$) in the DOA?

2. What relationship exists between student engagement variables and the amount of athletic participation (n = 1, 2, or 3) in the DOA?

3. What influence does unilateral athletic concentration in one sport have on academic achievement and collegiate scholarship attainment?

The research questions that guided the analyses of the data for qualitative purposes were:

4. How does the DOA function from a theoretical framework of structure, human resource allocation, community relations (the greater political sphere), and in a symbolic nature?

5. What leadership, management, or policy initiatives are in place to support student athletes in the DOA?

## Demographic Data and School District Profile

This study was conducted at one suburban New Jersey school district K – 12. The DFG (Appendix A) designation of "I" places the school district and community as a whole on a rather prominent SES. The school district profile stated:

> The school district is celebrating its 200th birthday in 2009 school year…the school provides a positive learning environment where each student is valued and is supported through the concerted efforts of the entire school community with a renewed emphasis on the teaching/learning relationship. Attention has been placed on keeping the school technologically sound in the areas of media and computer services. The school has networked all instructional areas. Booster clubs are strong and provide numerous services that enable extracurricular programs to thrive. Approximately 50% of the students are involved in at least one athletic program, and many are involved in multiple sports. (New Jersey Department of Education Report Card, 2008)

The district made Annual Yearly Progress (AYP) in all 41 areas of NCLB benchmarks in 2007. *New Jersey Monthly* (September, 2008) ranked the school district in

the top 35 out of 316 public schools statewide. The DOA, the focal point of the qualitative evaluation in the present study, sponsors 17 varsity level interscholastic teams during three seasons, Fall Winter, and Spring. Table 9 provides additional New Jersey Department of Education (NJDOE) Report Card statistics comparing the school district to state averages regarding: (a) instructional time; (b) average class size; (c) enrollment by grade; (d) SAT results; (d) attendance rates; (e) graduation rates, and (f) per pupil extracurricular activities (ECAs) cost.

## Reliability Analysis

The Cronbach alpha which measures the reliability of the student engagement variables discussed in Chapter III, showed evidence that some of the constructs were uni-dimensional, and some were multi-dimensional. Appendix E, Tables E2 - E3 depict the reliability of SAT scores (Cronbach alpha = .037) and scholarship attainment (Cronbach alpha = .442) as uni-dimensional with the variables cumulative GPA, attendance, disciplinary referrals, and the amount of athletic participation. Appendix E, Table E4 showed evidence of a negative relationship for PSAT scores (Cronbach alpha = -.072) with cumulative GPA, attendance, disciplinary referrals, and the amount of athletic participation as the possibility of multi-dimensional constructs. The SPSS 17.0 online helpdesk assisted in the preceding outputs stating:

> If the average inter-item correlation is low, alpha will be low. As the average inter-item correlation increases, Cronbach's alpha increases as well. This makes sense intuitively if the inter-item correlations are high, there is evidence that the items are measuring the same underlying construct. This is really what is meant

Table 9

*Selected statistics and district profile in the present study*

| Category | District | State |
|---|---|---|
| | Averages | |
| Instructional time | 5 hours, 52 minutes | 5 hours, 53 minutes |
| Grade | Enrollment | |
| 9 | 78.5 | - |
| 10 | 81.0 | - |
| 11 | 91.0 | - |
| 12 | 107.5 | - |
| SAT category | Quantitative results | |
| Math | 544 | 514 |
| Verbal | 521 | 492 |
| Essay | 534 | 494 |
| Attendance | 99% | 94.5% |
| Graduation rate | 98.2% | 92.8% |
| Per pupil costs for ECAs | $504 | $235 |

Note: SAT scores for DFG "I" showed Math at 569, or 25 points higher; Verbal at 544, or 23 points higher, and Essay at 549, or 15 points higher than compared to SAT scores of the district in the present study.

Source: NJDOE Report Card, 2008.

when someone says they have high or good reliability. They are referring to how well their items measure a single uni-dimensional latent construct. Thus, if you have multi-dimensional data, Cronbach's alpha will generally be low for all items. (see SPSS, 2009)

This researcher found generally low inter-correlation in each table matrices. To compensate for the low Cronbach Alphas, each correlation output for PSAT scores, SAT scores, and scholarship attainment data were factored separately with the remaining student engagement variables along gender and grade, as later depicted in Appendix E, Tables E5-E17.

## Quantitative Data Analysis

The quantitative research was directed at students (N = 343) in grades 9 through 12, the traditional age of high school students who are eligible to participant in scholastic athletics as govern by the New Jersey State Interscholastic Athletic Association ( NJSIAA). Student engagement variables were used to correlate the association between athletes and non-athletes, and by gender concerning the following data: (a) GPA (n = 343); (b) PSAT scores (n = 82); (c) SAT scores (n = 73); (d) discipline referrals (n = 343), and (e) attendance records (n = 343). While middle school athletics do exist in the school district, no student data from traditional middle school grades of seventh and eighth were collected in the quantitative process of the correlation outputs. Hinkle, Wiersma, and Jurs (2003) formulated the Pearson correlation coefficient interpretations used in present study to determine any negative or positive association between variables (-1 to +1) and the level of significance ($\alpha \leq .05$). As stated in Chapter III, Appendix E, Table E1 provided the correlation coefficient interpretations.

As discussed in Chapter III, athletic participation was only combined when all students were counted and categorized as athletes (n = 1, but not greater than 3) and non-athletes (n = 0), and depicted later in Appendix E, Table E8 that first combined all athletic participation (N = 235).

*Research Question 1*

Quantitative data analysis focused on three research questions. The first research question was: What influence does student engagement variables have on athletic participation in the DOA?

Students who participated in athletics general showed moderate to high positive correlation and statistical significance between cumulative GPA and PSAT or SAT scores, and generally low negative or little if any correlation and some statistical significance when attendance and disciplinary referrals were paired with cumulative GPA, PSAT or SAT scores. Along gender lines, the differences in correlation or level of significance were inconclusive. Descriptive statistics of student engagement variables are depicted in Appendix E, Table E5. Case summaries by gender are showed in Appendix E, Table E6. Case summaries by the amount of athletic participation are depicted in Appendix E, Table E7. The individual correlation outputs are as follows.

*All students participating in one sport or more.*

All students participating in at least one sport showed (N = 235) is depicted in Appendix E, Table E8. The data analyses showed: (a) high positive and statistical significance with cumulative GPA and PSAT scores (n = 59, r = .777, $\alpha$ = .000); (b) high positive correlation and statistical significance with cumulative GPA and SAT scores (n =

52, r = .704, α = .000); (c) little if any correlation and statistical significance with cumulative GPA and attendance (r = .-.291, α = .000); (d) low negative correlation and statistical significance with cumulative GPA and disciplinary referrals (r = -.393, α = .000); (e) low negative correlation and statistical significance with PSAT scores and attendance (n = 59, r = .-.317, α = .014); (e) low negative correlation and statistical significance with PSAT scores and disciplinary referrals (n = 59, r = -.380 , α = .003), and (f) low positive correlation and statistical significance with disciplinary referrals and attendance ( r = .314, α = .000).

*Male students participating in one sport or more.*

All male athletes participating in one sport or more (N = 122) is depicted in Appendix E, Table E9. The data analyses showed: (a) little if any correlation and statistical significance with attendance and disciplinary referrals (r = .293, α = .001); (b) little if any correlation and statistical significance with attendance and cumulative GPA (r = -.292, α = .001); (c) little if any correlation and statistical significance with attendance and the amount of athletic participation (r = -.193, α = .033); (d) low negative correlation and statistical significance with disciplinary referrals and cumulative GPA (r = -.359, α = .000); (e) low positive correlation and statistical significance with cumulative GPA and the amount of athletic participation (r = .210, α = .020); (f) high positive correlation and statistical significance with PSAT scores and cumulative GPA (n = 23, r = .771, α = .000), and (g) moderate positive correlation and statistical significance with SAT scores and cumulative GPA (n = 27, r = .663, α = .001).

*Female students participating in one sport or more.*

All female athletes participating in one sport or more (N = 113) is also depicted in Appendix E, Table E9. The data analyses showed: (a) low positive correlation and statistical significance with attendance and disciplinary referrals ($r = .348$, $\alpha = .000$); (b) low negative correlation and statistical significance with attendance and cumulative GPA ($r = -.324$, $\alpha = .000$); (c) low negative correlation and statistical significance with disciplinary referrals and cumulative GPA ($r = -.417$, $\alpha = .000$); (d) low positive correlation and statistical significance with cumulative GPA and the amount of athletic participation ($r = .292$, $\alpha = .002$); (e) low negative correlation and statistical significance with PSAT scores and attendance ($n = 27$, $r = -.415$, $\alpha = .031$); (f) low negative correlation and statistical significance with PSAT scores and disciplinary referrals ($n = 27$, $r = -.408$, $\alpha = .034$); (g) high positive correlation and statistical significance with PSAT scores and cumulative GPA ($n = 27$, $r = .811$, $\alpha = .000$); (h) low positive correlation and statistical significance with PSAT scores and the amount of athletic participation ($n = 27$, $r = .488$, $\alpha = .010$), and (i) high positive correlation and statistical significance with SAT scores and cumulative GPA ($n = 23$, $r = .845$, $\alpha = .000$).

*Research Question 2*

Research question 2 was: What relationship exists between student engagement variables and the amount of athletic participation in the DOA?

The amount of athletic participation and correlation analyses and level of statistical significance between the student engagement variables were generally inconclusive. While all levels of participation showed moderate to strong positive associations with cumulative GPA, PSAT scores, and SAT scores, and low negative or

little if any correlation when disciplinary referrals and attendance were included, no conclusive evidence was found to determine that one group or gender of participants did far better than another group of participants or non-athletes. Individual correlation outputs are as follows:

*Students with zero athletic participation.*

The data analyses of students with zero athletic participation (N = 108) is depicted in Appendix E, Table E10, and showed: (a) low negative correlation and statistical significance with cumulative GPA and attendance ($r = -.342$, $\alpha = .000$); (b) little if any correlation and statistical significance with cumulative GPA and disciplinary referrals ($r = -.287$, $\alpha = .003$); (c) moderate positive correlation and statistical significance with cumulative GPA and PSAT scores ($n = 23$, $r = .596$, $\alpha = .003$); (d) high positive correlation and statistical significance with cumulative GPA and SAT scores ($n = 21$, $r = .889$, $\alpha = .000$), and (e) low positive correlation and statistical significance with attendance and disciplinary referrals ($r = .366$, $\alpha = .000$).

*Students participating in one sport.*

The data analyses of students with one athletic participation (N = 97) is depicted in Appendix E, Table E11, and showed: (a) low negative correlation and statistical significance with cumulative GPA and attendance ($r = -.347$, $\alpha = .001$); (b) low negative correlation and statistical significance with cumulative GPA and disciplinary referrals ($r = -.404$, $\alpha = .000$); (c) low positive correlation and statistical significance with attendance and disciplinary referrals ($r = .457$, $\alpha = .000$); (d) high positive correlation and statistical significance with PSAT scores and cumulative GPA ($n = 25$, $r = .718$, $\alpha = .000$), and (e)

high positive correlation and statistical significance with SAT scores and cumulative GPA ($n = 25$, $r = .787$, $\alpha = .000$).

*Students participating in two sports.*

The data analyses of students with two athletic participation ($N = 102$) is depicted in Appendix E, Table E12, and showed: (a) low negative correlation and statistical significance with cumulative GPA and attendance ($r = -.206$, $\alpha = .037$); (b) low negative correlation and statistical significance with cumulative GPA and disciplinary referrals ($r = -.349$, $\alpha = .000$); (c) high positive correlation and statistical significance with cumulative GPA and PSAT scores ($n = 26$, $r = .774$, $\alpha = .000$), and (d) moderate positive correlation and statistical significance with SAT scores and cumulative GPA ($n = 18$, $r = .637$, $\alpha = .004$).

*Students participating in three sports.*

The data analyses of students with three athletic participation ($N = 36$) is depicted in Appendix E, Table E13, and showed: (a) low negative correlation and statistical significance with cumulative GPA and disciplinary referrals ($r = -.465$, $\alpha = .004$), and (b) high positive correlation and statistical significance with PSAT scores and cumulative GPA ($n = 8$, $r = .922$, $\alpha = .001$).

*Students participating in zero sports by gender.*

Zero athletic participation by gender (Males, $N = 46$, Females, $N = 62$) is depicted in Appendix E, Table E14, and showed: (a) high positive correlation and statistical significance with male SAT scores and cumulative GPA ($n = 7$, $r = .757$, $\alpha = .049$); (b) moderate positive correlation and statistical significance with female PSAT scores and

cumulative GPA (n = 15, r = .654, α = .008); (c) very high positive correlation and statistical significance with female SAT scores and cumulative GPA (n = 14, r = .943, α = .000); (d) moderate negative correlation and statistical significance with female attendance and cumulative GPA (r = -.512, α = .000); (e) low positive correlation and statistical significance with female attendance and disciplinary referrals (r = .482, α = .000), and (f) little if any correlation and statistical significance with female disciplinary referrals and cumulative GPA (r = -.297, α = .019).

*Students participating in one sport by gender.*

One athletic participation by gender (Males, N = 40, Females, N = 57) is depicted in Appendix E, Table E15, and showed: (a) high positive correlation and statistical significance with male cumulative GPA and PSAT scores (n = 9, r = .813, α = .008); (b) moderate positive correlation and statistical significance with male cumulative GPA and SAT scores (n = 12, r = .629, α = .008); (c) low negative correlation and statistical significance with male cumulative GPA and attendance (r = -.328, α = .039); (d) low negative correlation and statistical significance with male cumulative GPA and disciplinary referrals (r = -.348, α = .028); (e) moderate positive correlation and statistical significance with male disciplinary referrals and attendance (r = .535, α = .000); (f) high positive correlation and statistical significance with female cumulative GPA and PSAT scores (n =16, r = .703, α = .002); (g) high positive correlation and statistical significance with female cumulative GPA and SAT scores (n = 13, r = .884, α = .000); (h) low negative correlation and statistical significance with female cumulative GPA and attendance (r = -.362, α = .006); (i) low negative correlation and statistical significance with female cumulative GPA and disciplinary referrals (r = -.447, α = .000); (j) low

negative correlation and statistical significance with female attendance and PSAT scores ($n = 16$, $r = -.542$, $\alpha = .030$), and (k) low positive correlation and statistical significance with female attendance and disciplinary referrals ($r = .418$, $\alpha = .001$).

*Students participating in two sports by gender.*

Two athletic participation by gender (Males, N = 56, Females, N = 46) is depicted in Appendix E, Table E16, and showed: (a) high positive correlation and statistical significance with male cumulative GPA and PSAT scores ($n = 17$, $r = .715$, $\alpha = .001$); (b) low negative correlation and statistical significance with male cumulative GPA and disciplinary referrals ($r = -.300$, $\alpha = .025$); (c) high positive correlation and statistical significance with female cumulative GPA and PSAT scores ($n = 9$, $r = .880$, $\alpha = .002$); (d) low negative correlation with female cumulative GPA and attendance ($r = -.363$, $\alpha = .013$), and (e) low negative correlation with female cumulative GPA and disciplinary referrals ($r = -.332$, $\alpha = .024$).

*Students participating in three sports by gender.*

Three athletic participation by gender (Males, N = 26, Females, N = 10) is depicted in Appendix E, Table E17, and showed: (a) very high positive correlation and statistical significance with male cumulative GPA and PSAT scores ($n = 6$, $r = .919$, $\alpha = .010$); (b) low negative correlation and statistical significance with male cumulative GPA and attendance ($r = -.431$, $\alpha = .028$); (c) moderate negative correlation and statistical significance with male cumulative GPA and disciplinary referrals ($r = -.521$, $\alpha = .006$), and (d) no level of statistical significance with student engagement variables were found for females who participated in three athletic sports.

*Research Question 3*

Research question 3 was: What influence does unilateral athletic concentration in one sport have on academic achievement and collegiate scholarship attainment?

Unilateral athletic participation by Grade 12 students (N = 29) and correlation analyses and level of statistical significance between the student engagement variables showed generally very high positive associations with cumulative GPA, PSAT scores, and SAT scores especially among females (n = 16), and more moderate to high correlation and statistical significance for males (n = 13). When disciplinary referrals and attendance were included, no conclusive evidence was found to determine that one gender did far better than the other gender. No conclusive evidence showed that unilateral athletic participation contributed to scholarship attainment, but it was determined that females (n = 3) did receive some sort of partial academic or athletic scholarship attainment for their efforts, while males received zero attainment. Individual correlation outputs are as follows:

*Unilateral sport participation and scholarship attainment.*

The frequency of one athletic sport participation (N = 97) is depicted in Appendix E, Table E18. Data shows (Males, n = 57, Females, n = 40) participated in one athletic sport, and that grade 12 participation (Appendix E, Table E19) accounted for 30 percent of all unilateral athletes (n = 29) who were eligible for athletic scholarships.

Data analysis of Grade 12 student eligible for athletic scholarship attainment and unilateral in athletic participation (Males, N = 13, Females, N = 16) is depicted in Appendix E, Table E20 and showed: (a) moderate correlation and statistical significance with male SAT scores and cumulative GPA of non-scholarship athletes (n = 12, r = .629,

$\alpha = .028$); (b) high correlation and statistical significance with male cumulative GPA and disciplinary referrals ($r = .761$, $\alpha = .002$); (c) high correlation and statistical significance with female SAT scores and cumulative GPA of non-scholarship athletes ($n = 10$, $r = .890$, $\alpha = .001$); (d) moderate positive correlation and statistical significance with female disciplinary referrals and attendance ($r = .665$, $\alpha = .013$); and (e) no level of statistical significance with student athletes who received athletic scholarships (Males, $N = 0$, Females, $N = 3$) and any student engagement variables correlated in the present study. DOA data, however, did show that all female student athletes who received, or were offered partial athletic scholarships ($n = 3$) for Fall 2009 also included academic or financial assistance to participate on the collegiate level.

## Qualitative Data Analysis Protocols

Qualitative data were analyzed from pilot tested and peer reviewed interview questions, direct observations, access to documents such as budgets, compliance issues, and product evaluation of mission statements and outcomes of the DOA. Interview protocols for athletic coaches/school administrators and student athlete leaders were based on theory-driven triangulated methodology presented in Chapter II, and previously discussed in depth in Chapter III. McCarthy (2007a, 1980) used leadership and management theory to produce the 4MAT Organization matrix as earlier depicted in Table 1 and Figure 2. Bolman and Deal (2003) theorized organizations in four frameworks as depicted in Table 2 and Figure 1.

*Interview Protocols for Qualitative Data*

Eight combined athletic coaches who are also teachers in the district and/or school administrators, and eight student athlete leaders (N = 16) identified, but not limited to team captains, involved in community service, or demonstrated academic achievement as provided by the Director of Athletics, comprised the voluntary interview participants.

*Response Rate of Interview Instruments*

The Institutional Review Board (IRB) of Seton Hall University approved the present study interview protocols in January 2009. All IRB forms and permission letters are depicted in Appendix C. Afterward, 12 athletic coaches/school administrators were solicited to voluntarily participate in the approximate 1-hour interview session. In a separate mailing, 24 parents/guardians were solicited to allow the researcher to approach their student-athlete leader son/daughter to voluntarily participate in the approximate one-hour interview session. Response rates showed eight of 12 (67%) of athletic coaches/school administrators chose to voluntarily participate in the interview protocols. Response rates showed eight of 24 (33%) of student athlete leaders chose to voluntarily participate in the interview protocols.

*Research Questions 4 and 5*

The fourth research question in the present study, and the first that focused on qualitative data analysis was: How does the DOA function from a theoretical framework of structure, human resource allocation, community relations (the greater political sphere), and in a symbolic nature? The fifth research question, and the second that focused on qualitative data analysis was: What leadership, management, or policy

initiatives are in place to support student athletes in the DOA? Research questions four and five were combined during the interview protocols with all athletic coaches/school administrators and student athlete leaders.

*Data analysis of interview responses from athletic coaches/school administrators.*

Four guiding interview questions (see Appendix D, Table D1) for athletic coaches/school administrators (n = 8) were asked during a 1-hour session. Audiotape transcripts were sent by mail in a timely manner to all participants who chose that option, providing member checks and a feedback form to add, delete or modify any discussions that emerged. Each voluntary interview participant was provided a self-addressed stamped envelope to return to this researcher any modifications.

*Responses/themes from athletic coaches/school administrators for question 1.*

Question 1 was: What are your experiences with the DOA as an athletic coach or school administrator? All eight adult interviewees were either athletic head or assistant coaches in the district, some in multiple sports, or school district administrators. One respondent said, "...but the good part about this school is that academically...our kids do very well to begin with. Between all four [major] sports with the exception of one kid [was] eligible." Another stated, "I have work closely with the Athletic Director in looking at student eligibility, student performance, student involvement. We have also begun looking closely at a school district bullying and hazing policy and we have instituted training for all of our head coaches to be able to better identify it and address it as issues surface." One interview participant suggested that working in athletics is positive and negative at times because of the maturity level of the students and sometimes working

with difficult parents who always side with their child. Another interviewee felt that the AD listens to you as a coach regarding such issues as cutting kids from teams, equipment needs, and general policy. One respondent said that since being here in this school district, "athletics play a very important role in this community, and are part of the culture."

The data collected from interview question 1 of athletic coaches/school administrators concerning experience in the DOA showed that: (a) the experiences of the participants were generally positive because of the leadership role taken by school officials in communication between stakeholders; (b) bully and hazing by older student athletes over younger student athletes was occurring and needs to be addressed further in the policy realm; (c) the AD is competent leader who is approachable and efficient in his responsibilities; (d) some management concerns arose from a minority of participants about parental intrusions, staff turnover, and administrative apathy; (e) the academic policy for athletic participation was clearly communicated to all stakeholders, and (f) school policy deems academics first, and athletics second, but the two combined are important to the school district overall. Table 10 outlines guiding interview question number one dominant themes, occurrences, educational realm, theoretical framework, and connection to the research question(s) associated with the purpose of the study.

Guiding interview question 2 asked of all athletic coaches/school administrators was: Multiple theories exist about how organizations can function. What are your experiences with: (a) How the DOA is structured to assist athletes with academic achievement; (b) How school leaders and teachers assist athletes with academic

Table 10

*Responses to question 1: Experiences in the Department of Athletics (DOA)*

| Dominant themes | Occurrences (30 overall) | Educational realm | Theoretical framework | Research question(s) |
|---|---|---|---|---|
| Coaches have positive rapport with athletes, coaches, and DOA | 5 | Leadership | Human resource allocation (HRA) | 5, 6 |
| Staff changes affect closeness with athletics | 1 | Leadership | HRA | 5, 6 |
| Parents tend to speak at coaches, not with them | 1 | Leadership | Community relations (CR) | 5 |
| Bullying/hazing policies important | 3 | Policy | Structural | 6 |
| Athletic Director (AD) accessible/competent | 7 | Leadership Management | HRA | 5, 6 |
| Academics and athletics are symbiotic | 2 | Policy | Structural | 5 |

Table 10 (continued)

| Dominant themes | Occurrences (30 overall) | Educational realm | Theoretical framework | Research question(s) |
|---|---|---|---|---|
| Knowledge of credit policy to participate | 5 | Policy | Structural | 6 |
| Vice Principal (VP) directs compliance with Guidance, & AD | 6 | Leadership Management | Structural | 6 |

Note: Data collected from athletic coaches/school administrators (n = 8).

achievement; (c) How are community relationships fostered, and (d) What symbolic activities are used to identify success in the DOA?

*Responses/themes from athletic coaches/school administrators for questions 2A/2B.*

One athletic coach/school administrator stated, "[the] DOA assists with academics…but there is not a strong enough structure or culture to assist athletes with academics, there is too much of a separation…too much of a detachment." Eight athletic coaches/school administrators were aware of the academic compliance of athletes through the required credits as outlined by the NJSIAA, but one respondent stated, "It bothers me that we [the school district] only go to the minimum." Three interviewees felt that athletics helped students organize their time, and many did better academically in season. Another respondent suggested that parental conferences might be in order to better track academics overall, not just for athletes. One participant felt that parents should be part of any athletic committee structure in the district as stakeholders. Two athletic coaches/school administrators acknowledged that the Vice Principal and AD worked closely to comply with NJSIAA credit standards for student athletes, but suggested that special programs to assist are minimal, and that a No Pass/No Play policy might be needed. One interviewee stated, "I think the biggest resource that teachers have is their time and teachers will provide that time in terms of extra help in assisting students."

The data collected from interview questions 2A and 2B of athletic coaches/school administrators concerning the structure of academic support and how school leaders and teachers assist student athletes showed that: (a) clear knowledge and enforcement was in

place of the credit requirement policy for student athlete participation; (b) policy concerns were expressed about the rigor of the credit requirements, and that reforms should be made; (c) policy procedures to assist academically ineligible athletes were not clear, or non-existent; (d) extra help and tutoring policies were always available for all students; (e) coaching policies allowed athletes to complete academic projects by leaving early or coming late to practice, and (f) effective communication existed by the coaches about academic and team policies during the pre-season. Table 11 outlines guiding interview question 2A and 2B dominant themes, occurrences, educational realm, theoretical framework, and connection to the research question(s) associated with the purpose of the study.

*Responses/themes from athletic coaches/school administrators for question 2C.*

One athletic coach/school administrator suggested that community fostering was assisted by booster clubs and a "...community farm team structure that is run through the borough administration, and they have for example, the junior football, they have lacrosse teams, they have some teams that we do not have in the high school yet, but they support us by having the younger kids being engaged in athletics as a community wide effort." Another respondent suggested that community involvement is at an all-time high because of the efforts by the AD in raising funds for the weight room, and the tournament supporting breast cancer research. Two respondents mentioned a high level of volunteerism in the town, and one participant suggested that athletes should do community service like other school districts because it also increases attendance at games. Another interviewee believed that the pride the athletes have felt while playing athletics in a small town like the one in the present study has enabled the people in the

Table 11

*Responses to question 2A and 2B: Structure of academics and athletics in the DOA*

| Dominant themes | Occurrences (24 overall) | Educational realm | Research question(s) |
|---|---|---|---|
| Academic rules enforced | 8 | Policy | 5, 6 |
| Credit policy too weak | 2 | Policy | 6 |
| School leaders reactive | 2 | Leadership | 6 |
| No Pass/No Play rules needed | 2 | Policy | 6 |
| Eligibility enacted by Guidance/VP | 2 | Leadership | 6 |
| No procedures for ineligible athletes | 2 | Leadership | 6 |
| Extra help by appointment | 2 | Leadership | 5, 6 |
| Coaches cover academic requirements in pre-season | 4 | Leadership Policy | 5, 6 |
| Athletes leave early/come late to practice for extra help | 5 | Policy | 5, 6 |

Note: Data collected from athletic coaches/school administrators (n = 8).

Theoretical framework dominated by Structural assumptions.

community to naturally connect to the teams the district sponsors stating, "at that point, the wins take care of themselves." One participant felt that parents used athletics to connect to the community, but that they needed to be involved more stating, "I don't think there is enough nurturing of the kids." Another respondent suggested that the local media had much to do with bridging the gap between the school and the town by covering athletics, interviewing athletes and coaches, and generally publishing positive articles about the community as a whole stating,"...there's a lot of community involvement; there is a lot of overlapping between the community and the school and the local media. It's great. In this area there is the local community paper that has a lot of articles...about the recreational programs and it moves up all the way up to the high school programs."

The data collected from interview question 2C of athletic coaches/school administrators concerning community relations showed that: (a) a strong and involved community presence has aided the school athletic program; (b) relations with the towns-people is at an all-time high due in part to the leadership efforts of the AD in seeking out community support and financial assistance; (c) the local media has played a pivotal role in supporting the Athletic Department through press coverage and newspaper articles, and (d) clinics sponsored by individual athletic teams in the district have helped the recreational programs in player development and interest in the high school teams. Table 12 outlines guiding interview question number 2C dominant themes, occurrences, educational realm, theoretical framework, and connection to the research question(s) associated with the purpose of the study.

Table 12

*Responses to question 2C: Community fostering in the DOA*

| Dominant themes | Occurrences (31 overall) | Educational realm | Research question(s) |
|---|---|---|---|
| Individual Booster Clubs hurt teams without one | 2 | Policy | 6 |
| Parents use athletics to connect to community | 2 | Leadership | 5 |
| Athletics are town-wide events | 6 | Leadership | 5 |
| Technology publicizes athletics | 3 | Policy | 5, 6 |
| Homecoming Parade | 3 | Leadership | 5, 6 |
| Breast cancer tourney | 7 | Leadership | 5, 6 |
| Raffles/fundraisers | 3 | Management | 5 |
| Clinics held for town leagues | 2 | Leadership | 5 |
| HS coaches attend middle school/recreational games/events | 2 | Leadership | 5, 6 |

Note: Data collected from athletic coaches/school administrators (n = 8). Theoretical framework dominated by Community Relations (CR) or greater political sphere.

*Responses/themes from athletic coaches/school administrators for question 2D.*

One athletic coach/school administrator suggested that symbolic activities were more in terms of banners posted in the gymnasium honoring good sportsmanship, team championships, and advertisements of the breast cancer awareness tournament. A second interviewee suggested that the banner program is one of the strongest activities in the district because many times graduates come back and go directly to the gymnasium to see the banners and their teams recognized. One respondent suggested that watching the kids play together as a cohesive unit over the years showed symbolism in the DOA stating, "I think getting the kids to come together and be able to work as one unit towards a common goal, obviously of winning…look at the percentage of kids who are enrolled in athletics or extracurricular activities, we're consistently over 80% of our student population being involved in some form of an extracurricular activity." Another respondent suggested that the annual award for the top male and female athlete signifies a great part of the symbolism vetted by the DOA. One athletic coach/school administrator felt that the e-mail newsletter provided recognition for many of the athletes would do not get the same coverage from the local media. The data collected from interview question 2D of athletic coaches/school administrators concerning symbolic activities celebrating athletics showed that: (a) the banner program in the gymnasium was very important to the current students and returning alumni; (b) the Hall of Fame program and newly renovated trophy cases were important symbolic gestures by the district in capturing past greatness of teams and individual players; (c) the award ceremonies three times a year are important functions recognizing athletic accomplishments of teams and individuals, and (d) the BOE has done fine work in recognizing the Athletic Department during their end

of the year meeting in June. Table 13 outlines guiding interview question number 2D dominant themes, occurrences, educational realm, theoretical framework, and connection to the research question(s) associated with the purpose of the study.

*Responses/themes from athletic coaches/school administrators for questions 3A/3B.*

Guiding interview question 3 asked of all athletic coaches/school administrators was: Which statement is more factual of the DOA? (a) Coaches and administrators focus on championship attainment, statistical accumulation, and individual recognition, or (b) Coaches and administrators believe that athletic participation strengthens academic achievement, outweighing team or individual honors during competition. Why so?

Five athletic coaches/school administrators suggested that some elements of both statements were evident in the DOA. One participant felt uncomfortable picking an either or scenario stating, "The coaches and administrators believe that athletic participation strengthens both academic and human achievement." Another respondent stated, "...we really try to push that [a] philosophy [that] is a family-type atmosphere." One interviewee strongly stated:

> It's definitely not the first one [3A]. I can only speak for myself...our Athletic Director, he is not concerned about championships and you know if it happens great, and the funny thing is he doesn't harp on it but it happens. You know our last two or three seasons several of the teams have been very successful in terms of getting you know, far within the tournaments. But sports allow you to win and lose without really suffering any true consequences...as kids get older when they

Table 13

*Responses to question 2D: Symbolic activities in the DOA*

| Dominant themes | Occurrences (38 overall) | Educational realm | Research question(s) |
|---|---|---|---|
| Awards banquet | 7 | Policy | 5, 6 |
| Hall of Fame and trophy cases updated | 4 | Leadership | 5, 6 |
| Banner program promotes school spirit | 8 | Policy | 5, 6 |
| BOE championship team recognition | 7 | Policy | 6 |
| Thanksgiving football game | 3 | Policy | 5 |
| WEB communication | 3 | Policy | 6 |
| District/community newspapers cover athletics | 6 | Leadership | 5 |

Note: Data collected from athletic coaches/school administrators (n = 8). Theoretical framework dominated by symbolic activities.

become seniors they understand that the hard work that they have achieved on the field does transfer into the classroom or vice versa. It is a personality trait not necessarily that athletics is going to make you a better student.

Another respondent stated, "We are firm believers that…academics comes before athletics." Another interviewee reaffirmed his/her own experiences stating, "...I think that it has a lot to do with academic achievement being in a sport."

The data collected from interview questions 3A and 3B of athletic coaches/school administrators concerning the philosophy of the Athletic Department showed that: (a) some elements of both philosophies existed in the DOA, but the AD, teachers, and school leaders have stressed the policy of academics over athletics; (b) some parents push for individual recognition in the hope of obtaining an athletic scholarship, but that belief is a minority view, and (c) leadership development of student athletes and the competitive nature of sports is emphasized by district coaches outweighing individual recognition or championship attainment. Table 14 depicts dominant themes, occurrences, educational realm, theoretical framework, and connection to the research question(s) associated with the purpose of the study.

Table 14

*Responses to questions 3A and 3B: Philosophy of the DOA*

| Dominant themes | Occurrences (19 overall) | Educational realm | Theoretical framework | Research question(s) |
|---|---|---|---|---|
| Suggestion that "3B" is evident | 2 | Leadership<br>Policy | Structural | 6 |
| Suggestion that "3A" and"3B" are evident | 5 | Policy | Structural | 5, 6 |
| Should be "3B", but athletes/parents anticipate scholarships, skewing team dynamics | 1 | Leadership | Structural<br>CR | 6 |
| Leadership activities improve team dynamics | 2 | Leadership | Structural<br>Symbolic | 5, 6 |
| Nature of athletics is competition; important for time management | 2 | Leadership<br>Management | Structural<br>HRA | 6 |

(table continues)

Table 14 (continued)

| Dominant themes | Occurrences (19 overall) | Educational realm | Theoretical framework | Research question(s) |
|---|---|---|---|---|
| Athletics promote participation and well-rounded people | 3 | Leadership | Symbolic | 5 |
| Some athletics are naturally individualistic | 2 | Management | Structural | 5 |
| Athletes empathize with success and failure | 2 | Leadership | HRA | 5 |

Note: Data collected from athletic coaches/school administrators (n = 8).

Guiding interview question 4 asked of all athletic coaches/school administrators was: Theories exist about how different learning styles can influence leadership and management decisions in organizations. What experiences have you had in the DOA with: (a) academic compliance of athletes; (b) building community relations; (c) criteria to evaluate and celebrate success in athletics beyond team championships, statistical accumulation, and/or individual recognition, and (d) the conditions of athletic facilities?

*Responses/themes from athletic coaches/school administrators for question 4A.*

Two athletic coaches/school administrators suggested that while the compliance policy allows some student to participate despite failing one course, it should not be changed. This researcher asked a follow-up question in regard to the academic compliance policy: "So, in your opinion, do you think there should be a policy of if you fail you should not play?" The interviewee responded:

> Actually, to be honest with you I'm totally the opposite. I have a big problem where if you think a kid is going to fail two classes, not play a sport and go home and study from three to nine, I think you're not looking at the picture. I think the kid should play or should be put on probation or something, but now you're making the kid ineligible, what is he going to do in that spring season. He is not going to go home and study. He's not studying anyhow. You almost need him to run track or be on baseball and then the coach says you're going to leave early or going to come late to show me an improvement by the third marking period. What we do now in the State is, you are ineligible, and you're done. Okay, well guess what? I am going on a street corner because I don't care about school anyhow.

One respondent suggested that the collegiate level has influenced the high school level in terms of academic compliance. The interviewee strongly stated, "I think this school is totally compliant." Another respondent believed that academic compliance and athletic participation should be intertwined stating, "...the previous district that I came from, it [athletic eligibility] was tied to a certain extent to discipline in that we worked on the point system. So kids accumulated points for discipline and infractions, and once you reached for example, 15 points, you were two days after school detention. While you were serving those two days you could not participate [in athletics]."

The data collected from interview question 4A of athletic coaches/school administrators concerning academic compliance issues of student athletes showed that: (a) the Athletic Department, and specifically the coaches were proactive in communicating with student athletes about rules to participate, and (b) athletes by BOE policy can fail one course and still remain eligible for athletics. Table 15 depicts guiding interview question 4A dominant themes, occurrences, educational realm, theoretical framework, and connection to the research question(s) associated with the purpose of the study.

*Responses/themes from athletic coaches/school administrators for question 4B.*

Responses by the interviewees to improve community relations ranged from policy initiatives about bullying/hazing issues, to more parental involvement in alumni activities such as the homecoming parade and seasonal pep rallies. One interviewee suggested that any alternative criteria to evaluate the DOA should include bullying and harassment, and part of the new locker room renovation was due to the bullying that occurred in the past, stating, "other districts have clearly defined policies against hazing."

Table 15

*Responses to question 4A: Academic compliance in the DOA*

| Dominant themes | Occurrences (18 overall) | Educational realm | Theoretical framework | Research question(s) |
|---|---|---|---|---|
| Coaches aware and told of policies by AD, Guidance, and/or VP | 8 | Leadership Policy | Structural HRA | 6 |
| Coaches talk to athletes about eligibility rules | 4 | Leadership | Structural | 5 |
| Compliance policy allow students to fail one course in some situations | 4 | Policy | Structural | 5, 6 |
| Failure(s) in class(es) should not bar students from athletic participation | 2 | Policy | Structural | 5, 6 |

Note: Data collected from athletic coaches/school administrators (n = 8).

One athletic coach/school administrator felt that the annual alumni game in their sport has generated enthusiasm among the community, and even spawned several other feeder games during the year between fellow graduates. One athletic coach/school administrator said the school district has instituted a community round table to generate ideas by inviting parents in with topic related forums and a question and answer period. Another athletic coach/school administrator felt that the district does little to encourage parents to proactively participate in their child's athletic experiences.

The data collected from interview question 4B of athletic coaches/school administrators concerning building community relations showed that: (a) some issues were raised about not enough parental involvement supporting student athletes; (b) increased bullying and hazing prevention policies are needed in the district due to the increased complaints from parents; (c) the pep rallies were important activities for the community to get information about athletic teams, and (d) Homecoming Weekend should not focus on football, but celebrate all sports. Table 16 depicts guiding interview question 4B dominant themes, occurrences, educational realm, theoretical framework, and connection to the research question(s) associated with the purpose of the study.

*Responses/themes from athletic coaches/school administrators for question 4C.*

This researcher found partial alternative criteria from the interview protocols to evaluate success in the DOA. Six athletic coaches/school administrators acknowledged that the DOA is lacking in this area, and the issue needs to be addressed at some point.

Table 16

*Responses to question 4B: Building community relations in the DOA*

| Dominant themes | Occurrences (14 overall) | Educational realm | Theoretical framework | Research question(s) |
|---|---|---|---|---|
| Need for increased parental involvement | 2 | Leadership | CR | 6 |
| Bullying/Hazing deemed important, preventable | 3 | Policy | Structural CR | 6 |
| Football focus of homecoming, should advance all sports | 1 | Leadership | CR Symbolic | 5, 6 |
| Pep rallies promote enthusiasm | 3 | Leadership | CR Symbolic | 5 |
| Some athletes go to parochial schools for greater exposure | 2 | Leadership Management | CR Symbolic | 6 |
| Open door policy for town league coaches to visit | 1 | Leadership | CR | 5 |
| BOE provides fan bus | 2 | Policy | CR | 5, 6 |

Note: Data collected from athletic coaches/school administrators (n = 8).

Three respondents mentioned that the coaches' award recognizes athletes who are not the best players, but do the little things for the team such as: (a) mentoring younger players; (b) always assisting with equipment set-up and cleanup; (c) showing a positive/supportive attitude in time of difficulty, and (d) always presenting a good effort at every game or practice. Two participants mentioned the value of the scholarship award for athletes during the annual banquet.

The data collected from interview question 4C of athletic coaches/school administrators concerning alternative criteria to evaluate success in the DOA showed that: (a) such policies, procedures, or benchmarks do not exist, and (b) individual athletes are awarded scholarship money through local businesses or traditional non-profit organizations. Table 17 depicts guiding interview question 4C dominant themes, occurrences, educational realm, theoretical framework, and connection to the research question(s) associated with the purpose of the study.

*Responses/themes from athletic coaches/school administrators for question 4D.*

Conditions of facilities showed that seven athletic coaches/school administrators had tremendous praise for the work of the maintenance department, and the strict policies of the DOA to maximize the best possible game day field conditions. One respondent suggested that the lack of space is a North Jersey dilemma, and that nothing really could be done other than general up keep, maintenance, and fixing safety issues as they arise.

One athletic coach/school administrator felt that more size for rehabilitation

Table 17

*Responses to question 4C: Alternative criteria to evaluate success in the DOA*

| Dominant themes | Occurrences (13 overall) | Educational realm | Theoretical framework | Research question(s) |
|---|---|---|---|---|
| Knowledge lacking or policies non-existent to alternatively evaluate success | 6 | Policy | Structural | 5, 6 |
| Scholarship Committee | 2 | Policy | Structural Symbolic | 6 |
| Highest team GPA should be recognized by BOE | 1 | Policy | Structural Symbolic | 6 |
| Evaluation of coaches by AD exists, none for athletes | 2 | Policy | HRA | 5, 6 |
| Coaches hold year-end reviews with athletes and promote summer programs | 2 | Leadership Management | Structural | 5, 6 |

Note: Data collected from athletic coaches/school administrators (n = 8).

type things such as bikes for athletes were necessary. One interviewee felt the school district is the hub of the community, but "...we lack indoor facilities for practices. Our youth organization is in our gym until 10 o'clock at night during the winter with midget and peewee basketball games." Another athletic coach/school administrator noted that a long-range facility plan is in the works, but a year or so away from being proposed or implemented. One interviewee stated:

> We do the general maintenance on the [town] fields. Our maintenance and custodial crew work to maintain the fields. I don't know if we are the primary caretakers of that or not, but I know that we contribute a fair amount. We do not have lights on our football field, and we have old bleachers in our gym. We tried to get them replaced last year...we did it as a second question, but the election procedures changed last year, so that for the first time for a second question to pass you had to have a 60%. We were 11 votes short.

The data collected from interview question 4D of athletic coaches/school administrators concerning the conditions of indoor/outdoor facilities showed that: (a) the maintenance department do a fine job keeping the grounds and buildings safe and fun to play or watch games; (b) the town and school district have forged a positive, working relationship to benefit all stakeholders, and (c) a long-term plan for research and development of indoor/outdoor upgrades would assist in cost savings and provide a state of the art facility. Table 18 depicts guiding interview question 4D dominant themes, occurrences, educational realm, theoretical framework, and connection to the research question(s) associated with the purpose of the study.

Table 18

*Responses to question 4D: Indoor and outdoor facilities in the DOA*

| Dominant themes | Occurrences (51 overall) | Educational realm | Theoretical framework | Research question(s) |
|---|---|---|---|---|
| Outdoor facilities | 29 | -- | -- | 5, 6 |
| Poor layout limits expansion | 4 | Management | Structural | 5 |
| Want lights on football field | 4 | Leadership | Structural | 5 |
| Need field house, bathrooms | 3 | Policy | Structural | 5 |
| Multi-purpose field would provide 21st Century facility | 5 | Management | Structural | 5 |
| Maintenance/AD efficient | 7 | Leadership | HRA | 5, 6 |
| Relationship positive with town DPW, Mayor/Council | 4 | Leadership | CR | 5, 6 |
| Town fields ease scheduling | 2 | Management | HRA | 5, 6 |
| Indoor facilities | 22 | -- | -- | 5, 6 |
| Weight room/lockers updated | 11 | Leadership | Structural | 6 |
| Both gymnasiums adequate | 3 | Management | Structural | 5, 6 |
| Bleachers unsafe, not ADA | 7 | Policy | Structural | 5, 6 |
| Larger rehabilitation room | 1 | Leadership | Structural | 6 |

Note: Data collected from athletic coaches/school administrators (n = 8).

Data Analysis of Interview Responses from Student Athlete Leaders

Four guiding interview questions (see Appendix D, Table D2) for student-athlete leaders (n = 8) were asked during an approximate 1-hour interview session. Audiotape transcripts were sent by mail in a timely manner to all participants who chose that option, providing member checks and a feedback form to add, delete or modify any discussions that emerged. Each participant was provided a self-addressed stamped envelope to return to this researcher any modifications.

Question 1 was: Share your experiences as a student athlete in the DOA. What drives students to participate in athletics?

*Responses/themes from student athlete leaders for question 1.*

Question 1 asked student athlete leaders about their experiences and motivations to participate in high school athletics. One student athlete strong emphasized the importance of athletics in his life stating:

> My overall experience has been successful and a lot of fun. Athletics is a big part of who I am and what I do. It's a big reason of why – it's what I look forward to after school. It's pretty much the only reason why I would want to stay in school. School pride is a big part of it. You want to represent your community and your school, you know in a good way. Another would probably be to get your name you know, so people know who you are.

One student athlete suggested that athletics were a way to manage time better with academics stating:

> I do better when I play sports because I don't procrastinate as much…I come home at 5 o'clock and I know from five to eleven I got six hours to get all my

> work done, and when I come home at three when I don't have sports…I'll go sit and watch TV and this and that. So it's a lot better and also [I] just like the competition. You know you want to win; you want to be the best, so you always have to strive to do the best…after a bad and long day of school it's always relaxing to just go play baseball or kick a soccer ball around. It's a stress reliever. Being smarter in school also helps what you do on the field. You have a smarter brain. You think before you do things.

One student athlete suggested that because of the small and tight knit community of the school district in the present, athletics have thrived in that environment. One student athlete said, "It [athletic participation] has all been really fun, our teams haven't been the best with records and everything, but it's all about the team attitude and having fun as a team. So, I find that more important than wins and losses." Another participated strongly stated:

> Basically I think being a student athlete is probably the best thing that you could do in your high school career. It is so much better than just maybe working or just being all that academic because I know right now that I am not doing a sport, and I kind of regret it, but like I'm kind of getting ready for college. But I could just see that I'm not in the best shape. A lot of my friends are usually at three sports. I'll just say even though there's up and downs in each sport, you could have fights with coaches, teammates, you look back at it after your high school and you would regret it if you didn't get involved with sports.

Another student athlete leader felt that participation was important because it created a family-like atmosphere over the last 4 years of high school.

Two interviewees suggested that the love of competition motivated athletes to participant in team and individual sports. Another student athlete who pondered for some time at the end of the interview stated, "I feel like I left out how important our sportsmanship is here. We really focus on being good sportsmanship all the time, like no matter what happened the last time we played a team [there were no fights or anything]. Everybody is so into being good sportsmanship. Look at all our banners" [interviewee pointing to the gymnasium]. Another student athlete paused, and passionately stated:

> Well through my experiences I have just had a great experience. It's made my high school career academically and athletically, because sometimes in athletics you know you kind of lose your confidence and then you could go back in the classroom and you can gain it back up but you have more confidence in athletics and it could be the reverse way around. You're really great in this one sport and it can just give you so much more confidence to do that much better in school and it's basically done that because I haven't been that confident in my life and everything and basically sports and school, mostly sports just lifted me up and kind of made me a better athlete, better person inside and out of school. It's been a great experience.

The data collected from interview question 1 of student athlete leaders concerning individual experiences and motivations to participate in athletics showed that: the passion to compete and team dynamics such as bonding and socializing were important reasons to participate in sports. Table 19 depicts guiding interview question one dominant themes, occurrences, educational realm, theoretical framework, and connection to the research question(s) associated with the purpose of the study.

Table 19

*Responses to question 1: Experiences and motivations to participant in athletics*

| Dominant themes | Occurrences (10 overall) | Educational realm | Theoretical framework | Research question(s) |
|---|---|---|---|---|
| Bonding occurs at team camps | 1 | Leadership | Structural | 5 |
| Athletes participate because of natural skill, fitness needs, competition, family-type climate, and team dynamics | 6 | Leadership Policy | Structural Symbolic HRA | 5 |
| Athletics identifies who am I | 1 | Leadership | HRA | 5 |
| Athletes participate because of knowledge, experience and passion of coaches and AD | 2 | Leadership | Structural HRA | 5, 6 |
| School spirit motivates athletes to play and compete | 1 | Leadership | Symbolic | 5, 6 |
| Sportsmanship important | 2 | Policy | Symbolic | 5, 6 |
| Athletes offers stress relief | 1 | Management | Symbolic | 5, 6 |

Note: Data collected from student athlete leaders (n = 8).

Guiding research question 2 asked of all student athlete leaders was: Many ideas exist about how organizations can function well. What is your knowledge about: (a) How the DOA works to help athletes with academics; (b) How coaches and administrators help the DOA function; (c) How does the community work with the school to assist high school athletics, and (d) What events celebrate the successes in the DOA?

*Responses/themes from student athlete leaders: question 2A.*

All eight interview participants mentioned in some manner, knowledge of the school district credit and grade policy, and that extra academic help by teachers is availability anytime. One of the respondents said:

> ...there are grades that students have to keep...they have to have this many credits in the year and they have to keep their grades above a certain grade level in order to participate, and I know that teams always have to put the academics first for that reason. So if you have to go for extra help, I mean the coach can't deny you that and they will not because they want you playing for them...they really try to push it so that you can do all the sports that you want to and that you are still successful in school and that you will have successful teams also.

Another student athlete said of the credit and grade policy, "I know that our school has a certain GPA a certain amount of credits that you need to be able to play sports. I know you can't be failing two classes to play sports. So, I think that helps a lot with students who play sports to keep up their grades as well as playing sports." In a follow-up question by this researcher, the student athlete acknowledged that athletes could possibly fail one course during a semester, still have enough academic credits, and maintain athletic eligibility.

Another interviewee felt that the DOA helped athletes with academics stating, "The Department of Athletics is really supportive of us and whenever we have a problem we could always go to them. They always stress grades before athletics, which I know is hard for them, but it is more important I feel for grades to be first." One participant suggested that the optional study halls during gym class once a week helped student athletes complete homework, especially on days where big games were played later that evening, but also mentioned that there was little evidence or follow-up by school leaders to actually monitor its' effectiveness, or chart who was participating on a weekly basis. Another student athlete furthered previous comments about the support from the DOA stating, "If someone is ineligible [coaches] go out of their way to help that student. They go talk to their teachers and see what they can do and [the Athletic Director] is definitely involved in a lot of this. He makes sure he talks to the teachers and tries to help them. So, I mean, since it is a small school, a lot of people know like what is going on and the teachers are willing to work with the coaches also." Another student athlete added. "Academics are always first. If you ever need to miss practice for academics, for making up a test or for special tutoring it is always fine with all the coaches." Another participant strongly emphasized that through the Guidance Department and the AD academics are monitored stating:

> I guess they help with making stressing through athletes that their grades have to be good before they can play the actual sport. They are always reminding you if you are in trouble of you know not being eligible to play. So, it really keeps us on the ball with our grades to make sure that we are performing in the classroom so that we can perform on the sports field.

One interviewee stated that the Athletic Director did a good job in accommodating several athletes including him, when the SATs interfered with a [NJ] State Tournament final by securing a new date for the test without penalty.

The data collected from interview question 2A of student athlete leaders concerning academic support provided by the DOA showed that: (a) the school district clearly defined the credit requirement policy to students who want to participate in athletics; (b) tutoring and extra help were always available for all students to access, and (c) coaches stress the importance of academics over athletics as the policy in the district. Table 20 depicts guiding interview question 2A dominant themes, occurrences, educational realm, theoretical framework, and connection to the research question(s) associated with the purpose of the study.

*Responses/themes from student athlete leaders: question 2B.*

Student athlete leaders were asked how coaches and school administrators assist the DOA to function effectively on a daily and seasonal basis. Seven student athlete leaders acknowledged that school administrators, the AD, and district coaches work well together and complete voluntary out of season responsibilities to enhance in season competition. One interviewee emphatically said, "Everyone [in the DOA] is very committed to what they do. All the coaches and the administrators of the Department of Athletics…are here all the time." One participant felt that a positive line of communication existed between coaches and administrators, and that the BOE recognizes the importance of athletics to the school and community. The student athlete stated, "…everyone has kind of a positive attitude out of the coaches and most of them are friendly so that they make it [athletics] work well. And our AD kind of makes

Table 20

*Responses to question 2A: Academic support provided by the DOA*

| Dominant themes | Occurrences (23 overall) | Educational realm | Theoretical framework | Research question(s) |
|---|---|---|---|---|
| Optional study hall provided once a week during gym class for in-season athletes | 1 | Policy | Structural | 6 |
| Extra help available to all students | 7 | Leadership | Structural | 6 |
| Credit requirements emphasized by all school personnel and coaches | 8 | Policy | Structural | 6 |
| Coaches push academics and athletics, and provide time to complete homework, projects | 6 | Leadership | Structural | 5, 6 |
| Early intervention by Guidance Department solved individual academic shortfalls | 1 | Leadership | Structural HRA | 5, 6 |

Note: Data collected from student athlete leaders (n = 8).

everything happen without missing a beat even if it's bad weather, there's another town function somewhere." Another participant stressed that the Athletic Department allows students time to complete assignments, stating:

> ...if our grades are really suffering, they will tell us to take some time off from the sport and get our grades back up. Then we can start participating again. And if it's just a big homework assignment, sometimes they will let us have practice early, sometimes they will let us stay out of practice, just go home and do the work we have to do and start practice the next day.

One student athlete complimented the DOA and the AD specifically saying, "Well, I guess they just run everything they set up all the times for games and transportation for teams. Without them there wouldn't be any game, there would just be a team practicing with nowhere to go."

The data collected from interview question 2B of student athlete leaders concerning how coaches and school administrators assist the DOA to function showed that: (a) a strong bond existed between school leaders and athletic coaches to make things work effectively, and efficiently; (b) the AD is an effective leader who is knowledgeable, approachable, and competent, and (c) the philosophy of the DOA was clearly defined to allow academic achievement to thrive for students who participate in athletics. Table 21 depicts guiding interview question 2B dominant themes, occurrences, educational realm, theoretical framework, and connection to the research question(s) associated with the purpose of the study.

Table 21

*Responses to question 2B: How coaches/administrators assist the DOA to function*

| Dominant themes | Occurrences (19 overall) | Educational realm | Theoretical framework | Research question(s) |
|---|---|---|---|---|
| Booster clubs support DOA financially | 2 | Management | Structural HRA | 5, 6 |
| Coaches/school administrators work together to coordinate basic structures of athletics | 7 | Leadership Management | Structural | 6 |
| AD makes things work, accessible, friendly | 6 | Leadership | HRA | 5, 6 |
| BOE recognizes importance of athletics | 1 | Leadership | Structural CR | 5, 6 |
| DOA emphasizes homework, supports athletes who leave early/come late to practice and complete assignments | 3 | Leadership Policy | Structural HRA | 5, 6 |

Note: Data collected from student athlete leaders (n = 8).

*Responses/themes from student athlete leaders: question 2C.*

Student athlete leaders were asked how the community supports the DOA. Seven interviewees felt that community attendance at games was the most prominent and visible support of school athletic teams. One student athlete enthusiastically responded:

> I think the community is very important assisting the teams. They have a lot of fundraisers and a lot of the people come to the games and they pay admission to watch the teams, which they do help. That money goes to equipment and uniforms, all those things that a team needs to play. Here the community is great. Everybody comes to every game to show support for everybody. You could graduate ten years ago and you know that you will come back and watch the games for the kids. It's great.

Three student athletes felt that the town and school worked well together in use of the facilities. Three other interviewees felt that the alumni come back each year for big games. One participant witnessed many alumni volunteering in the snack shack, coaching, or donating money. One interviewee stated, "...people started to enjoy...sports more and everything has gone back to our tradition. So, I think there are a lot of parents that were out there to help make the athletics better." Another interviewee suggested that community action starts with parental involvement.

The data collected from interview question 2C of student athlete leaders concerning community support for athletics showed that: (a) the vast amount of people who attend games was important to students; (b) fundraising by booster clubs was useful in acquiring equipment and making trips to play special games; (c) cooperation between recreational teams and school-based teams assists both programs to function effectively,

and (d) alumni support and volunteerism are invaluable ways to pass on athletic traditions. Table 22 depicts guiding interview question 2C dominant themes, occurrences, educational realm, theoretical framework, and connection to the research question(s) associated with the purpose of the study.

*Responses/themes from student athlete leaders: Question 2D.*

Student athlete leaders were asked about events that symbolically celebrate the successes of the DOA. One interview participant described the atmosphere at the three seasonal pep rallies that the school holds stating:

> Everybody wears maroon and white and the band is in there playing, the cheerleaders in the Fall are doing what they do and basically each coach introduces his captains who are seniors and they just talk for I don't know ten seconds about their season or what happened last year…and then we always have games, like a couple of participants from each grade verses each other in like a tug of war or something like that.

Four student athletes mentioned the importance of the varsity awards ceremony, and one interviewee suggested that the ceremony provided the community with information on how all the athletic teams and individual success occurred during the preceding year. One athlete suggested that the previous varsity award ceremony that consisted of a dinner was nice but way too long. The dinner-awards version was ended in 2006. One student athlete felt that All-County and All-League recognition was important to many players because it showed excellence in that particular sport.

Table 22

*Responses to question 2C: Community support for athletics*

| Dominant themes | Occurrences (26 overall) | Educational realm | Theoretical framework | Research question(s) |
|---|---|---|---|---|
| Support for fundraisers through donations | 6 | Management | CR | 5, 6 |
| Attendance at games, especially football | 7 | Leadership | CR | 5 |
| Parents, town people support the traditions of school athletics | 6 | Leadership | CR | 5 |
| Alumni visit, volunteer to coach, give financially | 3 | Leadership | CR<br>Symbolic | 5 |
| Community enjoys access of school facilities by DOA | 1 | Leadership<br>Management | Structural<br>CR | 5, 6 |
| Recreational programs and high school teams coordinate field use, times | 3 | Management | Structural<br>CR | 5, 6 |

Note: Data collected from student athlete leaders (n = 8).

The data collected from interview question 2D of student athlete leaders concerning symbolic events celebrating success in the DOA showed that: (a) sports banquets sponsored by individual teams like football and the tri-annual awards ceremonies were significant activities for athletes and coaches to reflect on their seasons; (b) the pep rallies and student sponsored cheering club provided opportunities for all students to witness athletic happenings, increasing school pride and enthusiasm, and (c) the booster clubs have provided trophies, financial support, and other recognition deemed valuable for athletes to obtain high levels of success. Table 23 depicts guiding interview question 2D dominant themes, occurrences, educational realm, theoretical framework, and connection to the research question(s) associated with the purpose of the study.

Guiding interview question 3 asked of all student athlete leaders was: Which statement is truer of the DOA in your school? (a) Student athletic participation focuses on winning championships, statistical buildup, and individual honor, or (b) Athletic participation focuses on the academic achievement of students.

*Responses/themes from student athlete leaders: Questions 3A and 3B.*

One student athlete felt that the philosophy of the DOA depended on the particular coach in a particular sport stating:

> ...it kind of differs for each coach. Each coach kind of like, I mean everyone wants to win the championships and stuff and they want to have their students come back in 15 years all successful and stuff. But I think once the season starts like the coaches change and it could just be you know focus on the season. But, I mean for me [my coaches] have always asking about my grades and they always want me to know if like they see me out of class what I'm doing. And I mean,

Table 23

*Responses to question 2D: Events that celebrate success in the DOA*

| Dominant themes | Occurrences (17 overall) | Educational realm | Theoretical framework | Research question(s) |
|---|---|---|---|---|
| Seasonal pep rallies | 2 | Management | Symbolic | 5, 6 |
| Student *Rowdies Club* attend games, cheer teams on | 2 | Leadership | Symbolic | 5 |
| Banquets provide reflection | 4 | Leadership | Symbolic | 5, 6 |
| Seasonal athletic awards give important recognition | 7 | Leadership | Symbolic | 5 |
| Fan bus provides excitement | 1 | Management | CR | 5, 6 |
| Booster clubs provide trophies, honors, meals | 3 | Management | Structural Symbolic | 5, 6 |
| AD visits gym classes, gives history of athletic traditions | 1 | Leadership | Symbolic | 5 |
| Info-board celebrates athletics | 1 | Management | CR | 6 |
| County/league honors important | 1 | Policy | Symbolic | 5, 6 |

Note: Data collected from student athlete leaders (n = 8).

> since the football coach, he's a guidance counselor, he was very influential in helping me make my decision and giving me options for college…I've been kind of lucky to get coaches that have cared more than about winning…

Another interviewee took a different approach in answering the question of DOA philosophy by stating, "I guess it would be more 3A because the academic achievements are also celebrated in their own separate way. The student athlete elaborated by describing an academic celebration stating, "…at the end of the year and that's for students who have been on either the Honor Roll or the Principal's Honor Roll every marking period, but every marking period if you are on the Honor Roll or the Principal's Honor Roll, you get a letter recognizing that from the Principal. It's more separate from athletics." Another student athlete felt to 3A was more prevalent stating:

> I would probably go with (a) just for the fact that when you are playing sports, it's not like the coaches main job [to watch your academics], it's to make sure you're excelling in sports. Everyone's' job when you are playing sports is kind of just like win, kind of just be a good teammate…and you just want to be the best that you could be and that is what they [coaches] try to teach you. I guess I'm sure they care about academics, but why would you play sports if you don't want to win, or if you don't want to do well and stuff? So, I mean, that would be just like saying teachers care more about your athletics than they do about your academics, [or that] coaches cared more about your academics than your athletics. So I kind of find it like that is how it should be, because sure they might care about it [coaches with academics] but they don't need to, that's not their first priority.

Six participants agreed by some consensus that 3B was evident, with one of those respondents partially agreeing with 3A also. One interviewee stated:

> I definitely say 3B. Athletic participation focuses on the academic achievement of students. I have never felt pressure to have to win a championship or get recognition for myself. When I was a freshman I was considering leaving to go to the Catholic school…and I was thinking about it and at [this school], I had a chance to play football right away and at the other school I know I would have had to wait longer, and looking at those schools and how my friends are at those schools, I don't think they enjoyed their experiences as much as I did because they are pressured to win – win - win all the time. Here it is more academics first and I mean football and track is only going to take me so far, so, I am happy that here they push you to achieve academics first and then athletics after.

This researcher asked a follow up question about where the signals come from that academics come first? The student athlete continued:

> The coaches usually at the beginning of the season tell us if there is ever a problem, make sure you take care of your academics first, it is more important. Winning is always nice, we made the playoffs in [one sport]; for [another sport] we've gone really far into State [Tournament] and it's always nice to win but it's never like if you don't win you are letting everybody down. You're not that pressured to have to win all the time.

Another student athlete who supported 3B stated:

> I'd probably have to go with [3B]; more athletic participation focuses on the academic achievement of students because I know that our Department of

> Athletics isn't solely focused on winning championships. Obviously, everybody wants to and like I know that a lot of teams like if we are winning big and the team takes out their starters to like build up your team for next year, or you take out your seniors and like let your freshmen play. Definitely I feel like individual honors are not really a big thing here. It's just like everybody wants to be a team and not really, it's not really about me it's like about everyone. And academic achievement is definitely more important than all those other things, so I would have to say that one [3B].

Another student athlete sided with 3B stating:

> I'm going to have to go with 3B because everyone, a lot of the coaches that I have had from personal experiences have always said that it doesn't matter if you win or lose this game, you have been great this whole season and it really just comes about teamwork and focuses on what we have to do as a whole not if we win the game. Like say we lost a soccer game by one goal but it was a great high school soccer game, the coach would be like I did well – I really don't care if we lost this game just that we all did really well.

This researcher asked a follow up question, "So you think 3B is more because they focus on academic achievement, but it is also a focus of the coaches because they stress the teamwork element of athletics? The student athlete responded, "Yes." Another student athlete leader that believed 3B was more prevalent stated, "I would have to say [3B] athletic participation focuses on the academic achievement of students because there is the whole GPA credit thing that you have to keep your grades up to play a sport. So I would say that is a big thing and I know that a lot of teachers alert the

coaches if a student is doing badly in classes." The same athlete did suggest however, that the level of academic concern depended on individual coaching philosophy regarding how much additional time student athletes may take by leaving early or coming late to complete projects, get extra help, or make up tests. The one participant who stated belief in both 3A in 3B asserted:

> I think it is both, but more 3B just because not every athlete is going to become a professional so you have to stress academics before anything. Overall, you hear everybody say that you need an education…no matter how good you are something could happen, you could be injured you could you know be released by some team and then after that if you don't have an education or a degree in anything you're not really going to be able to do anything. So, they – our Athletic Department focus and stress just academics before anything. Take care of the classroom and then take care of sports after school.

The data collected from interview questions 3A and 3B of student athlete leaders concerning academic focus or athletic prowess showed that: (a) clear support for academic achievement over athletic success was due in part to the leadership coaches and policy making by school leaders who stress team dynamics and doing well in your studies, and (b) a minority opinion suggested athletics are a good measure of school spirit, but coaches are paid to win, and teachers are paid to teach. Table 24 depicts guiding interview questions 3A and 3B dominant themes, occurrences, educational realm, theoretical framework, and connection to the research question(s) associated with the purpose of the study.

Table 24

*Responses to questions 3A and 3B: Philosophy of DOA*

| Dominant themes | Occurrences (10 overall) | Educational realm | Theoretical framework | Research question(s) |
|---|---|---|---|---|
| Suggestion "3A" partially evident because academics are celebrated in a separate venue | 1 | Leadership | Structural Symbolic | 5, 6 |
| "3A" provides measure of school spirit/athletes excelling | 1 | Leadership | Symbolic | 5 |
| "3A" because coaches are to win, teachers to teach | 1 | Policy | Structural | 5, 6 |
| "3A"/ "3B" true, based on coaching philosophy; most care about academics, then athletics | 1 | Leadership | Structural Symbolic | 5, 6 |
| "3B" evident because athletes are never pressured to win here | 5 | Leadership Policy | Structural Symbolic | 5, 6 |
| "3B" because not all athletes go professional, or play in college | 1 | Leadership | Structural Symbolic | 5, 6 |

Note: Data collected from student athlete leaders (n = 8).

Guiding interview question 4 asked of all student athlete leaders was: Ideas exist about how school leaders can influence decisions in organizations. What experiences have you had with: (a) How school leaders set rules for students to get better grades; (b) How school leaders work to better community relations; (c) What school leaders do to judge athletic success separate from team championships, statistical build up, and/or individual recognition, and (d) What are the conditions of athletic facilities?

*Responses/themes from student athlete leaders: Question 4A.*

Two student athletes mentioned the eligibility rules for participation in athletics, with one of the interviewees stating, "It [the credit requirements] always say it on the bottom of your report card how many credits you made and it is always in the student's handbook and your teachers always tell you that you have to keep your grades up or else you will be in danger of not being able to participate." One interviewee felt that school leaders helped him get better grades by making academic awards available when he stated:

> ...there is always [the] Principal's Honor Roll, which is above a 95, and that is kind of what I always strive for cause you know that's the best you can be, and there is also Honor Roll for 90. So, you know you always try to be on that, and have good grades so that you can get into good colleges and everything, and there is also the Renaissance Awards Dinner which is kind of like what I ultimately strive for every year which is you have to have above a 93 I think each of the three marking periods.

The same athlete also mentioned that he knew of several teachers who always come early and stay late for all students, including athletes seeking extra help or tutoring.

One student athlete raised concerns about how school leaders and administrators have implemented new academic requirements and that staff changes have made getting higher grades much more difficult. The participant stated:

> Well, I think that they [administrators] have done an awful job actually. We have had like a lot of changes in Principals and all the faculty and stuff, and they kind of just set rules that are really like crazy because we're just a public school and they have raised all the honors and to be able to get exempt to like 95s and even if you're in a AP class, you don't get the credit…basically from when I was a freshman and sophomore to when I am a senior, there has been a lot more changes and my grades have definitely kind of fluctuated, not because I was a senior and I did not try, but because of the different expectations that are like in the school to be in the top of the class…it's a little too difficult…I just really don't feel that our school leaders are involved really much with our like getting better grades. They have turned into almost like it's all the coaches' responsibility to help them. There just has been a lot more changes in the academic system that is just changing like all of the required grades…

Another athletic leader said that they knew some athletes who were ineligible, but it was a very small number of students who had those problems. One participant said he knew of some student athletes who wanted to regain eligibility, and went to summer school to make up those credits lost during the traditional academic year because of multiple failures.

The data collected from interview question 4A of student athlete leaders concerning rules for athletes to improve on grades showed that: (a) the policy of extra

help always being available has helped athletes in the classroom, and (b) an effective leadership chain of command exists in communicating the rules set forth by the district, starting with the AD and Vice Principal (VP) and ending with the Principal and Superintendent if necessary. Table 25 depicts guiding interview question 4A dominant themes, occurrences, educational realm, theoretical framework, and connection to the research question(s) associated with the purpose of the study.

*Responses/themes from student athlete leaders: Question 4B.*

Student athlete leaders were asked questions about how school leaders improve community relations for the DOA. One participant stated:

> Well, with us it's always like there is always the Principal's Honor Roll, which is above a 95, and that is kind of what I always strive for because you know that's the best you can be. And there is also Honor Roll for 90. So, you know you always try to be on that and have good grades so that you can get into good colleges and everything. And there is also the Renaissance Awards Dinner which is what I ultimately strive for every year, which is you have to have above a 93 in each of the three marking periods. One participant mentioned the impression left by attending the Open House as a middle school student stating, "We have – it's called an Open House Night and they will have some of the coaches talk about athletics or our Athletic Director and they will have like the performing arts club might do a little part of one of their plays and the band might play something and we have a different stand set up in the cafeteria that you show off you know the different arts." One student athlete felt that school leaders do a good job at selling

Table 25

*Responses to question 4A: Rules for student athletes to improve grades*

| Dominant themes | Occurrences (19 overall) | Educational realm | Theoretical framework | Research question(s) |
|---|---|---|---|---|
| Certain grades/ credits necessary to participate | 6 | Policy | Structural | 6 |
| Extra help by missing an elective deemed permissible | 4 | Policy | Structural HRA | 5, 6 |
| Midterm reports, final grades communicate eligibility | 3 | Policy | Structural | 6 |
| Changes in faculty/ administration, and higher standards have been difficult for students to succeed | 1 | Leadership Policy | Structural HRA | 6 |
| Onus put on coaches for athletes to success academically | 1 | Leadership Policy | Structural HRA | 6 |

(table continues)

Table 25 (continued)

| Dominant themes | Occurrences (19 overall) | Educational realm | Theoretical framework | Research question(s) |
|---|---|---|---|---|
| Rules set by BOE, enforced by Principal, VP, and AD | 3 | Policy | Structural | 6 |
| Guidance Department/school leaders work together for athletes to succeed academically | 2 | Leadership Policy | Structural HRA | 5, 6 |
| Some athletes strive for district academic awards | 1 | Policy | Structure Symbolism | 5, 6 |

Note: Data collected from student athlete leaders (n = 8).

the sports program by attending games, talking with people in the community at events, and starting a Homecoming Weekend during the Fall season. The participant stated, "This is really good because I know I saw our Principal and Vice Principal at all of our games with the Superintendent and they were out there talking to parents and basically supporting the team. So, I think that they did really well in that area." Another student athlete suggested that the summer camps h/she attended influenced their decision to stay in the home district stating:

> I remember when I was younger how that really made me want to stay [in the home district] and play [my sport] because I was at the camp with all the big kids who played [my sport]…it had a big impression on me, and how I really wanted to be in the school after that. So, I think that really helps kids stay [in the home district] and not leave for other schools.

Another interviewee felt that the power of the breast cancer awareness basketball tournament influenced the community to get involved. The athlete mentioned that the tourney was actually a three year program plan that started out: (a) counting wins by all girl athletic teams; (b) having the community commit to making donations for each three-point field goal made during the girls' basketball season, and (c) culminating in 2009 with an eight-team single day basketball tournament hosted by the school in the present study. The student athlete said the tourney amassed two thousand dollars in donations for breast cancer research. One interviewee suggested that the athletic field referendum in late 2006 tried to bring the community together, but the vote failed by a wide margin. The student athlete leader stated:

> You can say the referendum a few years ago, that it didn't pass but they were trying to raise money or they were trying to raise like a tax to fix all the sports fields so that would be at the elementary schools and the high school fields…It didn't pass by a little bit, and some, most of the schools were a little upset by it but we would have had all new facilities and stuff like that.

The data collected from interview question 4B of student athlete leaders concerning how school leaders improve community relations showed that summer camps, Homecoming Weekend, and booster clubs have opportunities to draw people into school-wide athletic activities. Table 26 depicts guiding interview question 4B dominant themes, occurrences, educational realm, theoretical framework, and connection to the research question(s) associated with the purpose of the study.

*Responses/themes from student athlete leaders: Question 4C.*

Student athletes were asked about different ways school leaders judged success in the Athletic Department separate from team championships, statistical accumulation, or individual honors. Three interview participants suggested that school leaders used verbal support and encouragement especially as athletes rise through the ranks from freshman year to senior year. One of the athletes commented, "Our Athletic Director, he's very involved with the sports and he has gone to various winter track meets and I don't think any Athletic Director has ever done that before…and a lot of it is also like how many kids get their varsity letter and the coaches really try to get as many kids as they can to perform well and to get them [on their team]." Three student athletes felt that district coaches and school administrators always stress the importance of judging team dynamics as a benchmark for success. One of the interviewees stated:

Table 26

*Responses to question 4B: How School leaders improve community relations*

| Dominant themes | Occurrences (14 overall) | Educational realm | Theoretical framework | Research question(s) |
|---|---|---|---|---|
| Fundraisers by separate booster clubs draw in people | 4 | Management | CR | 5, 6 |
| Middle school open houses present DOA programs | 1 | Management | Structural CR | 5, 6 |
| School leaders visible at games | 2 | Leadership | CR | 5, 6 |
| Alumni events create outreach | 1 | Leadership | CR | 5, 6 |
| Summer camps bring young community residents together | 4 | Leadership | CR Symbolic | 5, 6 |
| Breast cancer tourney raised awareness over disease | 1 | Leadership | CR Symbolic | 5, 6 |
| Community fan bus popular | 1 | Management | CR | 6 |
| Failed athletic referendum attempted to forge relations | 1 | Policy Management | CR Structural | 5, 6 |

Note: Data collected from student athlete leaders (n = 8).

It is never about any one person's success. So if one person is doing better than everyone else, it is not about that. It is about how the whole team is doing and it's good that everyone is on the same page, everyone stresses the success of the team and not any one individual cause on some of my teams there have been one individual who could have gotten all the credit for everything, but it's all about the team and how the team is doing. So, there is never any pressure for anyone to achieve for himself or herself' or pump up their stats because we have never done that.

One respondent commented about how school leaders look for character and sportsmanship stating:

I guess just by watching an athlete you can tell what kind of success he has. You could see his overall attitude how he deals in bad situations in a game. How he treats his teammates, how he treats the other team. How respectful he is to referees and coaches. You can judge a lot of things like that. There are awards for it. There are I think the "Owl Award" is given in the football season to a player who demonstrates character and shows other athletes how they should act in times of perseverance and just sportsmanship.

One student athlete mentioned that during a game where poor sportsmanship by both schools were observed, the AD and school Principal addressed the team the next day to denounce the behavior and admonish the team from any further incidents. The athlete stated that after the incident, "I think the most important thing about sports is your character and how you like deal with yourself." Another participant felt that it was important that the school and county coaches' association with modest financial awards

toward tuition for excelling in the classroom recognized scholar-athletes. The student athlete also suggested that the district scholar-athlete award and the previous question from 3B (that the philosophy of the DOA was academic achievement) had a connection with each other.

The data collected from interview question 4C of student athlete leaders concerning alternative methods to judge success in the DOA showed that: (a) school administrators provided effective leadership qualities by acknowledging the progress of athletes, and stressing sportsmanship during the course of an entire year, and (b) coaches emphasized the importance of team dynamics, not championships or individual honors which also pointed back to question 3A and 3B findings discussed earlier in this chapter. Table 27 depicts guiding interview question 4C dominant themes, occurrences, educational realm, theoretical framework, and connection to the research question(s) associated with the purpose of the study.

*Responses/themes from student athlete leaders: Question 4D.*

Student athlete leaders were asked about the conditions of athletic facilities used by the DOA. Six student athletes felt that the maintenance crew good a great job in keeping the facilities in shape, with one interviewee commenting, "I think they [the maintenance crew] do a really good job making sure that the fields are always ready, making sure everything is clean, and always ready for us to use. So, I feel that's important." Another student athlete excitedly stated, "The conditions [of our athletic facilities] are awesome. Our fields I think are awesome. I think everything is kept very nicely. Our gym, I think is one of the best gyms I've played in. Everything is just perfect in our gym, and our fields are just really nice too. They have always been kept very nice.

Table 27

*Responses to question 4C: Alternative methods to judge success in the DOA*

| Dominant themes | Occurrences (15 overall) | Educational realm | Theoretical framework | Research question(s) |
|---|---|---|---|---|
| Awarded varsity letters determine success, popularity | 2 | Leadership Policy | Structural HRA | 5, 6 |
| Coaches/administrators focus on team dynamics | 3 | Leadership | Structural Symbolic | 6 |
| Personal development of student athletes acknowledged | 5 | Leadership | Symbolic | 5, 6 |
| Coaches stress good character | 2 | Leadership | Symbolic | 5 |
| Poor sportsmanship not tolerated by DOA, coaches or school leaders | 2 | Leadership Policy | Structural Symbolic | 5, 6 |
| District/county coaches' association and scholar-athlete awards connected to Question 3B and DOA philosophy | 1 | Policy | HRA Symbolic | 5, 6 |

Note: Data collected from student athlete leaders (n = 8).

The grounds crew is just awesome." One student athlete suggested that the volleyball team had such a big home court, and thus an advantage, stating, "The gym it's pretty nice. It is one of the better basketball courts in the league, better you know. Volleyball uses the same court so you know they have a big court, big advantage to them." Another student athlete acknowledged that the outdoor facilities are limited, but maintenance could better if the school did not have to share with the recreation teams.

Three interview participants mentioned that the district has provided access to a speed school to enhance athletic fitness and quickness. Another student athlete suggested that the newly renovated weight room is male dominated by a ratio of 85 to 15, but that any athletes have access to the facility stating, "On Tuesdays and Thursdays the person who supervises is a woman and she is [a coach], so it's not really like the girls would be like "oh why would we go in there?" Three interviewees mentioned an outside company called the *Parisi Speed School* has assisted many athletes in preparing for seasons and increasing game quickness.

The data collected from interview question 4D of student athlete leaders concerning the conditions of indoor/outdoor athletic facilities showed that: (a) overall management of facilities was found to be effective considering the smallness of the grounds and condensed nature of the building, and (b) the weight room, despite some male domination of the facility, was a great addition to the school and provided alternative types of athletic advancement which also included the *Parisi School* for speed and quickness. Table 28 depicts guiding interview question 4D dominant themes, occurrences, educational realm, theoretical framework, and connection to the research question(s) associated with the purpose of the study.

Table 28

*Responses to question 4D: Conditions of athletic facilities*

| Dominant themes | Occurrences (36 overall) | Educational realm | Theoretical framework | Research question(s) |
|---|---|---|---|---|
| Outdoor facilities | 19 | -- | -- | 5, 6 |
| Town turf convenient, good | 2 | Management | Structural | 6 |
| Fields in best shape possible | 11 | Management | Structural | 5, 6 |
| Tennis courts/track and field re-surfaced | 6 | Management | Structural | 5, 6 |
| Indoor facilities | 17 | -- | -- | 5, 6 |
| Gym great venue to play in | 7 | Management | Symbolic | 6 |
| Gym floor has dead spots | 1 | Management | Structural | 6 |
| Locker rooms updated | 1 | Management | Structural | 5, 6 |
| Bleachers unsafe | 1 | Management | Structural | 6 |
| *Parisi School* provides opportunities to improve balance, quickness | 3 | Leadership Policy | HRA | 5, 6 |
| Weight room updated, tends to be male dominated | 4 | Management | Structural | 5, 6 |

Note: Data collected from student athlete leaders (n = 8).

## Observations of the Department of Athletics (DOA)

Over a 3-day period beginning in February 2009 and culminating in May 2009, this researcher was provided unlimited access to the daily happenings of the DOA and schedule routines of the AD. The three days of observation were regular school day sessions that included, but not limited to: (a) casual conversations and a review of guiding interview questions with the AD; (b) intense field note taking by this researcher; (c) access to documents such as budgets, mission statements, departmental philosophies, and parental, student-athlete, and coaching handbooks; (d) compilation of participation lists for later quantitative use; (e) a meeting with athletic league affiliates; (f) informal assistance of teachers since the AD is also the Department Chair for Health/Physical Education; (e) viewing general clerical routines in the athletic office such as returning phone calls, writing memorandums, database entry, and athletic website updating; (g) the inspection of outdoor and indoor facilities being used for after school activities in the district on those days; (h) attendance at two publicly held athletic award ceremonies in the auditorium, and (i) attendance at BOE public sessions whereby teams are honored for league, county, or state championships, and individual athletes are honored for All-League, All-County, All-State, and/or Coach of the Year recognition.

This researcher witnessed a multitude of academic and medical compliance issues between athletic seasons that the AD was responsible to coordinate. These compliance issues occur three times annually (August, November, and February) during the academic year. All students who plan on participating in athletics in any season must complete a certain number of credits to gain eligibility. With the assistance of the Guidance Department and the VP, the eligibility lists are scrutinized to assure academic compliance

based on the New Jersey State Interscholastic Athletic Association (NJSIAA) and NJDOE policies. One athletic coach/school administrator stated that out of more than 100 athletes, only one student was deemed ineligible in the 2008-09 school thus far.

Each academic year, student athletes and their parents must: (a) sign off on the mandatory NJSIAA steroid policy; (b) secure a complete physical for athletic medical clearance, and (c) fill out a medical alert information card. The DOA works closely with the Guidance Department and VP to maintain academic compliance policies.

The AD is provided a part-time secretary to facilitate confirmation of athletic events, game officials, and schedule future game scrimmages, contests, and officials at least one season, and in some cases, one year in advance. The secretary also assisted in other clerical matters such as writing out athletic award certificates, printing game or event programs, and sorting mail. Other responsibilities the AD was conducting during the observations were: (a) finalizing line item requests and adjustments after the BOE budget was passed by the voting public of the school district election in April 2009; (b) assembling the athletic calendar for the next academic year; (c) preparing and sending out New Jersey State Tournament applications for Spring sport teams that met the criteria for participation; (d) putting together a souvenir program for an upcoming softball tournament to be held on school grounds; (d) pick up of sports apparel from a school approved vendor; (e) checking on weather forecasts, field safety, and the general conditions of outdoor facilities to make appropriate and timely decisions to maintain, delay, or postpone game day contests, and (f) attendance at a Guidance Department meeting on academic requirements for the upcoming school year.

This researcher witnessed over the three days of observation the following activities completed, assisted, or coordinated by the AD: (a) indoor and outdoor set-ups before athletic contests; (b) team and individual picture days for the yearbook; (c) training clinics for middle school and community student athletes in various sports; (d) visitation at game sites to collect vouchers signed by game day officials for later compensation, and (e) finalizing the athletic calendar for 2009-2010 in conjunction with the academic schedule recently approved by the school district BOE.

*Program Evaluation of the DOA*

The DOA requires student athletes to adhere to a "Code of Conduct" that describes a commitment to exercise good judgment in all affairs concerning self, school, family, and community. The code outlines: (a) academic eligibility; (b) age eligibility; (c) required paperwork to participate such as medical clearance, health history, a steroid waiver, and emergency information cards to participate; (d) use and care of equipment; (e) school attendance policy; (f) an emphasis on sportsmanship; (g) transportation rules to and from athletic events; (h) the prohibition and penalties for using tobacco, alcohol, illicit drugs, or performance enhancing drugs, and (i) the policies preventing hazing and sexual harassment.

The DOA publishes on-line and distributes each season a "Parent/Coach Communication" brochure to all student athletes and their families. The brochure contains: (a) protocols for athletes and parents to keep the lines of communication open with their in-season coaches; (b) options when parents or athletes do not receive satisfactory answers to their questions or concerns; (c) issues deemed not appropriate to discuss with coaches such as team strategy during games, playing time, or other student

athletes; (d) issues deemed appropriate to discuss with the coaches such as ways for their son/daughter to improve or concerns over behavior; (e) a parental code of conduct; (f) parent-coach relationship strategies; (g) communication expectations from the coach to parents/student athletes; (h) communication expectations from the parents/student athletes to the coach; and (i) the philosophy of the DOA which states:

> ...the Athletic Department is to provide student athletes with an opportunity to compete at a high level while maintaining a sense of pride and respect for the game they play, against the opponents they compete. Our coaches, student athletes and fans should represent both the town and school in a positive manner.

This researcher found strict compliance to the Code of Conduct, academic eligibility policy, and a culture of effective team dynamics among the various stakeholders who work with or in the DOA, which includes school administrators, athletic coaches, student athletes, parents/guardians, and town-based officials. Communication between the Director of Athletics and parents of student athletes appeared to be positive, strong, and professionally maintained. Communication between parents and athletic coaches was found to on an as needed basis, but in no way tense, controversial, negative or intimidating in tone, process, or outcome. Communication between student athletes and coaches suggested a level of professionalism on the part of coaches, and the appearance of mutual respect, compliance, and age-appropriate demeanor by the athletes. All levels of communication suggested a level of mutual cooperation, yet strict adherence to the aforementioned Code of Conduct. The lines of communication and financial support to advance the equipment, safety, and comfort

needs of student athletes and coaches appeared to begin and end through the individual sport booster clubs, and careful budgetary requests submitted by the DOA.

Product outcomes were found to be consistent with the mission statement and philosophy of the DOA in providing a safe and positive experience for the student athletes and coaches in the school district. While mention of personnel philosophies suggested the level of academic concern by coaches to their athletes, this researcher found a concerted effort by all staff to keep an academic focus for all students. Additionally, the DOA has maintained an atmosphere where parents, spectators, game officials and opposing teams can participate or enjoy athletic competition in a safe, sportsmanship-like manner.

*Additional Findings*

Two athletic coaches/school administrators stated that bullying or hazing among student-athletes on and off campus was happening based on parent reports and concerns. While this researcher saw no direct harassment or bullying occurring within the confines of the school campus, sporadic sportsmanship issues surfaced on the male athletic competition in terms of equipment throwing, use of profanity, and rough play. DOA records did show however, that game officials ejected no student athletes during the 2008-09 school year.

One athletic coach/school administrator stated that a male gender-based access and use of the newly renovated weight room exists. This researcher, over a seven-day period in March 2009, witnessed no female athletes or coaches entering the weight room area to use the facility for its intended purpose. While hours of observance varied between 3:30pm and 7:00pm, the average observation was 2 hours on any given day.

Three student athlete leaders stated that some athletic teams do use the weight room as a team during in-season practice times, but that male student athletes generally use the facility the most. One student athlete concurred with the athletic coach/school administrator about the gender bias in the weight room stating:

> Yes, I would absolutely agree with that. I know probably three or four girls that use it, probably maybe if that, but I think during the winter I know there is a greater amount of girls then there are during the spring because most of the girls, a lot of the girls are forced to do it for softball to get stronger. But during the softball and baseball season, it's all guys, pretty much all football, and people like football players who don't have a spring sport."

However, another student athlete leader reported that two days a week, a female athletic coach supervises the weight room. The participant also witnessed on occasion female student athletes using the facility on a regular basis both in team scenarios or individually.

One athletic coach/school administrator felt that some athletic teams were favored over other athletic teams in terms of: (a) equipment requests and attainment; (b) exposure and advertising of athletic events to the community, and subsequent attendance at those events, and (c) perks such as in-season meals being provided on a weekly basis.

One athletic coach/school administrator stressed the importance of a participatory philosophy in the DOA stating:

> I think the general theme here in the Athletic Department is participation is very important and striving to do your best within the sport you are playing. Since the school is small, I think there [are] a lot of athletes that multi-task in terms of

> sports and they aren't allowed to focus on one particular sport. So, having students leave here understanding that athletics will definitely help them in terms of their achievement of lifelong goals or real life goals outside of sports is probably the most important thing that as a coach and I guess as a school we hope that they leave with. You could be a great whatever and if you did not learn any life skills from it, it really didn't help you. Here they go into different sports, different situations where they are going to understand that, it doesn't matter if you're playing baseball, or if you're playing basketball or you're bowling, all those sports you need to achieve, you need to have discipline, you need to plan, you need to practice, all those things, those are skills and kind of basics that anybody is going to need to achieve anything whether it's sports or not.

One student athlete participant suggested that sportsmanship awards are equated with losing and usually go to bad teams with poor records stating, "We get sportsmanship awards every year and that's basically whenever you have a bad team, you know, they will give it to the worst team…so it's easier to see sportsmanship when you lose by forty-five [point] and shake a hand, then when you win by 45." This researcher asked a follow-up question to the student athlete, saying, "I would think it would be harder to win sportsmanship awards when you are losing, you tend to have a sour attitude, but maybe it hardens you a little bit? The participant responded, "I guess just losing prepares you to lose again. So, it didn't really bother you as much."

One athletic coach/school administrator stated that the school is finalizing plans for a mandatory ninth grade after school study hall for students struggling to complete homework. This researcher found that the sole academic compliance requirement in the

district was the credit-based NJSIAA benchmark to determine athletic eligibility, and that the policy was followed in a strict sense. The policy allows a student athlete to fail one course per semester while still maintaining eligibility if an aggregate amount of credits have been secured.

The school district website had a link specifically for the DOA that provided: (a) the latest news of events; (b) daily schedules and directions to away games; (c) physical and health questionnaire forms; (d) photo galleries; (e) booster club information; (f) individual team pages; (g) code of conduct forms; (h) parent information; (i) transportation permission slips; (j) NJSIAA website link and steroid agreement policy; (k) coaches e-mail directory; (l) Hall of Fame inductees; (m) sportsmanship regulations; (n) school newspaper link, and (o) links to the Physical Education/Heath Department webpage that the DOA officially presides, under the supervision of the AD.

Bullying/Hazing and CPR/AED (Defibulator) workshops are annual mandatory professional responsibilities to coach athletics in the school district. Training in both is offered once on the same day to all district coaches, usually in June of the academic year.

## Summary of Chapter IV Data Analysis

Chapter IV provided an introduction to the purpose of the study, a demographic profile of the single site school district (N = 343) being studied, and a review of the research questions and protocols used to analyze the quantitative and qualitative data collected. A Cronbach Alpha (SPSS, 2009) reliability analysis was used to check for uni-dimensional or multi-dimensional variable constructs. Protocols for quantitative data analyses included the statistical correlation of athletes and non-athletes, by gender, and the amount of athletic participation ($n \leq 3$) collected from the following five student

engagement variables: (a) GPA (n = 343); (b) PSAT scores (n = 82) for 11th grade students where applicable; (c) SAT scores (n = 73) for 12th grade students where applicable; (d) discipline referrals (n = 343), and (e) attendance records (n = 343). Frequency tables and general statistical data such as means and standard deviation were also supplied in Appendix E.

Qualitative data analyzed interview protocols from athletic coaches/school administrators, and student athlete leaders (N = 16) that focused on: (a) dominant themes; (b) occurrences; (c) the theoretical framework used as a basis to collect the data, and (d) the connection to the research question(s) associated with the purpose of the study. Lastly, direct observation of the AD and program outcomes in the DOA, along with additional findings completed the qualitative analyses of the present study.

## Description of Chapter V Contents

Chapter V provides: (a) a review of the research questions; (b) a summary of the findings; (c) an educational-based discussion of the suppositions from the study; (d) conclusions from the mixed collection of data; (e) implications for leadership, management, and policy decisions; (f) research-based recommendations for professional practice, and (g) options for future research on the academic achievement of student athletes and the organizational structures in which they participate.

# Chapter V

# SUMMARY OF FINDINGS, DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

## Introduction

The researcher's purpose for this study was to determine the influence that student engagement variables have on the academic achievement of high school athletes using an applied non-experimental research design in one New Jersey school district (N = 343). The researcher also evaluated the organizational structures of the Department of Athletics (DOA) using: (a) interview protocols; (b) organization theory testing; (c) personal observation, and (d) product outcomes.

Chapter IV provided an analysis of quantitative data collected from coded data of athletes and non-athletes (N = 343) using statistical correlation arranged by SPSS 17.0. The quantitative data focused on five student engagement variables: (a) GPA (n = 343); (b) PSAT scores (n = 82) for 11$^{th}$ grade students where applicable; (c) SAT scores (n = 73) for 12$^{th}$ grade students where applicable; (d) discipline referrals (n = 343), and (e) attendance records (n = 343). Qualitative data collected and analyzed focused on interview protocols, direct observation, and product outcomes in the DOA.

Chapter V presents: (a) a summary of the findings based on the research questions outlined in the previous chapter; (b) a brief discussion of the findings; (c) conclusions from the mixed collection of data; (c) implications for educational leadership, management, and policy decisions; (d) research-based recommendations for professional practice appropriate for the current case study setting, and (e) a prospectus for future research initiatives.

## Summary of Findings

The summary of the findings of the present case study was supported by five research questions. The first three research questions that guided the quantitative collection of statistical correlation data used student engagement variables. The remaining two research questions that guided the qualitative collection of data used interview protocols, direct observation, and program evaluation of the DOA. This section of Chapter V is divided into five parts, summarizing in detail each research question as follows:

### *Research Question 1*

What influence do student engagement variables have on athletic participation in the DOA?

Students who participated in athletics general showed moderate to high positive correlation and statistical significance between cumulative GPA and PSAT or SAT scores, and generally low negative or little if any correlation and some statistical significance when attendance and disciplinary referrals were paired with cumulative GPA, PSAT or SAT scores. Along gender lines, the differences in correlation or level of significance were inconclusive. The following is a breakdown of the correlation outputs:

#### *All students participating in one sport or more.*

The summary of data analyses for all students participating in one sport or more (N = 235) is depicted in Appendix E, Table E8 and showed: (a) high positive and statistical significance with PSAT scores (n = 59) and cumulative GPA; (b) high positive correlation and statistical significance with SAT scores (n = 52) and cumulative GPA; (c)

little if any correlation and statistical significance with cumulative GPA and attendance; (d) low negative correlation and statistical significance with cumulative GPA and disciplinary referrals; (e) low negative correlation and statistical significance with PSAT scores (n = 59) and attendance; (e) low negative correlation and statistical significance with PSAT scores (n = 59) and disciplinary referrals, and (f) low positive correlation and statistical significance with disciplinary referrals and attendance.

*Male students participating in one sport or more.*

The summary of data analyses for all male students participating in one sport or more (N = 122) is depicted in Appendix E, Table E9 and showed: (a) little if any correlation and statistical significance with attendance and disciplinary referral; (b) little if any correlation and statistical significance with attendance and cumulative GPA; (c) little if any correlation and statistical significance with attendance and the amount of athletic participation; (d) low negative correlation and statistical significance with disciplinary referrals and cumulative GPA; (e) low positive correlation and statistical significance with cumulative GPA and the amount of athletic participation; (f) high positive correlation and statistical significance with PSAT scores (n = 23) and cumulative GPA, and (g) moderate positive correlation and statistical significance with SAT scores (n = 27) and cumulative GPA.

*Female students participating in one sport or more.*

The summary of data analyses for all female students participating in one sport or more (N = 113) is also depicted in Appendix E, Table E9 and showed: (a) low positive correlation and statistical significance with attendance and disciplinary referrals; (b) low

negative correlation and statistical significance with attendance and cumulative GPA; (c) low negative correlation and statistical significance with disciplinary referrals and cumulative GPA; (d) low positive correlation and statistical significance with cumulative GPA and the amount of athletic participation; (e) low negative correlation and statistical significance with PSAT scores (n = 27) and attendance; (f) low negative correlation and statistical significance with PSAT scores (n = 27) and disciplinary referrals; (g) high positive correlation and statistical significance with PSAT scores (n = 27) and cumulative GPA; (h) low positive correlation and statistical significance with PSAT scores (n = 27) and the amount of athletic participation, and (i) high positive correlation and statistical significance with SAT scores (n = 23) and cumulative GPA.

*Research Question 2*

What relationship exists between student engagement variables and the amount of athletic participation in the DOA?

The amount of athletic participation, correlation analysis, and level of statistical significance between the student engagement variables were generally inconclusive. While all levels of participation showed moderate to strong positive associations with cumulative GPA, PSAT scores, and SAT scores, and low negative or little if any correlation when disciplinary referrals and attendance were included, no conclusive evidence was found to determine that one group or gender of participants did far better than another group of participants or non-athletes The following is a breakdown of the correlation outputs.

*Students with zero athletic participation.*

The summary of data analyses of students with zero athletic participation (N = 108, Appendix E, Table E10) showed: (a) low negative correlation and statistical significance with cumulative GPA and attendance; (b) little if any correlation and statistical significance with cumulative GPA and disciplinary referrals; (c) moderate positive correlation and statistical significance with PSAT scores (n = 23) and cumulative GPA; (d) high positive correlation and statistical significance with SAT scores (n = 21) and cumulative GPA, and (e) low positive correlation and statistical significance with attendance and disciplinary referrals.

*Students participating in one sport.*

The summary of data analyses for students with one athletic participation (Appendix E, Table E11, n = 97) showed: (a) low negative correlation and statistical significance with cumulative GPA and attendance; (b) low negative correlation with cumulative GPA and disciplinary referrals, and (c) low positive correlation and statistical significance with disciplinary referrals and attendance.

*Students participating in two sports.*

The summary of data analyses (Appendix E, Table E12, n = 102) for students with two athletic participation showed: (a) low negative correlation and statistical significance with cumulative GPA and attendance; (b) low negative correlation and statistical significance with cumulative GPA and disciplinary referrals; (c) high positive correlation and statistical significance with PSAT scores (n = 26) and cumulative GPA,

and (d) moderate positive correlation and statistical significance with SAT scores (n = 18) and cumulative GPA.

*Students participating in three sports.*

The summary of data analyses (Appendix E, Table E13, n = 36) for students with three athletic participation showed: (a) low negative correlation and statistical significance with cumulative GPA and disciplinary referrals, and (b) high positive correlation and statistical significance with PSAT scores (n = 8) and cumulative GPA.

*Students participating in zero sports by gender.*

The summary of data analyses for students with zero athletic participation by gender (Appendix E, Table E14, Males, N = 46, Females, N = 62) showed: (a) high positive correlation and statistical significance with male SAT scores (n = 7) and cumulative GPA; (b) moderate positive correlation and statistical significance with female PSAT scores (n = 15) and cumulative GPA; (c) very high positive correlation and statistical significance with female SAT scores (n = 14) and cumulative GPA; (d) moderate negative correlation and statistical significance with female attendance and cumulative GPA; (e) low positive correlation and statistical significance with female attendance and disciplinary referrals, and (f) little if any correlation and statistical significance with female disciplinary referrals and cumulative GPA.

*Students participating in one sport by gender.*

The summary of data analyses for students with one athletic participation by gender (Appendix E, Table E15, Males, N = 40, Females, N = 57) showed: (a) high positive correlation and statistical significance with male PSAT scores (n = 9) and

cumulative GPA; (b) moderate positive correlation and statistical significance with male SAT scores (n = 12) and cumulative GPA; (c) low negative correlation and statistical significance with male cumulative GPA and attendance; (d) low negative correlation and statistical significance with male cumulative GPA and disciplinary referrals ($r = -.348$, $\alpha = .028$); (e) moderate positive correlation and statistical significance with male disciplinary referrals and attendance; (f) high positive correlation and statistical significance with female PSAT scores (n =16) and cumulative GPA; (g) high positive correlation and statistical significance with female SAT scores (n = 13) and cumulative GPA; (h) low negative correlation and statistical significance with female cumulative GPA and attendance; (i) low negative correlation and statistical significance with female cumulative GPA and disciplinary referrals; (j) low negative correlation and statistical significance with female PSAT scores (n = 16) and attendance, and (k) low positive correlation and statistical significance with female attendance and disciplinary referrals.

*Students participating in two sports by gender.*

The summary of data analyses for students with two athletic participation by gender (Appendix E, Table E16, Males, N = 56, Females, N = 46) showed: (a) high positive correlation and statistical significance with male PSAT scores (n = 17) and cumulative GPA; (b) low negative correlation and statistical significance with male cumulative GPA and disciplinary referrals; (c) high positive correlation and statistical significance with female PSAT scores (n = 9) and cumulative GPA; (d) low negative correlation with female cumulative GPA and attendance, and (e) low negative correlation with female cumulative GPA and disciplinary referrals.

*Students participating in three sports by gender.*

The summary of data analyses for students with three athletic participation by gender (Appendix E, Table E17, Males, N = 26, Females, N = 10) showed: (a) very high positive correlation and statistical significance with male PSAT scores (n = 6) and cumulative GPA; (b) low negative correlation and statistical significance with male cumulative GPA and attendance; (c) moderate negative correlation and statistical significance with male cumulative GPA and disciplinary referrals, and (d) no correlation or level of significance with student engagement variables were found for females who participated in three athletic sports.

*Research Question 3*

Research question 3 was: What influence does unilateral athletic concentration in one sport have on academic achievement and collegiate scholarship attainment?

Unilateral athletic participation by Grade 12 students (N = 29) and correlation analysis and level of statistical significance between the student engagement variables showed generally very high positive associations with cumulative GPA, PSAT scores, and SAT scores especially among females (n = 16), and more moderate to high correlation and statistical significance for males (n = 13). When disciplinary referrals and attendance were included, no conclusive evidence was found to determine that one gender did far better than the other gender. No conclusive evidence was shown that unilateral athletic participation contributed to scholarship attainment, but it was determined that females (n = 3) did receive some sort of partial academic or athletic scholarship attainment for their efforts, while males received zero scholarship attainment.

*Unilateral sport participation and scholarship attainment.*

The summary of data analyses for students with one athletic participation (N = 97) is depicted in Appendix E, Table E18 and showed 57 female and 40 male participation. The frequency of unilateral athletic sport participation for Grade 12 students (n = 29) is depicted in Appendix E, Table E19, accounting for 30 percent of all single sport athletes. All Grade 12 unilateral sport athletes were eligible for athletic scholarships. Data analyses of athletic scholarship attainment of unilateral students in Grade 12 (Males, N = 13, Females, N = 16) is depicted in Appendix E, Table E20 and showed: (a) moderate correlation and statistical significance with male SAT scores (n = 12) and cumulative GPA of non-scholarship athletes; (b) high correlation and statistical significance with male cumulative GPA and disciplinary referrals; (c) high correlation and statistical significance with female SAT scores (n = 10) and cumulative GPA of non-scholarship athletes; (d) moderate positive correlation and statistical significance with female disciplinary referrals and attendance, and (e) little or no correlation and no level of statistical significance with student athletes who received athletic scholarships (Males, N = 0, Females, N = 3) and any student engagement variables correlated in the present study. DOA data showed that all female student athletes who received, or were offered partial athletic scholarships (n = 3) for Fall 2009 also included academic or financial assistance to participate on the collegiate level.

*Research Question 4*

How does the DOA function from a theoretical framework of structure, human resource allocation, community relations (the greater political sphere), and in a symbolic nature?

Research question 4 was investigated using qualitative data from direct observation, interview protocols, and access to budgetary and philosophical documents of the DOA by testing organizational theory (as theorized by Bolman and Deal, 2003) to conclude that: (a) the DOA functions from a structural framework as an effective, compliant, and pragmatic program designed to provide student athletes guidance in academic endeavors and competitive opportunities in a safe and nurturing environment, and opportunities for athletic coaches to perform their duties in a professional and meaningful manner. Goals and objectives are achieved and strictly followed. The Director of Athletics is a capable leader who uses rationale to make decisions for the benefit of all stakeholders; (b) the DOA functions from a human resource allocation framework as an organization that relies on the expertise of its coaches, talent of its athletes, and a place where success reproduces because athletes and coaches have found meaning in their work; (c) the DOA functions from a community relations framework (the greater political sphere) as an organization that relies on coalitions of people town-wide to make athletics a collaborative effort. While differences might exist philosophically and the allotment of resources scarce, overall conflict and power are held at a minimum through clearly defined values and mutual interests, and (d) the DOA functions from a symbolic framework as an organization that stresses and celebrates previous athletic prowess through the newly instituted Hall of Fame, renovated trophy cases, the banner program in the gymnasium, Homecoming Weekend, and the alumni parade. Current student athletes enjoy the pep rallies held, award dinners organized, booster club support, fan buses provided to championship-type games, an array of apparel

available for purchase or earned through championship-type success, and the visual use and presence of the school mascot as a motivating factor during athletic competition.

*Research Question 5*

What leadership, management, or policy initiatives are in place to support student athletes in the DOA?

Research question 5 was investigated using qualitative data from direct observation, interview protocols, and access to budgetary and philosophical documents of the DOA (as theorized by McCarthy, 2007a, 1980b) to conclude that: (a) leadership is in place to support student athletes comes from multiple sources; (b) the AD was consistently accessible and professionally trained who effectively supervised academic compliance policies, medical needs, and safe facility management. The AD demonstrated leadership skills, particularly in communicating schedules and practice times for coaches and teams, special programs with the community, and proactive responses with parental concerns or general questions; (c) the Superintendent of Schools and the BOE have provided visibility and acknowledgement of high achievement in athletics through game attendance, and ceremonies honoring team championships and individual athletic accomplishment; (d) the VP has collaborated with the DOA on compliance issues, discipline, and being visible during game contests; (e) the Principal, new to the district, has provided support and enthusiasm to student athletes by attending games, dinner banquets, and award ceremonies, and in particular, interest in continuing to develop student athlete databases; (f) the Guidance Department has strongly demonstrated competence in compliance issues, accuracy in record keeping, and constant availability for student athletes to seek out academic assistance, extra help, or questions concerning

collegiate aspirations or academic advancement, and mostly currently, efficiency in compiling statistical databases; (g) the district athletic coaches have demonstrated a wealth of experience, care, safety, and compliance regarding the importance of academic achievement of student athletes, all the while maintaining a high level of competitiveness in league, county, and state play; (h) the community has provided tremendous support and care of the school district athletes by attending games, giving financially to various booster clubs, volunteering their time to maintain fields, selling items during games, or coaching on a part time basis; (i) management initiatives to support student athletes come from the constant updating of equipment and facilities through budgetary approvals, and by the determination of a small but dedicated physical plant department that works tirelessly to keep fields and indoor facilities safe and useable.

While funding remains tight, district resources have been used appropriately, wisely, and in conjunction with state budgetary regulations, policy initiatives to support student athletes in the present study have effectively, yet pragmatically been built on a solid foundation of: (a) academic compliance; (b) safety measures; (c) medical needs of athletes; (d) professionally trained coaches, and (e) clearly defined disciplinary procedures and codes of conduct for all stakeholders.

## Discussion and Conclusions

The correlation outputs of research question one for all students participating in at least one sport (N = 235) suggests that: (a) high scores on the PSAT (n = 59) and the SAT (n = 52) were strongly associated and statistically significant with high cumulative GPA of students in the present study; (b) the other variables paired with PSAT, SAT, and cumulative GPA (attendance and disciplinary referrals) were weak negative associations,

but statistically significant of students in the present study, and (c) the amount of disciplinary referrals and attendance were weak associations, but statistically significant of students in the present study.

The correlation outputs of research question one for male students participating in at least one sport (N = 122) suggests that: (a) high scores on the PSAT (n = 23) were strongly associated and statistically significant with high cumulative GPA of male students in the present study, and (b) high scores on the SAT (n = 27) were somewhat associated and statistically significant with high cumulative GPA of male students in the present study; (c) the other variables paired with PSAT, SAT, or cumulative GPA (attendance and disciplinary referrals) were of no or little association in either direction, but statistically significant of male students in the present study.

The correlation outputs of research question one for female students participating in at least one sport (N = 113) suggests that: (a) high scores on the PSAT (n = 27) and high scores on the SAT (n = 23) were strongly associated and statistically significant with cumulative GPA of female students in the present study; (b) the other variables paired with PSAT, SAT, and cumulative GPA (attendance and disciplinary referrals) were weak positive or negative associations, but statistically significant of female students in the present study.

The correlation outputs of research question one for all students participating in zero sports by gender (Males, N = 46, Females N = 62) suggests that: (a) high male SAT scores (n = 7) were strongly associated and statistically significant with cumulative GPA of male students in the present study; (b) high female SAT scores (n = 14) were very strongly associated and statistically significant with high cumulative GPA of females in

the present study; (c) high scores for female PSAT scores (n = 15) were somewhat associated and statistically significant with cumulative GPA of females in the present study, and (d) the other variables paired (attendance and disciplinary referrals) were weak positive or negative associations, but statistically significant of male and female students in the present study.

The correlation outputs of research question 1 for all students participating in one sport by gender (Males, N = 40, Females N = 57) suggest that: (a) high PSAT scores for males (n = 9) and females (n = 16) were strongly associated and statistically significant with high cumulative GPA of male and female students in the present study; (b) high female SAT scores (n = 13) were strongly associated and statistically significant with high cumulative GPA of female students in the present study, and (c) the other variables paired (attendance and disciplinary referrals) were generally weak positive or negative associations, but statistically significant for males and females in the present study.

The correlation outputs of research question 1 for all students participating in two sports by gender (Males, N = 56, Females N = 46) suggest that: (a) high male PSAT scores (n = 17) were strongly associated and statistically significant with high cumulative GPA for male students in the present study, and (b) high female PSAT scores (n = 9) were strongly associated and statistically significant with cumulative GPA of females in the present study; and (c) the other variables paired with PSAT/SAT scores and cumulative GPA generally were weak positive or negative associations for males and females in the present study.

The correlation outputs of research question 1 for all students participating in three sports by gender (Males, N = 26, Females N = 10) suggest that: (a) high male PSAT

scores (n = 6) were very strongly associated and statistically significant with cumulative GPA of male students in the present study; (b) other variables paired with males (cumulative GPA and attendance, cumulative GPA and disciplinary referrals) were weak associations, but statistically significant, and (c) no associations or level of statistical significance were present with females who played three sports.

The correlation outputs of research question 2 for students with zero athletic participation (N = 108) suggest that: (a) high SAT scores (n = 21) were strongly associated with cumulative GPA of students in the present study; (b) high PSAT scores were somewhat associated and statistically significant with cumulative GPA of students in the present study.

The correlation outputs of research question 2 for students with one athletic participation (N = 97) suggest that weak associations, but statistical significant were present with some of the variables such as cumulative GPA with attendance and disciplinary referrals for students in the present study.

The correlation outputs of research question 2 for students with two athletic participation (N = 102) suggest that: (a) high scores on the PSAT (n = 26) were strongly associated and statistically significant with high cumulative GPA, and (b) high scores on the SAT (n = 18) were somewhat associated and statistically significant with high cumulative GPA.

The correlation outputs of research question 2 for students with three athletic participation (N = 36) suggest that high scores on the PSAT (n = 8) were strongly associated with high cumulative GPA.

The correlation outputs of research question 3 for students with unilateral athletic participation (N = 29) and potential scholarship attainment for Grade 12 students suggest that: (a) high male SAT scores (n = 12) were somewhat associated and statistically significant with cumulative GPA for non-scholarship males in the present study; (b) high male cumulative GPA (n = 12) were strongly associated and statistically significant with low disciplinary referrals of non-scholarship males in the present study; (c) high scores on female SAT scores (n = 10) were strongly associated and statistically significant with high cumulative GPA of female non-scholarship students in the present study; (d) female attendance (n = 10) were somewhat associated and statistically significant with disciplinary referrals of non-scholarship females in the present study, and (e) no association or level of statistical significant were present with female scholarship athletes (n = 3) and any of the student engagement variables paired of female students in the present study. This researcher found that: (a) no males who participated in unilateral athletics (n = 13) received any scholarship attainment, and (b) three females who participated in unilateral athletics (n = 16), received some sort of scholarship attainment that also included financial or academic support to play collegiate athletics beginning in the Fall of 2009.

Quantitative data conclusions made by this researcher include: (a) the majority of strong associations and statistically significant variables were between PSAT scores (from grade 11 students) or SAT scores (from grade 12 students) for males and females and cumulative GPA for all levels of participation or scholarship and non-scholarship attainment; (b) the majority of the remaining pairs of variables were positive or negative weak associations especially between disciplinary referrals and attendance; (c) unilateral

athletic participation and scholarship attainment found no association or statistical significance, a specific focal point of research question number three. The findings showed that sport specialization had little or no significant influence of scholarship attainment, but unilateral athletic participation and scholarship attainment for females (n = 3) was higher than for males (n =- 0); and (d) generally, the amount of athletic participation and correlation or level of statistical significance between all student engagement variables were inconclusive, even among gender lines, except that cumulative GPA was consistently higher and strongly associated with higher PSAT and SAT scores.

Qualitative data analyses found that all stakeholders in the school district held a strong, positive sense of pride, professionalism, mutual cooperation, and strict adherence to academic and athletic policies. The stakeholders include: (a) the AD; (b) school administrators and staff; (c) athletic coaches; (d) parents; (e) town-wide officials, (f) and student athletes. The evidence and level of cooperation were revealed by direct observation, voluntary interview protocols, and access to budgetary and philosophical documents.

## Implications for Education Leadership, Management, and Policy

There exist roughly 13 similar DFG school systems within 15 miles of the school district in the present study that could benefit from the findings by this researcher. The New Jersey State Interscholastic Athletic Association (NJSIAA) labels these schools Group 1 school districts. All would be considered the smallest of school districts in the state with student enrollments ranging from 190 to 400 in grades 9 to 12. The nature of this study would enable easy replication by other researchers, and pragmatic leadership,

management, and policy conscriptions to be implemented, sustained, and monitored by cooperating stakeholders in those school districts.

The correlation outputs of the student engagement variables suggest a strong associations and influence between PSAT and SAT scores and cumulative GPA across athletic participation and gender. However, compelling arguments linger to further determine underlining cause and effect quantitative factors that would explain why many of the other variable combinations showed weak associations or no associations. The Cronbach Alpha and factor compensation showed that some of the variables were uni-dimensional and multi-dimensional, suggesting that underlying constructs were not measuring the same outputs. Therefore, an argument exists to have the school district continue to compile statistical data on various student engagement variables, and test their significance with higher order regression models, which generally show levels of impact and cause and effect deductions.

Academic compliance was found to be of high priority by school leaders and clearly trickled down to teachers, coaches, parents, and student athletes in a message that stated school is first, athletics is second. The size of the school district in the present study (N = 343) provides a strong argument against the philosophy of sports specialization and over exposure of athletic competition often the case in larger and neighboring regional districts in the area. The dynamics of the DOA under observation clearly relies on twenty or so student athlete leaders to stock and make multiple sports flourish and be successful from a win-loss perspective. Preventing overburdening schedules (as previously mentioned by Flocco, 2004) and athletic specialization of these student athletes must be a high priority for school leaders to avoid. As discussed in

Chapter II, the State of Michigan has strongly de-emphasized the sports specialization, and in fact the commercialization of high school athletics by limiting out of state games, coaching stipends, the length and overlapping of seasons, and increased academic requirements for graduation. While not having the strength or recourse as an individual school district competing in the NJSIAA, school leaders should exercise a voice in the concerns of overlapping athletic seasons and the impact it has, especially on the smaller schools such as the one in the present study. Just 5 years ago, the NJSIAA relatively extended the spring sports season by going from the traditional March 8th starting time to the first Friday in March without much deliberation, research-based decision making, concern for the student athlete, or extra time, work, and responsibilities by coaches without additional compensation.

Management of facilities is also necessary to sustain the intricate relationship the district and town has forged over the years for student athletes and the recreational child and furthermore with the adult resident. The mutual respect and cooperation observed by town officials and departments and the school district have enabled the facilities to be maintained in the best manner possible despite budgetary constraints and increase academic compliance issues from the New Jersey Department of Education (NJDOE).

## Recommendations for Practice

The most difficult actions school leaders can take are changes to current practice, or the lack thereof on issues affecting their students, and specifically in the present study, athletes, their teams, and coaches. Districts across the state, let alone across the country, are strapped for every budget dollar, and are accountable to the property owner who funds the majority of the school-based budget. Recommendations by this researcher to

improve the experiences of student athletes therefore, and their eventual implementation and sustainment, must be of practicality, usefulness, and financially viable.

Based on quantitative and qualitative data analyses, the following recommendations for practice are: (a) reduce the influence of unilateral athletic participation by grade 12 students (research question number three) that suggests athletic participation should be encouraged because of the generally moderate to strong associations with cumulative GPA, PSAT and SAT scores, and weaker associations with disciplinary referrals and attendance, and not for the anticipation of scholarship attainment that showed little or no correlation or level of significance, despite three female athletes receiving partial academic or athletic scholarship attainment; (b) school leaders should encourage students to participate in athletics in general because of the strong positive correlation of PSAT and SAT scores, and cumulative GPA, which leads to better academic achievement, and not due to the prospects of collegiate scholarship achievement; (c) provide professional opportunities and budgetary requirements for athletic coaches and student athletes to attend leadership symposiums sponsored by such organizations as the New Jersey State Interscholastic Athletic Association (NJSIAA), the governing body of high school sports in New Jersey, and/or *The Frank McGuire Foundation*, located at Madison Square Garden (MSG) in New York City. The latter honors outstanding high school coaches and athletes who demonstrate leadership skills on and beyond the field of play. Coach McGuire was an influential high school and collegiate coach who helped establish basketball at MSG in the 1940s, and again as an ambassador of the game through the 1980s. All the while, McGuire never deviated from his insistence that the student came before the athlete on the high school and collegiate

level. His foundation emphasizes the need for basic skills of student athletes, the importance of academic success often ignored in recreational and competitive youth sports, and stressing by definition, student athletes who excel both on and off the field. During the observation process of the DOA, one coach who attended the leadership symposium at the McGuire Foundation recalled the motivational speech of a professional sports psychologist who was working with National Basketball Association (NBA) star Lebron James of the Cleveland Cavaliers. The speaker stated that James was interested in becoming a better leader for his teammates, not strategies to improve his jump shot or defensive play. The connection between leadership and better sportsmanship, a concern observed by this researcher would be one of the motivating factors for this recommendation; (d) create an fitness club or intramural program for non-athletes, especially with the emergence of child obesity epidemic in the US. Boon and Clydesdale (2005) noted that while early childhood and adolescent obesity inventions produced nominal effects, the authors suggested well designed strategies tailored to specific age, ethnic, and economic groups were in great need. Abood, Black, and Coster (2008) evaluated a school-based nutrition program and found that minimal intervention strategies to prevent obesity made an impact on nutrition knowledge and behavioral intentions after just two sessions, and that the perceptions of the program were well received by participants. Lee, Burgeson, Fulton, and Spain (2007) found that staff development existed for physical education teachers. However, the researchers also found that important issues such as intramural participation and opportunities to improve strategies for students to become physically active adults lagged behind current trends in the obesity epidemic in the US; (e) streamline Guidance Department data collection and

analyses to better track student engagement variables for effective leadership, management, and policy decisions. During the data collection process, the district realized that such databases did not exist, and that potential analyses of the data collected might improve student academic achievement well before the conclusion of this study. Without burdening Guidance with additional responsibilities, annual funding appropriations or a retainer fee of an independent data collection agency or program would assist the district in maintaining statistical information, and improve capacity to make data-driven decisions; (f) develop and institute on campus/off campus hazing policy, additional to the presentation given during the past year's professional development program. During the interview protocols, concerns from school administrators and athletic coaches about student athlete hazing came about through parental notifications. Occasionally, the NJSIAA provides workshops for both athletes and coaches on the hazing issue; (g) create a cosponsored public and school-based committee to devise a ten-year capital improvement plan for athletic facilities. Based on observed mutual cooperation and use of indoor and outdoor facilities, putting together a committee made up of multiple stakeholders in the community might bring to fruition funding formulas and budgetary possibilities to improve athletic infrastructure well into the 21st Century. Van Meter and Murphy (1997) framed the Interstate School Leaders Licensure Consortium (ISLLC) Standards in conjunction with the Council of Chief State School Officers (CCSSO) and the National Policy Board on Educational Administration (NPBEA) as a blueprint to assist school leaders in collaborative decision-making. ISLLC Standard Four (of Six) states, "A school administrator is an educational leader who promotes the success of all students by collaborating with families and community

members, responding to diverse community interests and needs, and mobilizing community resources" (p. 27). Standard Four could be effective philosophical starting points for a long-range athletic budget committee to plan the future of district athletic facilities. Kepner and Tregoe (as cited in McCarthy, 2007b) also use an organizational structure for effective decision-making (see Appendix F, Figure F1). The theory is a business model decision-making wheel based on learning styles and leadership qualities from the 4MAT Organization chart, and provides an alternative blueprint to ISLLC for stakeholders to follow; (h) implement a senior year elective course on sports management with an adjoining internship in the DOA. Leonia Public Schools, a high school that competes athletically with the school district in the present study, offers a program in sports management that focuses on theories of coaching, basic principles of officiating, and an introduction to athletic administration (Cullen, 2009). Interested student athletes in the internship side of the course would be assigned such responsibilities as clerical duties, budgetary compilation, athletic equipment maintenance and inventory, access and to leadership symposiums. Academic credit and/or early admission to undergraduate colleges that offer such majors would be the goal of the program. Crosswalk evaluation methods (as outlined in Chapter III) provide a blueprint for interactive discussion among stakeholders and researchers concerning appropriate and meaningful research questions, documentation requests, and tightened evaluation design by deleting or adding research questions based on multiple data sources; (i) the size of the school, the amount of athletic participation, and the number of sponsored teams by the district (17) suggests a strong argument against sports specialization or year-round commitments to one sport. While the probability of competing in collegiate athletics (Bracken, 2007) is very slim after high

school, every effort should be made by district leaders to stress the importance of participation in extracurricular activities (ECAs) and the generally positive influence it has on the academic achievement of students as demonstrated by the consistent high positive associations between cumulative GPA and PSAT and SAT scores, and the low positive correlation of the other student engagement variables of the present study. In response to the overwhelming odds of competing on the collegiate level and improbability of attaining scholarship funding, this researcher highly recommends that high school athletic leaders continue to de-emphasize sports specialization and year-round participation; (j) form a committee of multiple stakeholders to examine the current athletic eligibility policy. In response to interview data, participants were split over the effectiveness of the policy as too stringent, preventing some willing students to play athletics, or too lenient in policy, which allows some students who fail at least one course the possibility of continued participation if a certain amount of credits are maintained. The athletic participation policy committee would be direct result of the mixed findings and apprehensions from both sides of the current policy debate, and (k) propose that in-season athletes substitute their physical education class for a structured study hall to complete projects, daily assignments, or homework. Xavier High School, a parochial and optional military prep school in New York City allows their student athletes to have the option of participation in physical education class or a study hall on a weekly basis during in-season competition.

## Recommendations for Future Research

One hallmark of the present study is the practical replication by other school districts in the area. However, the non-experimental design of the quantitative portion of

the study provided simple correlation that showed association, not cause of relationships (both negative and positive) between student engagement variables. This researcher suggests that future studies should include: (a) advanced statistical analysis using multiple regression analyses that would show more cause and effect impacts, and clear up some inconsistencies with the student engagement variables used in the present study; (b) experimental designs to include manipulation of student athletes; (c) increasing the case study sample size to a comparative analysis of several other DFG schools in the area, or region; (d) use factor and cluster analyses to reduce validity and reliability issues often associated with multiple sources of quantitative data , and (e) provide time, budgetary funding, and resources (as earlier discussed in the present chapter) for school leaders to track various student engagement variables of athletes and non-athletes to make appropriate leadership, management, and/or policy decisions in a data driven manner.

For qualitative purposes, this researcher suggests that: (a) a greater sample size of interviews should be used to increase reliability and validity issues; (b) include community stakeholders in the interview protocols; (c) allow district teachers or athletic coaches trained in action research problems to answer questions over a period of time concerning DOA issues, and (d) include survey research as an alternative or addition to interview protocols, data collection, direct observation and analyses.

# References

Abood, D., Black, D., & Coster, D. (2008, May). Evaluation of a school-based teen obesity minimal intervention. *Journal of Nutrition Education & Behavior, 40*(3) 168-174.

American Athletic Union. (2007). AAU Homepage. Retrieved December 23, 2007 from www.aau.org

Beckett, A. (2002). Linking extracurricular programming to academic achievement: Who benefits and why? [Electronic version]. *Sociology of Education. 79*(1), 69-96.

Black, S. (2002). The well-rounded student: Extracurricular activities and academic performance go hand in hand. *American School Board Journal,* 189(6), 33–35.

Bolman, L. & Deal, T. (2003). *Reframing organizations: Artistry, choice, and leadership.* (3rd Ed). Thousand Oaks, CA. The Jossey-Bass Management.

Boon, C., & Clydesdale, F. (2005, October). A review of childhood and adolescent obesity interventions. [Electronic version]. *Critical Reviews in Food Science & Nutrition, 45*(7/8), 511-525.

Bracken, N. (2007). *Estimated probability of competing in athletics beyond the high school interscholastic level.* Retrieved April 7, 2008 from National Collegiate Athletic Association website: http://www.ncaa.org/

Budig, G. (2007). An athletic arms race. [Electronic version]. *Phi Delta Kappa, 89*(4), 283-284.

Bunker, D. J., & Thorpe, R. D. (1982). A model for the teaching of games in secondary schools. *Bulletin of Physical Education,* 18(1), 5-8.

Carlson, D. Scott, L., Planty, M. & Thompson, J. (2005). *What is the status of high school athletes 8 years after their senior year?* Retrieved June 15, 2007 from National Center for Educational Statistics website: http://nces.ed.gov/pubs2005/2005303.pdf

Carroll, R. (2007). Logical positivism. *The skeptics' dictionary.* Retrieved November 1, 2007 from http://skepdic.com/positivism.html

Celso, N. (2002). *New Jersey educators legal handbook: student discipline, 266.* Bulverde, TX: Omni Publishers, Inc.

College Board, The. (2008a). About the PSAT/NMSQT. Retrieved February 25, 2008 from http://www.collegeboard.com/student/testing/psat/about.html

College Board, The. (2008b). About the SAT. Retrieved February 25, 2008 from http://www.collegeboard.com/student/testing/sat/about.html

Corbett, M. (2007). *To participate or not to participate: The relationship between school-sponsored extracurricular activity participation and student outcomes.*(Doctoral dissertation, Rutgers University). Retrieved August 6, 2008 from Dissertations & Theses: Full Text database (Publication No. AAT 3274177).

Cullen, T. (2009). *The athletic life. A senior elective.* Retrieved June 6, 2009 from coachcul@aol.com

Denzin, N. (1989). The research act. *A Theoretical Introduction to Sociological Methods.* 3d. ed. Englewood Cliffs, NJ: Prentice Hall.

Dvorak, J. (2003). *A study of the deterrent effect of random drug testing student athletes on the drug use of high school students.*(Doctoral dissertation, University of Wyoming). Retrieved October 1, 2007 from ProQuest Digital Dissertations database (Publication No. AAT 3107406).

Eisner, E., & Peshkin, A. (Eds.). (1990). *Qualitative inquiry in education.* New York: Teachers College Press.

Emmons, L. (1995, November). Athletic participation and academic achievement: Can The two coexist? [electronic version]. *NAASP Bulletin. 79*(574), 107-111.

Feagin, J., Orum, A., & Sjoberg, G. (Eds.). (1991). *A case for case study.* Chapel Hill, NC: University of North Carolina Press.

Feldman, A. & Matjasko, J. (2005). The role of school-based extracurricular activities in adolescent development: A comprehensive review and future directions. *Review of Educational Research. 75*(2), 27-31.

Finn, J.D. (1993). *School engagement and students at risk.* National Center for Education Statistics. 93-470.

Finn, J.D. & Owings, J. (2006). *The adult lives of at-risk students. The roles of attainment and engagement in school.* National Center for Education Statistics. 06-328.

Flocco, D. (2004). *School schedules and how they impact student perceptions of stress.* Retrieved November 18, 2007 from Seton Hall University Dissertation Database: www.shu.edu/libraries

Fredricks, J. A., & Eccles, J. S. (2006). Is extracurricular participation associated with beneficial outcomes? Concurrent and longitudinal relations. *Developmental Psychology,* 42(4), 698–713.

Fujita, K. (2006). The effects of extracurricular activities on the academic performance of junior high students. *Undergraduate Research Journal for the Human Sciences, 5.* Retrieved data from: www.kon.org/urc/v5/fujita.html

Gould, D., Chung, Y., Smith, P. & White, J. (2006). Future directions in coaching life skills: Understanding high school coaches' views and needs. *Institute for the Study of Youth Sports*. Michigan State University. Retrieved October 15, 2007 from http://mentalhelp.net/

Griffin, R. (1992, February). Helping athletes excel in sports and in school. *The Education Digest, 57*(6) 69-73. Retrieved June 19, 2007 from http://proquest.umi.com.ezproxy.shu.edu/

Hinkle, Wiersma, & Jurs (2003). *Applied statistics for the behavior sciences* (5th ed.) Boston, MA: Houghton Mifflin Company.

Holloway, J. H. (2002). Extracurricular activities and student motivation. *Educational Leadership,* 60(1), 80–81.

Holloway, I. (1997). *Basic concepts for qualitative research.* Oxford: Blackwell Science.

Holm, D. (2009). Athletics and educational integrity: Schools, sports and society. (Doctoral dissertation, Georgetown University). Retrieved June 29, 2009, from Dissertations & Theses: Full Text (Publication No. AAT 1462691).

Howard, B. & Gilles, J. (2007). *High school sports participation increases again; Girls exceeds three million for first time.* Retrieved March 17, 2008 from National Federation of State High School Associations website: http://www.nfhs.org/web/2007/09/high_school_sports_participation.aspx

Hoy, W. & Sweetland, S. (2001, August). Designing better schools: The meaning and measure of enabling school structures. *Educational Administration Quarterly. 37,* (3), 296-321.

JacAngelo, N. P. (2003). *The relation of sports participation to academic performance of high school students.* Retrieved August 6, 2008 from http://digitalcommons.fiu.edu/cgi/query.cgi?field_1=lname&value_1=JacAngelo&field_2=fname&value_2=Nick%20Paul&advanced=1

Jergovic, D. (2001). *The impact of athletic participation on the academic achievement of American adolescents.* Retrieved March 31, 2006 from http://www.domapp01.shu.edu/

Johnson, R. (2001, March). Toward a new classification of non-experimental quantitative research. *Educational Researcher, 30*(2), 9-10.

Johnson, R. & Christensen, L. (2004). *Educational research: Quantitative, qualitative, and mixed approaches.* Boston, MA: Allyn and Bacon.

Johnson, R. & Onwuegbuzie, A. (2004, October). Mixed methods research: A research paradigm whose time has come. *Educational Researcher, 33*(7), 14-26.

Johnson, R. & Turner L. (2003). Data collection strategies in mixed methods research. A. Tashakkori. & C. Teddie (Eds.). *Handbook of mixed methods in social and behavioral research* (pp 297-319). Thousand Oaks, CA. Sage Publications.

Jones, P. (2000). Embedded values in innovation practice: Toward a theory of power and participation in organizations. *The Union Institute.* Retrieved June 23, 2009 from http://redesignresearch.com/pde-3.htm

Kolb, D. (1984). *Experiential learning: Experience as the source of learning and development.* Englewood Cliffs, NJ: Prentice Hall.

La Morte, M. W. (2007). *School law, cases and concepts.* (9th Ed). Boston, MA, Pearson.

Lee, S., Burgeson, C., Fulton, J. &, Spain, C. (2007). Physical education and physical activity: results from the school health policies and programs study 2006. *The Journal of School Health, 77*(8), 435-63.

Lippert, J. (2003). *Athletic participation and academic achievement in a large suburban high school: A case study of the complexities of the issues.* Retrieved March 31, 2006 from http://www.domapp01.shu.edu/

Lynn, P. (2006). Specialization or diversification in youth sport? *Strategies, 19*(5), 21-24.

Martin, A. & Gaskin, C. (2004). An integrated approach to coaching athletes. R. Light, K. Swabey & R. Brooker (Eds.), *Proceedings of the 2nd international conference: Teaching sport and physical education for understanding* (pp. 62-69). Melbourne, Australia: University of Melbourne.

Masse, L. (2002). *A benefit-cost analysis of the Carolina Abecedarian Preschool Program.* Retrieved March 6, 2008 from http://proquest.umi.com.ezproxy.shu.edu/ AAT 3070571

Marzano, R. (2003). *What works in schools. Translating research into action.* Alexandria, VA: ASCD Publication.

McCarthy, B. (2007a). *About learning, Inc. 4MAT organization.* Retrieved March 22, 2007 from www.aboutlearning.com

McCarthy, B. (2007b). *4MAT Tregoe-Kepner Overlay.* Retrieved May 18, 2007 from http://www.aboutlearning.com/

McCarthy, B. (1980). *The 4MAT System: Teaching to learning styles with left/right mode techniques.* Arlington Heights, IL: Excel.

McCarthy, K. (2000). *The effects of student activity participation, gender, ethnicity, and socioeconomic level on high school student grade point averages and attendance.* Symposium conducted at the National Association of African American Studies & National Association of Hispanic & Latino Studies: 2000 Literature Monograph Series, Houston, TX. Retrieved April 6, 2006 from http://SearchERIC.org/ericdc/ED423255.htm/

McMillan, D.W., & Chavis, D.M. (1986). Sense of community: A definition and theory. *American Journal of Community Psychology, 14*(1), 6-23.

Nabers, M. (2007, June). Students to lose eligibility. Strategic *Partnerships Newsletter.* Retrieved July 27, 2009 from http://www.spartnerships.com/newsletter/tgi%206-22-07/tgi.html

National Association of State Boards of Education. (2004). *Athletics and achievement: The report of the NASBE commission on high school athletics in an era of reform.* Alexandria, VA: NASBE Publications.

National Center for Educational Statistics. (2006). CCD common core of data, information on public schools and school districts in the United States. Retrieved on March 13, 2006 from http://www.usdoe.gov/

National Collegiate Athletic Association. (2008). Probability of competing on the collegiate level. Retrieved January 11, 2008 from www.NCAA.org/

Newman, T. (1999). *A case study to develop a plan to enhance male athletes' academic success.* (Doctoral dissertation, United States Sports Academy). Retrieved October 1, 2007 from ProQuest Digital Dissertations database (Publication No. AAT 9949665).

New Jersey Department of Education. (2007). *Vital Statistics.* Retrieved January 8, 2008 from http://www.njdoe.org/

New Jersey Department of Education. (2007). *District Factor Groups.* Retrieved March 22, 2007 from http://www.njdoe.org/

New Jersey State Interscholastic Athletic Association. (2007a). Sanctioned athletic participation by gender in the State of New Jersey 2005-2006 [Electronic version]. Retrieved March 13, 2006 from http://www.njsiaa.gov/

New Jersey State Interscholastic Athletic Association. (2007b). Home page introduction. Retrieved June 13, 2007 from http://www.njsiaa.gov/

No Child Left Behind Act. (2002). Waukegan Public School District 60. Retrieved June 3, 2008 from http://www.waukeganschools.org/NCLB/

O'Sullivan, R. (1991). Improving evaluation design and use through evaluation crosswalk. *Forum of Applied Educational Research Journal, 4*(1) 43-49.

O' Sullivan, R. (2004). *Practicing evaluation. A collaborative approach.* Thousand Oaks, CA: Sage Publications.

Pate, T. (1995). *An analysis of litigation wherein injured secondary and college athletes allege negligence by the coach.* (Doctoral dissertation, University of Texas at Austin. Retrieved October 1, 2007 from ProQuest Digital Dissertations database (Publication No. AAT 9534921).

Pate, T. (1994). *The relationship of player injury and certification standards to appellate court litigation alleging negligence of secondary public school coaches.* (Doctoral dissertation, University of Houston.) Retrieved October 1, 2007 from ProQuest Digital Dissertations database (Publication No. AAT 9431026).

Patton, M. (2002). *Qualitative research & evaluation methods* (3rd ed). Thousand Oaks, CA: Sage Publications.

Price, I. (2000). *Non-experimental design.* Retrieved January 6, 2008 from University of New England website: http://www.une.edu.au/WebStat/unit_materials/c2_research_design/design_nonexperimental.htm

Reeves, D. (2008, September). The extracurricular advantage. [Electronic Version]. *Educational Leadership, 66* (1), 86-87.

Roberts, J. (2007). A sane island surrounded. [Electronic Version]. *Phi Delta Kappan, 89*(4), 278-282.

Sagor, R. (2000). *Guiding improvement with action research.* Alexandria, VA: ASCD Publication.

Samuels, C. (2006). Student-athletes in New Jersey to face testing for steroids. *Education Week, 25*(41), 27.

Sindelar, P., & Tafoya, C. (2007). *Woodstock high school data book.* Woodstock, IL: Woodstock High School.

Spoor, S. (2007). *Academic achievement: A comparison of high school wrestlers' performance in-season versus out-of-season.* (Doctoral dissertation, Wilmington College. Retrieved August 6, 2008, from Dissertations & Theses: Full Text database (Publication No. AAT 3275275).

SPSS. (1999). What does Cronbach's alpha mean? Retrieved July 23, 2008 from UCLA Academic Technology Services website: *http://www.ats.ucla.edu/stat/spss/faq/alpha.html*

SPSS 17.0. (2009). Cronbach alpha. Retrieved from SPSS website: www.spss.com

Staggs, H. (2001). *The impact of academic eligibility requirements on student achievement as perceived by coaches, teachers, and students.* (Doctoral dissertation, Tennessee State University). Retrieved October 1, 2007, from ProQuest Digital Dissertations database (Publication No. AAT 3007572).

Stake, R. (1995). *The art of case study research.* Thousand Oaks, CA: Sage Publications.

Strothers, D. B. (1991). *A measure of excellence: Clovis California schools.* Bloomington, Indiana: Phi Delta Kappa Center for Evaluation, Development, and Research.

Tellis, W. (1997, September). *The qualitative report.* Retrieved on March 7, 2008 from http://www.nova.edu/ssss/QR/QR3-3/tellis2.html

Van Meter, E., & Murphy, J. (1997). *Using ISLLC standards to strengthen preparation programs in school administration.* [Electronic Version]. Washington, DC: Council of Chief State School Officers. Retrieved June 12, 2007 from http://www.umsl.edu/~mpea/Pages/AboutISLLC/AboutISLLC.html/

Watts, J. (2002). Perspectives on sport specialization. [Electronic Version]. *Journal of Physical Education, Recreation and Dance, 73*(8), 32-37.

Weissman, M. (2003). Sport psychology services in public schools: Breaking new ground through program development and support for student-athletes and coaches. (Doctoral dissertation, Rutgers University). Retrieved October 1, 2007 from ProQuest Digital Dissertations database (Publication No. AAT 3135762).

Whitley, R. (1996). *High school athletes outperform non-athletes by wide margins in massive three-year academic study.* Retrieved on April 21, 2006 from North Carolina High School Athletic Association website: http://www.nchsaa.unc.edu/case/whitley.html/

Yin, R. (1994). *Case study research: Design and methods.* (2nd ed.) Beverly Hills, CA: Sage Publishing.

# Appendix A

## History of District Factor Groups (DFGs) in New Jersey

New Jersey DFGs illustrate the socioeconomic status (SES) of all school districts designated in any township, borough, or city in New Jersey. In 2000, the NJDOE updated all DFGs, and identified 103 districts (Table A1) that are "I" configurations, by far the largest denomination. The NJDOE characterizes DFGs in the following executive summary:

> District Factor Groups were first developed in 1975 for the purpose of comparing students' performance on statewide assessments across demographically similar school districts. The categories are updated every ten years when the United States Census Bureau releases the latest Decennial Census data in the years [1993 & 2003] that end in three.
>
> DFGs have been used for purposes other than analyzing test score performance. In particular, DFGs have played a significant role in determining the initial group of districts that were classified as Abbott districts. Additionally, subsequent to the Abbott IV court ruling, DFG has also been used to define the group of school districts on which Abbott versus Burke parity remedy aid would be based.
>
> DFGs represent an approximate measure of a community's relative SES. The classification system provides a useful tool for examining student achievement and comparing similarly situated school districts in other analyses. DFG do not have a primary or significant influence in the school funding formula beyond the legal requirements associated with parity aid provided to the Abbott districts.
>
> DFGs are revised using data from the most recent Decennial Census, and efforts were made to improve the methodology while preserving the underlying meaning of the DFG classification system.... [DFGs were] calculated using the following

six variables that are closely related to SES: (a) Percent of adults with no high school diploma; (b) Percent of adults with some college education; (c) Occupational status; (d) Unemployment rate; (e) Percent of individuals in poverty, and (f) Median family income.

Unlike the model used to create DFGs based on the 1990 census data, the 2000 model omitted population density as a relevant variable. The same statistical method (principal components analysis) was used to determine a districts' relative SES…considerable research suggests that community characteristics, not only an individual's characteristics, are relevant in terms of the impact of demographics on student performance. (NJDOE, 2007, p.16)

Table A2 depicts the various and equidistant levels of DFG[ing] from multiple demographics and topographies in NJ, and illustrates any variation in their rating from 1990 to 2000. Bergen Vocational was included to represent schools that are receiving districts from an unlimited number of municipalities, but not including in the rating system. Students that attend receiving schools are included in home district tabulations. The DFG system is a scale from "A", the lowest SES rating known as Abbott districts to "J" districts, the highest SES level. The appraisal of SES for each district is updated by the NJDOE in ten-year intervals.

Table A1

*New Jersey DFGs by category and SES score*

| DFG | A | B | CD | DE | FG | GH | I | J |
|---|---|---|---|---|---|---|---|---|
| School districts | 39 | 67 | 67 | 83 | 89 | 76 | 103 | 25 |
| SES score | 1 2 3 | 4 | 5 | | 6 | | 7 | 8 |

Source: NJDOE, 2007.

Table A2

Sample New Jersey DFGs from 2000 and 1990 by category

| County | District | 2000 DFG | 1990 DFG |
|---|---|---|---|
| Passaic | Passaic City | A | A |
| Ocean | Pinelands Regional | B | B |
| Cumberland | Hopewell Township | CD | CD |
| Sussex | High Point Regional | DE | DE |
| Hudson | Hoboken City | FG | B |
| Warren | North Warren Regional | FG | FG |
| Hunterdon | Delaware Valley Regional | GH | FG |
| Mercer | East Windsor Regional | GH | GH |
| Morris | Hanover Park Regional | GH | I |
| Bergen | Cresskill Boro | I | I |
| Monmouth | Rumson-Fair Haven Regional | J | I |
| Essex | Milburn Township | J | J |
| Bergen | Bergen County Vocational* | No DFG | No DFG |

Note: *Receiving districts do not have a DFG designation.

Source: NJDOE, 2007.

1

# Appendix B

## No Child Left Behind Act of 2002

No Child Left Behind (NCLB) was signed into law January 8, 2002. The law revised the 1965 Elementary and Secondary Education Act (ESEA) The purpose of the law is to ensure that each child in America is able to meet the high learning standards of the state where he or she lives. The goals of the law, issued through the Federal Register on March 6, 2002 stated: (a) all students will reach high standards at a minimum attaining proficiency or better in reading and mathematics by 2013 – 2014; (b) by 2013 – 2014, all students will be proficient in reading by the end of the third grade; (c) all limited–English proficient students will become proficient in English; (d) by 2005 – 2006, all students will be taught by highly-qualified teachers; (e) all students will be educated in learning environments that are safe, drug free, and conducive to learning, and (f) all students will graduate from high school (http://www.waukeganschools.org/NCLB/, 2008).

The National Education Association (NEA, 2008) stated on their website the status of NCLB in January 2008:

> This month, on the eve of NCLBs sixth anniversary, a federal appeals court ruled that Education Secretary Margaret Spellings is violating the Spending Clause of the Constitution by requiring states and [local] school districts to spend their own funds to comply with the law. [President] Bush has left children behind every year, under-funding every aspect of NCLB. Six years ago, [President] Bush promised to fully fund the law…but has consistently refused to make good on his promises…recent veto of the FY 2008 education appropriations bill, there will be a $14.8 billion gap in funding for NCLB programs. That is on top of the previous cumulative gap of $56.1 billion.

# Appendix C

## IRB Forms and Permission Letters

**Letter of Solicitation: Parent/Guardian of Student-Athlete Participants**

Dear Parent/Guardian of Student-Athletes:

I am a graduate student at Seton Hall University in South Orange, NJ. I am conducting a study at the school of your son/daughter. The purpose of the study is to evaluate the academic support the Department of Athletics (DOA) gives to athletes. I am requesting your permission to approach your son/daughter to voluntarily participate in this study.

The participation of your son/daughter will be an interview session for one hour on school grounds. Some sample questions are: What are your experiences with the DOA as an athlete? How is the DOA organized to help you academically? What activities celebrate successes of the DOA? Additional guiding questions are attached.

The participation of your son/daughter is strictly voluntary. He/she may withdraw from the study at any time with no penalty or loss of benefits. If your son/daughter participates, a number will be assigned to keep his/her identity secret. With additional permission, participants will have the option to be tape-recorded during the interview. Declining this option to be tape-recorded does not prevent your son/daughter from participating in the study. Participants will be given a number to keep their identity secret. While every effort will be taken to keep participants secret, absolute secrecy may not be guaranteed. Only I and another person who will write out participant's answers will see the responses. The answers will be stored in a locked cabinet in my home.

If you wish to allow me to approach your son/daughter to participate, please sign the enclosed Informed Consent Form and return to me by mail in the self-addressed stamped envelope provided. A short time later, I will solicit your son/daughter to voluntary participate in the study. If you have any questions, you may contact me, my teacher, or the Director of the Institutional Review Board (IRB) at:

| | | |
|---|---|---|
| James M. Karpowich | Charles M. Achilles, Ed. D. | Mary Ruzicka, Ph. D. |
| Student/Researcher | teacher of Researcher | Director of IRB |
| Seton Hall University | Seton Hall University | Seton Hall University |
| 973-945-2528 | 973-275-2861 | 973-313-6314 |
| jkarp99@yahoo.com | | irb@shu.edu |

Sincerely,
James M. Karpowich

Encl: Informed Consent Form
Guiding Interview Questions

**Letter of Solicitation for**
**Student-Athlete Participants Over the Age of 12**

Dear Student-Athletes:

I am a graduate student at Seton Hall University conducting a study at your school. The purpose of the study is to evaluate the academic support the Athletic Department gives to athletes. I am seeking your voluntary participation in this study.

Participants will be asked interview questions for about one hour on school grounds. Some sample questions are: What positive or negative events have you had as an athlete in school? How does the Department of Athletics (DOA) help you academically? Why do you participate in athletics? Additional guiding questions are attached.

Participation in this study is voluntary. Participants may withdraw at any time with no penalty or loss of benefits. With additional permission, participants will have the option to be tape-recorded during the interview. Declining this option to be tape-recorded does not prevent student athletes from participating in the study. Participants will be given a number to keep their identity secret. While every effort by this researcher to keep participants secret, absolute secrecy may not be guaranteed. Only I and another person who will write out your answers will see the responses. The answers will be stored in a locked cabinet in my home.

If you wish to participate, please have yourself and your parent/guardian sign the enclosed Informed Consent Form. If you choose to be tape-recorded, have yourself and your parent/guardian sign the added consent to tape-record the interview, and return the document by mail in the self-addressed stamped envelope provided. I will contact you a short time later to set up the interview session. If you have any questions, you may contact me, my teacher, or the Director of the Institutional Review Board (IRB) at:

James M. Karpowich
Student/Researcher
Seton Hall University
973-945-2528
jkarp99@yahoo.com

Charles M. Achilles, Ed. D.
Teacher of Student
Seton Hall University
973-275-2861

Mary Ruzicka, Ph. D.
Director of IRB
Seton Hall University
973-313-6314
irb@shu.edu

Sincerely,

James M. Karpowich

Encl: Informed Consent Form
Interview Guiding Questions

**Letter of Solicitation: Athletic Coach/School Administrator Participants**

Dear Athletic Coach/School Administrator:

I am a graduate student at Seton Hall University in South Orange, NJ. I am conducting a study at your school. The purpose of the study is to evaluate the academic support the Department of Athletics (DOA) provides to athletes. I am seeking your voluntary participation in this study.

Participants will be asked interview questions for about one hour on school grounds. Some sample questions are: What are your experiences with the DOA as an athletic coach or school administrator? How is the organization structured to assist athletes academically? How are people used and resources allocated to support academics for athletes? What symbolism exists to celebrate the successes of the DOA? Additional guiding questions are attached.

With additional permission, participants will have the option to be tape-recorded during the interview. Declining this option to be tape-recorded does not prevent your participation in this study. Participants will be given a number to keep their personal identity secret. While every effort will be taken to keep participants secret, absolute secrecy may not be guaranteed. Only I will have access to the data collected. If the participant chooses the tape-recording option, a transcriber after the interview will write out the participants' answers to the interview questions on the recording. The data will be stored in a locked cabinet in my home.

If you wish to participate, please sign the enclosed Informed Consent Form. If you choose to be tape-recorded, sign the Informed Consent Form to Tape-Record, and return the document to me by mail in the self-addressed stamped envelope provided. I will contact you a short time later to set up the interview session. If you have any questions, you may contact me, my teacher, or the Director of the Institutional Review Board (IRB) at:

James M. Karpowich
Student/Researcher
Seton Hall University
973-945-2528
Jkarp99@yahoo.com

Charles M. Achilles, Ed. D.
Teacher of Student
Seton Hall University
973-275-2861

Mary Ruzicka, Ph. D.
Director of IRB
Seton Hall University
973-313-6314
irb@shu.edu

Sincerely,

James M. Karpowich

Encl: Informed Consent Form
Interview Guiding Questions

SETON HALL UNIVERSITY
1856

Seton Hall University
Institutional Review Board
JAN 27 2009
Approval Date

Expiration Date
JAN 27 2010

**Informed Consent Form**
**for Student Athletes Over the Age of 12**

1. Affiliation with Seton Hall University
This study is being undertaken by James M. Karpowich, a student at Seton Hall University.

2. Purpose of the Research and Duration of Participation
The purpose of this study is to evaluate the academic support the Department of Athletics provides to athletes. Participation in the study will take one hour.

3. Description of Procedures
Participation in the study will be a one hour interview. With additional consent, the participant has the option to have the interview tape-recorded. The answers to the interview questions will be written out and returned to the participant by mail to review, add, delete, or adjust in any way. The interview will be conducted on school grounds.

4. Instruments
Interview questions will focus on the experience as a student-athlete. Some sample questions are: How does athletic participation help you get better grades? What can the Department of Athletics do to make your experience as an athlete more successful? What activities occur that celebrate success in the Department of Athletics?

5. Participation is Voluntary
Participation in the study is voluntary. Participants may withdraw at any time with no penalty or loss of benefit. Any answers collected from the interview will be destroyed upon the participants' removal from the study.

6. Protecting Your Identity
Participants will remain secret by an assigned number during the interview. No answers from the interview will identify the participant. While every effort to keep participants secret, absolute confidentiality may not be guaranteed.

7. Confidentiality
Interview answers collected will be placed on a USB memory key, and stored in a locked filing cabinet in the home of the researcher.

College of Education and Human Services
Department of Education Leadership, Management and Policy
Tel: 973.761.9397
400 South Orange Avenue • South Orange, New Jersey 07079-2685

8. Records
The researcher will be the only person who will write down and have access to notes from the interview. If the participant and their parent/guardian agree to the tape-recording option, the answers to the interview questions from the tape-recording will be written down by a certified transcriber. Participants' interview answers will remain for three years after the study is completed, and then will be destroyed.

9. Risks or Discomforts
There will be no risks or discomforts to any participants in the study.

10. Benefits from the Research
Participants will not receive direct benefits from participation in the study. However, possible future benefits from the study include: decisions by school leaders to help maintain academic standing of athletes and better facilities.

11. Remuneration from the Research
Participants will not receive payment or rewards for participating in this study.

12. Compensation from the Research
Participants will not be given any money, nor will any medical treatments be used in this study.

13. Alternative Procedures
There are no alternative procedures contained in this study.

14. Contact Information
Participants will any questions may contact the researcher at 973-943-2528 or jkam99@yahoo.com, Charles M. Achilles, Ed. D. the teacher of the researcher at 973-275-2861, and/or Mary Razicka, Ph. D., Director of the Institutional Review Board (IRB) at 973-313-6314 or irb@shu.edu.

15. Audio-tapes
The interview session will be tape-recorded with the participants' permission, and with the permission of the participants' parent/guardian. The participant will be assigned a number on the recording as the only words identifying them. The researcher and another person who will write down the participants' answers will be the only ones with access to the recording. The tapes will be stored on a USB memory key in a locked filing cabinet in the home of the researcher. The tapes will be destroyed after three years from completion of the study, or upon the participants' withdrawal from the study.

Seton Hall University
Institutional Review Board

JAN 27 2009

Approval Date

Expiration Date

JAN 27 2010

16. Copy of Informed Consent Form

Participants and their parent/guardian will be given a signed and dated copy of the Informed Consent Form by mail, and then will be contacted shortly thereafter to set up the interview. By signing this document, the participant and their parent/guardian admit that they have read the information, had any questions answered to their satisfaction, consent to participate in the interview portion of the study, and understand that they may withdraw from the study at any time.

_____
Student -Athlete (Name)

_____ _____
Student – Athlete (Signature) Date

_____
Parent/Guardian (Name)

_____ _____
Parent/Guardian (Signature) Date

**Informed Consent Form to Tape-Record Interview of Student Athlete Participants Over the Age of 12**

By jointly signing this part of the document below, student-athlete participants and their parent/guardian consent to the tape-recording of the one-hour interview session. A number will be the only identifiable measure insuring confidentiality of the participant on the recording. While every precaution will be taken to keep participants secret, absolute confidentiality may not be guaranteed. If the participant withdraws from the study at any given time, the taped transcript or any written notes of the interview will be destroyed immediately.

By leaving this section of the Informed Consent Form blank, participants and their parent/guardian do not agree to the tape-recording option.

_____
Student – Athlete Name (Print)

_____ _____
Student – Athlete (Signature) Date

_____
Parent/Guardian Name (Print)

_____ _____
Parent/Guardian (Signature) Date

Seton Hall University
Institutional Review Board
JAN 27 2009

Expiration Date
JAN 27 2010

Approval Date

SETON HALL UNIVERSITY.

**Informed Consent Form for Parents/Guardians of Student Athletes Over the Age of 12**

1. Affiliation with Seton Hall University
This study is being undertaken by James M. Karpowich for the Department of Education, Leadership, Management, and Policy at Seton Hall University.

2. Purpose of the Research and Duration of Participation
The purpose of this study is to evaluate the academic support the Department of Athletics provides to athletes. The duration of participation will take one hour.

3. Description of Procedures
Participation in the study will be a one hour interview. With additional consent, the participant and their parent/guardian have the option to have the interview tape-recorded. After the interview, information will be returned to the participant by mail to review, add, delete, or adjust in any way. The interview will be conducted on school grounds.

4. Instruments
A list of interview guiding questions for student-athletes is enclosed. Some sample questions are: How does the athletic participation help you get better grades? What can the Department of Athletics do to make your experience as an athlete more successful? What activities occur that celebrate success as athletes?

5. Participation is Voluntary
Participation by a student athlete is voluntary. Refusal to participate or discontinue at any time will involve no penalty or loss of benefits to which the participant is entitled. Any data collected upon the participant's removal from the study will be destroyed.

6. Protecting Your Identity
Participants in the interview will be assigned number to maintain confidentiality. No identifying data of the participants will be recorded, assuring anonymity. While every precaution will be used by this researcher to keep participants anonymous, absolute confidentiality may not be guaranteed.

Expiration Date JAN 27 2010

Seton Hall University
Institutional Review Board

College of Education and Human Services
Department of Education Leadership, Management and Policy
Tel. 973.761.9397
400 South Orange Avenue • South Orange, New Jersey 07079-2685

JAN 27 2009

Approval Date

7. Confidentiality
Interview data collected will be placed on a USB memory key, and stored in a locked filing cabinet in the home of the researcher.

8. Records
No person or persons will have access to the data other then the researcher and the transcriber of the interview. All data will remain for three years after the study is completed, and then promptly destroyed.

9. Risks or Discomforts
There are no anticipated risks or discomforts to any participants in study.

10. Benefits from the Research
There will be no direct benefits by participants in the study. However, potential benefits to the school district from the research might include: (a) decision making by the Board of Education to improve the academics of athletes, and (b) improving the daily routines of the Department of Athletics.

11. Remuneration from the Research
Participants will not be given any type of remuneration in this study.

12. Compensation from the Research
Participants will not receive compensation or any medical treatments in this study.

13. Alternative Procedures
There are no alternative procedures contained in this study.

14. Contact Information
Parents/Guardians may contact the researcher with any questions or concerns at 973-945-2528 or jkarp99@yahoo.com, the dissertation Mentor Charles M. Achilles, Ed. D. at 973-275-2861, and/or Mary Ruzicka, Ph. D., Director of the Institutional Review Board (IRB) at Seton Hall University at 973-313-6314 or irb@shu.edu.

15. Audio-tapes
With additional written permission, parents/guardians and potential student-athlete participants will have the option to have the interview tape-recorded. Participants will be assigned a number as the only identifier on the recording. The researcher and a transcriber will be the only people with access to the recording. The tapes will be stored on a USB memory key in a locked filing cabinet in the home of the researcher, and destroyed after three years from completion of the study, or upon the participant's withdrawal from the study.

Seton Hall University
Institutional Review Board
JAN 27 2009
Approval Date

Expiration Date
JAN 27 2010

16. Copy of Informed Consent Form

Parent/Guardians will be provided with a signed and dated copy of the Informed Consent Form by mail. Shortly thereafter, potential student-athlete participants will be solicited by mail to consent to the interview session. By signing this document, the parent/guardian acknowledges that they have read the preceding material, and that any questions they have asked were answered to their satisfaction. The parent/guardian agrees to allow the researcher to approach their son/daughter and solicit their consent to the interview portion of this study.

| | |
|---|---|
| Parent/Guardian Print Name | Title |
| Parent/Guardian (Signature) | Date |

Seton Hall University
Institutional Review Board

JAN 27 2009

Approval Date

Expiration Date

JAN 27 2010

# Park Ridge Public Schools

Tel: (201) 573-6000 Ext. 103
Fax: (201) 391-6511
Email: Patriciajohnson@parkridge.k12.nj.us

2 Park Avenue
Park Ridge, N.J. 07656

**Dr. Patricia Johnson**
*Superintendent of Schools*

November 27, 2007

Mr. James M. Karpowich
179 Greenway Terrace
River Edge, NJ 07661

Dear Mr. ~~Karpowich~~ Jim:

The Park Ridge Board of Education agreed to support your efforts in your dissertation research with regard to our Athletic Department.

The Board however, wishes me to convey the following parameters concerning our participation in this endeavor:

1) No student record may in any identifiable form
2) Requests from district employees for records or information must not interfere with their regularly scheduled employment performance

I offer my own congratulations in this venture! Please do not hesitate to contact me if you have any further questions.

Sincerely,

Pat Johnson

Patricia Johnson
Superintendent

PJ:lc

*A district committed to educational excellence*

SETON HALL 150 UNIVERSITY

Patricia Johnson, Ed.D
Superintendent of Schools
Park Ridge School District
2 Park Avenue
Park Ridge. NJ 07656

Dear Patricia,

Jim Karpowich and I are pleased that you will serve as one of the external members of his Ed.D. committee, and may be able to share some ideas and data for his study. By involving practitioners in the Ed.D. research we are able to keep from getting too academic and Ivory Tower-ish. Thank you for agreeing to help us out.

For our files we would like a brief resume or biographic sketch that highlights those things that you believe are noteworthy and the university should have on file: Degrees, experiences, interests, presentations...Would you send that along at your convenience?

Basically, I'll rely on you to read and provide some input as Jim moves along. I'll have him send the draft of the first three chapters and/or the proposal for the study when it is in reasonable (but not final) shape. If you have any questions, please call or write me. I prefer my *home* address/phone, etc.; please see attached card for my home address. My home email address is: plato936@rochester.rr.com

I believe that Jim has a good idea for his study and expect him to move along quickly. He is motivated. The study should indicate the old Roman adage: "*sana mens in corpore sano*" (A sound mind in a strong body!)

Thanks, and cheers!

Chuck Achilles

C. M. Achilles
Professsor, Ed Admin

CMA:jid
Enc.

SETON HALL UNIVERSITY

College of Education and Human Services
Department of Education Leadership, Management and Policy
400 South Orange Avenue • South Orange, New Jersey 07079
http://www.shu.edu

Charles M. Achilles, Ed.D., Professor
Tel: 973.275.2861 • Fax: 973.275.2847
Home Tel: 315.789.2399 • Email: plato936@rochester.rr.com


# Completion Certificate

This is to certify that

**James Karpowich**

has completed the **Human Participants Protection Education for Research Teams** online course,

sponsored by the National Institutes of Health (NIH), on 09/17/2007.

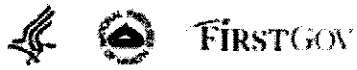
This course included the following:

- key historical events and current issues that impact guidelines and legislation on human participant protection in research.
- ethical principles and guidelines that should assist in resolving the ethical issues inherent in the conduct of research with human participants.
- the use of key ethical principles and federal regulations to protect human participants at various stages in the research process.
- a description of guidelines for the protection of special populations in research.
- a definition of informed consent and components necessary for a valid consent.
- a description of the role of the IRB in the research process.
- the roles, responsibilities, and interactions of federal agencies, institutions, and researchers in conducting research with human participants.

National Institutes of Health

http://www.nih.gov/

A Service of the National Cancer Institute



179 Greenway Terrace
River Edge, NJ 07661
November 26, 2007

Dr. Linda Lippitt
Research Consultant
About Learning, Inc.
441 W. Bonner Road
Wauconda, IL 600084

Dear Dr. Lippitt:

My name is James M. Karpowich. I am a doctoral student at Seton Hall University in South Orange, NJ. I spoke to you back in October 2007 concerning the use of *the 4MAT Organization* chart and the *Kepner – Tregoe Overlay* as theoretical frameworks in completing my dissertation entitled:

The Influence of Student Engagement and Organizational Structures on Athletic Participation and Academic Achievement in the Department of Athletics
A Case Study

As discussed, I have submitted to you a separate rough abstract of the research design, and request permission to reproduce the *Kepner – Tregoe Overlay* in my dissertation, which I have a copy, and *The 4MAT Organization*, which I require a downloadable copy. Unlike many studies using 4MAT teaching and learning products, I believe the organizational structure is a unique, yet underutilized research tool. I have also had difficult time finding research using these two models observing organizational structures, especially high school athletics. If you have access to any studies of this nature, it would greatly enhance the literature review for my dissertation.

Regardless, as an aspiring administrator who has seen dozens of curricula initiatives go by the board in our district, I have found 4MAT to be the best kept secret, one that combines teaching, learning, and leadership in a way that transcends time and circumstance.

Please consider my request. Certainly, I will keep you posted on my research, findings, and recommendations utilizing 4MAT.

Sincerely,
James M. Karpowich

Enc: Abstract

# About Learning Inc. Bringing learning to life

441 W. Bonner, Wauconda, IL 60084 * 800.822.4MAT * www.aboutlearning.com

November 26, 2007

James Karpowich
179 Greenway Terrace
River Edge, NJ 07661

Dear Mr. Karpowich:

Thank you for your November 26, 2007, e-mail requesting permission from Dr. Bernice McCarthy to publish the 4MAT Organization Chart and the Kepner-Tregoe overlay in your dissertation study at Seton Hall University. You may include a copy of the two charts, as provided by About Learning.

Please use the following copyright citation:



At the conclusion of your study, we would appreciate being kept informed of the findings and recommendations so that we may consider your work for inclusion in our Research and Dissertation Guide.

Best wishes as you complete your research.

Sincerely,
Linda Lippitt, Ph.D.
Research Consultant

# Appendix D

## Guiding Interview Questions

Table D1

*Guiding interview questions for athletic coaches/school administrators*

| |
|---|
| 1. What are your experiences with the Department of Athletics (DOA) as an athletic coach or school administrator? |
| 2. Multiple theories exist about how organizations can function. What are your experiences with: (a) How the DOA is structured to assist athletes with academic achievement; (b) How school leaders and teachers assist athletes with academic achievement; (c) How are community relationships fostered, and (d) What symbolic activities are used to identify success in the DOA. |
| 3. Which statement is more factual of the DOA?<br>(a) Coaches and administrators focus on championship attainment, statistical accumulation, and individual recognition, or<br>(b) Coaches and administrators believe that athletic participation strengthens academic achievement, outweighing team or individual honors during competition. Why so? |
| 4. Theories exist about how different learning styles can influence leadership and management decisions in organizations. What experiences have you had in the DOA with: (a) academic compliance of athletes; (b) building community relations; (c) criteria to evaluate and celebrate success in athletics beyond team championships, statistical accumulation, and/or individual recognition, and (d) the conditions of athletic facilities? |

Table D2

*Guiding interview questions for student athlete leaders*

| |
|---|
| 1. Share your experiences as a student athlete in the Department of Athletics (DOA). What drives students to participate in athletics? |
| 2. Many ideas exist about how organizations can function well. What is your knowledge about: (a) How the DOA works to help athletes with academics; (b) How coaches and administrators help the DOA function; (c) How does the community work with the school to assist high school athletics, and (d) What events celebrate the successes in the DOA? |
| 3. Which statement is truer of the DOA in your school?<br>(a) Student athletic participation focuses on winning championships, statistical buildup, and individual honor, or<br>(b) Athletic participation focuses on the academic achievement of students. Why so? |
| 4. Ideas exist about how school leaders can influence decisions in organizations. What experiences have you had with: (a) How school leaders set rules for students to get better grades; (b) How school leaders work to better community relations; (c) What school leaders do to judge athletic success separate from team championships, statistical build up, and/or individual recognition, and (d) What are the conditions of athletic facilities? |

# Appendix E

## Correlation Tables

Table E1

*Correlation coefficient interpretation used in the present study*

| Size of Correlation | Interpretation |
|---|---|
| .90 to 1.00 (-.90 to -1.00) | Very high positive (negative) correlation |
| .70 to .90 (-.70 to -.90) | High positive (negative) correlation |
| .50 to .70 (-.50 to -.70) | Moderate positive (negative) correlation |
| .30 to .50 (-.30 to -.50) | Low positive (negative) correlation |
| .00 to .30 (.00 to .-30) | Little if any correlation |

Note: Adapted from Hinkle, Wiersma, & Jurs (2003), *Applied Statistics for the Behavior Sciences,* 5th ed.

Table E2

*Reliability of SAT scores*

Case Processing Summary

| | | N | % |
|---|---|---|---|
| Cases | Valid | 73 | 21.3 |
| | Excluded[a] | 270 | 78.7 |
| | Total | 343 | 100.0 |

a. List wise deletion based on all variables in the procedure.

Reliability Statistics

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|---|---|---|
| .034 | .037 | 5 |

**Inter-Item Correlation Matrix**

| | Disciplinary Referrals | Days Absent from School | Cumulative GPA | Amount of Athletic Participation | SAT Scores |
|---|---|---|---|---|---|
| Disciplinary Referrals | 1.000 | .198 | -.353 | .133 | -.106 |
| Days Absent from School | .198 | 1.000 | -.219 | -.186 | -.107 |
| Cumulative GPA | -.353 | -.219 | 1.000 | -.051 | .773 |
| Amount of Athletic Participation | .133 | -.186 | -.051 | 1.000 | -.006 |
| SAT Scores | -.106 | -.107 | .773 | -.006 | 1.000 |

Table E3

*Reliability of scholarship attainment*

Case Processing Summary

| | | N | % |
|---|---|---|---|
| Cases | Valid | 25 | 7.3 |
| | Excluded[a] | 318 | 92.7 |
| | Total | 343 | 100.0 |

a. List wise deletion based on all variables in the procedure.

Reliability Statistics

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|---|---|---|
| .043 | .442 | 5 |

Inter-Item Correlation Matrix

| | Disciplinary Referrals | Days Absent from School | Cumulative GPA | SAT Scores | Scholarship Attainment |
|---|---|---|---|---|---|
| Disciplinary Referrals | 1.000 | .252 | -.193 | -.088 | -.266 |
| Days Absent from School | .252 | 1.000 | -.047 | .027 | .191 |
| Cumulative GPA | -.193 | -.047 | 1.000 | .787 | .331 |
| SAT Scores | -.088 | .027 | .787 | 1.000 | .370 |
| Scholarship Attainment | -.266 | .191 | .331 | .370 | 1.000 |

Table E4

*Reliability of PSAT scores*

Case Processing Summary

| | | N | % |
|---|---|---|---|
| Cases | Valid | 82 | 23.9 |
| | Excluded[a] | 261 | 76.1 |
| | Total | 343 | 100.0 |

a. List wise deletion based on all variables in the procedure.

Reliability Statistics

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items[a] | N of Items |
|---|---|---|
| .072 | -.072 | 5 |

a. The value is negative due to a negative average covariance among items. This violates reliability model assumptions.

**Inter-Item Correlation Matrix**

| | Disciplinary Referrals | Days Absent from School | Cumulative GPA | Amount of Athletic Participation | PSAT Scores |
|---|---|---|---|---|---|
| Disciplinary Referrals | 1.000 | .495 | -.436 | -.180 | -.284 |
| Days Absent from School | .495 | 1.000 | -.364 | -.345 | -.272 |
| Cumulative GPA | -.436 | -.364 | 1.000 | .257 | .733 |
| Amount of Athletic Participation | -.180 | -.345 | .257 | 1.000 | .261 |
| PSAT Scores | -.284 | -.272 | .733 | .261 | 1.000 |

Table E5

*Case description of student engagement variables*

**Descriptive Statistics**

| | N | Minimum | Maximum | Mean | | Std. Deviation |
|---|---|---|---|---|---|---|
| | Statistic | Statistic | Statistic | Statistic | Std. Error | Statistic |
| Days Absent from School | 343 | 0 | 77 | 7.32 | .377 | 6.991 |
| Disciplinary Referrals | 343 | 0 | 40 | 4.06 | .322 | 5.958 |
| Cumulative GPA | 343 | 72.3235 | 100.0938 | 85.926765 | .3404047 | 6.3043828 |
| SAT Scores | 73 | 1080 | 2220 | 1683.56 | 30.246 | 258.421 |
| PSAT Scores | 82 | 79 | 214 | 152.38 | 3.146 | 28.491 |
| Valid N (list wise) | 0 | | | | | |

Table E6

*Case summary by gender*

Report

| Gender | | Days Absent from School | Disciplinary Referrals | Cumulative GPA | SAT Scores | Scholarship Attainment | Grade | PSAT Scores | Amount of Athletic Participation |
|---|---|---|---|---|---|---|---|---|---|
| Male | Mean | 6.21 | 4.30 | 84.750155 | 1622.50 | .00 | 10.46 | 156.18 | 1.37 |
| | N | 168 | 168 | 168 | 36 | 13 | 168 | 40 | 168 |
| | Std. Deviation | 5.012 | 6.226 | 5.9967549 | 263.605 | .000 | 1.152 | 24.615 | 1.047 |
| | Minimum | 0 | 0 | 72.3235 | 1080 | No Scholarship | Grade 9 | 110 | 0 Participation |
| | Maximum | 28 | 40 | 100.0938 | 2220 | No Scholarship | Grade 12 | 212 | 3 Sport Participation |
| Female | Mean | 8.39 | 3.82 | 87.056310 | 1742.97 | .19 | 10.51 | 148.76 | 1.02 |
| | N | 175 | 175 | 175 | 37 | 16 | 175 | 42 | 175 |
| | Std. Deviation | 8.343 | 5.696 | 6.4020092 | 242.176 | .403 | 1.149 | 31.621 | .922 |
| | Minimum | 0 | 0 | 72.8571 | 1220 | No Scholarship | Grade 9 | 79 | 0 Participation |
| | Maximum | 77 | 30 | 99.1950 | 2150 | Scholarship Attainment | Grade 12 | 214 | 3 Sport Participation |
| Total | Mean | 7.32 | 4.06 | 85.926765 | 1683.56 | .10 | 10.49 | 152.38 | 1.19 |
| | N | 343 | 343 | 343 | 73 | 29 | 343 | 82 | 343 |
| | Std. Deviation | 6.991 | 5.958 | 6.3043828 | 258.421 | .310 | 1.149 | 28.491 | .999 |
| | Minimum | 0 | 0 | 72.3235 | 1080 | No Scholarship | Grade 9 | 79 | 0 Participation |
| | Maximum | 77 | 40 | 100.0938 | 2220 | Scholarship Attainment | Grade 12 | 214 | 3 Sport Participation |

Table E7

*Case summary by amount of athletic participation*

**Report**

| Amount of Athletic Participation | | Days Absent from School | Disciplinary Referrals | Cumulative GPA | SAT Scores | Scholarship Attainment | Gender | Grade | PSAT Scores |
|---|---|---|---|---|---|---|---|---|---|
| 0 Participation | Mean | 9.67 | 5.06 | 84.743411 | 1744.76 | | 1.57 | 10.43 | 143.43 |
| | N | 108 | 108 | 108 | 21 | | 108 | 108 | 23 |
| | Std. Deviation | 9.693 | 7.099 | 6.3159496 | 285.353 | | .497 | 1.162 | 30.872 |
| 1 Sport Participation | Mean | 7.30 | 3.88 | 85.030808 | 1625.60 | .10 | 1.59 | 10.66 | 148.68 |
| | N | 97 | 97 | 97 | 25 | 29 | 97 | 97 | 25 |
| | Std. Deviation | 5.831 | 5.707 | 6.3273175 | 269.120 | .310 | .495 | 1.117 | 28.660 |
| 2 Sport Participation | Mean | 5.39 | 3.45 | 87.247338 | 1636.11 | | 1.45 | 10.41 | 160.65 |
| | N | 102 | 102 | 102 | 18 | | 102 | 102 | 26 |
| | Std. Deviation | 4.260 | 4.717 | 5.9591171 | 233.922 | | .500 | 1.111 | 24.563 |
| 3 Sport Participation | Mean | 5.81 | 3.28 | 88.149306 | 1796.67 | | 1.28 | 10.44 | 162.75 |
| | N | 36 | 36 | 36 | 9 | | 36 | 36 | 8 |
| | Std. Deviation | 3.740 | 5.863 | 6.1172594 | 155.322 | | .454 | 1.297 | 27.160 |
| Total | Mean | 7.32 | 4.06 | 85.926765 | 1683.56 | .10 | 1.51 | 10.49 | 152.38 |
| | N | 343 | 343 | 343 | 73 | 29 | 343 | 343 | 82 |
| | Std. Deviation | 6.991 | 5.958 | 6.3043828 | 258.421 | .310 | .501 | 1.149 | 28.491 |

Table E8

*All athletes and student engagement variables*

**Correlations**

| | | Cumulative GPA | PSAT Scores | SAT Scores | Days Absent from School | Disciplinary Referrals |
|---|---|---|---|---|---|---|
| Cumulative GPA | Pearson Correlation | 1 | .777** | .704** | -.291** | -.393** |
| | Sig. (2-tailed) | | .000 | .000 | .000 | .000 |
| | N | 235 | 59 | 52 | 235 | 235 |
| PSAT Scores | Pearson Correlation | .777** | 1 | .[a] | -.317* | -.380** |
| | Sig. (2-tailed) | .000 | . | | .014 | .003 |
| | N | 59 | 59 | 0 | 59 | 59 |
| SAT Scores | Pearson Correlation | .704** | .[a] | 1 | -.015 | -.120 |
| | Sig. (2-tailed) | .000 | . | | .918 | .395 |
| | N | 52 | 0 | 52 | 52 | 52 |
| Days Absent from School | Pearson Correlation | -.291** | -.317* | -.015 | 1 | .314** |
| | Sig. (2-tailed) | .000 | .014 | .918 | | .000 |
| | N | 235 | 59 | 52 | 235 | 235 |
| Disciplinary Referrals | Pearson Correlation | -.393** | -.380** | -.120 | .314** | 1 |
| | Sig. (2-tailed) | .000 | .003 | .395 | .000 | |
| | N | 235 | 59 | 52 | 235 | 235 |

**. Correlation is significant at the 0.01 level (2-tailed).

a. Cannot be computed because at least one of the variables is constant.

*. Correlation is significant at the 0.05 level (2-tailed).

Table E9

*All athletes and student engagement variables by gender*

**Correlations**

| Gender | | | Cumulative GPA | PSAT Scores | SAT Scores | Days Absent from School | Disciplinary Referrals | Grade | Amount of Athletic Participation |
|---|---|---|---|---|---|---|---|---|---|
| Male | Cumulative GPA | Pearson Correlation | 1 | .771** | .603** | -.292** | -.359** | -.016 | .210* |
| | | Sig. (2-tailed) | | .000 | .001 | .001 | .000 | .859 | .020 |
| | | N | 122 | 32 | 29 | 122 | 122 | 122 | 122 |
| | PSAT Scores | Pearson Correlation | .771** | 1 | .a | -.129 | -.322 | .a | -.103 |
| | | Sig. (2-tailed) | .000 | | | .483 | .073 | .000 | .576 |
| | | N | 32 | 32 | 0 | 32 | 32 | 32 | 32 |
| | SAT Scores | Pearson Correlation | .603** | .a | 1 | -.150 | -.074 | .a | .366 |
| | | Sig. (2-tailed) | .001 | | | .437 | .702 | .000 | .052 |
| | | N | 29 | 0 | 29 | 29 | 29 | 29 | 29 |
| | Days Absent from School | Pearson Correlation | -.292** | -.129 | -.150 | 1 | .293** | .017 | -.193* |
| | | Sig. (2-tailed) | .001 | .483 | .437 | | .001 | .851 | .033 |
| | | N | 122 | 32 | 29 | 122 | 122 | 122 | 122 |
| | Disciplinary Referrals | Pearson Correlation | -.359** | -.322 | -.074 | .293** | 1 | .077 | -.010 |
| | | Sig. (2-tailed) | .000 | .073 | .702 | .001 | | .401 | .909 |
| | | N | 122 | 32 | 29 | 122 | 122 | 122 | 122 |
| | Grade | Pearson Correlation | -.016 | .a | .a | .017 | .077 | 1 | -.081 |
| | | Sig. (2-tailed) | .859 | .000 | .000 | .851 | .401 | | .377 |
| | | N | 122 | 32 | 29 | 122 | 122 | 122 | 122 |
| | Amount of Athletic Participation | Pearson Correlation | .210* | -.103 | .365 | -.193* | -.010 | -.081 | 1 |
| | | Sig. (2-tailed) | .020 | .576 | .052 | .033 | .909 | .377 | |
| | | N | 122 | 32 | 29 | 122 | 122 | 122 | 122 |
| Female | Cumulative GPA | Pearson Correlation | 1 | .811** | .845** | -.324** | -.417** | .017 | .292** |
| | | Sig. (2-tailed) | | .000 | .000 | .000 | .000 | .860 | .002 |
| | | N | 113 | 27 | 23 | 113 | 113 | 113 | 113 |
| | PSAT Scores | Pearson Correlation | .811** | 1 | .a | -.415* | -.408* | .a | .486** |
| | | Sig. (2-tailed) | .000 | | | .031 | .034 | .000 | .010 |
| | | N | 27 | 27 | 0 | 27 | 27 | 27 | 27 |
| | SAT Scores | Pearson Correlation | .845** | .a | 1 | .333 | -.160 | .a | .134 |
| | | Sig. (2-tailed) | .000 | | | .120 | .467 | .000 | .543 |
| | | N | 23 | 0 | 23 | 23 | 23 | 23 | 23 |
| | Days Absent from School | Pearson Correlation | -.324** | -.415* | .333 | 1 | .348** | -.149 | -.067 |
| | | Sig. (2-tailed) | .000 | .031 | .120 | | .000 | .116 | .479 |
| | | N | 113 | 27 | 23 | 113 | 113 | 113 | 113 |
| | Disciplinary Referrals | Pearson Correlation | -.417** | -.408* | -.160 | .348** | 1 | .253** | -.127 |
| | | Sig. (2-tailed) | .000 | .034 | .467 | .000 | | .007 | .179 |
| | | N | 113 | 27 | 23 | 113 | 113 | 113 | 113 |
| | Grade | Pearson Correlation | .017 | .a | .a | -.149 | .253** | 1 | -.118 |
| | | Sig. (2-tailed) | .860 | .000 | .000 | .116 | .007 | | .213 |
| | | N | 113 | 27 | 23 | 113 | 113 | 113 | 113 |
| | Amount of Athletic Participation | Pearson Correlation | .292** | .486** | .134 | -.067 | -.127 | -.118 | 1 |
| | | Sig. (2-tailed) | .002 | .010 | .543 | .479 | .179 | .213 | |
| | | N | 113 | 27 | 23 | 113 | 113 | 113 | 113 |

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

a. Cannot be computed because at least one of the variables is constant.

Table E10

*Zero athletic participation and student engagement variables*

**Correlations[b]**

| | | Cumulative GPA | PSAT Scores | SAT Scores | Disciplinary Referrals | Days Absent from School |
|---|---|---|---|---|---|---|
| Cumulative GPA | Pearson Correlation | 1 | .596** | .889** | -.287** | -.342** |
| | Sig. (2-tailed) | | .003 | .000 | .003 | .000 |
| | N | 108 | 23 | 21 | 108 | 108 |
| PSAT Scores | Pearson Correlation | .596** | 1 | .[a] | -.007 | -.060 |
| | Sig. (2-tailed) | .003 | | . | .973 | .785 |
| | N | 23 | 23 | 0 | 23 | 23 |
| SAT Scores | Pearson Correlation | .889** | .[a] | 1 | -.070 | -.305 |
| | Sig. (2-tailed) | .000 | . | | .763 | .178 |
| | N | 21 | 0 | 21 | 21 | 21 |
| Disciplinary Referrals | Pearson Correlation | -.287** | -.007 | -.070 | 1 | .366** |
| | Sig. (2-tailed) | .003 | .973 | .763 | | .000 |
| | N | 108 | 23 | 21 | 108 | 108 |
| Days Absent from School | Pearson Correlation | -.342** | -.060 | -.305 | .366** | 1 |
| | Sig. (2-tailed) | .000 | .785 | .178 | .000 | |
| | N | 108 | 23 | 21 | 108 | 108 |

**. Correlation is significant at the 0.01 level (2-tailed).

a. Cannot be computed because at least one of the variables is constant.

b. Amount of Athletic Participation = 0 Participation

Table E11

*One athletic participation and student engagement variables*

**Correlations[b]**

| | | Cumulative GPA | PSAT Scores | SAT Scores | Disciplinary Referrals | Days Absent from School |
|---|---|---|---|---|---|---|
| Cumulative GPA | Pearson Correlation | 1 | .718** | .787** | -.404** | -.347** |
| | Sig. (2-tailed) | | .000 | .000 | .000 | .001 |
| | N | 97 | 25 | 25 | 97 | 97 |
| PSAT Scores | Pearson Correlation | .718** | 1 | .[a] | -.394 | -.384 |
| | Sig. (2-tailed) | .000 | | . | .051 | .058 |
| | N | 25 | 25 | 0 | 25 | 25 |
| SAT Scores | Pearson Correlation | .787** | .[a] | 1 | -.088 | .027 |
| | Sig. (2-tailed) | .000 | . | | .677 | .897 |
| | N | 25 | 0 | 25 | 25 | 25 |
| Disciplinary Referrals | Pearson Correlation | -.404** | -.394 | -.088 | 1 | .457** |
| | Sig. (2-tailed) | .000 | .051 | .677 | | .000 |
| | N | 97 | 25 | 25 | 97 | 97 |
| Days Absent from School | Pearson Correlation | -.347** | -.384 | .027 | .457** | 1 |
| | Sig. (2-tailed) | .001 | .058 | .897 | .000 | |
| | N | 97 | 25 | 25 | 97 | 97 |

**. Correlation is significant at the 0.01 level (2-tailed).

a. Cannot be computed because at least one of the variables is constant.

b. Amount of Athletic Participation = 1 Sport Participation

Table E12

*Two athletic participation and student engagement variables*

**Correlations[b]**

| | | Cumulative GPA | PSAT Scores | SAT Scores | Disciplinary Referrals | Days Absent from School |
|---|---|---|---|---|---|---|
| Cumulative GPA | Pearson Correlation | 1 | .774** | .637** | -.349** | -.206* |
| | Sig. (2-tailed) | | .000 | .004 | .000 | .037 |
| | N | 102 | 26 | 18 | 102 | 102 |
| PSAT Scores | Pearson Correlation | .774** | 1 | .[a] | -.317 | -.309 |
| | Sig. (2-tailed) | .000 | . | | .115 | .125 |
| | N | 26 | 26 | 0 | 26 | 26 |
| SAT Scores | Pearson Correlation | .637** | .[a] | 1 | -.248 | -.321 |
| | Sig. (2-tailed) | .004 | . | | .321 | .194 |
| | N | 18 | 0 | 18 | 18 | 18 |
| Disciplinary Referrals | Pearson Correlation | -.349** | -.317 | -.248 | 1 | .174 |
| | Sig. (2-tailed) | .000 | .115 | .321 | | .080 |
| | N | 102 | 26 | 18 | 102 | 102 |
| Days Absent from School | Pearson Correlation | -.206* | -.309 | -.321 | .174 | 1 |
| | Sig. (2-tailed) | .037 | .125 | .194 | .080 | |
| | N | 102 | 26 | 18 | 102 | 102 |

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

a. Cannot be computed because at least one of the variables is constant.

b. Amount of Athletic Participation = 2 Sport Participation

Table E13

*Three athletic participation and student engagement variables*

**Correlations[b]**

| | | Cumulative GPA | PSAT Scores | SAT Scores | Disciplinary Referrals | Days Absent from School |
|---|---|---|---|---|---|---|
| Cumulative GPA | Pearson Correlation | 1 | .922** | .520 | -.465** | -.139 |
| | Sig. (2-tailed) | | .001 | .151 | .004 | .419 |
| | N | 36 | 8 | 9 | 36 | 36 |
| PSAT Scores | Pearson Correlation | .922** | 1 | .[a] | -.100 | .378 |
| | Sig. (2-tailed) | .001 | . | | .327 | .355 |
| | N | 8 | 8 | 0 | 8 | 8 |
| SAT Scores | Pearson Correlation | .520 | .[a] | 1 | -.402 | .483 |
| | Sig. (2-tailed) | .151 | . | | .283 | .187 |
| | N | 9 | 0 | 9 | 9 | 9 |
| Disciplinary Referrals | Pearson Correlation | -.465** | -.100 | -.402 | 1 | .099 |
| | Sig. (2-tailed) | .004 | .327 | .283 | | .566 |
| | N | 36 | 8 | 9 | 36 | 36 |
| Days Absent from School | Pearson Correlation | -.139 | .378 | .483 | .099 | 1 |
| | Sig. (2-tailed) | .419 | .355 | .187 | .566 | |
| | N | 36 | 8 | 9 | 36 | 36 |

**. Correlation is significant at the 0.01 level (2-tailed).

a. Cannot be computed because at least one of the variables is constant.

b. Amount of Athletic Participation = 3 Sport Participation

Table E14

*Zero athletic participation by gender*

**Correlations**

| Amount of Athletic Participation | Gender | | | Cumulative GPA | PSAT Scores | SAT Scores | Days Absent from School | Disciplinary Referrals |
|---|---|---|---|---|---|---|---|---|
| 0 Participation | Male | Cumulative GPA | Pearson Correlation | 1 | .576 | .757* | -.198 | -.288 |
| | | | Sig. (2-tailed) | | .135 | .049 | .188 | .052 |
| | | | N | 46 | 8 | 7 | 46 | 46 |
| | | PSAT Scores | Pearson Correlation | .576 | 1 | .[a] | .698 | .078 |
| | | | Sig. (2-tailed) | .135 | . | . | .054 | .853 |
| | | | N | 8 | 8 | 0 | 8 | 8 |
| | | SAT Scores | Pearson Correlation | .757* | .[a] | 1 | -.197 | .122 |
| | | | Sig. (2-tailed) | .049 | . | . | .672 | .794 |
| | | | N | 7 | 0 | 7 | 7 | 7 |
| | | Days Absent from School | Pearson Correlation | -.198 | .698 | -.197 | 1 | .289 |
| | | | Sig. (2-tailed) | .188 | .054 | .672 | . | .052 |
| | | | N | 46 | 8 | 7 | 46 | 46 |
| | | Disciplinary Referrals | Pearson Correlation | -.288 | .078 | .122 | .289 | 1 |
| | | | Sig. (2-tailed) | .052 | .853 | .794 | .052 | . |
| | | | N | 46 | 8 | 7 | 46 | 46 |
| | Female | Cumulative GPA | Pearson Correlation | 1 | .654** | .943** | -.512** | -.297* |
| | | | Sig. (2-tailed) | . | .008 | .000 | .000 | .019 |
| | | | N | 62 | 15 | 14 | 62 | 62 |
| | | PSAT Scores | Pearson Correlation | .654** | 1 | .[a] | -.475 | -.029 |
| | | | Sig. (2-tailed) | .008 | . | . | .074 | .917 |
| | | | N | 15 | 15 | 0 | 15 | 15 |
| | | SAT Scores | Pearson Correlation | .943** | .[a] | 1 | -.373 | -.140 |
| | | | Sig. (2-tailed) | .000 | . | . | .189 | .633 |
| | | | N | 14 | 0 | 14 | 14 | 14 |
| | | Days Absent from School | Pearson Correlation | -.512** | -.475 | -.373 | 1 | .482** |
| | | | Sig. (2-tailed) | .000 | .074 | .189 | . | .000 |
| | | | N | 62 | 15 | 14 | 62 | 62 |
| | | Disciplinary Referrals | Pearson Correlation | -.297* | -.029 | -.140 | .482** | 1 |
| | | | Sig. (2-tailed) | .019 | .917 | .633 | .000 | . |
| | | | N | 62 | 15 | 14 | 62 | 62 |

*. Correlation is significant at the 0.05 level (2-tailed).

a. Cannot be computed because at least one of the variables is constant.

**. Correlation is significant at the 0.01 level (2-tailed).

Table E15

*One athletic participation by gender*

**Correlations**

| Amount of Athletic Participation | Gender | | | Cumulative GPA | PSAT Scores | SAT Scores | Days Absent from School | Disciplinary Referrals |
|---|---|---|---|---|---|---|---|---|
| 1 Sport Participation | Male | Cumulative GPA | Pearson Correlation | 1 | .813** | .629* | -.328* | -.348* |
| | | | Sig. (2-tailed) | | .008 | .028 | .039 | .028 |
| | | | N | 40 | 9 | 12 | 40 | 40 |
| | | PSAT Scores | Pearson Correlation | .813** | 1 | .a | -.014 | -.161 |
| | | | Sig. (2-tailed) | .008 | . | | .971 | .678 |
| | | | N | 9 | 9 | 0 | 9 | 9 |
| | | SAT Scores | Pearson Correlation | .629* | .a | 1 | -.260 | -.571 |
| | | | Sig. (2-tailed) | .028 | . | | .414 | .053 |
| | | | N | 12 | 0 | 12 | 12 | 12 |
| | | Days Absent from School | Pearson Correlation | -.328* | -.014 | -.260 | 1 | .535** |
| | | | Sig. (2-tailed) | .039 | .971 | .414 | | .000 |
| | | | N | 40 | 9 | 12 | 40 | 40 |
| | | Disciplinary Referrals | Pearson Correlation | -.348* | -.161 | -.571 | .535** | 1 |
| | | | Sig. (2-tailed) | .028 | .678 | .053 | .000 | |
| | | | N | 40 | 9 | 12 | 40 | 40 |
| | Female | Cumulative GPA | Pearson Correlation | 1 | .703** | .884** | -.362** | -.447** |
| | | | Sig. (2-tailed) | | .002 | .000 | .006 | .000 |
| | | | N | 57 | 16 | 13 | 57 | 57 |
| | | PSAT Scores | Pearson Correlation | .703** | 1 | .a | -.542* | -.415 |
| | | | Sig. (2-tailed) | .002 | . | | .030 | .110 |
| | | | N | 16 | 16 | 0 | 16 | 16 |
| | | SAT Scores | Pearson Correlation | .884** | .a | 1 | .512 | -.027 |
| | | | Sig. (2-tailed) | .000 | . | | .073 | .931 |
| | | | N | 13 | 0 | 13 | 13 | 13 |
| | | Days Absent from School | Pearson Correlation | -.362** | -.542* | .512 | 1 | .418** |
| | | | Sig. (2-tailed) | .006 | .030 | .073 | | .001 |
| | | | N | 57 | 16 | 13 | 57 | 57 |
| | | Disciplinary Referrals | Pearson Correlation | -.447** | -.415 | -.027 | .418** | 1 |
| | | | Sig. (2-tailed) | .000 | .110 | .931 | .001 | |
| | | | N | 57 | 16 | 13 | 57 | 57 |

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

a. Cannot be computed because at least one of the variables is constant.

Table E16

*Two athletic participation by gender*

**Correlations**

| Amount of Athletic Participation | Gender | | | Cumulative GPA | PSAT Scores | SAT Scores | Days Absent from School | Disciplinary Referrals |
|---|---|---|---|---|---|---|---|---|
| 2 Sport Participation | Male | Cumulative GPA | Pearson Correlation | 1 | .715** | .597 | -.124 | -.300* |
| | | | Sig. (2-tailed) | | .001 | .090 | .363 | .025 |
| | | | N | 56 | 17 | 9 | 56 | 56 |
| | | PSAT Scores | Pearson Correlation | .715** | 1 | .a | -.218 | -.294 |
| | | | Sig. (2-tailed) | .001 | . | | .400 | .252 |
| | | | N | 17 | 17 | 0 | 17 | 17 |
| | | SAT Scores | Pearson Correlation | .597 | .a | 1 | -.306 | -.115 |
| | | | Sig. (2-tailed) | .090 | . | | .423 | .769 |
| | | | N | 9 | 0 | 9 | 9 | 9 |
| | | Days Absent from School | Pearson Correlation | -.124 | -.218 | -.306 | 1 | .188 |
| | | | Sig. (2-tailed) | .363 | .400 | .423 | | .166 |
| | | | N | 56 | 17 | 9 | 56 | 56 |
| | | Disciplinary Referrals | Pearson Correlation | -.300* | -.294 | -.115 | .188 | 1 |
| | | | Sig. (2-tailed) | .025 | .252 | .769 | .166 | |
| | | | N | 56 | 17 | 9 | 56 | 56 |
| | Female | Cumulative GPA | Pearson Correlation | 1 | .880** | .616 | -.363* | -.332* |
| | | | Sig. (2-tailed) | | .002 | .077 | .013 | .024 |
| | | | N | 46 | 9 | 9 | 46 | 46 |
| | | PSAT Scores | Pearson Correlation | .880** | 1 | .a | -.401 | -.331 |
| | | | Sig. (2-tailed) | .002 | . | | .285 | .384 |
| | | | N | 9 | 9 | 0 | 9 | 9 |
| | | SAT Scores | Pearson Correlation | .616 | .a | 1 | -.164 | -.588 |
| | | | Sig. (2-tailed) | .077 | . | | .674 | .096 |
| | | | N | 9 | 0 | 9 | 9 | 9 |
| | | Days Absent from School | Pearson Correlation | -.363* | -.401 | -.164 | 1 | .223 |
| | | | Sig. (2-tailed) | .013 | .285 | .674 | | .137 |
| | | | N | 46 | 9 | 9 | 46 | 46 |
| | | Disciplinary Referrals | Pearson Correlation | -.332* | -.331 | -.588 | .223 | 1 |
| | | | Sig. (2-tailed) | .024 | .384 | .096 | .137 | |
| | | | N | 46 | 9 | 9 | 46 | 46 |

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

a. Cannot be computed because at least one of the variables is constant.

Table E17

*Three athletic participation by gender*

**Correlations**

| Amount of Athletic Participation | Gender | | | Cumulative GPA | PSAT Scores | SAT Scores | Days Absent from School | Disciplinary Referrals |
|---|---|---|---|---|---|---|---|---|
| 3 Sport Participation | Male | Cumulative GPA | Pearson Correlation | 1 | .919** | .376 | -.431* | -.521** |
| | | | Sig. (2-tailed) | | .010 | .359 | .028 | .006 |
| | | | N | 26 | 6 | 8 | 26 | 26 |
| | | PSAT Scores | Pearson Correlation | .919** | 1 | .a | -.536 | -.569 |
| | | | Sig. (2-tailed) | .010 | . | . | .273 | .239 |
| | | | N | 6 | 6 | 0 | 6 | 6 |
| | | SAT Scores | Pearson Correlation | .376 | .a | 1 | .645 | -.318 |
| | | | Sig. (2-tailed) | .359 | . | . | .084 | .442 |
| | | | N | 8 | 0 | 8 | 8 | 8 |
| | | Days Absent from School | Pearson Correlation | -.431* | -.536 | .645 | 1 | .118 |
| | | | Sig. (2-tailed) | .028 | .273 | .084 | . | .565 |
| | | | N | 26 | 6 | 8 | 26 | 26 |
| | | Disciplinary Referrals | Pearson Correlation | -.521** | -.569 | -.318 | .118 | 1 |
| | | | Sig. (2-tailed) | .006 | .239 | .442 | .565 | . |
| | | | N | 26 | 6 | 8 | 26 | 26 |
| | Female | Cumulative GPA | Pearson Correlation | 1 | 1.000** | .a | .477 | -.278 |
| | | | Sig. (2-tailed) | . | . | . | .164 | .436 |
| | | | N | 10 | 2 | 1 | 10 | 10 |
| | | PSAT Scores | Pearson Correlation | 1.000** | 1 | .a | 1.000** | 1.000** |
| | | | Sig. (2-tailed) | . | . | . | . | . |
| | | | N | 2 | 2 | 0 | 2 | 2 |
| | | SAT Scores | Pearson Correlation | .a | .a | .a | .a | .a |
| | | | Sig. (2-tailed) | . | . | . | . | . |
| | | | N | 1 | 0 | 1 | 1 | 1 |
| | | Days Absent from School | Pearson Correlation | .477 | 1.000** | .a | 1 | .100 |
| | | | Sig. (2-tailed) | .164 | . | . | . | .784 |
| | | | N | 10 | 2 | 1 | 10 | 10 |
| | | Disciplinary Referrals | Pearson Correlation | -.278 | 1.000** | .a | .100 | 1 |
| | | | Sig. (2-tailed) | .436 | . | . | .784 | . |
| | | | N | 10 | 2 | 1 | 10 | 10 |

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

a. Cannot be computed because at least one of the variables is constant.

Table E18

*Frequency of one sport participation by gender and grade*

**Amount of Athletic Participation**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 1 Sport Participation | 97 | 100.0 | 100.0 | 100.0 |

**Gender**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Male | 40 | 41.2 | 41.2 | 41.2 |
| | Female | 57 | 58.8 | 58.8 | 100.0 |
| | Total | 97 | 100.0 | 100.0 | |

**Grade**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Grade 9 | 20 | 20.6 | 20.6 | 20.6 |
| | Grade 10 | 22 | 22.7 | 22.7 | 43.3 |
| | Grade 11 | 26 | 26.8 | 26.8 | 70.1 |
| | Grade 12 | 29 | 29.9 | 29.9 | 100.0 |
| | Total | 97 | 100.0 | 100.0 | |

Table E19

*Grade 12 Scholarship attainment and unilateral athletic participation*

**Scholarship Attainment**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | No Scholarship | 26 | 26.8 | 89.7 | 89.7 |
| | Scholarship Attainment | 3 | 3.1 | 10.3 | 100.0 |
| | Total | 29 | 29.9 | 100.0 | |
| Missing | System | 68 | 70.1 | | |
| Total | | 97 | 100.0 | | |

Note: Grade 12 (n = 29).

Table E20

*Grade 12 gender scholarship attainment and student engagement variables*

**Correlations**

| Scholarship Attainment | Gender | | | Days Absent from School | Cumulative GPA | SAT Scores | Disciplinary Referrals |
|---|---|---|---|---|---|---|---|
| No Scholarship | Male | Days Absent from School | Pearson Correlation | 1 | -.300 | -.260 | .309 |
| | | | Sig. (2-tailed) | | .320 | .414 | .304 |
| | | | N | 13 | 13 | 12 | 13 |
| | | Cumulative GPA | Pearson Correlation | -.300 | 1 | .629* | -.761** |
| | | | Sig. (2-tailed) | .320 | | .028 | .002 |
| | | | N | 13 | 13 | 12 | 13 |
| | | SAT Scores | Pearson Correlation | -.260 | .629* | 1 | -.571 |
| | | | Sig. (2-tailed) | .414 | .028 | | .053 |
| | | | N | 12 | 12 | 12 | 12 |
| | | Disciplinary Referrals | Pearson Correlation | .309 | -.761** | -.571 | 1 |
| | | | Sig. (2-tailed) | .304 | .002 | .053 | |
| | | | N | 13 | 13 | 12 | 13 |
| | Female | Days Absent from School | Pearson Correlation | 1 | .251 | .406 | .665* |
| | | | Sig. (2-tailed) | | .408 | .245 | .013 |
| | | | N | 13 | 13 | 10 | 13 |
| | | Cumulative GPA | Pearson Correlation | .251 | 1 | .890** | -.127 |
| | | | Sig. (2-tailed) | .408 | | .001 | .678 |
| | | | N | 13 | 13 | 10 | 13 |
| | | SAT Scores | Pearson Correlation | .406 | .890** | 1 | .167 |
| | | | Sig. (2-tailed) | .245 | .001 | | .645 |
| | | | N | 10 | 10 | 10 | 10 |
| | | Disciplinary Referrals | Pearson Correlation | .665* | -.127 | .167 | 1 |
| | | | Sig. (2-tailed) | .013 | .678 | .645 | |
| | | | N | 13 | 13 | 10 | 13 |
| Scholarship Attainment | Female | Days Absent from School | Pearson Correlation | 1 | .739 | .509 | .a |
| | | | Sig. (2-tailed) | | .470 | .660 | . |
| | | | N | 3 | 3 | 3 | 3 |
| | | Cumulative GPA | Pearson Correlation | .739 | 1 | .956 | .a |
| | | | Sig. (2-tailed) | .470 | | .190 | . |
| | | | N | 3 | 3 | 3 | 3 |
| | | SAT Scores | Pearson Correlation | .509 | .956 | 1 | .a |
| | | | Sig. (2-tailed) | .660 | .190 | | . |
| | | | N | 3 | 3 | 3 | 3 |
| | | Disciplinary Referrals | Pearson Correlation | .a | .a | .a | .a |
| | | | Sig. (2-tailed) | . | . | . | |
| | | | N | 3 | 3 | 3 | 3 |

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

a. Cannot be computed because at least one of the variables is constant.

# Appendix F

## Kepner – Tregoe Overlay

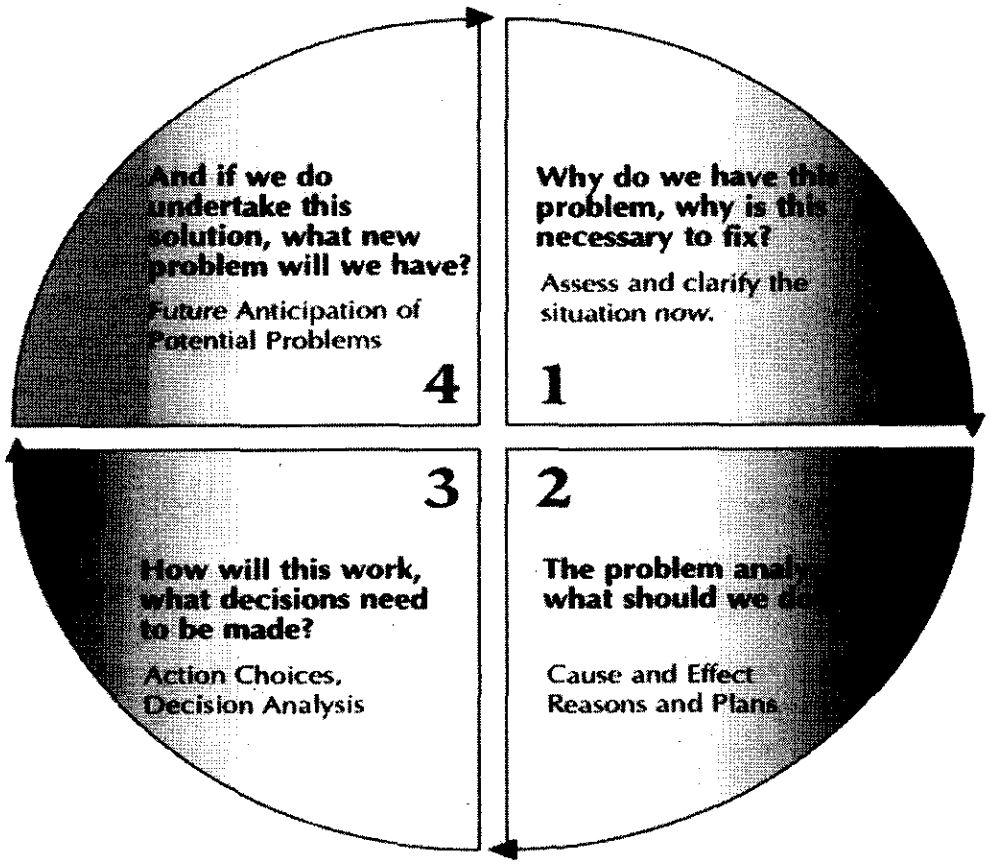



*Figure F1.* Kepner – Tregoe overlay for organizational decision-making.

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