

COACHES' AND TEACHERS' PERCEPTIONS OF THE CORRELATION BETWEEN ATHLETICS
AND ACADEMICS IN THE CAPITAL AREA INTERMEDIATE UNIT HIGH SCHOOLS

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ABSTRACT

The purpose of this study is to analyze high school teachers' and coaches' perceptions of participation in extracurricular activities and their relationship to academic achievement. This study investigated teachers' and coaches' perceptions of the benefits of a student participating in extracurricular activities, and how participation in school-based extracurricular sports and activities affect the students' academic achievement. Survey data are presented and reviewed, and the significance of extracurricular activities in overall achievement of students was discussed.

Standardized testing has put tremendous pressure on school districts to raise academic achievement scores, while continuing to face necessary budget cuts. In the process of prioritizing funding, monies allotted for extracurricular activities are impacted. Some districts have seriously considered making students "pay to play" various sports in order to relieve budgetary constraints.

This study addressed this problem by conducting a quantitative study. Teachers and coaches from fourteen Capital Area Intermediate Unit high schools took part in a survey to identify the benefits of participation in extracurricular activities.

TABLE OF CONTENTS

ABSTRACT	ii.
LIST OF TABLES	v.
CHAPTERS	
1. THE PROBLEM	1
INTRODUCTION	1
STATEMENT OF THE PROBLEM	6
PURPOSE OF THE STUDY	8
NEED FOR THE STUDY	8
DELIMITATIONS OF STUDY	9
RESEARCH QUESTIONS	10
DEFINITION OF TERMS	10
2. REVIEW OF LITERATURE	12
INTRODUCTION	12
ACADEMIC ACHIEVEMENT and STUDENT ENGAGEMENT ..	13
ARE THEY TEST SCORES or INDIVIDUAL STUDENTS?	18
EXTRACURRICULAR ACTIVITIES and STUDENT ACHIEVEMENT .	22
EXTRACURRICULAR ACTIVITIES and SOCIALIZATION PATTERNS	27
PAY to PLAY	31
3. METHODOLOGY.....	37
ETHICAL ISSUES	37
PARTICIPANTS	37
DATA COLLECTION PROCEDURES	39
INSTRUMENT	40
DATA ANALYSIS	43
4. RESULTS	45
DEMOGRAPHIC PROFILE of the SURVEY PARTICIPANTS	45
DATA on PARTICIPANTS	45
SURVEY QUESTIONS	47
RESEARCH QUESTION 1	48
RESEARCH QUESTION 2	52
RESEARCH QUESTION 3	52

RESEARCH QUESTION 4	56
5. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	58
SUMMARY	58
LIMITATIONS OF STUDY	60
CONCLUSIONS	60
RECOMMENDATIONS	67
REFERENCES	71
APPENDICES	77
A. HUMAN SUBJECTS REVIEW COMMITTEE APPROVAL	78
B. E-MAIL SENT TO ACQUIRE PERMISSION FOR IRB APPROVAL	81
C. HIGH SCHOOL PRINCIPAL'S AGREEMENT TO PARTICIPATE LETTER .	83
D. FOLLOW-UP E-MAIL TO HIGH SCHOOL PRINCIPALS	85
E. E-MAIL FOR SELECTED PARTICIPANTS	87
F. ORIGINAL SURVEY	89
G. REVISED SURVEY	93
H. PILOT STUDY CORRELATIONS	96
I. TEACHERS' AND COACHES' GENDER DIFFERENCES	99

LIST OF TABLES

TABLE	PAGE
1. Percentage of public school seniors reporting selected indicators of school success by participation and nonparticipation in extracurricular activities, 1992	17
2. List of Suggested Coaches for High School Principals	39
3. Pilot Study - Lowest corrected item- total correlation	42
4. Profile of Total Sample of Respondents	46
5. Five Factors of the Survey	47
6. Frequency Distributions for all Questions on the Survey	48
7: Summary of Significant Differences by Position	54
8: Significant Questions Comparing Participants versus Non-Participants	56

CHAPTER 1

THE PROBLEM

Introduction

The purpose of this research is to identify teachers' and coaches' perceptions of the correlation between athletics and student achievement. School sports teams originally started for boys as a way for them to express and channel their energy in positive ways. While doing this, it gave the entire student body a way to show their school spirit. Since this time, the scope has developed into something more inclusive. These programs have expanded and practitioners and scholars have studied and documented the benefits of sports and other activities (Hoff & Mitchell, 2007). For the past nineteen years, participation rates in high school sports have risen, with an estimated 54.8 % of high school students participating in school-based sports programs as of October 2008. Despite the perception that non-school based club programs are growing in popularity, young people are viewing school-based athletics as an opportunity to participate and learn (Kanaby & Tenopir, 2008). With the implementation of various technology strategies, more and more students also see participation in athletics as a means for athletic scholarships (Cook, 2003).

It is estimated that 83% of students across the nation between the ages of 6-17 participate in at least one extracurricular activity throughout their school years. Athletic teams are front and center in most school districts because of the visibility. In the past, some individuals have regarded student-athletes as individuals with a chip on their

shoulder, cocky or even arrogant. These individuals see sports and other extracurricular activities as the “downfall of society” (Kennedy, 2008).

On the opposite end of the spectrum are individuals who believe that sports provide students with valuable life lessons. Participation in extracurricular activities, including sports, is thought by some individuals to be something that bonds students to their local high school. Wearing school colors and developing a sense of teamwork and pride within not only the school but also in the community are thought by some to be beneficial skills learned through extracurricular activities. This type of participation enhances self-esteem and helps students to develop a sense of school community through promoting team culture and self- image. It is still uncertain whether these “voluntary” extracurricular activities fall into the “integral” part of a school day or whether they are considered something in addition to the free education to which every child is entitled in the United States (Hoff & Mitchell, 2007). Some still view participation in extracurricular activities as a nonessential part of a student’s educational career. These thoughts precipitate discussions of eliminating these types of programs to save money in times of financial need and crisis (Kennedy, 2008). Finding the answer to the question of the importance of athletics has to be studied before the programs are eliminated prematurely simply to satisfy the budgets.

In addition to the effects mentioned above, student involvement in extracurricular activities has affected student-athletes in numerous other ways, as well. Some of these effects include: increased performance in school, an increase in effort, a high level of self worth and heightened self-esteem, and pride in their school and

community. John Herbert wrote, "If the fundamental task of the school is to prepare children for life, the curriculum must be as wide as life itself" (Hoff & Mitchell, 2007, page 34). Life-long lessons are also an effect for those that participate in extracurricular activities. Athletics can help an individual deal with the ups and downs of life that one faces after graduation from high school. Athletes learn how to deal with professional "wins" as well as the "losses" and disappointments. Participants learn how to respect authority, regardless of one's personal feeling and thoughts about that authority figure. Very few people go through life working for someone with whom they always agree on a personal and professional level. Finally, individuals are taught how to communicate under various levels of stress (Kennedy, 2008).

In addition to alleviating stress, many districts may see a significant volume of budgeted money and attention allocated to enhance programs that boost attendance, strengthen graduation rates and raise test scores. Research has shown that participation in extracurricular activities can improve the outcomes in these areas (Hoff & Mitchell, 2007). It is estimated that all of these benefits are afforded to students for less than 1% of the school district's overall budget. Some people believe that extracurricular activities are one of the best investments that we can make as a society (Kennedy, 2008). It will be interesting to see if teachers and coaches have the same perceptions.

In 2002, another study was conducted to "examine the effects of participation in extracurricular activities on grade twelve and post secondary outcomes" (Marsh & Kleitman, page 464). The study was looking for the effects on "school grades,

coursework selection, homework, educational and occupational aspirations, self-esteem, freedom from substance abuse, number of university applications, subsequent college enrollment and highest educational level” (Marsh & Kleitman, page 464).

The researchers categorized their findings into three theoretical models, which include the threshold model, the identification/commitment model, and the social inequality gap reduction model.

The threshold model has not been put forward as a basis of an argument for extracurricular activities in the past. Other related perspectives have been used and it is noted that researchers must pay attention to both linear and nonlinear effects of extracurricular participation. Linear is defined as being arranged or extending along a straight or nearly straight line. Nonlinear is not denoting, involving or arranged in a straight line. Marsh and Kleitman tested this linear and nonlinear belief and found that many linear and nonlinear effects were found for twelfth graders and postsecondary outcomes. According to this theoretical model a moderate amount of extracurricular activities can have benefits for students, but once a student gets to higher levels of participation, there can be nonlinear effects and “diminishing returns” (Marsh & Kleitman, 2002).

In an alternative perspective to the developmental model, Marsh and Kleitman argue that the identification/commitment model perspective on extracurricular activities can enhance a student’s identification with involvement in and commitment to a school. This model narrows both academic and nonacademic outcomes as defined in the developmental model. It has also been identified that a student’s school success

can be identified with a sense of belonging to the school and the value placed on academic outcomes (Marsh & Kleitman, 2002).

The identification/commitment model findings within the study indicate that school-based extracurricular activities are more beneficial than out-of-school activities. Of these activities, both academic and nonacademic activities were found to be beneficial. Some examples of these activities include: sports, student government, school publications, and the performing arts (Marsh & Kleitman, 2002).

In education, another ongoing concern in research is the “size of the academic achievement gap between socioeconomically advantaged and disadvantaged students” (Marsh & Kleitman, 2002, page 474). According to the Federal Interagency Forum on Child and Family Statistics, in 2004, 18% of the children living in the United States lived in poverty. The rate of poverty is higher than any other industrialized nation in the world. Families considered to be working poor are not included in these totals. These individuals live right above the poverty level (Hoff & Mitchell, 2007). The social inequality gap reduction model findings suggest that socioeconomically disadvantaged students will benefit from extracurricular activities as much or more than advantaged students. “All students are likely to benefit from extracurricular activities in relation to enhancing school commitment and identification “(Marsh & Kleitman, 2002).

According to Cook, although no exact statistics are available, it is believed that only one out of every three high school student-athletes has a chance of receiving an athletic scholarship to go to college. Of those athletes that play in college, only one-tenth will make it to the professional level in their sport.

Recruiters are always looking for the best new player, some as young as sixth grade. One of the most respected recruiting analysts states that, "It's easier to win the New Jersey or New York or Pennsylvania lottery than to be in the N.B.A. lottery" (Cook, 2003, page 15). Many of these student-athletes and their parents are chasing dreams that won't come true. Recruiting analysts are telling them how good they are, and this is holding them back from where their real focus should be. Education is their best opportunity (Cook, 2003).

Unfortunately for some of these student-athletes, education is at the bottom of the list. Some believe that it is "more about potential profits and less and less about what kind of place sports should have in a high school setting and that's kind of tragic" (Cook, 2002, page 15). Parents and student-athletes need to refocus. The real purpose of attending high school is to gain an education. Students and parents "shopping" for area high schools with the best basketball or football program are misdirected. Choosing a high school based on education should be the goal (Cook, 2003). The perceptions of the teachers and coaches could add a new dimension to this topic in that they are the "people in the trenches".

Statement of the Problem

In many school districts, local and state funding is shrinking. Schools are under pressure to raise standardized test scores and are continuing to see budget cuts. The No Child Left Behind Act (NCLB) establishes for schools academic achievement requirements with proficiency levels that must be met before dates the law specifies.

Budget cuts are needed because of this decrease in funding, and extracurricular activities are often the first to be cut (Hoff & Mitchell, 2007).

The expense of running extracurricular activities, including athletics, has risen drastically in recent years. Transportation costs have increased, as have the fees to participate in extracurricular activities. These increases in expenditures have been more noticeable for sports. Competition has increased for potential scholarship opportunities for high school students. Schools are being forced to secure expert coaching, high-tech equipment, and better playing fields and facilities (Hoff & Mitchell, 2006).

The concept of “pay to play” has been introduced to help shift the increased costs from schools to families. Some school districts in Maine are charging students anywhere from \$15-\$50 to participate in extracurricular activities. Another school on the West Coast is charging students anywhere from \$800-\$1,500 to participate in extracurricular activities. As of 2004, 34 states had some sort of fees associated with participation in similar activities (Hoff, & Mitchell, 2007).

Some families cannot afford to pay for their children to participate in extracurricular activities. Economic status plays a vital role in a student’s ability to participate in these activities. Some youth programs have participation constraints based on families’ economic status (White & Gager, 2007). Therefore, a problem exists for students who are unable to reap the possible benefits from extracurricular activities and athletics because of their low economic status.

Purpose of the Study

Research suggests that students who participate in school-based athletic activities experience many positive effects that include, but are not limited to: higher grades, prevention of crime and drug abuse, model citizenship within their communities, and an overall better experience in school. However, do teachers and coaches agree that student participation in athletics elicits these positive effects?

The purpose of this study is to analyze high school teachers' and coaches' perceptions of participation in extracurricular activities and help to define this relationship to academic achievement.

Based on previous research, it is anticipated that this study will be able to help justify the need to offer school-based athletic activities for students at no cost. For example, Manheim Central School District, a central Pennsylvania school district, posted data on student athletes in grades 7-12 throughout the 2008-2009 school year. During the fall, 301 of 364 students who participated in athletics were on the honor roll, which required a GPA of at least a 3.0. During the winter, 203 of 263 students were on the same honor roll, and during the spring, 258 of 301 students were on the honor roll (Manheim Central School District Annual Report).

Need for the Study

This study has the potential to be significant to numerous school districts that are under pressure to make budget cuts that could ultimately affect extracurricular

activities. Research has shown a positive correlation between student engagement and academic success (“Using Positive Student Engagement to Increase Student Achievement,” 2007).

For example, students who participate in extracurricular activities outside the school day are more engaged in the classroom during school hours. These students are able to make positive connections with their peers as well as with staff members, which is also a key component of positive engagement within the classroom (“Using Positive Student Engagement to Increase Student Achievement,” 2007).

Students who participate in extracurricular activities do so for various reasons. This study will provide a better understanding of coaches’ and teachers’ perceptions of the possible correlation between athletics and academics. These effects could include academic achievement and socialization patterns with their peers. In the age of budget cuts and standardized testing concerns, this study will be able to identify the benefits and support the validity of using monies to enforce and strengthen athletic programs.

Delimitations of the Study

This study was delimited to:

1. Responses of high school coaches and teachers within the Capital Area Intermediate Unit in south central Pennsylvania.
2. The high schools within the Capital Area Intermediate Unit in south central Pennsylvania, responses from 13/26 high schools were included.

3. Data collected between December 2010 and February 2011.

Research Questions

The following research questions were under review in this study:

1. What are the teachers' and coaches' perceptions of the benefits of high school students participating in athletics?
2. Is there a difference between the perceptions of male and female teachers' and coaches' perceptions of the benefits of high school students participating in athletics?
3. Is there a difference between the teachers' and coaches' perceptions of the benefits of high school students participating in athletics?
4. Is there a difference between those who participated in athletics in high school and those who did not?

Definition of Terms

1. Extracurricular activities defined by Kennedy (2008), "these offerings in schools typically include the fine arts, athletics, student government, hobby/activity groups and academic clubs or organizations" (p.38).

2. Capital Area Intermediate Unit (CAIU) - The CAIU is one of 29 regional educational service agencies in Pennsylvania. The CAIU serves Cumberland, Dauphin, Perry and Northern York Counties in south central Pennsylvania.
3. Student engagement - Student engagement is when the students themselves make psychological investments in education. Pride is taken in both grades and participation within the learning environment.
4. Pay to play- Hoff and Mitchell (2007) define this as the act of “shifting some of the financial burden of extracurricular activities to students and their families” (p. 28).
5. No Child Left Behind (NCLB) - A Federal law passed under the George Bush administration that attempts to accomplish standards-based education reform. The NCLB act of 2001 was designed to close the achievement gap with accountability, flexibility and choice, so that no child is left behind.
6. High school teacher - A high school teacher teaches students in grade 9-12 within the CAIU.
7. High school coach - An individual who coaches teams in grades 9-12 in the CAIU.
8. School culture - According to Phillips (2003), school culture encompasses the values and beliefs shared by students, teachers and staff within the learning environment. This influences everything that happens within a school.

CHAPTER 2

LITERATURE REVIEW

Introduction

In response to the research questions in this study, the literature review shows current information on the subject of athletics and their effect on high school students. Much of the current data shows the connection between academics and extracurricular activities. However, there is not significant data from the point of view of the teachers and coaches who work with these students on a daily basis. How do they feel about athletics? What specific influences do students acquire from these activities? The gaps that exist in the research show a need to look at the perceptions of the teachers and coaches to possibly gain new insight on the topic.

This literature review is broken into five sections. The five areas all relate to academic achievement and extracurricular activities.

The first area will address academic achievement and student engagement. The second section relates to standardized testing and the effects on education. The third area discusses extracurricular activities and student achievement. The fourth section analyzes the positive effects of athletics on socialization patterns. The fifth and final section outlines “pay to play” requirements that some school districts are enforcing for participation in extracurricular activities.

Academic Achievement and Student Engagement

With the No Child Left Behind Act (NCLB) mandates, academic achievement requires that all students must reach certain proficiency levels before dates the law specifies. These exams are norm-referenced or criterion-referenced. A norm-referenced test is the mean score for previous attempts at the test. The means from the previous year then predict the expected mean for the following year. Criterion-referenced tests look at specific materials or skills that are acquired by the learner. This type of exam measures specific levels of achievement and are not dependent upon the scores of previous test takers (Smith, 2006). Classroom teachers, parents and administrators using four proficiency levels analyze a student's individual achievement scores yearly. Different strategies are being used by school districts to increase students' proficiency levels. Some of these include intensive data-driven decision making, hiring and keeping highly qualified teachers, and efforts to improve the leadership skills of school administrators.

Engaging students in the classroom is a positive factor that could have the potential to raise student achievement. Defining "student engagement" is somewhat vague. Some researchers propose that students are engaged when they "devote substantial time and effort to a task, when they can care about the quality of their work, and when they commit themselves because the work seems to have significance beyond its personal instrument value" ("Using Positive Student Engagement to Increase Student Achievement," 2007). In the 2006 research study completed by Sobkin, Abrosimova, Adamchuk and Baranova, sports were found to be one of the very few types of activities

that have “retained their status in the adolescent subculture, despite the substantial socio-cultural transformations that have taken place in the last ten years” (Sobkin, Abrosimova, Adamchuk, and Baranove, 2006, page 61). It appears that student engagement remains high when sports are part of a school’s curriculum. This type of engagement has been observed over decades.

Other researchers define engagement in three overlapping ways. *Behavioral engagement* stems from the idea of participation. *Emotional engagement* involves the reactions to the teachers, friends and work. *Cognitive engagement* involves the students’ willingness to work to achieve and understand difficult ideas and skills.

Some scholars feel that researching all three components is the best way to study engagement. While each component has merit, *behavioral engagement* is essential for academic success. This type of engagement encourages students to participate in extracurricular activities, sports and academic activities. Additionally, attendance through graduation is a key factor for any component of engagement measured (Fredericks, Blumenfeld & Paris, 2004).

Teachers play a vital role in requiring students to become engaged in their schoolwork. Teachers must develop a climate where students are challenged, but their personal goals are attainable. Students must feel comfortable asking questions. The curriculum that has been set for students is also extremely important. Each student’s curriculum must include group activities, long-term and hands-on projects, differentiated instruction, and activities that include a variety of resources pertinent to the interest levels, intellectual and social backgrounds of a heterogeneous group of

students. Finally, teachers must offer support to students. Student self-confidence is a direct result of a caring, supportive teacher. This self-confidence may directly correlate with student engagement in the classroom.

Schools can also increase student engagement by instituting programs, interventions, and support to lessen the negative effects of poverty; e.g., lack of comfort and safety in their home environment, uncertainty, family stressors and dysfunction. Some of these interventions include, but are not limited to: increasing parental involvement, ensuring school safety, and offering and encouraging students to participate in extracurricular activities (“Using Positive Student Engagement to Increase Student Achievement,” 2007). There has been much research suggesting that participation in extracurricular activities has beneficial effects linked to positive academic outcomes. Research in the fields of sociology, sports psychology and adolescent development include improved grades, test scores and school engagement as some of these beneficial effects (Fredericks & Eccles, 2006).

A noted benefit with participation in extracurricular activities is that students learn the value of being part of a team and the responsibility of being an integral part of the whole group, as well as achieving success as an individual. This success can lead to a greater feeling of attachment to the school, and therefore a greater sense of engagement. Children are less likely to drop out and more likely to attend regularly, thus experiencing less failure. If these successes can be measured as true, then it becomes of utmost importance to maintain the availability of extracurricular activities for all students.

In a study done in 1992, the data were collected to show the effects of extracurricular activities and their benefits to high school seniors. The study was conducted during the first semester of the students' senior year. The results indicated the following: "Participants reported better attendance than their non-participating classmates; half of them had no excused absences from school and half had never skipped a class, compared with one-third and two-fifths of nonparticipants, respectively. Students who participated were three times as likely to perform in the top quartile on a composite math and reading assessment compared with nonparticipants. Participants were also more likely than nonparticipants to aspire to higher education: two-thirds of participants expected to complete at least a bachelor's degree, while about half of the nonparticipants expected to do so." (National Center for Education Statistics, pg. 2, 1995).

The chart below outlines the research and shows that participating students were more successful in terms of student achievement, attendance and academic aspirations. It can be questioned: were these successes from the participation in the extracurricular activities or could it be that more successful students participate in extracurricular activities?

Table 1. Percentage of public school seniors reporting selected indicators of school success by participation and nonparticipation in extracurricular activities, 1992

INDICATORS	PARTICIPANTS	NON-PARTICIPANTS
<i>No excused absences</i>	50.4	36.2
<i>Never skipped a class</i>	50.7	42.3
<i>Have a GPA of 3.0 or above</i>	30.6	10.8
<i>Highest quartile on a composite math and reading assessment</i>	29.8	14.2
<i>Expect to earn a bachelor's degree or higher</i>	68.2	48.2

*During the first semester of their senior year. (National Center for Education Statistics, 1995).

Families and schools must build partnerships. Parents must seek, or be offered, opportunities to better educate themselves so that they can effectively help their children. Training parents in effective reading strategies has been a very effective approach for parents to help their children achieve success, regardless of their race, gender or socioeconomic status (Darling, 2008). Children who feel successful are more likely to become positively engaged in the classroom.

Are They Test Scores or Individual Students?

The need to improve education has led to an obsession with standardized testing at all levels – state, national and international. After so much emphasis has been placed on the results of the yearly assessments, some educators are starting to question the validity of the testing. Quantitatively, much of the information from the Pennsylvania System of School Assessment standardized testing in Pennsylvania has been used to compare students to others across the state. This increases the stress level of educators to match performance levels of all students regardless of extrinsic factors.

In addition, rather than provide answers for struggling schools, the score comparisons often lead to nonproductive feelings of failure among students and teachers. The failure in and of itself is not motivation, but rather it causes a feeling of hopelessness in struggling students and school districts (Stiggins, 2007, Oct. 17). Anxiety produced by the testing causes some teachers to focus on facts, rather than to help students develop into well-rounded individuals. Eliminating extracurricular activities, including athletics, could further contribute to the students' feelings of failure.

Our current overemphasis on standardized testing is causing educators to teach with narrow perimeters, perhaps perceiving a student as a test score result, not an individual. Teachers and administrators must focus on the individualized student data to learn about each student's skills and the effectiveness of instruction. The pressure created by the state accountability systems, based on these yearly data, has the potential to lead to "drill and kill" teaching which will "reduce the quality of children's education" (Boudett, City & Murana, pg. 700, 2005).

School culture is another component that researchers feel will affect academic testing and the overall success of the students. Some feel that failure to consider the culture of a school will limit academic growth. With the No Child Left Behind Act of 2001, emphasis on standardized test scores has been the driving force of many academic curricula. Rather than a rich, fulfilling education, many schools offer an experience based on the acquisition of basic skills. Improving school culture may improve education (Smith, 2006).

Educators must examine school culture as a factor affecting student achievement (Smith, 2006). Deal and Peterson (as cited in Smith 2008) stated, “Determining, diagnosing and analyzing school culture may allow school leaders to direct and plan staff development and training around school culture issues. Improving school culture may have an influential relationship on standardized test scores” (Smith, 2006, page 5). We must begin to help all students experience continuous success and come to believe in themselves as learners (Stiggins, 2007, Oct. 17).

Other researchers believe that testing is one of the best ways to offer good information for teachers, as it provides feedback helpful in planning curriculum. Test results allow them to focus on mastering important material. While parents may contend that a heavy testing schedule is too taxing and stressful for their children, it may be argued that the best way to educate is to assess – and frequently. Starting at an early age, testing allows problems, both academic and motivational, to be identified early, and interventions can be applied when they are most effective.

Patrick Wolf, in his article entitled “Academic Improvement Through Regular Assessment, pg. 690,” outlines six major benefits of using regular standardized and diagnostic tests:

1. Assessment pinpoints the important material that teachers should cover.
2. Information about the needs of a student and the success of the program in place can be attained.
3. Parents and students both gain feedback about the knowledge that is gained.
4. Allow problems to be diagnosed early and interventions applied early – when they are most successful.
5. In areas of special education and early reading acquisition, assessments can offer much needed information.
6. The test-taking experience can benefit students for life – teaching them strategies to participate in a world of “testing”.

Wolf concludes that assessment should be considered a teacher’s ally. With frequent assessments, educators can successfully manage their students. Each student can move ahead as more challenging material is needed. Students who are not ready – and who need more interventions – can benefit from a customized program with scaffolding in place to help build a sound educational foundation designed to remediate.

So rather than “sugar-coat” a student’s abilities, and then send them into the real world where their inabilities will be apparent, it may be best, some believe, to offer frank feedback and work toward solutions, rather than worry about protecting a student’s feelings (Wolf, 2007).

Wolf contends that parents need timely feedback, too. Understandably, a parent might become irate after seeing a failing grade without warning. When remediation is postponed, valuable time is lost. Sheltering a child from the truth will only lead to failure in the real world. With regular assessment, the student can be monitored and regular feedback can drive the instruction.

Where does the self-esteem issue come into play? Hiding the true ability from the student is cruel. Entering the world of work from a cocoon of protection, whereby the student was never made to realize his or her shortcomings and address weaknesses, may shock them when they are provided with regular valid feedback.

Arne Duncan uses these same arguments to support his state-led standards movement. “For too long, we’ve been lying to kids,” Duncan said. “We tell them they’re doing fine, give them good grades, and tell them they’re proficient on state tests that aren’t challenging. Then they get to college and they’re put in remedial classes. Or they go into the workforce and find out that they don’t have the skills they need to succeed. We need standards that will get them ready for the day after they graduate. That means they must be rigorous. Today, our standards are too low – and the results on international tests show it.” (Alliance for Excellent Education, 2009)

What is it that makes some kids succeed and others never reach their goals? What needs to be in place besides just the testing procedures and state standards and analysis of shortcomings with interventions close behind? Some say that keeping a student interested and involved requires more than academics. In a recent study by Gross and Burford, student engagement was examined in both the United States and internationally. Researchers asked high school students to respond to the topic of student engagement. The study suggests that high school students need to be heard. The high school years can be a time of turbulence for many children (Gross and Burford, 2006). Examining how athletics in a curriculum may offer students a higher level of engagement as seen by coaches and teachers may offer another avenue for students to remain positively involved in their education. This higher level of engagement can also produce higher standardized test scores.

Extracurricular Activities and Student Achievement

In an attempt to strengthen efforts to increase student achievement, student-centered high schools have been emerging in certain areas of the country. In a student-centered high school, the focus is on the student as a person, not just as a number, who must improve his or her standardized test scores. Extracurricular activities focus on making connections between homes and the work place or college (Cassel, Chow, Demoulin, & Reiger, 2000).

Extracurricular activities can have the potential to boost student achievement via

several different avenues. They may, however, give up efforts, which had previously been directed towards other educational investments (Lipscomb, 2007). Some believe that athletic proficiency has little impact on students' future success, unlike academic proficiency. How much emphasis should be placed on academics versus athletics?

Michael Imber spent time visiting high schools in Kansas and other schools within the country. His overall impression is that school communities take pride in the schools with very few exceptions. In some of the country's poorest inner-city schools, he did see some signs of distress and decay. Michael found that, without exception, schools placed a very heavy emphasis on sports. He noted that the most impressive feature, besides the actual school building of each district, was the football stadium and the gymnasium (Imber, 2001).

Within the schools, Imber stated that banners both inside and outside, and the glass showcases, all highlighted athletic accomplishments. In one display case, a 1943 photograph of the undefeated football team was displayed. Very few schools had comparable displays and banners recognizing their students' academic achievements. Likewise there were no placards recording SAT scores, standardized test scores, quiz bowl team awards or National merit scholars. Imber also noted that there was no way of identifying scientific or artistic accomplishments of the school's graduates (Imber, 2001).

After making these observations, Imber is concerned that schools are sending their students, teachers and parents the wrong message. Schools verbally tell these groups of stakeholders that academics are the primary focus. What they see at school

may be telling them just the opposite. He suggests that we need to be more careful about the message that we are sending to students within our schools (Imber, 2001).

In looking for predictors for academic giftedness, Modi, Konstantopoulos, and Hedges (1998) found that gifted students spend a lot of their time outside of the school day involved in constructive activities. They define constructive activities to include: interscholastic and intramural athletic programs, service and school government clubs, music, art, drama, and academic and vocational clubs. These activities usually take place outside the school day, are voluntary and the participants do not receive grades for their participation (Holloway, 2000). Extracurricular activities offered by high schools can be constructive. Since these activities have been used as a predictor for academic giftedness, then looking for the connection between academic achievement and extracurricular activities for all students is a valid topic for research.

Physical education classes are being reduced and even eliminated from some school districts' curriculums. These classes are being eliminated and replaced with other classes in hopes of raising academic achievement for the standardized tests. No data are available which indicate that taking away physical education classes and replacing them with an academic class will increase standardized test scores (Coe, Pivarnik, Womack, Reeves, & Malina, 2006).

Participation in physical educational classes has shown positive effects on academic achievement for students. One effect that has been found is a reduction in boredom, which can increase a student's attention span and concentration. Another factor can be an increase in self-esteem (Coe, Pivarnik, Womack, Reeves, & Malina,

2006). Self-esteem cannot only help students to do better in classroom activities but can also help to improve their overall behavior.

A study was completed on the effects of physical educational classes and activity levels on academic achievement in a single school in western Michigan. The participants were 214 sixth grade students who volunteered to be part of the study. Students who participated in the study were in one of two groups: first semester or second semester physical education. If they were not in the physical education semester, they were enrolled in an exploratory arts class. The physical education class met every day of the week for a 55-minute block of time.

Each student was assessed three times during the school year. The beginning of the year (August/September) was the first time, the middle of the year (January) was the second time and the end of the school year (May/June) was the last time. The students' habitual physical activity was estimated using the 3-d physical activity recall (3DPAR). The 3DPAR asks the students to recall what type of physical activity they did the previous day for three consecutive days. The 3-ds were divided into 30 minute blocks of time and the students had to state an intensity level for each activity. Activity levels were considered "moderate and vigorous" in hopes of students meeting the guidelines for Healthy People 2010 (Coe, Pivarnik, Womack, Reeves, & Malina, 2006).

In the study, the students' academic achievement was measured by their semester grades in their core classes. This grade was an average of their two grades in each of the two marking periods within the semester. In addition, they used their Terra Nova standardized test scores. The Terra Nova is a test where the scores are gathered

from national standardized tests. In addition, the physical education teachers were asked to observe the students' activity levels, curriculum content and the teacher behaviors. In order to gain these valuable data, the System for Observing Fitness Instruction Time (SOFIT) was used.

The study found that the students' academic grades and standardized test scores were not affected by participation in physical education. Students whose physical activity levels were high enough to meet or exceed the Healthy People 2010 guidelines showed higher academic achievement. On average, it was found that only 19 minutes of the 55-minute physical education class was considered a moderate to vigorous activity level. It was noted that this low level of activity might not be high enough to affect academic achievement.

The authors of this study indicated a lack of attention and data on socioeconomic status. If this was taken into account, the researchers felt that physical activity may be an indicator of higher levels of academic achievement. They noted that socioeconomic status might be a major factor in students' academic performances with activity levels playing a part in this relationship.

Students who participate in extracurricular activities, especially those from low-income families, tend to have a higher level of student engagement. One reason for this is that these students have the chance to build positive relationships with classroom teachers and also with their peers. Schools can then help by continuing to fund student clubs, sports teams and by offering other opportunities for students to become involved with groups. If money or staffing is an issue, it is recommended that schools involve

community members, local businesses or local colleges and universities. Getting students to participate in extracurricular activities can help benefit them academically, socially, physically and emotionally (“Using Positive Student Engagement to Increase Student Achievement,” 2007).

Extracurricular Activities and Socialization Patterns

Is participation in high school activities an opportunity or a right? All in the United States recognizes the right to an education. Kanaby and Tenopir (2008) state that when the school day ends, so does the right to other activities. After school activities, whether it be the football team or the debate team, are a privilege that students are afforded. With those privileges come certain expectations that students must follow. Most students must sign a code of conduct in order to participate in activities. Some students believe they should be permitted to continue to participate even when these guidelines and rules of conduct are broken. In one particular case, a high school student was arrested and charged with a felony. The high school principal and solicitor wanted to prohibit the student from continuing to play basketball even though he had the possibility of receiving scholarships and financial aid. A judge ruled that the felony had nothing to do with the high school and that he should be allowed to continue to participate with the high school’s basketball program, regardless of the code of conduct (Kanaby & Tenopir, 2008).

What is the purpose of participation in activities? Some believe that this

purpose has been misjudged. The purpose should not be to earn an athletic scholarship but to “educate and inspire lifelong values”. In 2007, more than 11 million students participated and learned lifelong lessons from interscholastic activities. Of those 11 million, less than 1% of those students will earn a college scholarship (Kanaby & Tenopir, 2008).

In a student-centered high school, the goal of interscholastic sports is to develop a sense of pride in community, promote citizenship and sportsmanship. The National Association for Sport and Physical Education (NASPE) developed forty standards for coaches, all of which are identified in eight domains. One domain titled “Philosophy and Ethics Domain” includes developing and implementing an athlete-centered coaching philosophy”. The “Growth and Development” domain requires all coaches to, “facilitate the social and emotional growth of athletes by supporting a positive sport experience and lifelong participation in physical activity”. High schools must train and educate their administrative staffs, coaches, parents, fans and athletes about these important philosophies stated in the above domains (Santa, 2010).

Coaches who are successful have found ways to build meaningful relationships with their athletes. These coaches are also able to build positive environments, coach with integrity, lead with honesty, provide opportunities for their athletes to participate in leadership activities and seek input on key decisions. Additionally, they develop positive relationships that will last a lifetime. In a student-centered high school, coaches must model the ideals and behaviors for their athletes to follow. Parents and fans also play a vital role in the development of high school sports and the environment. It is the

school's responsibility to educate parents and fans about sportsmanship and rules, and reinforce the concept that they are there for the kids, not anything else (Santa, 2010).

Athletes in student-centered high schools are encouraged to help themselves learn the important life skills of respect, responsibility, integrity, citizenship and leadership. Leadership skills can be modeled and practiced in settings such as church, community and youth sports organizations. Students who participate in these types of activities will benefit from the skills learned throughout high school and beyond (Santa, 2010).

Students who participate heavily in extracurricular activities have also been found to be model citizens within their communities (Cassel, Chow, Demoulin, & Reiger, 2000). In order for adolescents to develop or continue to develop into healthy individuals, they need to feel connected to not only their family community but also to the school community. This bond lessens risky behaviors such as truancy and substance abuse (Harrison & Narayan, 2003). Students who participate in activity programs have also been found to have higher grade point averages, better attendance records, lower dropout rates and fewer discipline rates as compared to the general student population (Kanaby & Tenopir, 2008). Belonging to and feeling a sense of school community has been found to be even more powerful than family connections in terms of acting out behaviors in adolescents (Harrison & Narayan, 2003).

One study of adolescents in suburban high schools found that students who participated in extracurricular activities had fewer mental health problems and overall general health issues (Harrison & Narayan, 2003). Participation in extracurricular

activities can increase the chances of post high school education, a better mental status and greater civic involvement. Valuable lessons can be learned through extracurricular activity programs. Students learn valuable lessons about winning and losing, teamwork, sportsmanship and diligence. In addition, students participating in these programs can build self-confidence and develop skills that will teach them how to deal appropriately with competition. Being exposed to all of these skills will help students become responsible adults and productive citizens in our society (Fredericks & Eccles, 2006).

The National Youth Survey released data that showed that adolescents who participated in organized activities used marijuana less than those who did not participate in the activities. Other studies performed by the National Survey of Household Drug Abuse found that students who were involved in sports had lower rates of cigarette use, alcohol abuse and other illegal drug use than those that did not participate (Harrison & Narayan, 2003). In addition, there is a reduced drop out rate and there are fewer problem behaviors, such as delinquency, with students involved in extracurricular activities (Fredericks & Eccles, 2006).

A similar national survey given by the Youth Risk Behavior Survey (YRBS) found that adolescents who participate in sports were less likely to smoke cigarettes and take illegal drugs than non-participants. For alcohol use, the results were the same for sports participants as well as those who did not participate in sports (Harrison & Narayan, 2003). The same study found that sports participants were less likely to have suicidal tendencies. High school male and female athletes demonstrated significantly lower feelings of hopelessness compared to their nonathletic counterparts (Taliaferro, Rienzo,

Miller, Pigg, & Dodd, 2008). This significant relationship between vigorous activity and reduced suicide rates supports the need for athletic programs and participation for adolescents (Harrison & Narayan, 2003).

Researchers at the University of Florida found that physical activity and sport participation have a positive effect on high school students who are at high risk for suicide. Some of the major benefits of physical activity include a feeling of positive emotional well-being, less stress and anxiety, improvement mood, and, finally, an increase in self esteem. As a result, sports participation may actually protect against suicidal tendencies. Team sports offer social support, which may increase the positive psychological benefits again reducing the risk of suicide (Taliaferro, Rienzo, Miller, Pigg, & Dodd, 2008).

Reducing or eliminating funding for athletics could have an even more serious impact where research indicates that athletes are less likely to commit suicide than their peers who do not participate in athletics. Further studies on the benefits of participation in athletics should warrant serious consideration in public health policy and future planning (Taliaferro, Rienzo, Miller, Pigg, & Dodd, 2008).

Pay to Play

There is a great amount of pressure to raise academic achievement and test scores without increasing school district's budgets. This is a major concern for those involved in education. Demands have been placed on superintendents and school

boards to cut spending and lower budgets. State funding is declining. Therefore, some school districts perceive that a way out of this problem is to eliminate extracurricular activities (Hoff & Mitchell, 2007).

Financial burdens have been placed on schools, and in some cases, they are looking for families to help cover the costs of these programs. Maine has asked families to pay anywhere from \$15-\$50 a year for a student to participate in extracurricular activities. On the West Coast, some high schools are charging families between \$800 and \$1,500 to participate in these same activities (Hoff & Mitchell, 2006). As of 2009, 33 states had instituted pay to play practices that were associated with participation in extracurricular activities. This is down from 34 that were reported in the USA Today in 2004. There is very little research-based data that analyzes the impact or outcomes of the pay to play initiative (PSBA Education Research & Policy Center, August 2010).

In a June 2010 survey of 770 respondents representing 48 U.S. States, 33.5% said that they have fees and either have increased or will be increasing those fees during the 2010-2011 school year. In addition, 6.5% indicated that their institution would be charging fees for the first time in the 2010-2011 school year (PSBA Education Research & Policy Center, August 2010).

According to Hoff and Mitchell, students who participate in extracurricular activities are more motivated and therefore earn better grades. In addition, these students have fewer discipline referrals, have a lower drop out rate in school and are more likely to not only go on to college but also graduate from college. The benefits are even greater for minority students and students that come from economically

challenged families. These students who participate in extracurricular activities are less likely to be involved in crime, they have a sense of community and connectedness with individuals at school, and they have higher self-esteem and build positive social networks with positive role models and their peers (Hoff & Mitchell, 2006).

The cost of running extracurricular activities has risen greatly, especially with the cost of transportation to away games and competitions. The cost for running efficient sports programs has increased more than other programs. This is due in part to the hope that every athlete could possibly get a full scholarship to play in college. Because of this, athletic programs are becoming more competitive; therefore, they need to retain and keep quality coaches and have the best facilities with high tech equipment.

Asking students to pay to participate is controversial. If the state constitutes a free public education, why are extracurricular activities not apart of that education? Students learn about teamwork, dedication and the value of effort, which are skills that students need to be successful. In addition, parents who are paying for their child to participate may feel like they should have more control over the program. If they are paying, why should their child sit on the bench? Why can't they select uniforms and equipment? Why can't their child play because of low grades? If their parents do not care about their grades, why should the school care? If the coach isn't performing well in their eyes, can they fire him since their fees help to pay his salary? These are all controversial issues that may arise which force schools to make decisions that they would rather avoid (Hoff & Mitchell, 2007).

A concerned parent in the Octorara School District in Atglen, Pennsylvania

brought up this very concern at a school board meeting held on November 15, 2010. Mr. Norris believed that their “Sportsmanship Agreement” needed to be readdressed. The agreement explains the role and expectations of parents of students who participate in the athletic program. The parents need to sign and date this agreement before their child can participate. He did not believe that the agreement should encourage parents to call the coaches at school since not all coaches are employees of the school district. Coaches who do not work for the school district may not want to be contacted at work. Mr. Norris also believed that the language needed to be stronger. For example, “failure to comply” should not be stated “may result” but instead “will result”. He believed that this will, “help with the parents thinking since they had to pay to play, that their student deserves to play” (Octorara School District Board Minutes, November 15, 2010).

Most states, including Pennsylvania, do not regard participation in band, athletics, student clubs, or other extra-curricular activities as part of the guaranteed basic education. Therefore, allowing schools to charge for participation in these types of activities is acceptable (PSBA Education Research & Policy Center, August 2010). The Supreme Court of California, however, ruled that fees for extracurricular activities “violate the state’s constitutional guarantee of free public education”. The Judge explained that if a school deems a program important enough to offer it to students, the student should not be denied the opportunity to play because of their families’ financial instability. Other states have also ruled that participation in extracurricular activities is equally as important as academic classes.

With the possibility of upcoming difficult budget decisions, proponents of pay to play see this type of funding as very valid and important. In some cases, the alternative to these fees is eliminating certain activities or raising local taxes. Proponents also argue that only a portion of the student body participates in these activities and, therefore, maybe it is only fair that they pay to do so.

Many U.S. families live near or below the poverty level. Because of this, activity fees would be unaffordable for many families. In 2004, 18% of American children lived in poverty according to the Federal Interagency Forum on Child and Family statistics report. Many families live right above the poverty line and are labeled as the “working poor”. The U.S. has the highest poverty level compared to any other industrialized nation (Hoff & Mitchell, 2007).

Children from these poverty-stricken homes typically do worse on standardized tests and classroom assessments and have a greater chance of dropping out of school completely (Hoff & Mitchell, 2007). One factor that has been shown to help these children of poverty is participation in extracurricular activities. This negates the negative effects of poverty, helps improve achievement and keeps students engaged in school (Hoff & Mitchell, 2007).

Some individuals believe that the pay to play fees are not excessive and parents should be able to afford them. A very limited amount of research has been completed in tracking pay to play nationally. One study suggests that as long as the fees are fairly low (\$50-100), participation rates do not decrease significantly. As the fees increase to \$300 and more, participations rates drop as much as 30% (PSBA Education Research &

Policy Center, August 2010). Waivers are being offered in some schools for poor students to have the fees offset. This creates a tough situation for students who are trying to fit in with their peers. A negative stigma comes with receiving services for free, and this can prove to be embarrassing for students. Students who receive free and reduced services may feel ostracized by their peers (Hoff & Mitchell, 2007).

Research has shown that participation in extracurricular activities can improve attendance, graduation rates and test scores. Schools are willing to put money into programs that enhance the academic items listed above. Monies should be given to academic as well as extracurricular programs (Hoff & Mitchell, 2007).

Finally, the outcomes of the longitudinal studies actually indicate that allowing students to participate in extracurricular activities enables them to show a greater range of skills and interest. These skills and interests go beyond the confines of a typical academic setting (Fredericks & Eccles, 2006).

While much of the literature in this review is finding a connection between the activities and academics of high school students, very little information comes from the people who are in direct contact with students on a daily basis. Aside from collecting the test scores and grade point averages, surveying teachers and coaches on their perceptions of how extracurricular activities affect the lives of high school students may offer greater insight.

CHAPTER 3

METHODOLOGY

The purpose of this research is to provide data to show coaches' and teachers' perceptions of the effects of athletics on academic performance and social behaviors of high school students in the Capital Area Intermediate Unit.

Ethical Issues

This study involved research that was collected via an online survey. The survey asked respondents specific demographic information such as gender and high school affiliation (teacher, coach or both). Also the respondents were asked if they participated in extracurricular activities in high school. Respondents were assured of their anonymity in this research project.

The Institutional Review Board (IRB) Committee at Temple University approved the research project. The official approval letter from the Temple University's IRB is included in Appendix A.

Participants

Coaches and teachers of students in grades 9 through 12 who participate in athletics in thirteen high schools in the Capital Area Intermediate Unit were asked to complete an online survey. The survey was conducted via an online service, Survey Monkey. These coaches and teachers serve as the sample for this study.

In order to participate in the study, the high school principal of each school had to send a pre-generated letter granting approval for participation in this study. This letter is Appendix B. The Director of Curriculum Services in the Capital Area Intermediate Unit agreed to send out an e-mail to the twelve principals within the Harrisburg Area. The researcher felt that these individuals had a working relationship with the director and would be more willing to participate. When no responses from the high school principals were received, a second e-mail asking for participation was sent. Of these twelve districts, five then agreed to participate. Phone calls were made to the seven high school principals who did not respond. The phone calls were not returned.

The researcher then had to widen the scope and contact each of the 26 high schools within the Capital Area Intermediate Unit. E-mails were sent to the remaining fourteen area high schools. Some principals agreed to participate after the e-mail, and still others had to be encouraged. A final attempt was made through e-mail, and a total of fourteen administrators agreed to allow the study to proceed.

After permission was granted and the letter was sent to the IRB, the researcher asked the principals via e-mail to select twelve specific coaches and twelve random teachers to participate in the study (Appendix E). The utmost care was given to keep all participants' identities anonymous and unbiased.

The coaches of the suggested sports are included in Table 2.

Table 2. List of Suggested Coaches for High School Principals

Girls	Boys	Gender Combined
field hockey	football	cross country
soccer	soccer	track
cheerleading	wrestling	
softball	baseball	

Data Collection Procedures

E-mails were then sent to each high school principal explaining the study and offering directions regarding how their teachers and coaches should complete the survey (Appendix F). The procedures for completing the survey are included on the Survey Monkey website. Included in this e-mail was the assurance of anonymity of all responders. Each high school principal was given the choice of having the e-mail with the survey link forwarded to them to send to the twelve specific coaches and twelve random teachers, or they could give the addresses to the researcher. Of the 336 individuals asked to complete the survey, 192 actually took the online survey, or a response rate of 57.14%.

Instrument

The initial survey instrument was a questionnaire made up of a checklist and a Likert response section modeled after a dissertation completed by John J. Coyle in 1995. The researcher modeled the current survey after Coyle's work but modified the questions to support this research topic. The new survey includes five checklist responses and 30 Likert responses. The checklist asked respondents to provide current position (teacher, coach or both), gender, and their personal history of involvement in high school athletics.

The next thirty questions of the survey all begin with, "Athletics benefit high school students by encouraging them to..." followed by thirty perception statements. Participants were asked to select a response that they best perceived to be true. Response options ranged from strongly agree (5) to strongly disagree (1). Respondents were not given any additional choices and were not asked for open-ended responses. Appendix G contains the original survey instrument.

After receiving IRB approval, a pilot test of the survey instrument was conducted. In order to determine the ease of use, time factor (with consideration given to busy schedules), reliability, validity of the responses, as well as clarity of directions. In addition, other potential problems were investigated and addressed as needed.

The researcher asked a colleague to randomly select thirty teachers and coaches to participate in the pilot survey. Of the thirty, twenty-nine responded. It was reported that the survey took less than five minutes to complete so it qualified as an efficient test. Feedback on the format of the survey was positive, so no changes were made.

Based on the data collected, the initial survey was revised. The researcher chose Cronbach's Alpha as the most commonly used measure of reliability. The Cronbach's Alpha score was .941, which is excellent in terms of internal consistency. Based on the findings, however, the researcher chose to eliminate those items with the lowest corrected item-total correlation. The table below shows the correlation of each item with the total. The question numbers that were eliminated were as follows: Q6, Q7, Q12 & Q15.

Table 3. Pilot Study - Lowest corrected item- total correlation

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q1	123.3448	202.591	.186	.943
Q2	123.3103	201.222	.274	.942
Q3	123.6897	188.293	.756	.938
Q4	124.0000	187.714	.646	.939
Q5	124.0690	184.924	.765	.937
Q6	123.1034	199.096	.575	.940
Q7	123.1034	197.382	.725	.939
Q8	123.3103	198.365	.520	.940
Q9	123.7586	187.618	.667	.939
Q10	123.4138	191.394	.740	.938
Q11	123.6897	191.293	.584	.940
Q12	123.1724	196.362	.736	.939
Q13	123.5862	186.037	.751	.937
Q14	124.4138	193.180	.307	.946
Q15	123.1034	201.453	.370	.941
Q16	123.7586	193.261	.550	.940
Q17	123.4138	193.823	.738	.939
Q18	123.6207	185.887	.802	.937
Q19	123.5862	198.108	.366	.942
Q20	123.4828	197.187	.529	.940
Q21	123.2414	195.333	.668	.939
Q22	123.3448	192.234	.697	.939
Q23	123.2069	197.456	.539	.940
Q24	123.3103	192.722	.674	.939
Q25	124.4828	181.544	.768	.937
Q26	124.4483	192.113	.419	.942
Q27	125.3793	193.030	.418	.942
Q28	123.3793	188.458	.837	.937
Q29	123.4483	190.542	.645	.939
Q30	123.8276	186.576	.735	.938

In addition, the instrument showed valid gender differences. In general, the males had a higher mean than females on almost all of the questions. Significant differences exist on questions 2, 6, 10, 11, 15 & 28. Only on one question, number five, did females have a higher mean. In examining the position (teacher, coach, or both,) coaches had the highest mean, followed by those that are both teachers and coaches, with teachers being the lowest. Significant differences were found on questions 8, 9 & 19. The pilot survey frequency data for questions are shown in Appendix I. In conclusion, the survey worked very well.

Data Analysis

In analyzing the advantages of quantitative research, the most reliable and valid conclusions to this research were shown. Data analyses included a variety of statistical procedures. Frequency distributions were generated for the twenty-six questions along with the means. A one-way ANOVA on all twenty-six questions ascertained the significant differences among the means for the three groups: teachers, coaches or both. Because this ANOVA test showed significant differences among the means, a post hoc Tukey test was conducted. In addition, a discriminant function analysis elaborated on the significant difference among the teachers, the coaches and both teachers and coaches. An analysis of the variables, which account for this difference, was necessary. A t-test was run on significant questions comparing participants with non-participants. In addition, t-tests were computed comparing males and females. Finally, a factor

analysis was used to link together the several variables from the questionnaire to see how they group together.

One advantage of using a quantitative research design for this case is that the results are relatively independent of the researcher and people of power in education think that there is higher credibility in the results (Johnson & Onwuegbuzie, 2004). A quantitative design allowed the researcher to collect and analyze concrete evidence and data. This type of research generated a theory or theories in which to further analyze the necessity for extracurricular activities.

CHAPTER 4

RESULTS

The purpose of this research was to provide data to show coaches' and teachers' perceptions of the effects of athletics on academic performance and social behaviors of high school students in the Capital Area Intermediate Unit. This chapter contains the statistical results from the survey and the analyses conducted to answer each of the four research questions.

Demographic Profile of the Survey Participants

The twenty-six high schools in the Capital Area Intermediate Unit were contacted to participate in the study. Of these schools, fourteen high school principals agreed to participate in the study. The high school principals were asked to send a letter stating their agreement to participate. This letter was sent, in accordance with the approved procedures, to Temple University's Institutional Review Board.

Data on Participants

The respondents that completed the survey consisted of 65 teachers, 40 coaches and 87 individuals that were both teachers and coaches. The gender distribution was 109 males and 83 females. Of the 336 individuals asked to participate in the survey, 192 completed it, which is 57%. Of the 192 respondents, 167 of them participated in

athletics when they were in high school, which is 87% of the respondents. Descriptive data on the respondents are contained in Table 4.

Table 4. Profile of Total Sample of Respondents

<u>Variable</u>	<u>Frequency</u>	<u>Percent</u>
Gender		
Male	109	56%
Female	83	43%
Teacher, Coach or Both		
Teacher	65	34%
Coach	40	21%
Both	87	45%

Respondents' Participation in Athletics in High School

<u>Variable</u>	<u>Yes</u>	<u>No</u>
Teacher	50	15
Coach	36	4
Both	81	6

Survey Questions

A principal components factor analysis, followed by a varimax rotation was conducted on the items from the survey. This produced five factors with eigenvalues greater than one. These five factors were retained for further analysis. The five factors include: academics, general improvement, athletics, future orientation and self worth. Each factor has from two to eight questions regarding the category. These results are located in Table 5 including a characteristic item from each factor.

Table 5. Five Factors of the Survey

Factor I:	Academics	Q7, Q26, Q17, Q18, Q20, Q8, Q19, Q21
	Athletics benefit high school students by ... improving academic skills	
Factor II:	General Improvement	Q25, Q10, Q4, Q9, Q16, Q13
	Athletics benefit high school students by ... fostering students helping others	
Factor III:	Athletics	Q1, Q3, Q2, Q6, Q15, Q5
	Athletics benefit high school students by ... having the students experience the success associated with winning	
Factor IV:	Future Orientation	Q22, Q23, Q11, Q14
	Athletics benefit high school students by ... helping students obtain a college scholarship	
Factor V:	Self Worth	Q24, Q12
	Athletics benefit high school students by ... helping the student gain a greater sense of self-worth	

Research Question 1

What are the teachers' and coaches' perceptions of the benefits of high school students participating in athletics?

To answer research question 1, frequency distributions for the 26 questions were computed. These distributions, along for the means for the questions, are presented in Table 7. The means are computed using the options coded in the survey using the following numbers; Agree = 5, Agree = 4, Neither agree nor disagree = 3, Disagree = 2 and Strongly Disagree = 1. There are about five questions where there is missing data, which indicates that not all respondents answered every question on the survey.

Table 6. Frequency Distributions for all Questions on the Survey

Athletics benefit high school students by encouraging them to...	SD	D	N	A	SA	Mean
1. Experience the success associated with winning	0	0	4	76	108	4.55
2. Participate in activities with peers	0	0	3	52	133	4.69
3. Improve athletic skills	0	5	26	100	57	4.11
4. Participate with positive adult role models	0	2	14	73	98	4.43
5. Experience travel opportunities	0	13	61	88	23	3.65
6. Experience the excitement of competition	0	0	7	74	107	4.53
7. Improve academic skills	2	7	28	94	56	4.04
8. Budget time wisely	0	5	8	59	114	4.52
9. Expand peer group	1	7	21	89	68	4.16
10. Release stress	1	6	26	106	47	4.03

Table 6, continued.

11. Work for rewards such as trophies and recognition	3	24	51	77	31	3.59
12. Structure free time	0	4	19	87	77	4.27
13 .Build team spirit	0	0	6	85	95	4.48
14. Feel important	0	7	26	95	56	4.09
15. Reach a higher level of competition	0	4	19	103	60	4.18
16. Increase problem solving skills	0	12	25	95	56	4.04
17. Balance academics and athletics	2	5	8	59	114	4.48
18. Maintain grades according to PIAA rules	1	2	14	86	85	4.34
19. Set personal goals	0	4	7	81	95	4.43
20.Attend school regularly	0	4	8	70	106	4.48
21. Interact appropriately with peers of the opposite sex	5	24	82	55	20	3.33
22. Obtain a college scholarship	3	25	69	71	18	3.41
23. Become a professional in the sport	34	65	60	23	4	2.45
24. Gain a greater sense of self-worth	0	1	11	90	85	4.39
25. Help others	2	7	24	94	59	4.08
26.Find the motivation to improve academically	2	5	21	103	57	4.11

The frequency distribution chart was used to break the survey questions into thirds according to the data, which includes the means. The thirds are labeled high, medium and low. The question with the highest mean was that the respondents perceive athletics as benefitting students by participating in activities with peers (Question 2). Respondents also viewed experiencing the excitement of competition (Question 6), budgeting time wisely (Question 8), balancing academics and athletics

(Question 17) and attending school regularly (Question 20) as the top five perceptions as to how athletics benefit high school students. Also in the top third were: building team spirit (Question 13), to participate with positive adult role models (Question 4) and to set personal goals (Question 19).

Using the factor analysis as indicated in Table 6, the questions that were in the top third were then analyzed from the perspective of where these questions occurred in the five different factors. The academic factors had a total of eight questions and, of those eight, four of the questions in the top third were in this category, which is 50% of those questions. In the general improvement factor section, two of six questions were in the same groups, which is 33% of the questions. Finally, three of six of the questions in the athletics factor were in this top third. This is, again, 50% of the total within this group. Both the academics and athletics factors contained 50% of the respondents' top third choices. This indicates that the respondents believe that high school students benefit academically from these two areas. None of the questions in the top third were listed in the future orientation or self worth factor categories.

The middle third of the respondents' responses were: to gain a greater sense of self worth (Question 24), maintain grade according to PIAA rules (Question 18), structure free time (Question 12), to reach a higher level of competition (Question 15) and to expand their peer group (Question 9). Experiencing the success of winning (Question 3), finding the motivation to improve academically (Question 26), feeling important (Question 14) and helping others (Question 25) were also apart of this group at the bottom of the middle third.

Again using the factor analysis as indicated on Table 6, the questions that were in the middle third were then analyzed using the five different factors. The middle third had a variety of questions in all five of the factor categories. Of the eight questions in the academic factor, two of the questions were from the middle third which is 25%. Two of six of the questions from the general improvement factor were from this group encompassing 33%. The athletic factor was 33%, which are two of six of the questions. The future orientation was also 33%, which consisted of one of three questions.

In the self worth category, two of two of the questions were in the middle third. This was 100% of the self worth category, and these two questions were tenth and twelfth when looking at the ordering of ranking for the mean of each question.

The lowest third of the rankings were: to improve academic skills (Question 7), to increase problem-solving skills (Question 16) and to release stress (Question 10). After these three questions, the mean of the next question drops 0.38, which is the biggest drop of the twenty-six questions. The last five benefits as seen by coaches and teachers are as follows: experience travel opportunities (Question 5), to work for rewards such as trophies (Question 11), to obtain a college scholarship (Question 22), to interact with appropriately with peers of the opposite sex (Question 21) and the with the lowest mean, to become a professional in the sport (Question 23).

The factor analysis as indicted on Table 6, shows that two out of eight of the questions were in the academics factor, which is 25%. Two out of six of the questions were in the general improvement category, which is 33%. One sixth of the questions were in the athletics factor and three out of four were in the orientation factor

category. As in the middle third, there are a few questions in each of the factors. There are no questions from self worth, but several from the future orientation category.

In summary, the respondents as a whole think that athletics benefits students by providing interactions with peers (Question 2), by experiencing the success of winning (Question 1), by experiencing the excitement of competition (Question 6) and by budgeting their time wisely (Question 8). The respondents do not think athletics will help the students become professionals in the sport (Question 23), help them to obtain a college scholarships (Question 22) or help them learn to interact appropriately with members of the opposite sex (Question 21).

Research Question 2

Is there a difference between the perceptions between male and female teachers' and coaches' perceptions of the benefits of high school students participating in athletics?

In order to answer Question 2, t-tests were computed to compare males' and females' responses on the 26 questions on the survey. The t-tests found that none of these analyses were significant. Specific results are located in Appendix J.

Research Question 3

Is there a difference between teachers' and coaches' perceptions of the benefits of high school students participating in athletics?

An analysis was conducted to answer Question 3 to find if there was a difference

in survey responses between the teacher, coaches and those that were both teachers and coaches. In order to find these results, one-way ANOVAs were performed on all twenty-six of the questions on the survey. If a difference was noted in the question, a post hoc test was conducted to see exactly where the differences were among the three different groups. The Tukey post hoc test that was selected since it is one of the more commonly used statistical analyses for this type of study. There were significant differences on many of the items as indicated in Table 7. The notation for $T < C = B$ means the following: the mean of the teachers is significantly lower than the mean of coaches, and that the mean of the coaches does not differ significantly from the mean of the group labeled as both. All comparisons were made at the .05 levels for alpha.

Table 7: Summary of Significant Differences by Position

Question	Mean for Teachers	Mean for Coaches	Mean for Both	Differences
Q2	4.63	4.58	4.79	$C = T < B$
Q6	4.40	4.43	4.68	$T = C < B$
Q7	3.67	4.33	4.19	$T < B = C$
Q8	4.25	4.53	4.71	$T = C < B$
Q9	3.87	4.26	4.33	$T < C = B$
Q13	4.29	4.50	4.61	$T < C = B$
Q14	3.94	3.97	4.26	$T = C < B$
Q15	4.00	4.05	4.37	$T = C < B$
Q16	3.70	4.08	4.27	$T = C < B$
Q17	4.13	4.47	4.74	$T = C < B$
Q18	4.05	4.38	4.54	$T < C = B$
Q19	4.18	4.43	4.61	$T < C = B$
Q20	4.30	4.47	4.61	$T = C < B$
Q21	3.08	3.51	3.43	$T < B = C$
Q25	3.63	4.25	4.33	$T < C = B$
Q26	3.84	4.22	4.25	$T < C = B$

While there are some discrepancies in the pattern of results, in general the means follow the order of teacher, coach, both. That is, in general, the teachers are the least supportive of athletics, followed by coaches, followed by those who have both experiences. These results could be interpreted to mean that having the perspective of both a teacher and a coach gives the person the most positive perception of athletics

and how it correlates to academic achievement.

As an additional way of analyzing the differences between the three groups, a discriminant function analysis was computed. This statistic asks if there is a difference among the three groups. If there is a difference, it asks, "What is this difference and which variables account for this difference?"

What this statistic shows is that the teachers are significantly different from the coaches and the group with both teaching and coaching experience. In addition, it shows that the coaches and the "both" group do not differ significantly from each other. The variables that differentiate the teachers, from the coaches/both are in order of importance:

Q25 - Help others

Q17 - Balance academics and athletics

Q7 - Improve academic skills

Q16 - Increase problem solving skills

Q19 - Set personal goals

Q18 - Maintain grades according to PIAA rules

Looking at these data it seems that the critical issue is the coaching factor. If it is identified that the coaches group and the both group are in agreement, then the common denominator or core factor is the coaching. Therefore, the most positive responses about athletics relating to academic achievement were elicited from those educators having both coaching and teaching experience.

Research Question 4

Is there a difference between those who participated in athletics in high school and those who did not?

In order to answer this research question, a t-test was completed on all of the survey questions comparing those who had participated in high school athletics with those who had not. There were significant differences on six of the survey items. These differences are presented in Table 8:

Table 8: Significant Questions Comparing Participants versus Non-Participants

Questionnaire Item	Mean of Those who Had Participated (n = 125)	Mean of Those who did not participate (n = 25)
Question 6 - Experience the excitement of competition	4.58	4.24
Question 8 – Budget time wisely	4.58	4.12
Question 13 – Build team spirit	4.53	4.20
Question 15 – Reach a higher level of competition	4.23	3.88
Question 16 – Increase problem solving skills	4.09	3.68
Question 25 – Help others	4.15	3.68

In the above six questions, the mean for those who had participated in high school athletics was higher than the mean for those who did not participate. Half of the questions (three of six) were from the general improvement factor. These included: building team spirit, increasing problem solving skills and helping others. Two of the six questions were in the athletics factor. These questions were: to experience the excitement of competition and to reach a higher level of competition. Finally, one of the six questions was from the academic factor. This question was about learning to budget time wisely.

CHAPTER 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The purpose of this research was to provide data to show coaches' and teachers' perceptions of the effects of athletics on academic performance and social behaviors of high school students in the Capital Area Intermediate Unit. This study used a variation of the instrument used by Coyle (1995) to survey almost 200 teachers and coaches via an online survey, Survey Monkey.

The results of the teachers', coaches' and both teachers' and coaches' perceptions were measured using a variety of statistical analyses. These statistical analyses include: factor analysis, frequency distributions, t-tests, one-way ANOVAs and discriminant function analyses.

According to teachers', coaches' and both teachers' and coaches' perceptions, there are positive effects for high school students who participate in athletics. The survey found that the mean of teachers' perceptions is the lowest, followed by the coaches, who are followed by both the teachers and coaches. With that being said, having the perspective of both a teacher and a coach gives one the most positive perception of athletics.

The highest mean for the responses for all three groups, teacher, coaches and both teachers and coaches, are the following: participating in activities with peers, experiencing the success of winning, the excitement of competition, budgeting time

wisely, and balancing academics and athletics. These top five responses are items that have been identified by many articles and studies which considered the benefits of participation in extracurricular activities.

The lowest mean for the responses for all three groups; teachers, coaches, and both teachers and coaches, are the following: working for rewards such as trophies, experiencing travel opportunities, obtaining a college scholarship, interacting appropriately with peers of the opposite sex, and, with the lowest mean, becoming a professional in the sport. With the current push to have high school athletes obtain college scholarships, it is surprising that response to Question 22 was not higher. Further research could identify how student athletes and their parents feel about this same response.

A high number of the survey participants participated in high school athletics themselves. Those individuals who participated in high school numbered 125 as compared to those who did not, which were 25. The high school principals of the fourteen high schools, who participated in the study, selected a high number of individuals who participated in extracurricular activities as opposed to those who did not. This directly correlates with past research -- individuals who participate in extracurricular activities have higher prosocial behaviors and are more engaged in civic activities as adults (Fredricks & Eccles, 2006).

Limitations of the Study

This study had the following limitations:

1. Surveys via Survey Monkey were used for data collection. High school teachers and coaches who were randomly selected by the high school principal filled out these surveys. Written instructions were included in the survey.
2. Even though the participants were selected randomly, the high school principal chose the 12 teachers and this could have skewed the outcome.
3. The response rate was 192/336, which was 57%.
4. For the purpose of this study, teachers and coaches were asked to identify themselves as participants or nonparticipants in high school athletics.

Conclusions

Statistical analyses of the research questions indicated the following:

Research Question 1

What are the teachers' and coaches' perceptions of the benefits of high school students participating in athletics?

The teachers, coaches and both teachers' and coaches' perceptions are that athletics benefit students by having them interact with their peers. *Prosocial* is defined as behaviors that are positive, helpful and intend to promote social acceptance and friendship. Athletic activities, as well as other high school clubs, can be identified as prosocial activities. These types of activities have been found to predict some long-term

benefits for high school athletes. Furthermore, participation in these activities gives high school students the opportunity to learn interpersonal and leadership skills that will most likely inspire these individuals to be involved in civic causes. Involvement in civic causes is a life-long lesson that will help individuals to become responsible citizens within their community (Fredricks & Eccles, 2006).

Different types of extracurricular activities, including athletics, can be conceptualized as an environment with very clear socialization experiences (Fredricks & Eccles, 2006). One of these experiences was described as important by the respondents and identified as exposure to “the success of winning”. Sports, school clubs and prosocial activities provide a variety of opportunities for participants to “develop physical, intellectual, social, and emotional competencies and to form supportive relationships with a variety of adults and peers” (Fredricks & Eccles, pg. 715, 2006).

The National Federation of State High School Associations (NFHS) and its members believe that high school students who participate in athletics and fine arts activities benefit by learning sportsmanship and citizenship. According to NFHS, 11 million students participate and benefit from these activities across the nation (National Federation of State High School Associations, 2008). The survey respondents agreed that high school students benefit from experiencing the, “excitement of competition”. This competition provides valuable lessons in teamwork, sportsmanship and hard work. This competition also teaches high school students valuable life-long lessons, self-discipline and helps to facilitate the physical and emotional development of these youth. Building self-confidence is an important lesson learned through participation.

This self-confidence helps to build and develop skills that are needed to handle competitive situations. The qualities are needed for individuals to become “responsible adults, productive citizens and skilled professionals” (National Federation of State High School Associations, pg, 2, 2008).

The survey respondents perceive that students who participate in high school athletics benefit by learning how to budget their time wisely. These activities help high school students acquire skills such as organization, motivation, planning time as well as time management. High school activities are the ideal “classroom” for teaching the participants life-long skills, which include: perseverance, dedication, goal setting, time management and having a positive and enthusiastic attitude (Blackburn, 2000).

Interestingly, the respondents do not think that participation in athletics will help high school students to obtain a college scholarship. They also felt similarly about athletics being a stepping-stone to professional sports. However, Cook writes that the chase for a college scholarship, which can lead to a professional position, is on the rise. Parents are shopping around for the best high school where they think their child will be given the greatest opportunity of receiving a college athletic scholarship. This is important to them as the monetary award for this type of scholarship can be anywhere from \$100,000 to \$150,000 (Cook, 2003).

Today’s media is a driving force for student-athletes. High school sports have become commercialized, especially in connection with companies like Nike, Adidas and Reebok. Companies such as these sponsor high school tournaments that are televised nationwide. ESPN covers major high school basketball games and tournaments that

feature some of the best high school players at that time. A 1991 high school game that featured LeBron James as a young basketball marvel drew almost two million viewers. James, at age 18, went on to become only the second high school athlete in the history of the NBA draft to be selected as a number one professional draft pick right out of high school. Because of this national recognition, high school sports are being driven more and more by the professional model of athletics instead of the high school model (Cook, 2003).

The coaches and teachers who responded to this survey seem to have a more realistic view of college scholarships and recognize the reality that most high school athletes do not become professionals in their sport. We must continue to educate our high school athletes and their parents as to the social, mental and academic benefits of participation. The numerous benefits, which may not include scholarships and a path to professional athleticism, must be presented with their own inherent interest.

Research Question 2

Is there a difference in the perceptions between male and female teachers' and coaches' perceptions of the benefits of high school students participating in athletics?

After analyzing t-test results that compared males' and females' responses on the 26 questions on the survey, no significant differences were found. The researcher would recommend further studies to investigate these findings. Although studies show gender stereotype among adolescents, the data indicate a change may occur with maturity, as indicated on our adult participants' survey results (Hannon, Soohoo, Reel &

Ratliffe, 2009).

Research Question 3

Is there a difference between teachers' and coaches' perceptions of the benefits of high school students participating in athletics?

The survey data show that there is a difference between these groups. Having the perspective of both a teacher and a coach gives the individual the most positive perception of athletics and its correlation to academic achievement.

When looking at the different factors, there are significant differences, depending on teaching and coaching positions. In the area of academics, all eight of the survey questions are listed as significant in terms of positive perceptions. For five of the eight survey questions, the teachers' perceptions were significantly lower than both the coaches and those who are both teachers and coaches. The teacher group saw the benefit of athletics on the following factors as significantly lower than coaches: improving academic skills, maintaining grades according to PIAA rules, setting personal goals, interacting appropriately with peers of the opposite sex, and finding the motivation to improve academically as significantly lower. However, the coaches' and teachers' perceptions were the same in the following question responses: budgeting time wisely, balancing academics and athletics, and attending school regularly.

The coaches' and teachers' perceptions were lower in the area of general improvements. Four of the six questions showed significant differences among the groups. The teachers' responses were significantly lower when answering the following

questions: expanding peer groups, building team spirit and helping others. The teachers and coaches were the same when it came to increasing problem solving skills, but this statistic was significantly higher for the group with both teaching and coaching experience.

With future orientation, only one of the four questions showed a significant difference among the surveyed groups. The self worth factor did not have any responses that were considered significantly different.

In summary, the Tukey test results printed in Table 8 shows that the mean of the teachers is the lowest, followed by the mean of the coaches, followed by the mean of both the teachers and coaches. To look more specifically at these results, a discriminant function analysis was completed.

The discriminant function analysis found that the teachers are significantly different from the coaches and the group with both teaching and coaching experience. In addition, the analysis found that the coaches and the both group do not differ from each other. A few variables that distinguish the teachers from the coaches and the both group are listed as questions in order of importance. In each instance, the teachers placed less importance on the benefits of athletics on the following: helping others, balancing academics and athletics, improving academic skills, increasing problem solving skills setting personal goals, and maintaining grades according to PIAA rules.

It appears that the most critical factor is defined by coaching experience. It has been identified that the coaches' perceptions and the teachers' and coaches' perceptions are similar; therefore, the key factor is having coached. Those people who

have both teaching and coaching experience are the most positive about athletics and see greater benefits of participation in extracurricular activities for high school students.

Research Question 4

Is there a difference between those who participated in athletics in high school and those that did not?

Of the participants, 125 participated in a sport in high school, and only 25 did not participate. Separate sample t-tests were run on all twenty-six questions to see if any significant differences between the two groups were evident. Significant differences were found on six of the twenty-six questions. They differed in their responses to the following statements: experiencing the excitement of competition, budgeting time wisely, building team spirit, reaching a higher level of competition, increasing problem solving skills, and helping others. The mean on the t-test was higher for those who participated as opposed to those that did not. These results are located on Table 9 (p. 58).

Interestingly, half of the six questions from the general improvement responses had lower means from those who did not participate. These questions included: building team spirit, increasing problem solving skills, and helping others.

Is it possible to analyze these three items in relation to athletics without having participated in high school sports? Surprisingly, only two of the six questions were found within the athletics factor. The two questions with significant differences were: experiencing the excitement of competition and reaching a higher level of competition.

It appears that those individuals who did not participate in athletics in high school still have an idea of the benefits. The questions that were not significantly different were: improving athletic skills, participating in activities with peers, experiencing the success associated with winning, and experiencing travel opportunities.

Finally, one of the six questions that differed as a function of participation was related to the academic factor. This question involves learning to budget time wisely. Those who did participate and those who did not participate still agree that participation in athletics positively influences academics. With no experience in athletics, it may be difficult to objectively identify how participation in sports aids athletes in budgeting their time wisely, as this is a very subjective experience.

Recommendations

In order to further research this topic, a qualitative piece could be added to form a mixed methodology study. Two forms of data collection would then be used, a survey and interviews. High school students should also be included in the study and would be asked to participate in the survey as well as the interviews. These student interviews would offer a better understanding of coaches', teachers' and high school students' perceptions of the benefits of extracurricular activities.

The survey and interview results will provide data to further analyze the specifics of what teachers, coaches and high school students perceive as the benefits of participating in extracurricular activities and how this participation affects student

academic performance. It might also show new benefits from the participation in extracurricular activities as reported by teachers, coaches, high school students and stakeholders.

A new survey could be created that allowed for less bias on the part of the survey takers. The original survey in this study included the words “students who participate in athletics ...benefit from...” which could have swayed the opinion of the respondent. By the having the word “benefit” removed in each statement, some bias could be eliminated. A more ambivalent statement is needed for each question.

There may be coaches, teachers and high school students who do not see participation in extracurricular activities as a positive experience. The researcher will have to recognize personal biases and not allow them to alter actual data. If needed, other individuals’ opinions could be included to ensure that the most accurate data can be reported.

Member checks would be an extremely important step in the whole qualitative research process. Experts in the field would be invited to share advice and guidance. Teachers’ and coaches’ with expertise and experience with high school students who participate in extracurricular activities would also be required in order to research this topic completely.

The researcher would need to include a sub study of socioeconomic status. The students’ grade and gender would be attached to the data; however, complete anonymity of the students would be upheld.

According to Marsh and Kleitman, (2002), more research has to be completed to be able to identify the positive effects of extracurricular activities based on student characteristics such as gender, race, particular extracurricular school activities and academic achievement. The effects to be identified can be both academic and nonacademic topics (Marsh & Kleitman, 2002). This information could be acquired by having high school athletes respond to the survey. The survey responses could include gender, race, specific extracurricular activities, and by having the students self-report on their grades, possibly current GPAs, SAT, and/or PSSA test results. In addition, a qualitative piece could be added to the research to gain more depth in the information and perceptions.

Research question number two did not find significant differences between the responses of male and female survey participants. Again, more in depth questions would need to be included in the qualitative study so that data could be collected. The Likert-scale survey questions were not able to generate enough detail in some areas. In addition, further research, via a qualitative mixed methodology approach, would allow a more complete investigation of the participation versus nonparticipation factor affecting teachers' and coaches' perceptions of athletics.

Finally, with the literature and this research, a strong recommendation could be made to policy makers in education today to include athletics and extra curricular activities for all students. The analyses of the responses of the teachers and coaches in this study only reinforce this need. Students benefit in so many areas when they are

able to make athletics and extra curricular activities a part of their high school education.

REFERENCES

Alliance for Excellent Education (2009). Standards Movement Gaining Steam: Duncan Announce Plan to Commit Up to \$350 Million for Assessments Linked to Common Standards. *Straight A's: Public Education Policy and Progress*, 9(13). Retrieved from http://www.all4ed.org/publication_material/straight_as/06292009.

Blackburn, M. (2000). Best Bargain in education? High school activity programs. *Interscholastic Athletic Administration*, 26(4), 23-26.

Boudett, K.P., City, E. & Murana R.J. (2005). Teaching Educators How to Use Student Assessment Data to Improve Instruction. *Phi Delta Kappan*, 86(9), 700-6. Retrieved on April 30, 2010 from Education Index.

Cassel, R.N., Chow, P., Demoulin, D.F., & Reiger, R.C. (2000). Extracurricular involvement in high school produces honesty and fair play needed to prevent delinquency and crime. *Education*, 121(2), 247-251.

Coe, D.P., Pivarnik, J.M., Womack, C.J., Reeves, M.J. & Malina, R.M. (2006). Effect of Physical Education and Activity Levels on Academic Achievement in Children. *Medicine and Science in Sports and Exercise*, 38(8), 1515-19.

Cook, G. (2003). Win At All Costs. *American School Board Journal*, August, 12-16.

Coyle, J. (1995). An Analysis of the Motivations for Participation in Extracurricular Activities and Their Relationship to Academic Achievement (Doctoral dissertation, Temple University).

Darling, S. Family Must Be a Part of the Solution in Closing the Achievement Gap. *The Clearing House*, 81(6), 245-246.

Fredericks J.A., Blumenfeld, P.C., E. & Paris A.H. (2004). School Engagement: Potential of the Concept, State of the Evidence. *Review of Educational Research*, 74(1), 59-109.

Retrieved on November 16, 2010 from <http://rer.aera.net>.

Fredericks, J.A. & Eccles, J.S. (2006). Is Extracurricular Participation Associated with Beneficial Outcomes? Concurrent and Longitudinal Relations. *Developmental Psychology*, 42(4), 698-713.

Gross, S.J. & Burford, C. (2006). Engaging High School Students to Create a Democratic Ethical Education in a Context of Turbulence: Initial Finding of a Comparative International Study. Selected Published proceedings of the University Council of Educational Administration Annual Conference. San Antonio, Texas.

Hannon, J., Soohoo, S., Reel, J. & Ratliffe, T. (2009). Gender Stereotyping of Race in Sport Among Adolescents. *Research Quarterly for Exercise and Sport*, 80(3), 676-684.

Harrison, P. & Narayan G. (2003). Differences in Behavior, Psychological Factors, and Environmental Factors Associated with Participation in School Sports and Other Activities in Adolescence. *Journal of School Health, 73*(3), 113-120.

Hoff, D.L. & Mitchell, S.N. (2006). Pay-to-Play: Fair or Foul?. *Phi Delta Kappan*, November, 230-234.

Hoff, D.L. & Mitchell, S.N. (2007). Should Our Students Pay to Play Extracurricular Activities? *Education Digest, 72*(6), 27-34.

Holloway, J.H. (2000). Extracurricular Activities: The Path to Academic Success? *Educational Leadership, 57*(4), 87-8.

Imber, Michael. (2001). Put Academics Before Athletics. *American School Board Journal*. Retrieved February 21, 2011 from Education Index database.

Johnson, R.B. & Onwuegbuzie A.J. (2004). Mixed Methods Research: A Research Paradigm Whose Time Has Come. *Educational Researcher*. Retrieved May 2, 2010 from Education Index database.

Kanaby, R. & Tenopir, J. (2008). Activity Programs: A Right or Privilege? *High School Today*, 1.

Kennedy, R. (2008). The Need for High School Extracurricular Activities. *Coach Athletic Director*, 78(4), 38-39.

Kortering, L.J. & Braziel, P.M. (1999). Staying in School: The Perspective of Ninth-Grade Students. *Remedial and Special Education*, 20(2), 106-113. Retrieved February 28, 2010 from

http://vnweb.hwwilsonweb.com.libproxy.temple.edu/hww/results/results_single_fulltext.jhtml;hwwilsonid=EXGZYY43VTH5RQA3DILSFF4ADUNGIIVO

Lipscomb, S. (2007). Secondary school extracurricular involvement and academic achievement: a fixed effects approach. *Economics of Education Review*, 26(4), 463-472.

Manheim Central School District Annual Report. (Pg 9, 2010-2011).

Marsh, H.W. & Kleitman, S. (2002). Extracurricular school activities: The good, the bad, and the nonlinear. *Harvard Educational Review*, 72(4), 464-512.

National Center for Education Statistics. (1995). *Extracurricular Participation and Student Engagement*. Washington, DC: O'Brien, E. & Rollefson, M.

National Federation of State High School Associations. (2008). *The Case for High School Activities*. Indianapolis, IN. Retrieved from www.nfhs.org.

Octorara School District Board Minutes. (November 15, 2010). Retrieved from <http://www.octorara.k12.pa.us/education/components/scrapbook/default.php?sectiondetailid=250&pagecat=395>.

Phillips, G. & Wagner, C. (2003). School culture assessment. Vancouver, British Columbia: Agent 5 Design.

PSBA Education Research & Policy Center. (August, 2010). *PAY-TO-PLAY Fees for Participation in School extracurricular activities*. Retrieved September 28, 2010 from <http://www.psba.org/issues-advocacy/issues-research/research-resource-center/pay-to-play-August2010.pdf>

Santa, Joe (2010). Student-centered Programs Goal of High School Athletics. *High School Today*, 18-19.

Smith, A.L. (2006). A Study of the Relationship Between School Culture and Standardized Test Scores (Doctoral dissertation). Retrieved April 30, 2010 from Google.

Sobkin, V.S., Abrosimova, Z.B., Adamchuk, D.V. & Baranove, E.V. (2006). Age and Gender Characteristics of Adolescents' Attitudes Toward Sports. *Russian Education Society*, 48(3), 60-77.

Stiggins, R. (2007, Oct. 17). Five Assessment Myths and Their Consequences. (15 paragraphs) *Education Week* (online). Available: Education Index (2010, May 1).

Taliaferro, L.A., Rienzo, B.A., Miller, M.D., Pigg, R.M. & Dodd, V.J. (2008). High School Youth and Suicide Risk: Exploring Protection Afforded Through Physical Activity and Sport Participation. *Journal of School Health*, 78(10), 545-553.

Using Positive Student Engagement to Increase Student Achievement. (2007, April). The Center for Comprehensive School Reform and Improvement.

Wolf, P. (2007). Academic Improvement Through Regular Assessment. *Peabody Journal of Education*, 82(4), 690-702.

APPENDICES

APPENDIX A

HUMAN SUBJECTS REVIEW COMMITTEE APPROVAL

Office for Human Subjects Protections**Institutional Review Board**

Medical Intervention Committees A1 & A2

Social and Behavioral Committee B

Student Faculty Conference Center

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Certification of Approval for a Project Involving Human Subjects

Protocol Number: **13421**

PI: **IKPA, VIVIAN**

Approved On: 29-Oct-2010

Review Date: 29-Sep-2010

Committee: B BEHAVIORAL AND SOCIAL SCIENCES

School/College: College of Education

Department: ED'L LEAD/POLICY STD (1903)

Project Title: Coaches' and Teachers' Perceptions of the Correlation Between Athletics and Academics in the West Shore Area School Districts

In accordance with the policy of the Department of Health and Human Services on protection of human subjects in research, it is hereby certified that protocol number 13421, having received preliminary review and approval by the department of ED'L LEAD/POLICY STD (1903) was subsequently reviewed by the Institutional Review Board in its present form and approved on 29-Oct-2010 with respect to the rights and welfare of the subjects involved; appropriateness and adequacy of the methods used to obtain informed consent; and risks to the individual and potential benefits of the project. In conforming with the criteria set forth in the DHHS regulations for the protection of human research subjects, and in exercise of the power granted to the Committee, and subject to execution of the consent form(s), if required, and such other requirements as the Committee may have ordered, such orders, if any, being stated hereon or appended hereto.

It is understood that it is the investigator's responsibility to notify the Committee immediately of any untoward results of this study to permit review of the matter. In such case, the investigator should call the IRB at (215) 707-3390.

This is the Certificate of Approval. Supplemental documentation will follow under separate cover. Enrollment may not begin until all documents have been reviewed and processed by the IRB and received by the study team.

**Office for Human Subjects Protections
Institutional Review Board**
Medical Intervention Committees A1 & A2
Social and Behavioral Committee B
3400 North Broad Street
Philadelphia, Pennsylvania 19140
Phone:215.707.3390 Fax:215.707.8387
e-mail: richard.throm@temple.edu

MEMORANDUM

To: **IKPA, VIVIAN**

ED'L LEAD/POLICY STD (1903)

From: Richard C. Throm

Institutional Review Board

Date: 17-Nov-2010

Re:

Expedited Request Status for IRB Protocol:

13421: Coaches' and Teachers' Perceptions of the Correlation Between Athletics and Academics in the West Shore Area School District

This addendum is to be affixed to the IRB Approval Certificate

45 CFR 46 Protection of Human Subjects.

Expedited review is a type of review that can be conducted by the IRB Chair, other IRB members designated by the Chair, or a subcommittee of the IRB. A major criterion for research that can initially (initial review) reviewed through expedited process is that it must involve no more than minimal risk. The DHHS regulations and FDA regulations define minimal risk to mean that "the probability and magnitude of harm or discomfort anticipated in the research are not greater in and of themselves than those ordinarily encountered in the daily life or during performance of routine physical or psychological examinations or tests." This research protocol was reviewed under the following Expedited Review Category:

Expedited Category #7: Research on group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

APPENDIX B

E-MAIL SENT TO ACQUIRE PERMISSION FOR IRB APPROVAL

Dear Fellow Colleague,

As a part of my doctoral dissertation for Temple University, I am conducting a survey, and your willingness to help me distribute my survey to 12 random teachers and 12 specific coaches in your school would be paramount to my study. The survey is in regard to my dissertation entitled "Coaches' and Teachers' Perceptions of the Correlation Between Athletics and Academics in West Shore Area High Schools." While there are many studies that ask about the relationship between athletics and academics, with the impending budget cuts that many area districts are facing, my topic is currently one of concern for many. As a principal myself I know how busy we are, but I truly hope that you can find a few moments to contribute to this worthy topic.

In order for me to be able to continue my research, I need a letter from you on your district letterhead agreeing to participate. I drafted a form letter of permission in order to save you time. It is attachment 1, and ***all that is required is a signature from you and a copy of the letter sent to me on your district letterhead.***

In addition, I am attaching the details of this study. With your help, I will contact the 12 teachers you select and the 12 coaches you currently have on staff for the study. Once I gain approval, you and I will discuss the most effective way to obtain the emails of the above-mentioned subjects.

I thank you again for your time in helping me to survey the coaches and teachers in your district on this very important topic. I look forward to hearing from you.

Sincerely,

Sandra Fauser

APPENDIX C

HIGH SCHOOL PRINCIPAL'S AGREEMENT TO PARTICIPATE LETTER

Dear Ms. Fauser,

I am willing to participate in the survey you are conducting as part of your doctoral study for Temple University entitled **Coaches' and Teachers' Perceptions of The Correlation Between Athletics and Academics in High Schools within the Capital Area Intermediate Unit.**

I am aware that you will need the names and emails of 12 specific coaches and 12 random teachers (selected by me) to complete your survey. After you receive this letter, I will expect you to contact me to obtain the list you need to continue.

Sincerely,

High School Principal

APPENDIX D

FOLLOW-UP E-MAIL to HIGH SCHOOL PRINCIPALS

Hello. Thank you again for offering to help with my dissertation. The last step is to send the survey to your 12 random teachers and 12 coaches. Here is what I need:

*12 random teachers – you can use your judgment as to who

*12 head or assistant coaches from the following sports if possible – field hockey, cheerleading, soccer, softball, football, soccer, wrestling, baseball, cross country and track (please note that these coaches do not have to be teachers within your District)

Would you prefer to send me these 24 e-mail address or should I forward the survey link to you and you can forward it to the 24 participants? Please let me know.

Sandra Fauser
Eisenhower Elementary Principal
Camp Hill, PA
(717) 901-2600

APPENDIX E

E-MAIL for SELECTED PARTICIPANTS

My name is Sandra Fauser and I am an elementary principal in the Camp Hill School District as well as a doctoral student at Temple University. I am conducting a dissertation study titled, "Coaches' and Teachers' Perceptions of the Correlation Between Athletics and Academics in Capital Area Intermediate Unit High Schools." This study will be significant to numerous school districts that are under pressure to make budget cuts that could ultimately affect extracurricular activities.

The survey has twenty-six multiple-choice questions and should take no longer than four minutes to complete. The deadline to complete the survey is February 4, 2011. Please note; there are no identifying marks on the survey so complete anonymity is guaranteed.

In order to participate, please go to the following website, <http://www.surveymonkey.com/s/B63NNJS> Select the choice that you feel is the most appropriate response to the twenty-six questions.

If you have any concerns and/or questions, please feel free to contact me via the phone or by e-mail. If you are interested in receiving the results of the study, please let me know and I will make sure you receive the analyses.

Thank you in advance for your help.

Sandra Fauser
Eisenhower Elementary Principal
(717) 940-1163 cell
(717) 901-2600 work

APPENDIX F
ORIGINAL SURVEY

We are asking for your help to learn more about the perceptions that teachers and coaches have about high school students who participate in athletics. Your honest answers to the following questions will enable coaches and teachers to better see the correlation between athletics and academics. Please understand that study participants will be guaranteed complete anonymity. Your participation is greatly appreciated.

Please select the most appropriate response.

Position:

Teacher
Coach
Both

Gender:

Male
Female

Did you participate in athletics in high school?

Yes
No

A. FOR THE FOLLOWING (30) STATEMENTS, PLEASE SELECT THE NUMBER WHICH BEST INDICATES WHAT YOU PERCEIVE TO BE TRUE:

Strongly Agree - 5
Agree – 4
Neither Agree nor Disagree - 3
Disagree - 2
Strongly Disagree – 1

Athletics benefit high school students by encouraging them to.

1. Improve athletic skills
2. Participate in activities with peers
3. Experience the success associated with winning
4. Participate with positive adult role models
5. Experience travel opportunities
6. Increase or maintain physical fitness
7. Be a part of a team

8. Experience the excitement of competition
9. Improve academic skills
10. Budget time wisely
11. Expand peer group
12. Build self-esteem
13. Release stress
14. Work for rewards such as trophies and recognition
15. Exercise regularly
16. Structure free time
17. Build team spirit
18. Feel important
19. Reach a higher level of competition
20. Increase problem solving skills
21. Balance academics and athletics
22. Maintain grades according to PIAA rules
23. Set personal goals
24. Attend school regularly
25. Interact appropriately with peers of the opposite sex
26. Obtain a college scholarship
27. Become a professional in the sport
28. Gain a greater sense of self-worth
29. Help others

30. Find the motivation to improve academically

APPENDIX G
REVISED SURVEY

We are asking for your help to learn more about the perceptions that teachers and coaches have about high school students who participate in athletics. Your honest answers to the following questions will enable coaches and teachers to better see the correlation between athletics and academics. Please understand that study participants will be guaranteed complete anonymity. Your participation is greatly appreciated. Please select the most appropriate response.

Position:

Teacher
Coach
Both

Gender:

Male
Female

Did you participate in athletics in high school?

Yes
No

A. FOR THE FOLLOWING (26) STATEMENTS, PLEASE SELECT THE NUMBER WHICH BEST INDICATES WHAT YOU PERCEIVE TO BE TRUE.

Strongly Agree - 5
Agree – 4
Neither Agree nor Disagree - 3
Disagree - 2
Strongly Disagree – 1

Athletics benefit high school students by encouraging them to.

1. Improve athletic skills
2. Participate in activities with peers
3. Experience the success associated with winning
4. Participate with positive adult role models
5. Experience travel opportunities
6. Experience the excitement of competition

7. Improve academic skills
8. Budget time wisely
9. Expand peer group
10. Release stress
11. Work for rewards such as trophies and recognition
12. Structure free time
13. Build team spirit
14. Feel important
15. Reach a higher level of competition
16. Increase problem-solving skills
17. Balance academics and athletics
18. Maintain grades according to PIAA rules
19. Set personal goals
20. Attend school regularly
21. Interact appropriately with peers of the opposite sex
22. Obtain a college scholarship
23. Become a professional in the sport
24. Gain a greater sense of self-worth
25. Help others
26. Find the motivation to improve academically

APPENDIX H
PILOT STUDY CORRELATIONS

Pilot Survey Data Summary

A. Frequency Data for the Questions

	1	2	3	4	5	Mean
Q1	0	0	1	11	17	4.55
Q2	0	0	1	10	18	4.59
Q3	0	1	4	12	12	4.21
Q4	0	3	6	11	9	3.89
Q5	0	3	7	11	8	3.83
Q6	0	0	0	6	23	4.79
Q7	0	0	0	6	23	4.79
Q8	0	0	0	12	17	4.59
Q9	0	2	5	9	13	4.14
Q10	0	0	3	9	17	4.48
Q11	0	2	2	13	12	4.21
Q12	0	0	0	8	21	4.72
Q13	0	2	3	8	16	4.31
Q14	3	4	5	10	7	3.48
Q15	0	0	0	6	23	4.79
Q16	0	1	4	14	10	4.14
Q17	0	0	1	13	15	4.48
Q18	0	2	2	11	14	4.28
Q19	0	0	4	12	13	4.31
Q20	0	0	1	15	13	4.41
Q21	0	0	1	8	20	4.66

Q22	0	2	0	10	18	4.55
Q23	0	0	1	7	21	4.69
Q24	0	0	3	6	20	4.59
Q25	2	2	13	6	6	3.41
Q26	0	7	8	8	6	3.45
Q27	5	9	11	3	1	2.52
Q28	0	1	1	9	18	4.52
Q29	0	1	3	7	18	4.45
Q30	0	2	5	11	11	4.07

APPENDIX I

Teachers' and Coaches' Gender Differences

Differences Between Male and Female teachers' and coaches' perceptions

t-test Significance

Q1	-.597	.551
Q2	-1.185	.238
Q3	-.793	.429
Q4	.266	.791
Q5	-1.903	.059
Q6	1.316	.190
Q7	-.094	.925
Q8	.791	.430
Q9	-.780	.437
Q10	-1.657	.099
Q11	-.386	.700
Q12	-.474	.636
Q13	-1.782	.076
Q14	.184	.854
Q15	-.385	.701
Q16	-.529	.598
Q17	-.413	.680
Q18	.326	.745
Q19	.049	.961
Q20	-1.129	.260
Q21	-1.187	.237
Q22	-1.640	.103
Q23	-1.090	.277
Q24	-.665	.507
Q25	.450	.654
Q26	-.827	.410