An Analysis of the Success of a High School Athletic Program on Student Achievement

Peter Randall Giles

University of Southern Mississippi

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AN ANALYSIS OF THE SUCCESS OF A HIGH SCHOOL ATHLETIC PROGRAM ON STUDENT ACHIEVEMENT

by

Peter Randall Giles

A Dissertation
Submitted to the Graduate School of The University of Southern Mississippi in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy

May 2012
ABSTRACT

AN ANALYSIS OF THE SUCCESS OF A HIGH SCHOOL ATHLETIC PROGRAM ON STUDENT ACHIEVEMENT

by Peter Randall Giles

May 2012

The decisions on how to spend money in the public school system will continue to remain throughout the years, but how that money best impacts student achievement should always remain at the forefront of every decision. Often in today’s tough economic times school systems will cut expenditures in athletics without the full knowledge of how a high school athletic program impacts student achievement and the climate and culture within the school. The researcher investigated the success of an overall high school athletic program and the correlation with standardized test scores in English and math. Additionally, the success of a high school athletic program on the school climate and culture was examined. The findings of this study were statistically significant in both the effects of a high school athletic program on student achievement and the school climate and culture. This finding supports that the success of a high school athletic program has a significant positive impact on student achievement and that the success of a high school athletic program has a significant positive impact on the student’s perception of the climate and culture in the building. As a result of this study, it may be used to assist central office personnel and local high school administration to be equipped with the knowledge on how the quality of coaches affects a school culture and climate through success in the athletic arena, which may affect student achievement.
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by

Peter Randall Giles

A Dissertation Submitted to the Graduate School of The University of Southern Mississippi in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy

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Dean of the Graduate School

May 2012
DEDICATION

Throughout my life there have always been many certainties. These include the love of my wife, the love of my mother, the love of my family, and the love and faith in God. Without all of these facets in my life I would not be the man that I am nor would I have been able to accomplish this great feat. Therefore, I dedicate this body of work to them for without them I would not have reached this milestone.

Furthermore, I also would like to dedicate this dissertation to my father who was taken too soon from me and unfortunately never had the opportunity to see me develop into the man I am today. Although he has not physically been with me, he has been in my heart and watching from heaven every step of the way.
ACKNOWLEDGMENTS

I would like to thank my committee chair, Dr. Rose McNeese, and all of my other committee members, Dr. J. T. Johnson, Dr. Ronald Styron, and Dr. David Lee, and The University of Southern Mississippi for all of their time, experience, and wisdom that they devoted to me over this process. I would like to thank the entire Georgia Cohort for their encouragement and friendship throughout this program. I would also like to thank my good friend C. H. Morgan for retreats to the mountains when I was in need of inspiration. Additionally, I would like to thank Dr. Ehsan Katoulla who is a great friend of mine who picked me up when I was in need of encouragement and provided much needed advice through my final months of this process.
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CHAPTER I
INTRODUCTION

Education in today’s society is ever changing and the demands on the local school and staff are tremendous and increasing in difficulty through government mandates of various programs without providing the funding to support these mandates. The most notable mandate, which is driving state and local decisions, is the No Child Left Behind Act (NCLB) of 2001 (2002). This act was designed to hold states and schools accountable for student achievement and provide more educational freedom for the states and communities, utilize research-based educational methods into the schools, and provide more choices for parents. The accountability that each state must show the federal government is based on Adequate Yearly Progress (AYP) for all student subgroups in each school. Each state has developed methods to measure the success rate of students meeting AYP with the goal of 100 percent of the students being proficient in all state standards by 2014 (Four Pillars of NCLB, 2004).

With the current paradigm shift in education today, the primary focus in education is dealing with core courses that are directly related to AYP and dismisses the importance of programs, such as fine arts and athletics that have no direct correlation to AYP (Beveridge, 2010). This shift has caused district and/or local school leadership to make tough decisions regarding the allocation of funds for certain curriculum and program areas, which should be maintained and which should be reduced or disbanded. The focus for funding has shifted towards standards training for faculty and staff in content areas that are assessed for AYP. According to Beveridge (2010), programs that have been specifically targeted include fine arts, athletics, career technology courses, and extracurricular activities. Other states have had similar budgetary challenges to
overcome these shortfalls within their school districts and made additional adjustments, which include an increased student teacher ratio per classroom and an increased amount of time in the school day (Beveridge, 2010).

In the State of Georgia, schools have made decisions based on the budget shortfalls in the state estimated at three billion dollars coupled with local budget shortfalls in many cases exceeding $100 million (Georgia State Budget, n.d.). The school districts located in the metropolitan Atlanta area have experienced some of the largest budget constraints in the state. For example, the Cobb County School District reported a budget shortfall of $137 million (Addison & Johnson, 2010), Fulton County reported a budget deficit of approximately $100 million (The Fiscal Year 2011 Budget, n.d.), Dekalb County reduced the budget $104.5 million for the 2011 Fiscal Year (Matteucci, 2010; Budget, n.d.), and Gwinnnett County reported a reduction of $106.4 million for 2011 Fiscal Year (Gwinnnett County Public Schools, Adopted Budget, n.d.). Most of these districts have chosen to eliminate teaching positions among several other popular budget cuts, which in turn will increase class sizes. Through all these cuts and eliminated positions schools are still expected to raise the bar for academic achievement and perform well on the student standardized tests that impact the school district and local schools’ AYP status.

As a result of AYP expectations in financially constrained communities, schools are challenged to develop ways to motivate, interest, and assist students who are struggling and need further academic assistance. School districts have reacted to students’ academic needs to meet AYP by providing tutoring for the failing or academically weak students (Wang, Haertel, & Walberg, 1997). Tutoring services can be offered through independent tutoring, after school tutoring, or through extracurricular
programs, such as tutoring for a football team. Proactive approaches include diagnostic testing tools that allow teachers to identify students in need before starting a unit or subject.

Another approach for addressing AYP deficits is to focus on creating a positive climate and culture in the school, which has shown to support student achievement (Wang et al., 1997). The climate of a school has multiple dimensions, which include the physical environment, quality of interactions with other students and staff, the opportunities that students have to interact with teachers, and the comfort of a students’ physical safety while at school (National School Climate Center, n.d.b). The culture of a school is inclusive of the experiences that all students, teachers, and community members have both in and out of school. These experiences can range from the daily activities and interactions that occur within the hallways of schools, the relationships that are built with the surrounding community, and the experiences of a school’s athletic events, such as the Friday night football games (Kennedy, 2010). In Georgia, like most states, the opportunity to participate in extracurricular activities is vast, ranging from multiple male and female sports to the performing fine arts and various clubs. The most notable extracurricular activity is the Friday night experience, which includes the football players, cheerleaders, band, student fans, and community fans. This allows for this experience to have a great impact on the culture of a school.

The State of Georgia has five classifications that high schools are placed into for their athletic programs, which are determined by the average full-time equivalent student (FTE) count (Constitution and By-Laws, 2011). The lowest classification is A which has the lowest student population per school and the largest is AAAAA which has the highest student population per school. Each of these classifications contains eight regions or
divisions that range from four to twelve teams per region. The majority of the schools that participate in high school athletics in Georgia belong to the Georgia High School Association (GHSA); while those schools that do not participate in the GHSA participate in the Georgia Independent School Association (GISA) (Georgia Independent School Association, n.d.).

According to the Atlanta Journal and Constitution (AJC) and Georgia Athletic Director’s Association (GADA), of the schools that held membership in the GHSA in 2009, 17 of the top 25 schools in average Scholastic Aptitude Test (SAT) scores were also in the top 25 in the Director’s cup standings in their respective classifications (Atlanta Journal & Constitution, State News, 2009; Georgia Athletic Director’s Association, n.d.d). The Director’s cup is the honor that is bestowed upon the GHSA high school with the best overall athletic program and best male and female athletic program per classification. The best athletic programs are determined by assigning a point value for each of the sports that make it to playoffs based on their final placement. Points can be accrued in 25 sports, but only the top eight male and top eight female sports will be tabulated at the end of the year to determine the best overall athletic programs. The points per sports will range from 10 points for the school to a maximum of 100 points for the school on any given season depending on the final performance in the end of the season tournament (Georgia Athletic Director’s Association, n.d.b).

Problem Statement

This study will specifically investigate the relationship between the overall successes of a high school athletic program, how that success impacts the school culture and climate, and how the culture and climate affects student achievement in the school. The problem that schools are facing nationwide, but specifically in Georgia, is the lack of
funds that are being generated or distributed to the local district, while the schools are consistently being held to a higher student achievement standard. Local school officials are forced to make difficult financial decisions that will impact student achievement in the classroom and in extracurricular programs. As Beveridge (2010) discussed, a common budget cut is in extracurricular activities and athletic funds.

Wagner (2006) mentioned how the school culture is the combination of experiences both in and out of school and that culture is one of the most overlooked components when discussing student achievement and school improvement. Extracurricular activities are a vital component of the cultural experiences in the school that can have an impact on student achievement. Throughout the nation 83% of students participate in extracurricular activities, therefore this forum is a great avenue to impact the school culture, which as a result will affect the school’s achievement (Kennedy, 2008). Prior to reducing the funding for athletic programs school districts must first fully understand the impact these activities can have on the school’s culture, which in turn may affect student achievement. If this research is not conducted, then this may affect the quality of coaches that districts and schools are able to attract due to lack of monetary support for the programs or prolong the dismissal of a coach who is not supporting the school mission and promoting the school culture and climate, which may adversely affect the school’s AYP status.

Purpose of the Study

The goal of this study is to identify if the success of a high school athletic program affects the school culture, which in turn has a positive impact on student achievement. Additionally, this study should contribute to the body of literature and research pertaining to the impact that a high school athletic program has on the academic
achievement of the student body. As a result of this study, it may be used to assist central office personnel and local high school administration to be equipped with the knowledge on how the quality of coaches affects a school culture and climate through success in the athletic arena, which may affect student achievement.

Research Questions/Hypotheses

This study encompassed four research questions which were:

1. Is there a significant relationship between the success of a high school’s athletic program and student achievement?

   $H_1$: There is no significant relationship between student achievement and the success of a high school athletic program.

2. Is there a relationship between the success of a high school athletic program and the perception of the school climate and school culture by students?

   $H_2$: There is no significant relationship between the success of a high school athletic program and the perception of the school climate and school culture by students.

3. How does the administration of a successful high school athletic program feel about the impact that the athletic program has on school climate and culture and student achievement?

4. How does the administration of an unsuccessful high school athletic program feel about the impact that the athletic program has on school climate and culture and student achievement?
Definition of Terms

*Adequate Yearly Progress (AYP)* - The method that each state has chosen to measure their students’ advancement towards reaching 100% competency on the states academic standards in both reading and math (U.S. Department of Education, 2004).

*Athletic Success* - This will be determined by the overall point standings for each high school as determined by the Georgia Athletic Director’s Association Director’s Cup standings criteria (Georgia Athletic Director’s Association, n.d.b).

*Career Technology Courses* - High school course offerings that will teach the basic to advanced skills needed for many of the technology career fields (Georgia Department of Education, Career Development, n.d.a).

*Classifications* - The system that the state athletic association uses to categorize high schools based on their size ranging from Class A to Class AAAAA. Schools with an FTE count more than 1900 will be arranged in Class AAAAA. Schools with FTE counts less than 525 will be arranged in Class A. The remaining schools will be divided equally between Class AA, ClassAAAA, and Class AAAAA (Constitution & By-Laws, 2011, p. 48).

*Director’s Cup* - Is an award that is presented by the GADA to recognize the top athletic programs in each of the five classifications. Awards are given at the conclusion of the athletic year for the top male, female, and overall athletic programs. The points are determined by how well individual athletes place in the season ending tournament or how well a team places in the season ending tournament. Point to be earned for an athletic program will range from 10 points to 100 points (Georgia Athletic Director’s Association, n.d.c).
**Extracurricular Activities** - Any activity that is participated in outside of the normal school day. These activities are to support the curricular activities that occur in the classroom during the day. Examples are clubs, band, student government, and athletics (Extracurricular, n.d.).

**Fine Arts** - A segment of the curriculum that is dedicated to music, theater, and art. Students may participate in band, drama, chorus, or orchestra (Georgia Department of Education, Fine Arts, n.d.c).

**Full Time Equivalent Student** - The way in which full time student enrollment is reported by the local school. Each state sets a minimum amount of class time that students must be in class per week. These reporting numbers are used to help determine the amount of money a school will receive from the state (Definition - full-time equivalent student, n.d.).

**Georgia Athletic Director’s Association (GADA)** - A membership based organization within the state that supports the athletic director’s through training and insurance. The organization also sponsors the Director’s Cup (Georgia Athletic Director’s Association, Benefits of Membership, n.d.a).

**Georgia High School Graduation Test (GHSGT)** - The state mandated test that includes sections on English, Math, Science, and Social Studies. This test is required for all students to pass in order to graduate with a valid high school diploma. The test is administered during the spring of the junior year of high school. Students who do not pass will have additional opportunities to take the exam (Georgia Department of Education, Georgia High School Graduation Test, n.d.e).
Georgia High School Writing Graduation Test (GHSWT) - Each high school student must be administered this exam during the fall semester of the junior year. Students must pass this exam to graduate with a valid high school diploma (Georgia Department of Education, n.d.f).

Georgia High School Association (GHSA) - Sanctioning body for member schools within the state, which consist of approximately 425 schools, including both private and public schools. This association only governs the athletic programs of these schools (Georgia High School Association, n.d.).

Georgia Independent School Association (GISA) - Sanctioning body for the athletic member independent schools within the state, which consist of approximately 160 schools. This association governs all aspects of the independent schools in the state (Georgia Independent School Association, n.d.).

No Child Left Behind Act of 2001, 20 U.S.C. § 6319 (2002) - Educational Act that was signed into law on January 8, 2002 by President George W. Bush. The law is targeted towards disadvantaged students, which are often left behind in their curricular needs. The accountability of this law includes annual testing for math and English, proof of academic progress through AYP, school report cards for parents to view progress, increased teacher qualifications, granted reading programs, and increased funding through Title I provisions (No Child Left Behind [NLCB], 2002).

SAT Reasoning Test - Formally the Scholastic Aptitude Test, is a college entrance exam that will examine the student’s knowledge base in reading, math, and writing. This exam is most commonly administered in a student’s junior year of high school (What is the SAT?, 2011).
School Climate - Is a culmination of the personal experiences from school stakeholders, norms, values, character, goals, relationships, and instructional and learning practices that occur within a school (National School Climate Center, n.d.c).

School Culture - Is the combination of experiences that are shared both curricularly and extracurricularly within the school, which may include a variety of celebrations, traditions, and expectations that instills the sense of the school pride within the community (Wagner, 2006).

Delimitations

1. The findings of this study were delimited to 16 high schools within a large school district in the State of Georgia.

2. This success of a high school athletic program was delimited to those programs which were successful enough to qualify for the state playoffs. Additionally, the researcher utilized the criteria for success as prescribed by the Georgia Athletic Director's Association.

3. The researcher only used standardized test results from the Georgia High School Graduation Test in math and English.

4. The findings of the school climate and culture survey were delimited to only those students who replied to the county survey.

5. The interviews of this study were delimited to the two principals and two athletic directors.
Assumptions

During this study this researcher operated under certain assumptions, which were as follows:

1. All the respondents of the prepared survey answered the questions openly and honestly.
2. The data that has been recorded from the county school district and the state education department is has been recorded with accuracy and fidelity.
3. That the panel of experts for the qualitative survey answered the questions openly and honestly.

Justification

This research is beneficial to school districts and local schools as another component in the overall assessment of the importance of a high school athletic program when the discussions of budget cuts are debated. This research influences the emphasis that may be placed on schools when they are hiring new coaches and maintaining positive coaching practices that may increase their level of success on the playing field. This research also influences the discussions that occur when the central office or local school administration have when deciding on dismissing poor coaches or providing additional training for the coach.

Summary

In Chapter I, the researcher introduced the study and discussed how through the legislation of No Child Left Behind the educational landscape in the United States has changed. In the current economic times the budget deficits are demanding that school districts make significant cuts to programs in order to maintain a balanced budget. While determining the cuts to make the districts must keep in mind the effects that the cuts have
on student achievement at the forefront of their decisions. Due to a lack of research cuts are often made in the athletic programs. The concern of this researcher is that these cuts are being made without consideration of how the success of a high school athletic program affects the school culture and climate, which may have an effect on student achievement.
CHAPTER II
LITERATURE REVIEW

Introduction

The purpose of this chapter is to provide a review of the available literature on the topics of athletics, school culture, school climate, and student achievement. The researcher provides the theoretical framework that guides the study, *An Analysis of the Success of a High School Athletic Program on Student Achievement*. The theoretical framework outlines: what are the motivating factors for students to perform better in school and in life, what they need to survive and thrive in their educational settings and personally, how they interact within a community and the school, how cognitively they process information, and how their learning is influenced through their social settings.

The researcher provides a brief history of the origins of athletics from ancient times to modern day society, in which athletics play a primary role in the community and in a student’s extracurricular life. The researcher addresses the effects that an athletic program can have on the student athletes, students in the school, teachers in the school, and the community members. The positive effects that an athletic program or extracurricular activities have on student achievement is also being evaluated. Additionally, the effects that an athletic program may have on a school and community are discussed along with those effects on the schools culture and climate. When discussing the school culture and climate connections are made as to how a successful culture and climate may be established and the benefits towards students and their overall achievement in the school and on standardized English and math exams.
Theoretical Framework

The theoretical framework in this study looks at multiple theories which contribute to the backbone of this study. In discussing the concept of student achievement one must first try to understand the psyche of the student. What drives him or her to be successful? What is his or her motivation to do their very best? Why do some students consistently make excuses for their behaviors while others accept responsibility of their actions? How do students learn best? How do students process the knowledge that they acquire? How students learn from observing others? The theories that the researcher discusses are motivation theories, cognitive development theory, and behavioral learning theories. These theories assist in providing knowledge of what drives students and why they behave the way they do in certain situations.

The researcher examines Maslow’s (1954) behavioral theory of hierarchy of needs, Heider’s (1958) attribution theory, and Blumer’s (1969) symbolic interactionism theory, Bandura’s (1977) social learning theory, and the constructivist theory of learning. These five theories address the student’s basic needs for self satisfaction and self actualization, thus their need or desire to perform to their highest potential academically. They address their means of motivation for their success or failure in school. They examine how a student develops cognitively in the learning environment. They explore how a student learns through observations and modeling. Last the theories describe how a student progresses in their development in socialization and the larger community within their school.

Each student within a school has certain needs that if provided are able to assist in dictating if an individual is able to perform at their highest level. Maslow (1954) developed a psychological theory in 1943 that described the human stages of growth and
development throughout their life. These needs began to be nurtured and met for each child since the moment they were born, and will continue throughout their lifetime. Maslow (1954) (Slavin, 1997) would often depict his theory of Hierarchy of Needs as a pyramid in which the most basic needs in life were at the bottom of this pyramid and the pinnacle surmounting in self-actualization. His levels of need are described below:

1. **Physiological:** The basic needs that everyone needs for survival such as food, sleep, shelter, and water.

2. **Safety:** Every individual has a need to feel safe in their environment. These needs may include physical safety, financial safety, health, employment, or their property.

3. **Love and Belongingness:** Each person has the desire and need for friendship, intimacy, and family. This level of need is especially critical for children. The acceptance that individuals need can come in the form of clubs, social groups, religious groups, and teams.

4. **Esteem and Self-Respect:** Each person has a desire to have value in others eyes or to have a sense of contribution. It is natural, as humans, too long for the opportunity to gain recognition from peers.

5. **Self-Actualization:** This is the level in which an individual can reach their fullest potential and have realized what they can become or what they are actually capable of doing in life (Maslow, 1954).

For an individual to continue progressing through the hierarchy of needs during their life they should have satisfied the majority of the needs from the previous levels of Maslow’s pyramid (1954) (Slavin, 1997). Maslow’s hierarchy of needs is one of the most driving theories behind individual behavior. His theory also explained the
motivation or lack of motivation that students might face at times (Maslow, 1954; Slavin, 1997).

Understanding how and why certain students achieve while others who may be involved in a similar situation are not achieving can be a difficult task for any teacher or school administrator to understand. Heider (1958) was the first psychologist who was credited for the development of the attribution theory. Heider suggested that achievement stemmed from motivation. He discerned that our behavior is dictated by either internally motivated within us or external factors that are motivated by a source other than us. He also stated that our successes or failures are a direct result of how we interpret the surrounding environment. As a result of our successes and failures students will be led to results that will be considered either stable or unstable results. Stable causes or environments will usually lead to more consistent results, while unstable causes or environments make it less likely to achieve the same action or result. Examples of a stable cause may be the difficulty of a course, while an example of an unstable cause may be the amount of luck a student had on an exam (Heider, 1958). Each of the causes or results may be changed by controlled factors or uncontrolled factors (Slavin, 1997).

The understanding of the cognitive development of students and how to appropriately deliver material in the classroom or in life can often be a difficult task to handle. Vygotsky (1978), who is thought by modern day constructivist, to provide the backbone for the constructivist theory of learning offers a theory to address how learners need to process new knowledge (Slavin, 1997). The constructivist theory of learning states that teachers or adults may provide the student or learner with the needed information to acquire and build their knowledge. Although the teacher cannot make a student learn the knowledge they are able to serve as facilitators in this process. For
students to have authentic learning they must construct their own thoughts through discovery and application of their ideas (Vygotsky, 1978). Four key principles were derived from Vygotsky’s (1978) (Slavin, 1997) ideas.

1. *Social Learning:* Learners are able to learn through their interactions with their peers and adults. During this process they will be working with these individuals as this will help to provide exposure on how others around them go through the thinking process. This will also help the learner in the problem solving process by having to think and talk their problems through this process.

2. *Zone of Proximal Development:* This is a stage in which students are not quite capable to accomplish all of the work on their own, but through the assistance of an adult or more advanced peer they can push through the learning process and gain vital knowledge and abilities.

3. *Cognitive Apprenticeship:* This aspect of the theory discusses how the student shadows an advanced peer or adult as if they were in an apprenticeship program. Through the interactions with the expert or advanced peer the learner will further advance their cognitive abilities so they will be accomplishing the normal functions for the needed skill.

4. *Mediated Learning:* This is the process in which students are given more difficult tasks to complete on their own. Although they are working on the more complex tasks the instructor will provide the learner with ample knowledge to complete the task while still challenging the individual.

This process of the constructivist learning theory is intended to provide the learner with a larger more complex idea while still allowing them the opportunity to explore and build
their learning on their own personal experiences (Slavin, 1997).

The social learning theory, which was developed by Bandura (1977), describes the core of student learning as being the process of the learner going through observational periods and then converting those observations into thought. Bandura’s (1986) (Slavin, 1997) theory involves four phases, which were heavily influenced by the process of observational learning.

1. **Attentional phase**: This is when the learner will watch their surrounding or what a peer or adult is doing. Often their attention is drawn to those objects that are attractive to the eye. This is where many of the modern day trends may begin.

2. **Retention phase**: Once the learner has given their attention to the teacher, peer, or other object it will then be time for that individual to model the behavior that they would like to see replicated by the learner.

3. **Reproductive phase**: This is the process when the learner will replicate the desired behavior. In doing this the learner will internalize through their mental processes what they have observed and place those thoughts into action.

4. **Motivational phase**: This is when the learner looks for feedback that will promote them to continue the desired action or behavior. This feedback may come in the form of positive feedback from their peers or it may come in the form of positive feedback as a good grade on the project or assignment.

According to Blumer (Blumer, 1969) (Symbolic Interactionism, n.d.), the way an individual responds in a given environment can, at times, be determined by how they personally view their roles in the larger community and the influence that the
environmental factors within themselves and their surrounding have on themselves. Blumer (Blumer, 1969) developed the term *symbolic interactionism*, which sociologically describes this phenomenon. Blumer based his theory, which was preceded on the prior work of Mead (Symbolic Interactionism, n.d.), on three core principles; meaning, language, and thought. These principles blend into the development of an individual and their socialization into the larger community in which they are involved.

1. *Meaning*: Individuals treat others and things according to their interpretations and how they are viewed in their own personal mind. This relationship can be associated with their perceptions on family, community, or schools. This principle of *symbolic interactionism* is referred to as the central aspect of human behavior.

2. *Language*: This gives individuals the ability to communicate and negotiate with one another through written symbols and/or verbal communication, but is only successful when we understand or use a common language within the society that we interact.

3. *Thought*: This is how we, as humans, have the ability to process our encounters, and depending on the current situation, respond accordingly to our scenario. At times this may be innate or instinctual and at other times this may be a process in which individuals think it through.

There is an element in the theory that states as humans individuals are all part of a community in which there is a general view of our own self due to the responses and expectations of those who surround us. The more significance that a person brings to oneself or the more power they obtain the more impact they may bring on their own self or imply on others (Symbolic Interactionism, n.d.).
Origin of Sports/ Athletics

Athletics have always played an important role in society and once they were included as an option in the education system, they changed the dynamic of the educational setting. The origins of sports are not exactly known, but artifacts and structures that have been found through history suggest that gymnastics were in existence as early as 4000 BC in China (Sports in Society, 2005). According to the Sports in Society (2005) more evidence of sports was found in monuments to the Pharaohs of Egypt, which depicted sports, such as fishing, wrestling, high jump, javelin throwing, and swimming. Ancient Persia is thought to have originated the joust and polo, as their society depended greatly on horses. Greece was the birth-place of formal competitive sports as this was seen through the Ancient Olympics, which were held from 776 BC until 393 AD (Sports in Society, 2005). This celebration of sports began with just a single race know as the marathon race and grew to include many other events including wrestling, chariot racing, javelin throw, discus throw, and many other popular sports. Evidence of these Olympics was even depicted in the Odyssey when Odysseus showed off his abilities while throwing the javelin (Sports in Society, 2005). According to Sports in Society (2005), in ancient times an integration of the fine arts into the games was not uncommon as was seen in the Panathenaia of Athens. During the middle ages the progression of athletics was slow with the exception of the rough and sometimes violent sport of football (soccer) in England and Ireland. This was played throughout the villages and was primarily a sport for the commoners. Those of the aristocracy participated in activities like horse racing and calico (Sports in Society, 2005).

The development of the modern day sports evolved from the sport of cricket, horse racing, and boxing in England in the 1660’s after the Restoration of the monarchy
Gambling became a prominent existence to the patrons as they began to wager on teams that were no longer composed of just players from one parish, but the best players from multiple parishes. These players would then in turn be compensated for their winnings, which marked the beginning of professional sports. The first professional teams were noticed in cricket as members of these teams were receiving money for their competition. As the industrial revolution began so did the integration of rural football and city football. English public schools began their own school teams as an innocent and lawful way to play the game of football. Due to the presence of the middle and upper classes in the public school system the game was influenced from one that was once considered more violent and a country sport to one that was much tamer and included players from all classes. According to Sports in Society (2005), in the mid 1840’s in North America came the invention of baseball which eventually extinguished cricket from the states. In the southeast United States football began its inception and then began spreading north after the civil war (Sports in Society, 2005). The late 1800’s brought the revival of the Olympics by Baron Pierre de Coubertin in 1896 and the invention of basketball by James Naismith in 1891. Because of the extreme popularity of physical competition athletics soon became a cornerstone of the educational community in both curriculum and as organized events (International Amateur Athletic Foundation, History, n.d.).

How Extracurricular Activities Impact Student Achievement

The influence that extracurricular activities, especially athletics, have on student achievement has been a heavily debated topic for nearly fifty years with a significant number of studies analyzing the correlations from multiple angles (Hartmann, 2008). It is widely accepted among researchers that there is a strong positive correlation between
participation extracurricular activities and student achievement. Marsh and Kleitman (2003) discuss that not only do extracurricular activities boast a positive impact on the academic achievement of the student participants, but they also have great effects on the student’s social and cognitive functions. These benefits go beyond the scope of the classroom and can be life changing for those involved in the activities. Mahoney (2001) states that the participation in extracurricular activities has grand effects on disadvantaged students. The greatest benefit being noticed in a comparison of dropout rates with a decrease in dropouts for disadvantaged students who participate in extracurricular activities versus those students who do not participate in extracurricular activities.

Broh (2002) conducted a study in which 24,599 eighth graders were studied and follow-up studies were conducted during their tenth and twelfth grade years. During this study it was discovered that through participation in extracurricular music program students experienced multiple academic benefits. These benefits included better grades, increased standardized math scores, negligible gains on standardized reading test, and an increase in communication between students, teachers, and the parents. Additionally, Broh (2002) found that students who participated in the school council also reaped benefits from their extracurricular involvement, which included an increase in their grades, but not on their standardized test scores. Broh (2002) found in the study that there was no increase in any area for students who participated in the other extracurricular activities.

When comparing the degree of benefits that are received from participating in the various extracurricular activities the benefits are comparable to those of your academic activities, such as debate and the fine arts. In contrast, the other academic activities,
athletics, and fine arts are found to have a greater benefit for the students than those non-
academic extracurricular activities (Hartmann, 2008). In the meta-analysis conducted by
Hattie (2009) he cited that extracurricular activities have a stronger effect on student
achievement, medium effect on student engagement, and a medium effect on reducing
risk behaviors. From Hattie’s (2009) research it emerges that the participation in
extracurricular activities has a positive effect on student achievement. Although the
effect seen is his meta-analysis was not considerable among the 41 studies that were
analyzed there was a positive correlation.

It is seen through the large scope of the research that there is significant evidence
to support the notion that the participation in extracurricular activities has a positive
effect on student achievement in the classroom. Additionally, Hartmann (2008)
described that these benefits are not only limited to the classroom and student
achievement, but there are also social and cognitive benefits due to extracurricular
participation. Currently, there is an increased focus and the research is looking at specific
niche in athletics, ethnic groups, or frequency of meetings or practices (Hartmann,
2008).

In investigating the reason as to why extracurricular activities can increase student
achievement Trudeau and Shephard (2008) expressed that these activities may provide
students with an outlet to subside their disruptive behavior in the school. By having this
outlet students are able to still maintain their focus on academics without being removed
from the classroom. Hartmann (2008) stated that students who are actively involved in
extracurricular activities are more inclined to have greater academic successes in the
classroom than those students who are not involved in these activities. Furthermore, it is
thought that through the participation in extracurricular that the students will have an
increased exposure to adults who value education due to the immersion of practices, meetings, or games. Because of this influence students are more inclined to achieve at higher levels (Trudeau & Shephard, 2008).

In summary, the effect that extracurricular activities have on students is multifaceted in their benefits even beyond the classroom. Students see higher engagement rates, a decrease in behavioral issues, and a significant positive effect on student achievement (Hattie, 2009). The most effective extracurricular activities are those activities that meet on a regular basis, which are highly structured and have adult leadership. These activities should nurture skills and goal setting abilities of the student (Hattie, 2009). Although it is arguable if there are benefits noticed academically throughout all the various extracurricular activities it is recognized that extracurricular activities dealing with the arts and athletics experience the greatest impacts. Another benefit for students that was noted in a study conducted by Eccles and Barber (1999), which concluded that through their participation in athletics or fine arts as the choice of a extracurricular activities as opposed to other clubs or organizations saw a reduction in the dropout rates and an increase of pursuing a post-secondary education at the collegiate level.

*How Interscholastic Sports Participation Impacts Student Achievement*

Students who participate in high school athletics have been found to have a significant increase in their academics, specifically their grade point average (G.P.A.) and have been found to have greater future aspirations both academically and in their careers (Darling, Caldwell, & Smith, 2005; Marsh & Kleitman, 2003). Rees and Sabia (2010) supported these finding in their study when they controlled all variables, such as family background, ethnicity, and socioeconomic status and found that athletes perform at
higher academic levels than non-athletes. Additionally, Darling et al. (2005) found that students who are involved in high school athletics had a better attitude towards school and contributed towards a positive school culture. These students also showed a positive influence in the school and applied to more colleges, had higher expectations that enforced at home, displayed a higher self-esteem, and completed more courses throughout their high school careers (Marsh & Kleitman, 2003). These student athletes not only applied to more colleges but more of them continued a four-year post-secondary degree than their counterparts who did not participate in high school athletics (Barron, Ewing, & Waddell, 2000).

During the examination of Hattie’s (2009) meta-analysis study he found that through participation in sports there was a medium effect on achievement, medium effect on engagement, and no effect on reducing risk behaviors. He also stated that the participation in sports led to a positive effect on student achievement. It is also noted that there is a strong positive correlation that participation in athletics will also improve the mental health of the student athlete and provide them with a better self image and the greatest effects resulting from an increase in student self-esteem (Hartmann, 2008; Hattie, 2009).

Hawkins and Mulkey (2005) conducted a study to determine the effects that athletic participation had on eighth grade African-American males. Through this study they concluded that due to participating in athletics, these eighth grade students were involved in less disciplinary infractions and they had greater aspirations to further their education. In a study that was performed by Fredricks and Eccles (2006) they analyzed the difference in academic gains between African-American students and Caucasian students who participated in athletics. A significant benefit was found noting that 67% of
African-American students and 33% of Caucasian students performed better academically and had higher self-expectations in the classroom. In a study that was performed by Nelson and Gordon-Larsen (2006) they also confirmed that students who were actively involved in schools through the means of physical activity in sports or other extracurricular activities were more inclined to achieve in the classroom at high levels than those students who are not active.

In a study of almost 12,000 students that Marsh (1993) conducted he discovered that through the participation in sports these students’ athletes performed better in their English and math courses regardless of their socio-economic status. White and McTeer (1990) conducted a large study of high school athletes and their academic performance, which revealed that those students who participated in marquee sports, such as football or basketball saw an increase in their performance in English courses. Although there was a noticeable increase in English there were negligible differences in their math performance. Broh’s (2002) study analyzed 24,599 eighth graders and their grades, school involvement, communication, and standardized test scores as they proceeded through high school. It was reported that students who participated in interscholastic sports had significant academic benefit, but particularly saw their grades increase in math and English. The study also showed an increase in standardized math scores when a student participated in interscholastic sports with little to no gains in reading standardized test scores.

In the study conducted by Rees and Sabia (2010) they concluded that students who have participated in high school athletics saw significant gains in their math and English grades. Additionally, they found that the frequency of participation contributed to greater increases in math and English G.P.A.’s. The study documented that the
greatest G.P.A. gains of .187 were made when the student participated in their activities five or more times per week. Broh (2002) also cited from the study that students who participated in interscholastic sports had a significant increase in conversations that included their peer group, their teachers, and their parents in regards to school and their academics. Broh (2002) also found that the peer group that a student orients themselves with contributes to 10% of their increase in grades and 23% of their increase in standardized math scores, whereas over 50% of the increase in math and 33% of the increase in English was attributed to the participation in their social networks and social capital. These studies helped to provide the groundwork for some of the more recent studies that depict the benefits that athletic participation may have for student athletes (Trudeau & Shepherd, 2008). There was no benefit in participation of intramural sports revealed in Broh’s (2002) study. Contrary to Broh’s (2002) study were Marsh and Klietman’s (2003) reports that there is a statistically significant positive effect for participation in intramural sports but a greater effect with extramural sports.

The positive influence that high school athletics contributes towards a student’s academic career is explained through the same reasons as were stated with students who participated in extracurricular activities. Broh (2002) provides another elucidation to this contribution of academic success through three models.

1. The Developmental Model: This model describes that through the teachings of sports, athletes will learn skills that will assist them in the classroom, such as strong work ethic, perseverance, and the respect for authority. Furthermore, through the process of being successful in the athletic arena the student athlete creates a self-confidence about them that will continue into the classroom.
2. The Leading Crowd Hypothesis: This hypothesis suggests that participation in sports or other extracurricular activities provides students the exposure to catapult into a more elite peer group status. This will then come with the expectation to achieve at higher levels in all facets of school, which includes the academic success of a student.

3. Social Capital Model: This model describes the benefits that are received from the social networks that an individual is involved. A student can be involved in more than one group, which can range from associations with other students, teachers, and parents. Participation in these groups will lead to increased interaction with the school which will ultimately benefit the student athlete.

The results from Broh’s (2002) study support that there is not one of these models that is the sole beneficial producer for the student athlete, but rather a combination of all three models. The best results when dealing with academic achievement and athletics are seen with a strong support network. This network will be most effective when the coach is the pivotal point, as a teacher, who will relay the strong message to the student athletes that they must value their education (Gould, Collins, Lauer, & Chung, 2007).

In summary, student athletes show significant gains in their academics, social development, and cognitive development. Academically, student athletes have higher grades, especially in math and English, better standardized test scores in math and English, and have greater future aspiration academically and for their future career, while acting on those aspirations. The primary reason for these benefits is the relationships and work ethic that are developed through participation in high school athletics. Through these relationships with peers and adults academics will come to the forefront of the
conversation between the student athletes and the adults in their lives. The student then acquires a work ethic and character that will continue to benefit them outside of the practice and playing arena.

*Sports and Leadership Development*

There are many reasons as to why parents may choose to involve their children in sports. Holt, Tink, Mandigo, and Fox (2008) shared that some of these reasons included students’ physical health, social well-being, work on coordination, and to gain skills that they may not be acquired in the traditional classroom. Sports psychologist have suggested through time that the participation in high school sports will help in the acquisition of life skills that are needed to succeed in life after high school (Holt et al., 2008). Gerdes (2001) explained that research continues to grow in the field of school sports with behavioral scientists as they look deeper into the relationship between development of cognitive, affective, and psychomotor domains and sports. Many behavioral scientists believe that character and leadership can be developed, and sports may be the catalyst in developing leaders (Gerdes, 2001). Bailey (2006) suggested that participation in sports and physical education may help student athletes to develop their own boundaries and respect the boundaries of others as well. Other benefits that arise with the participation in sports and physical education include the development of one’s self confidence, increased self-esteem, better academic achievement, enhanced social and cognitive development, and the opportunity to experience emotions that the students would not normally encounter in traditional curriculum settings (Bailey, 2006). As Gerdes (2001) explained, a uniqueness of sports is that it provides student athletes with the opportunity to be both a leader and a follower, while having the chances to develop those roles as they participate in sports. As with any learned or developed trait, Gerdes
(2001) suggested that these attributes will need to be nourished by the coach or teacher.

A growing area of interest in the United States is the integration of sports and life skills. Programs such as the Sports United to Promote Education and Recreation (SUPER) program allow for coaches to follow their student teach these life skills through a prescribed program (Holt, et al., 2008). Gerdes (2001) explained that due to the closeness of their nature, a quality character education program may also be referenced as a leadership development program. Holt, et al (2008) supported the benefits that Bailey (2006) noted regarding student participation in sports, but goes further to add that once a sport is integrated with a character education program, one will also notice an increase in college attendance, emotional regulation, problem solving, goal setting, team work, and skills development. All of these skills are vital for today’s leaders. Gerdes (2001) also suggested that even with the different programs, the development of today’s youth leaders will be obtained informally in the classroom or playing field by through observations by the student athletes.

Character Building in Sports

DeRoche (2009) defined character as the learned behavior dealing with how someone acts, how they respect others, their honesty, and their responsibility in relationships. This is just one of the many interpretations in the literature that deals with character. Rees (2001) shared that some of the basic traits that are observed when determining if someone is demonstrating good or bad character in sports, include: self-control, aggression, commitment, sportsmanship, and violent or delinquent behaviors demonstrated by the athlete. The debate about whether or not sports promotes or builds character has been in question since the early days of sports (DeRoche, 2009). Since then, several researchers have supported the assumption that student participation in sports or
physical education does not necessarily build character. Those who do not endorse this idea claim that sports supports the winning at all cost mentality (Lidor, 1998). The winning at all cost mentality, which does not foster the growth of character in sports as have been discussed by other researchers. One of the points that Chandler and Goldberg (1990) argued was the contradiction that participation in athletics does not build character, but actually participation in such activities may create character issues due to the constant emphasis on winning at all costs. Proponents who endorse the participation in athletics feel as though sports will provide athletes with the opportunity to learn from the excitement of a victory and just as valuable can be the lessons learned from the agony of defeat. This means that sports show us how to live and that the lessons learned through sports will penetrate an athlete’s life beyond the playing field (Lidor, 1998). DeRoche (2009) conjectured that if most researchers agree that character is a learned trait then, by default, spending so much time in practices and participating in the games of sports, character is molded by these experiences. The belief of building character was one of the key principles the recreational Little League baseball and Pop Warner football were built on (DeRoche, 2009). Since extracurricular activities play a large role in the English public school curriculum, they serve as one of the pillars to the English public school system (Chandler & Goldberg, 1990).

In attempting to understand the relationship between participation in athletics and character development, it is imperative to review the research on the psychology of character, which states the main psychological component in character is moral reasoning (Lidor, 1998; Rees, 2201). Both authors described two separate approaches to moral reasoning, or the processes that an individual goes through in determining what is right or wrong, which reflect social learning or the structured developmental approach to
developing moral reasoning. Moral behavior was also described by Kohlberg (1978; 1984) and Piaget (1972) as how someone’s own justice will be served, or what is fair. Doty and Lumpkin (2010) refer to the social learning model as the process by which a person may learn through observing what others do along with the positive or negative consequences that are associated with that behavior. At this point, the person may begin modeling those behaviors themselves.

Lidor (1998) reported that the structured developmental approach for learning emphasized that students learn through processes rather than through social observations. Kohlberg (1978; 1984), who adapted his stages of moral development from Piaget’s (1972) research, was the leading expert in the structured developmental approach (Lidor, 1998). Kohlberg (1978; 1984) felt that the development of moral reasoning would coincide with an individual’s cognitive development throughout their lifetime. One of the most common ways that Kohlberg would test his individual subjects was through providing them with a dilemma (in an excerpt) and have them explain if the individual involved was morally correct or morally wrong in their decision and would ask the subject to explain their conclusion. He was not as interested in the reply of being morally correct or wrong, but the reasoning that the individual shared to support their judgment (Hock, 2002).

Through these studies Kohlberg developed three levels of moral development, which included six stages. These levels are: preconventional level, conventional level, and the post-conventional level. The preconventional level lasts from about age four to ten and deals with not just the individual child’s standards, but whether or not the individual child is good or bad based on the consequences. In stage one, children will feel that they are doing and behaving in a correct manner if they are able to avoid
punishment. Stage two is called the *stage of self interest*, which means that whatever actions will benefit the child will be the right choice and if an action that the individual conducts does not benefit them, then it would be the wrong choice (Green Wood, Wood, & Boyd, 1993).

The *conventional stage* lasts from age 10 until 13. During this stage the adolescent usually internalizes his standards on how they feel others would approve of their actions. Stage three adolescents begin to act in certain ways to please others that are in their surrounding environment. The development in stage four focuses on the growth of an adolescent and whether or not they can respect authority and maintain social order (Green Wood, et al., 1993). Green Wood (1993) also stated that the *post conventional* stage lasts from age 13 to young adulthood, or in some cases may never be achieved. An individual who is in this stage must be able to think in Piaget’s (1972) highest cognitive level, known as, *formal operations*. During this stage an individual will weigh his/her options and look at each of the consequences of those actions and then make their moral decisions. Stage five deals with the respecting of individual rights and obeying laws. Stage six, which is the highest level of moral development relates to an individual’s own ethical principles. The person makes their own moral decisions based on their own internal standards and are not influenced by the law or the opinions of others. Kohlberg (1978; 1984) concluded that until an individual reaches the highest level of cognitive thinking, it is not possible for him/her to reach the *post-conventional level* of moral development.

Additional theories on character building in athletics relate with sports serving as an avenue or a tool to help in the character building process. This process will be more effective with stronger support from the coach and/or administrators that are involved in
assisting the students to develop their character (Rees, 2001). Rees (2001) recommended that if the resources are available, the school should use a curriculum to incorporate teaching moral judgment into the sports program. Rees (2001) cited the program, Fair Play for Kids, as an effective tool for coaches and administrators to utilize. A study of 204 fourth through sixth grade students over a period of seven months indicated an improvement in moral judgment and behavior for those participating in the study (Chandler & Goldberg, 1990). There is an importance mandate for parents, coaches, and players at the youth level to focus on winning with an emphasis on the experience of winning rather than the consequence. This provides athletes with an opportunity to build character (Chandler & Goldberg, 1990). Lidor (1998) discussed three things to consider when a coach or school is developing a process to enhance character development. First, the focus should not only be on winning, but should include a concentrated focus on moral issues. Second, time needs to be dedicated to have meaningful discussions on these moral issues between peers and adults. Lastly, it is important for coaches and administrators to have realistic goals set for the student athletes. Rees (2001) affirms the previous viewpoints when he shared that the venue for physical education is the best arena for moral development due to the lessened emphasis on winning.

Importance of School Culture

Understanding that athletics played such an important role in society during the early stages of our country’s development with the institutionalizing of athletics around the industrial revolution, validated the importance to look at what roles athletics have in the schools. Athletics in many parts of society serve as a pillar of the community drawing fans, the student body, and residents of the community together under one cause, which is to support the students learning environment (Jable, 1992). The two areas
within a school and the surrounding community that can be influenced the most are the climate and culture. If school leaders chose to ignore the culture within a school, an adverse effect of poor student achievement may occur. The culture of a school sets the tone of the learning environment for the students and teachers, therefore theorists have stated that leaders should place a greater emphasis on culture if they want to see greater results in student achievement (Ediger, 1997; Wagner, 2006). Prior to focusing on changing the culture, a new building principal or school leader needs to study and understand the current culture of the school. Fullan (2001) shared that the primary role of a principal is to serve as a change agent by focusing on the school’s culture as a fundamental key to success in the learning environment for both improvement of student achievement and the teacher’s morale as they go about their everyday duties. If school leadership within the school will make true meaningful change within the school, they must first start with changing the culture of the school by involving all stakeholders within the school’s community or there will be a significant increase in risks that the needed change may only be temporary. Once the school and its stakeholders understand its personality, mission, and purpose, the keys will be in place to insure that any change to come is attainable (Fullan, 2001).

According to Fullan (2001), when a leadership team has identified and understands the culture of the school they must begin to look at agents that can change the culture in the school. Although a school’s culture may appear to be stable, during these times of technology and quick communication a school may undergo changes more rapidly. As with many things in life negativity manifests more quickly than positive actions, which forces schools to be more vigilant in achieving their goal of promoting a positive culture (Fullan, 2001).
Ediger (1997) discussed a scenario that had a significant impact relating to the culture that was built around athletics when she attended school. As a student who participated in the fine arts she felt as though her areas of interest were often ignored by the community, students, and even at times by the staff of the school. She once had an experience that she depicted as a very negative culture at her school. One day she was wearing her athletic letter jacket which she had earned for her involvement in the fine arts program when she passed a coach and a student-athlete. The coach asked, “Did you see that? Why does she have a letter jacket, she doesn’t deserve one” (Ediger, 1997, p. 38). This school culture exhibited in this scenario extended to the community, students, and teachers in the school. The school promoted an athletic environment in which everyone came out for the games and the school would host pep rallies to get the school and community excited for the upcoming competition. This promotion assisted in creating a positive atmosphere within the school. Through these rituals the school neglected to realize that students who had earned recognition letters that were not athletic were just as well deserved as those letters that were earned on the athletic field. For this school this attitude was an underlying issue in their hallways. Ediger (1997) recommended that one of the first steps in changing this type of culture is to insure that no groups within the school feel lesser than the others. This might include minorities or students who have interest that are outside of the mainstream for that population.

It is the responsibility of the school personnel to be open and accepting of these students and their interest as well as being aware of the implications a culture of disrespect may bring on the school. Additionally, it is the responsibility of school personnel to gain an awareness of new technology and the potential implications and disruption that is has brought into the learning environment. Ediger (1997) suggested
that the areas of focus needed to change the culture are being creative, create an atmosphere that thinks of others, foster staff development, create a clear vision, focus on solutions not problems, and focus on student achievement.

*Importance of School Climate*

It is difficult for many individuals to differentiate between school culture and school climate. MacNeil, Prater, and Busch (2009) described school culture as the anthropological perspective and the value and norms of the school, while the school climate deals with the psychological perspective and the behavior of the organization. The culture and the climate of a school are so dependent upon one another that it is often leads to the difficulty of where the school culture ends and where the school climate begins, hence the two traits are often discussed as one. A school climate has to be created and established over time because it involves the norms, values, and relationships within the school and community (National School Climate Center, n.d.c). A positive school climate is vital towards the success of students because this will establish the environment that is needed to nurture the development of students through the education process and set them up for the greatest chance of success (National School Climate Center, n.d.a). As referenced in the National School Climate Center (National School Climate Center, n.d.c), a positive school climate includes:

1. Norms, values and expectations that support people feeling socially, emotionally and physically safe;
2. People are engaged and respected;
3. Students, families and educators work together to develop, live and contribute to a shared school vision;
4. Educator’s model and nurture attitudes that emphasize the benefits and satisfaction gained from learning; and

5. Each person contributes to the operations of the school and the care of the physical environment (National School Climate Center, n.d.c).

When describing the climate of a school it is plainly stated as the reason as to why teachers and students want to be associated with that school. As Preble and Taylor (2008) discussed attributes of unhealthy schools, there is an emphasis that school leaders must be aware to discourage behaviors such as bullying, dropout rates, harassment, and negative teaching practices. A healthy school climate will contribute towards lower student dropout rates, increased student academic success, lower discipline rates, and lower teacher attrition (National School Climate Center, n.d.a; Preble & Taylor, 2008). Preble and Taylor’s (2008) found that students will often refer to the school climate as what will happen when the teachers and administrators are not around or watching. They also found that if students feel as though there is a positive climate within the school they will make statements that reflect feeling safe in their building both physically and emotionally.

Leblanc, Swisher, Vitaro, and Tremblay (2008) conducted a study that spanned a ten year duration that investigated the impact of school climate on antisocial behaviors. They found that there was a strong correlation between the school climate and antisocial behavior. Additionally, Leblanc et al. (2010) found that schools with a greater occurrence of antisocial behavior found they experienced a greater amount of classroom behavior problems. Their findings showed that a positive change in a school climate can significantly decrease the amount of violent and non-violent antisocial behavior.
MacNeil et al. (2009) noted that unhealthy schools seem to have a lack of focus on student achievement, teachers in the building tend to be unhappy with their jobs, and the school focuses more on the state and local policies. Having collegiality among staff members, promotion of high academic standards, and acknowledging positive behaviors will all help mold a positive school culture and in return produce greater student achievement. Although the school principal cannot by him/herself change the school climate, they play an integral role in this process by influencing the relationships in the school and placing students and their achievement as a top priority in the building.

MacNeil et al. (2009) also shared other characteristics that are influenced by the principal and found in schools with strong climates and culture, the principal’s focus is narrowed to include open communication, goal oriented, innovative, adaptable, problem solvers, cohesive staffs, and promote positive school morale. Preble and Taylor (2008) documented students’ perceptions of the staff in unhealthy schools and students would claim that their teachers did not care about the students or their success. Consequently, the students stated that their teachers did not attempt to develop a personal relationship with their students.

When a school assesses their school climate and culture, it is beneficial for them to use the tool Organizational Health Inventory (OHI). (MacNeil, et al., 2009). The OHI looks at 10 different dimensions of organizational health that address the climate of the school and the way the members interact with the organization. The 10 dimensions of assessment are: goal focus, communication adequacy, optimal power equalization, resource utilization, cohesiveness, morale, innovativeness, autonomy, adaptation, and problem-solving adequacy (MacNeil, et al., 2009).
1. Goal focus is the ability of persons, groups, groups or organizations to have clarity, acceptance and support of goals and objectives;

2. Communication adequacy is when information is relatively distortion free and travels both vertically and horizontally across the boundaries of an organization;

3. Optimal power equalization is the ability to maintain a relatively equitable distribution of influence between members of the work unit and the leader;

4. Resource utilization is the ability to involve and coordinate the efforts of members of the work unit effectively and with a minimal sense of strain; and

5. Cohesiveness is when persons, groups or organization have a clear sense of identity. Members feel attracted to membership in the organization. They want to stay with it, be influenced by it and exert their own influence within it.

6. Morale is when a person group or organization has feelings of well-being, satisfaction and pleasure.

7. Innovativeness is the ability to be and allow others to be inventive, diverse, creative, and risk-takers.

8. Autonomy is when a person, group or organization can maintain ideals and goals as well as meet needs while still managing external demands.

9. Adaptation is the ability to tolerate stress and maintain stability while being responsive to the demands of the external environment.

10. Problem-solving adequacy is an organization’s ability to perceive problems and solve them using minimal energy. The problems stay solved and the problem-solving mechanism of the organization is maintained and/or strengthened (MacNeil, et al., 2009, p. 78).
In the study conducted by MacNeil et al. (2009) they found that in each of the schools with higher school climate ratings, according to the Texas school accountability ratings, there were also higher scores on the organizational health inventory. Additionally, the two most influential dimensions to a successful school culture are goal focus and adaptation.

*Impact of Culture and Climate on Student Achievement*

The effects of school climate and culture reach beyond what is witnessed in the hallways, but will also penetrate into the classrooms in the form of student achievement. Organizational theorists have declared that a strong sense of culture and climate within an organization is a vital component for great leaders to possess (MacNeil, et al, 2009). As stated earlier, the climate and culture of a school does have a direct link to the discipline, academic performance of the students, teaching practices, and successes among the teachers in the building. Boucher, Bramoullé, Djebbari, and Fortin (2010) investigated in a linear study over ten years in Canada the influence that a peer group may have on a student and their own academic achievement. In this study they found significant results supporting that when a student’s peer group is performing at a higher level academically, it will permeate other students and they will achieve at higher levels as well. It is noted from the National School Climate Center (National School Climate Center, n.d.a) that climate does impact student achievement at a school through results in increased test scores and higher graduation rates. A reason for this impact is the focus that is provided by these schools on having high expectations for all the students in the building, celebrating the academic successes of not just the students, but teachers as well, and incorporating the community in community learning programs (Preble & Taylor, 2008).

Adversely, in schools that were considered unhealthy schools there was a lack of
academic motivation witnessed in both the teachers and students who worked and attended the school (MacNeil, et al., 2009).

Deal and Petersen (1999) concluded that only when the school climate and culture changes in such a way, it will support the needed change within a school that there will be no sustainable improvements that will occur. Once the needed improvements to support the school are made and a positive climate and culture are formed and sustained then change will be successful. In a study that was conducted in 2006 on the relationship between climate and student achievement it was found that those schools that had made significant improvements in the school climate made greater academic success than those schools that had not (Preble & Taylor, 2008). Additionally, in a larger study that was conducted in 2007 (Viadero, 2007) it was affirmed that as a school creates a more positive climate in their building for students, teachers, and community members that test scores on statewide standardized exams in reading, math, and writing showed greater increases.

How Athletics and Extracurricular Activities Affect School Climate and Culture

As discussed in Ediger’s (1997) scenario, athletics can often be viewed both in a positive light and negative light when correlated to school culture. The excitement and pride that an athletic program can bring to a school can be outstanding. A successful team can unify students within a school under the same cause, which is to support their school. After a great win the attitude and vibe in the school will penetrate the hallways. As positive as these experiences can be, athletics can also bring about resentment. Teachers and students can end up resenting athletes due to preferential treatment in the community or in the school. Although some may find it difficult to attain, it is possible to integrate sports into the culture on a school. Thompson and Jacobson (2007) have
echoed the thoughts of others that having a clear and defined mission is crucial to a successful school culture. What is often forgotten is that the mission and values do not leave the school at the front doors, but should continue onto the playing field with the student athletes. The participation in sports can test the perseverance, ethic, and character of a student athlete every day. Athletics can also teach student athletes about failure and how to problem solve to get their intended results (Thompson & Jacobson, 2007).

Thompson and Jacobson (2007) also shared that schools which intend to integrate sports into the school culture must first make sure they are hiring the right head coach and that the head coach demands the same expectations from their coaching staff. The right coach is able to acquire and keep the attention of almost anyone, motivate them to be better, and unify them for a common cause. The right coach can have this effect on all of his/her players and challenge the same from the opposing teams’ players. The right coach can also have that same positive effect on the rest of the school through positive interactions with the rest of the student body and by creating players who value the school culture those players will also have a positive effect on the rest of the student body. Ediger (1997) suggested that successful school leaders will develop their athletic program to serve as a unifier, view athletics not as an extracurricular activity, but as a co-curricular activity. Just as important the school leadership should ask the athletes to show support for the band on Friday nights, attend the school play, or attend their concerts to support their classmate’s interests. All of these actions help to create a healthy culture that will cultivate learning.
Summary

Although there are many factors that determine the outcome of a student’s success while attending schools there is significant research that supports that the area of climate and culture play a vital role in their achievement. In addition to the culture and climate of the school there is a considerable amount of research to support the benefits that athletics, physical activity, and extracurricular activities have on student achievement, specifically in English and math. In assisting to understand why these facets of education play such a crucial role there is a need to explore the psychology behind a student’s motivation to succeed. The three theories that were discussed that attribute to the motivation students have are Maslow’s behavioral theory of hierarchy of needs, Heider’s attribution theory, and Blumer’s symbolic interactionism theory. Additionally, there were two theories that were discussed that impact how a student learns, which are Bandura’s social learning theory and Vygotsky’s constructivist theory. These theories discuss the internal and external needs for humans to succeed, their internal and external motivating factors to achieve, their view own personal view on where they see themselves fitting into society, the cognitive process of student learning and connecting ideas, learning through observations of peers and adults, and the influence of the social unit on student learning.

The climate and culture in schools can be affected through the atmosphere in a community and the individuals within a school. The culture of the individuals may be a result of their character, which impacts the climate and culture of a school. As has previously been determined the character of students may be molded through successful coaches who focus on positive character. The effects that a positive climate and culture may have on a school include higher rates of student achievement in the classroom and on state mandated exams, an increased attendance rate, lower dropout rates, and a
decrease in disciplinary issues within the school. Higher achieving students, due to their involvement in athletics or extracurricular activities, may act as an influence to the peer group in the school, thus creating a culture and climate of academic success in the school. The formation of a building that promotes a healthy culture and climate is not only conducive toward the academic achievement of the student, but will also foster a healthy work environment for all of the teachers in the building.
CHAPTER III

METHODOLOGY

Introduction

The purpose of this study is to identify if the success of a high school athletic program affects the school culture, which in turn has a positive impact on student achievement. Additionally, this study should contribute to the body of literature and research pertaining to the impact that a high school athletic program has on the academic achievement of the student body. As a result of this study, it may be used to assist central office personnel and local high school administration to be equipped with the knowledge on how the quality of coaches affects a school culture and climate through success in the athletic arena, which may affect student achievement. There are many aspects within a school that can affect the school culture positively or negatively. Although there are many external factors, the building principal and their leadership team have the greatest influence on the school culture.

In this chapter, the researcher discusses the research questions that are answered through this study and the hypotheses that correlate with each of the research questions. The researcher also discusses the design of the research study, the data collection procedures, and how the data was analyzed upon completion of the data collection. Additionally, the researcher discusses the scope of the participants that were recruited for the study and the rationale that was used in choosing the groups of participants for this study.
Research Questions/Hypotheses

This study encompasses four research questions which are:

1. Is there a significant relationship between the success of a high school’s athletic program and student achievement?
   
   $H_{01}$: There is no significant relationship between student achievement and the success of a high school athletic program.

2. Is there a relationship between the success of a high school athletic program and the perception of the school climate and school culture by student?
   
   $H_{02}$: There is no significant relationship between the success of a high school athletic program and the perception of the school climate and school culture by student.

3. How does the administration of a successful high school athletic program feel about the impact that the athletic program has on school climate and culture and student achievement?

4. How does the administration of an unsuccessful high school athletic program feel about the impact that the athletic program has on school climate and culture and student achievement?

Research Design

The design that was used to analyze the data was a quasi-experimental quantitative cross-sectional research approach with a qualitative interview component. In the research there were three variables that the researcher investigated, which were the success of a high school athletic program, school culture and climate through the perception of the students, and student achievement. The independent variables in this
study were a high school athletic program’s success and the school culture and climate through the perception of the students. The dependent variable was student achievement.

Determining the success of a high school athletic program is not an easy task since there are multiple female and male athletic programs in each high school and each high school does not always chose to participate in each of the sports. The researcher chose to extrapolate data from the Georgia Athletic Director’s Association archives on the Director’s Cup year end standings. The Director’s Cup year end standings are a compilation of the eight highest achieving sports in each gender at any particular high school. Each school’s athletic programs are assigned a point valued based on how well the program finished in the state playoffs. For example, if a boys’ soccer team won the state title they would receive 100 points for their school; while the runner-up would receive 90 points for their school and the teams that only made it to the round of 16 would receive 53 points each. The points a school can earn range from 10 points in non-bracketed sports (e.g. gymnastics and track) and 25 points in bracketed playoff sports (e.g. basketball and football) to 100 points for the state champion. Non-bracketed sports rank the top 32 athletes based on how they place in the end of the season tournament. Bracketed sports determine each school’s points on which round of the state tournament the school’s athletes were eliminated. At the end of the school year all the points for those eight best sports programs for each gender in a school are added together and a final state ranking based on the overall success of a school’s athletic program is published on the Georgia Athletic Director’s Association website. Furthermore, the winning school from each classification will be awarded the Director’s Cup (Georgia Athletic Director’s Association, n.d.b).
Measuring a school’s climate and culture at times can be difficult since it is the perception of the individuals who are in the school environment. Due to this assessment being the perception of the students at the local school, the researcher used a standardized perception survey that is administered through the county school district for the use of the School Strategic Plan (SSP) formerly referred to as the School Improvement Plan (SIP). The data that was retrieved is archival data that is administered to the students in regards to eight domains that have been identified. School climate and culture are one of these eight domains that the researcher gathered data from and analyzed. Each stakeholder group has different questions that determine their perception of the school culture. Each of these questions was measured by the Likert-scale score.

To determine the level of student achievement the researcher chose that it was best to gather data from standardized test rather than the use of Grade Point Averages (G.P.A.) since all the assessments that determine a student’s final grade in a course are not consistent from school to school. The researcher chose to gather archival data from the GHSGT, which is required by all juniors in the State of Georgia to take and pass in order to graduate from high school. The researcher chose to analyze the results from the math and English sections of the exam since this is the data that is used to determine AYP eligibility at the high school level in the State of Georgia.

In determining the relationship between the success of a high school athletic program, school culture and climate as perceived by students, and student achievement the researcher utilized simple correlations.

For the qualitative segment of this study the researcher conducted an interview with an expert panel in the field of the success of a high school athletic program, school climate and culture, and student achievement. The interview was composed of seven
open-ended questions (see Appendix A) that were developed to assess how a high school athletic program affects student achievement in the school. The researcher piloted these questions through an interview process with experts within the field of student achievement, school culture and climate, and high school athletic program success. Through this pilot the researcher led the questions and asked for recommendations or amendments to the survey instrument. The experts in this pilot study were the current district athletic director and a panel of four other assistant principals who are also athletic directors in the school district. Following the recommendations of the expert panel, modifications to the questions were performed. After the researcher was granted approval of the survey the researcher then acquired informed consent from each of the participants (see Appendix B) and proceeded to interview a principal from a school which has a success rate of finishing the school year in the top ten of schools within their classification in the final Director’s Cup standings. Additionally, the researcher then interviewed a principal whose school’s athletic program has a success rate of finishing outside the top thirty schools in their classification in the state in the final Director’s Cup standings. As the second component of this interview the researcher conducted an interview with an athletic director who is also an assistant principal of a successful athletic program, and an athletic director who is also an assistant principal of an unsuccessful athletic program.

Sample/Participants

This study was conducted by retrieving archival data from multiple sources. The researcher acquired data from the past three years from the GADA in regards to the total point standings in the Director’s Cup for each of the high schools in the district. The researcher then reviewed and gathered data from a two-year history on the GHSGT
sections in English and math. The researcher gathered the archival data from the school climate and culture domain on the county standardized school improvement surveys from the past two years for the student section of the survey. The researcher has chosen to retrieve the archival data from the past two years in order to have the opportunity to compare and contrast the differences from the time period that assisted in determining a conclusion on whether the success of a high school athletic program does, in fact, affect student achievement.

The participants that were analyzed for the study reside in a large suburban school district in a metropolitan area in the State of Georgia and are not identified due to the data being used being archival. The archival participants included high school students from the school district. The majority, 78.6%, of the students in the district are Caucasian or African – American (Georgia Department of Education, n.d.b). In the school district 31.54% of the students are eligible for free lunch/breakfast and 6.67% of the students are eligible for reduced lunch/breakfast contrary to the state which has 44.2% of the students that are eligible for free lunch/breakfast and 8.9% are eligible for reduced lunch/breakfast (Georgia Department of Education, n.d.d). The parents or guardians of the students were also included in the subjects that respond to the survey instrument, but their data was not used for this study. Additionally, the faculty and staff have also been respondents to the survey, but were also not used for this study. Further information regarding the ethnic breakdown between the students, staff, and community can be examined in Table 1. The participation of all the respondents on the district survey was voluntary. The study was approved through the local Institutional Review Board and the local school district’s central office (See Appendixes C and D).
Table 1

*Ethnic Breakdown of Stakeholders*

<table>
<thead>
<tr>
<th></th>
<th>Students</th>
<th>Staff</th>
<th>Community</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caucasian</td>
<td>46.2%</td>
<td>77.5%</td>
<td>59.7%</td>
</tr>
<tr>
<td>African-American</td>
<td>30.6%</td>
<td>18.1%</td>
<td>23.3%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>14.4%</td>
<td>2.4%</td>
<td>23.3%</td>
</tr>
<tr>
<td>Asian</td>
<td>4.7%</td>
<td>1.2%</td>
<td>11.7%</td>
</tr>
<tr>
<td>Multi-Racial</td>
<td>3.9%</td>
<td>.7%</td>
<td>1.8%</td>
</tr>
<tr>
<td>American Indian</td>
<td>.2%</td>
<td>.1%</td>
<td>.4%</td>
</tr>
</tbody>
</table>

The determination of the sample size for qualitative research is important and is somewhat determined by the sampling strategy of the questions and the sampling schemes (Onwuegbuzie & Leech, 2005). A small sample size of two administrators may be acceptable in some cases if the reason for the smaller sample is to be rich in data saturation (Onwuegbuzie & Leech, 2007). Creswell (2002) recommends in qualitative research to have a smaller sample size of three to five participants that is data rich information. As discussed by Onwuegbuzie and Leech (2007) the sample strategy that is being used for this research is a multi-level design “which represents sampling strategies that facilitate credible comparisons of two or more subgroups that are extracted from different levels of study (e.g. students vs. teachers) (p. 240).

The researcher conducted interviews with two local school principals who are experts in the field of the influences on student achievement, school culture and climate, and high school athletic program success. Additionally, the researcher conducted interviews with two local school athletic directors who also serve as assistant principals.
which are also experts in the areas of student achievement, school culture and climate, and high school athletic program success. Each of these experts has a minimum of five years of experience in their position. The reason for only choosing four participants in this study is because of the four administrators they represent one-fourth of the schools within the district, they have significant experience with athletics and curriculum which correlates to a plethora of rich data, and these interviews are not the only component to the study being that this is a mixed model study.

Instrumentation

The School Strategic Plan (SSP) perception survey (formerly the School Improvement Plan (SIP)) that has been created by the school district and is distributed to all the students in the district. This survey has been used to gather data regarding the perception of the school culture and climate in the schools. This is one of the independent variables in the study. Statements on this survey are based on a Likert Scale ranging from 1 (strongly disagree) to 5 (strongly agree). The statements for the students include:

1. I know how to ask for help if I don’t understand the lesson.
2. All cultures are respected and valued at my school.
3. Students here get along well with each other.
4. I am expected to respect teachers, administrators, and other students.
5. The principal and others frequently celebrate student achievement.
6. There is an administrator at my school that I can talk with if I have a problem.
7. There is at least one adult in the school I can talk to.

The school district provided the survey to students within the schools and they responded to a paper version of the survey in their advisement classes. The validity and
reliability of this survey instrument had not been previously determined. Therefore, the researcher utilized the raw data from the survey and analyzed the validity and reliability of the survey. Through this process it was found that the survey instrument was both valid through a panel of experts and had a reliability score of .790 for the 2010 survey and .803 for the 2011 survey.

The researcher then retrieved data from the GADA regarding the total point standings at the end school year regarding each of the high schools that are in the study. The total point standings are the criteria set forth by the GADA to determine the success a high school athletic program. The success of the high school athletic program is another independent variable in the study. The researcher gathered and disaggregated the data into the two content areas from the GHSGT. The data from the GHSGT was divided into the content areas of English and math.

The researcher then set up an appointment to conduct the qualitative interview with each of the experts and used a digital recorder to document the interview. Upon completion of the interview the researcher transcribed the interview from the digital recorder. The interview questions were as follows:

1. What is the role of the high school athletic program?
2. How does the athletic program affect the students who actively participate in athletics academically?
3. How does the athletic program affect the student’s academics in the school who do not actively participate in athletics?
4. What is the atmosphere within the school when your athletic program is (was) successful?
5. What is the atmosphere within the school when your athletic program is (was) unsuccessful?

6. What impact do you feel the athletic program at your school has (had) on your students and teachers?

7. What impact do you feel that the success of a high school athletic program has on student achievement in school?

Data Collection Procedures

The data that was gathered to determine the success of the high school athletic programs was retrieved from the GADA’s archival website. The data that was used to analyze the culture and climate was acquired from the school district archives upon permission from the school district. The GHSGT student achievement data in English and math was gathered from the school district archives upon permission from the school district.

The researcher also conducted an in-person interview with each of the experts in the field while recording the interview by digital recorder. After completion of the transcription the researcher coded each of the responses as a positive or negative response to each of the themes that emerge from the interviews.

Delimitations

1. The success of an athletic program is delimited because each of the athletes at the various schools comes in with a different baseline for their athletic ability.

2. The participants have been delimited to only those high school students who are in the local school district.

3. Each sport did not always play the same regular season schedule, which was used to qualify for the state competition at the end of the season.
Data Analysis

A series of simple regressions and simple correlations were used in analyzing if there is a significant effect of a successful high school athletic program on the achievement of students in the high school level. In these correlations the researcher was also able to determine if school culture and climate had a relationship with the success of a high school athletic program and student achievement. The significance levels were set at $p < .05$.

Additionally descriptive data is reported and analyzed for each of the test data that was collected. The culture and climate of each of the schools was measured through the Likert-scale. Upon completion of the qualitative interview and the transcription and coding from the interviews the researcher reported the various themes that emerged in the interviews.

Summary

Past researchers have been able to link that schools with a positive school culture will have greater student achievement than those schools that have a poor school culture (MacNeil, et al., 2009; Preble & Taylor, 2008). Chapter III discussed the participants, research questions, research model, and data analysis procedures. In this study the researcher conducted a series of simple correlations in order to determine if there is a relationship between the success of a high school athletic program and student achievement. Additionally, the researcher analyzed if there was a relationship between the success of a high school athletic program and the perception of the school culture and climate by the students in the school. Data from the GHSGT in both math and English for each of the high schools in the school district were collected and analyzed. Additionally, data from the county SSP perception survey, which has been scored on a
Likert-scale was utilized to measure the school culture and climate. The results from this study are in Chapter IV.
CHAPTER IV
ANALYSIS OF DATA

Introduction

The purpose of this chapter is to provide the findings of the quantitative and qualitative statistical analyses conducted on the relationship between the successes of a high school athletic program, how that success impacts the school climate and culture, and how the climate and culture affects student achievement in the school. A descriptive analysis for the schools involved in the study which includes the total point scores in the director’s cup standings, the English GHSGT results, the math GHSGT results, and the results from the school climate and culture survey is provided. A quantitative methodology was used to conduct a series of simple correlations upon the variables in the study. The researcher included tables throughout this chapter that summarizes the findings. This chapter also includes a description of the qualitative interviews that were conducted with one principal of a successful high school athletic program, one principal of an unsuccessful high school athletic program, one athletic director/assistant principal of a successful high school athletic program, and one athletic director/ assistant principal of an unsuccessful high school athletic program.

Retrieval of Data

To obtain the data for the Director’s Cup total point standing the researcher acquired the archival data for the 16 high schools within the district in this study for the 2008-2009, 2009-2010, and 2010-2011 school years. It must be noted that every two years the GHSA realigns the regions through a reclassification process due to enrollment sizes in an attempt to limit travel for all teams throughout the state (Constitution & By-Laws, 2011, p. 48). This reclassification last occurred for the start of the 2010-2011
school year. In determining the GHSGT scores in both math and English the researcher used data from approximately 7,400 first time test takers from the 16 district high school for both the 2009-2010 and 2010-2011 school years. The standard’s that were being assessed on the GHSGT math exam and the scale that was used to score the exams were changed prior to the 2010-2011 school year. In 2010 the passing score was 500 and the pass plus score was 535, while in 2011 the score for basic proficiency was 200, a score of 235 resulted in pass plus, and a score of 275 or higher resulted in receiving honors (Report card overview, n.d). Data was gathered from approximately 23,800 students from the 16 district high schools to analyze the school culture and climate for the 2009-2010 and 2010-2011 school years.

In gathering the data for the qualitative portion of the study, the researcher interviewed two principals, asking them seven different questions pertaining to the impact that an athletic program has on a school’s climate, culture, and student achievement. One of these principals was from a school with a successful athletic program and the other was from a school with an unsuccessful athletic program. Furthermore, the researcher then interviewed two athletic directors, who are also assistant principals, the same seven questions regarding the impact that an athletic program has on the school’s climate, culture, and student achievement. One of the athletic directors was from a school with a successful athletic program and the other from a school with an unsuccessful athletic program.

Descriptive Statistics

Prior to the discussion of the statistical analysis a presentation of the descriptive statistics was first reviewed. The data below in Table 2 represents the 16 high schools in a large school district in the State of Georgia. Each of these schools participates in
interscholastic sports that are governed by the GHSA. In terms of the success of the
district in athletics the district progressively improved each year in total points in the
Director’s Cup standings which has a maximum of 1600 total points for a perfect athletic
year. To obtain 1600 points a school would need to win the state championships in at
least eight sports in each gender (Georgia Athletic Director’s Association, n.d.b). The
first year of recorded data was the 2008-2009 school year (M = 394.55 total points, SD =
312.01 points), then in 2009-2010 the district improved (M = 426.19 total points, SD =
301.10 points), culminating in the most successful season in 2010-2011 (M = 566.30 total
points, SD = 369.77 points).

It is noted that the standard deviations for the athletic success is extraordinarily
large given that the maximum number of points a perfect athletic program could receive
is 1600 points. The reasoning for these large standard deviations is that the school
district that the researcher conducted the research has some of the best athletic programs
in the state and some very weak athletic programs. In each of the seasons that were
analyzed there was one program from the district that did not even qualify for the state
playoffs in one sport, therefore that school did not acquire any points towards the
Director’s Cup for the school year in question.

Each of the recorded years approximately 7,400 juniors in high school, each being
a first time test taker for the GHSGT, completed their exams in math and English. The
English scoring on the GHSGT remained static with the criterion score of 200 to obtain
basic proficiency of the standards, a score of 235 was needed to receive pass plus, and a
score of 275 to receive honors. Once again the district improved over the two year
period beginning with the 2010 scores (M = 243.67, SD = 11.45) and a slight
improvement in 2011 (M = 243.96, SD = 10.81). Although the scores in math from
2010 (M = 538.59, SD = 11.33) may be compared to the scores from 2011 (M = 265.03, SD = 14.03) it is a difficult comparison given there was a scoring modification due to altering the standards that were tested and a modification in the methodology used to score the exams.

The school climate and culture survey consisted of approximately 24,800 students during each of the school years that were analyzed. The survey was based on a Likert-scale with a score of 1 being strongly disagree, 2 somewhat disagree, 3 neutral, 4 somewhat agree, and 5 strongly agree. From the 2010 school year (M = 3.78, SD = .12) to the 2011 school year (M = 3.8, SD = .12) the school climate and culture was perceived to have a slight increase. Refer to Table 2 for more details regarding the descriptive statistics for the school district.

Table 2

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directors Cup 2008-2009</td>
<td>16</td>
<td>1057.00</td>
<td>1057.00</td>
<td>394.55</td>
<td>312.01</td>
</tr>
<tr>
<td>Directors Cup 2009-2010</td>
<td>16</td>
<td>993.00</td>
<td>993.00</td>
<td>426.19</td>
<td>301.10</td>
</tr>
<tr>
<td>Directors Cup 2010-2011</td>
<td>16</td>
<td>1066.50</td>
<td>1066.50</td>
<td>566.30</td>
<td>369.77</td>
</tr>
<tr>
<td>GHSGT English 2010</td>
<td>16</td>
<td>220.83</td>
<td>261.68</td>
<td>243.67</td>
<td>11.45</td>
</tr>
<tr>
<td>GHSGT Math 2010</td>
<td>16</td>
<td>519.45</td>
<td>556.72</td>
<td>538.59</td>
<td>11.33</td>
</tr>
<tr>
<td>GHSGT English 2011</td>
<td>16</td>
<td>222.40</td>
<td>257.98</td>
<td>243.96</td>
<td>10.81</td>
</tr>
<tr>
<td>GHSGT Math 2011</td>
<td>16</td>
<td>244.74</td>
<td>288.65</td>
<td>265.03</td>
<td>14.03</td>
</tr>
<tr>
<td>School Climate and Culture 2010</td>
<td>16</td>
<td>3.66</td>
<td>4.04</td>
<td>3.78</td>
<td>.12</td>
</tr>
</tbody>
</table>
Table 2 (continued).

| School Climate and Culture 2011 | 16  | 3.63 | 3.98 | 3.8 | .12 |

Note. Maximum possible score for an athletic program is 1600 points in the Director’s Cup standings; maximum score for GHSGT English in 2010 and 2011 was 350. The maximum for the 2010 GHSGT Math was 600 and the 2011 GHSGT Math was 400. The maximum for the Student Climate and Culture survey was 5.

Statistical Analysis

At the conclusion of retrieving the archival data for the Director’s Cup total point standings a series of simple correlations and regressions were conducted to answer the research questions, which were:

1. Is there a significant relationship between the success of a high school’s athletic program and student achievement?

H₁: There is no significant relationship between student achievement and the success of a high school athletic program.

In addressing research question one, correlations were computed with a significance level set at p < .05. Results indicated a significant positive correlation was found on the GHSGT English scores in 2010 (r = .73, p = .001), 2010 GHSGT math scores (r = .76, p = .001), and the 2011 GHSGT English scores (r = .72, p = .001), as a result of the athletic successes in the 2008-2009 school year. Significant results were also reported on the 2010 GHSGT English scores (r = .83, p < .001), 2010 GHSGT math scores (r = .83, p < .001), and the 2011 GHSGT English scores (r = .83, p < .001), due to the athletic successes in the 2009-2010 school year. The athletic success from the 2010-2011 school year also had significant positive correlations with student achievement on
the 2010 GHSGT English scores (r = .90, p < .001), 2010 GHSGT math scores (r = .92, p < .001), and the 2011 GHSGT English scores (r = .90, p < .001). Additional information on these results can also be viewed in Table 3.

Table 3

*Simple Correlations between Directors Cup Total Point Standings and GHSGT Scores for Math and English*

<table>
<thead>
<tr>
<th></th>
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<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-2009 Directors Cup</td>
<td>.73</td>
<td>.76</td>
<td>.73</td>
<td>.37</td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.001</td>
<td>.001</td>
<td>.001</td>
<td>.16</td>
</tr>
<tr>
<td>Sig.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009-2010 Directors Cup</td>
<td>.83</td>
<td>.83</td>
<td>.83</td>
<td>.31</td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>&lt; .001</td>
<td>&lt; .001</td>
<td>&lt; .001</td>
<td>.24</td>
</tr>
<tr>
<td>Sig.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010-2011 Directors Cup</td>
<td>.90</td>
<td>.92</td>
<td>.90</td>
<td>.29</td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>&lt; .001</td>
<td>&lt; .001</td>
<td>&lt; .001</td>
<td>.28</td>
</tr>
<tr>
<td>Sig.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Further analysis of the results from the correlation test do not support the null hypothesis of there not being a significant relationship between student achievement and the success of a high school athletic program. Of the data that was reviewed 75% of the data supports that there is a significant relationship between student achievement and the success of a high school athletic program. Therefore, the hypothesis for research question one is rejected.

2. Is there a relationship between the success of a high school athletic program and the perception of the school climate and school culture by students?
H$_2$: There is no significant relationship between the success of a high school athletic program and the perception of the school climate and school culture by students.

The analysis of research question two began with administering a correlation with a level of significance that was set at p < .05. The results from the correlation showed that the school climate and culture in the 2009 – 2010 school year had a significant correlation (r = .74, p = .002) with the success of a high school athletic program in the 2008 – 2009 athletic seasons. Additionally, there was significant correlation that carried over to contribute to a positive school culture in climate in from the 2009 – 2010 athletic season (r = .76, p < .001) and the 2010 – 2011 athletic season (r = .65, p = .009). The success from those athletic seasons also had a continued positive impact and significant correlation on the school culture and climate in the 2010-2011 school year. Refer to Table 4 for more information regarding correlations between the success of a high school athletic program and the school culture and climate.

Table 4

Simple Correlations between Directors Cup Total Point Standings and School Climate and Culture

<table>
<thead>
<tr>
<th>Directors Cup 2008-2009</th>
<th>School Climate and Culture</th>
<th>School Climate and Culture</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2010</td>
<td>2011</td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.74</td>
<td>.60</td>
</tr>
<tr>
<td>Sig.</td>
<td>.002</td>
<td>.014</td>
</tr>
<tr>
<td>Directors Cup 2009-2010</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.76</td>
<td>.81</td>
</tr>
<tr>
<td>Sig.</td>
<td>&lt; .001</td>
<td>&lt; .001</td>
</tr>
</tbody>
</table>


Table 4 (continued).

<table>
<thead>
<tr>
<th>Directors Cup 2010-2011</th>
<th>Pearson Correlation</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.65</td>
<td>.009</td>
</tr>
<tr>
<td></td>
<td>.88</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>

After conducting the statistical analysis to determine the significance of the correlations between the Director’s Cup total point standings and the school climate and culture, the data does not support the null hypothesis that there is no significant relationship between the success of a high school athletic program and the perception of the school climate and school culture by students. From the research that was conducted in this study 100% of the data indicates that there is a significant positive relationship between the success of a high school athletic program and the school climate and culture as perceived by the students. Therefore, the hypothesis for research question two is rejected.

Qualitative Analysis

Through the analysis of the qualitative component of this research study the researcher first transcribed and then examined the responses from the different participants and coded these responses as positive or negative responses to the questions in regards to the effect of an athletic program on student achievement. Then, the researcher looked for common themes from each question and expanded on them. The vision of the researcher through this process was to be able to answer the following two research questions:

1. How does the administration of a successful high school athletic program feel about the impact that the athletic program has on school climate and culture and student achievement?
2. How does the administration of an unsuccessful high school athletic program feel about the impact that the athletic program has on school climate and culture and student achievement?

Following the reporting of the findings these research questions were then examined and answered. The analysis that is continued on the following pages is a synthesis of responses to each of the interview questions.

1. What is the role of the high school athletic program?

All of the participant’s responses were positive in regards towards the role of the high school athletic program and its effects that it may have on the total educational setting for all students including community members. In speaking with all of the participants it was the consensus that athletic programs play a vital role in a high school. The themes that were commonly discussed through this question were the impact that an athletic program has on the school culture, the impact that an athletic program has on academics, and the impact that an athletic program has on a student character and leadership.

When discussing their views on an athletic program one participant said in support of the influence on the school culture, “I think that a high school athletic program in a lot of cases identifies the identity and the culture of the school and provides so many kids with the opportunity to find their own personal identity and to find their own success.” Academically, a participant describes the role of athletics as a support mechanism for the academics of a student. “I think it is really just to support what the student does academically. Supplement what the individual athlete does at school. I find that those who usually participate in athletics usually achieve better in the classroom and behavior is usually improved when you have a student who participate in athletics.” One
participant included in their description that the program builds a complete person: “I think there are many roles, but looking at my childhood I think the role was to teach one about competition, character, discipline, and team work. I think it just builds young people to be more successful adults to be ready to work in the real world.”

2. How does the athletic program affect the students who actively participate in athletics academically?

Each of the participants felt as though there was significant positive impact that a high school athletic program has on those student athletes who are active participants in a program. The two main themes that were discussed throughout this question were first, the academic standards that must be met for a student to maintain their athletic eligibility. Those requirements are thought to drive the students to perform better in the classroom and they often will receive additional tutoring services as well as grade monitoring to help insure that they will maintain those grades. The second theme is the idea that those who are successful want to be successful in everything they do and have their own culture of success, which many athletic programs have adopted and enforced. Some of the coaches of these programs will even maintain high academic standards to participate in the competitions.

One of the participants who had been a middle school principal discusses the impact the absence of athletic programs at the middle school level has on students: “When I was serving as a middle school principal I felt that if I would have had the athletic component to hold over my kids that it would have prevented many of them from failing. This is because they would have known they had to work hard to play the sport they love. I think that athletics serve as a great motivator.” Another participant describes how student athletes had to have time management and focus, which contributed towards
the academic success. “I think personally student athletes actually do perform better academically. I think they are more focused and so do not have as much time to play around after school, they go directly to practice, then directly home to do their work. They also know there is a lot on the line academically and a lot can be lost due to higher academic requirements. So I think it is actually a positive to participate in athletics as it helps them academically.”

Describing the personal drive for success and why athletes typically perform better academically, a participant states, “Everything that I have seen shows that the kids who are participating or kids involved in athletics want to do better in school, have higher GPA’s, better SAT’s, and they want to become more successful because that is in their make-up. Partly this is due to them having to meet a different requirement to remain eligible than does a regular student, but also they work hard.” When discussing the importance of the team and coaches, it was said, “If you have a good group of coaches and support people, they are going to push their kids to work just as successfully in the classroom as they are out on the field or court or whatever they’re involved in.”

3. How does the athletic program affect the student’s academics in the school who do not actively participate in athletics?

All of the responses were positive in regards to the influence in the school, culture, and spirit. The participants were split with half of them agreeing that there was a positive influence in academics due to a successful athletic program that also helps in creating a positive school culture for the students and staff to work. The other half of the participants were not sure what impact athletics had on an individual student who was not participating was on their academic performance. The overwhelming theme discussed
throughout this question was the effect athletics have on school climate and culture, the spirit, and the moral of the students and staff.

The first participant who was interviewed discussed the idea of the super fans who attend all the games and the impact athletics may have on them: “You have those super fans that come to every event and they feel that they are part of the team. I think that helps their moral, but I don’t know if it necessarily has an impact on their personal grades, but they definitely identify with the team and the school culture and enjoy the big wins and support their friends. So I think there are a lot of positive impacts, but I just don’t know if it necessarily correlates to a change in their academics one way or the other.” Another participant discussed how a successful team or program can have a positive effect on the school spirit which can filter over into the students and the culture: “If you have a successful team in the school, it just helps by raising the level of school spirit. I think they are also positively affected by those who participate in the program, I know in our school we have a team that is very competitive on the state and national level and during that time of the year it affects the school spirit up for all kids.” Similar beliefs by one of the other participants supported the previous comments and beliefs. “I would say that if a culture of a school is built up because of athletics, because those kids are working hard academically, that it could definitely transfer over to the kids that were not involved in athletics; the school spirit would be higher, and the environment would be more positive, and kids will work harder, better morals in the school, staff, and everything goes up, so I would say, yes, it would benefit them.”

4. What is the atmosphere within the school when your athletic program is (was) successful?
In talking about the success of a school’s athletic program it was noticed how excited the individual administrators became when they were recollecting about specific successes their school has experienced and how it impacted their schools. Each of the administrators had positive comments about how the success of their athletic programs impacts the atmosphere in the school. The most common descriptors that were used were excitement, pride, spirit, community, and less discipline with the primary theme being a positive school climate and culture influenced by increased school pride.

One of the administrators was talking about their school’s success, especially over the past few years, and the environment in the school; especially, it is mentioned how this bleeds over into all aspects of the school. They continued to state “There is nothing better than when we are winning, people are so excited, and people rally to it. We have been so fortunate at my school that we have won seven state championships in the past three and a half years, and the effect has been enormous. Our student body comes out to support those kids whether it is girls’ volleyball, boys’ wrestling, baseball, or tennis. The kids they will rally around all of the sports. There is such a sense of accomplishment not only for those players but for our school, the people who are proud about it and the fact they go to our school being that we are the best athletically. Even the kids that aren’t involved really support that and rally behind that.” Another participant said, “Kids come to school excited especially on game days. When we are doing good [sic] we will have pep rallies for big games and to generate excitement to support the events that go on at night. The students and staff will also come to school showing their spirit by wearing their colors.”

One of the other impacts that were discussed that contributed to a positive culture was the reduction in behavioral problems and the level of happiness that generally penetrates the hallways. One of the administrator tracks their behavior throughout the
school and the following is an excerpt from when there was a reflection back on one of their more successful times of the year in athletics: “As we have tracked our data it also shows that students during our one traditional successful season behave better as evidenced through less discipline referrals. This may be in part because the kids and teachers are all a bit happier.” Another participant just noted, “I think that the behavior in the school is better.”

Lastly, it is known from the interviews that the positive cultural impact is felt by the students and teachers, but what is the impact that a successful athletic program has on the culture within the community? This is addressed by one of the administrators whose school has only had one winning season in football over the last twelve years and won one game over the last three years. They won four games this past season. “This year when we mention football there is a smile on people’s faces, the students, teachers, and even out in the community. It really helps! I think the big sports, football, basketball, and baseball really affect the school and the community.” Another participant described the spirit in the community by stating, “You can’t measure the impact that success has inside the building but also your community. It just creates this whole aura of excitement around your entire community.”

5. What is the atmosphere within the school when your athletic program is (was) unsuccessful?

Just as interesting as it was to see the excitement on the administrators’ faces when the discussion regarding the success of the programs occurred during the interview was equally as interesting to see the expressions and responses in the discussion regarding when they were unsuccessful. Throughout this question the participants wanted to shift topics and talk about the successes. Once again there was a response
from all of the participants that supported the notion that the success of an athletic program has a positive impact on the school culture. The overwhelming theme in this question translated to a negative culture in the school.

These are the first words that were shared from each of the administrators when they were asked the question of how the atmosphere is in their school when their programs are unsuccessful: “Pretty bad,” “You can definitely feel it in the hallways,” “This is a tough one,” “It penetrates the halls and classes.” The same administrator with the unsuccessful football program reflected for a moment about those years when their program was so unsuccessful. “I think that kids really let a lot roll off their back, but I know when our teams are successful the spirit is definitely better throughout the whole school. When we are losing, kids feel it and they get noticeably down. The attitudes seem to be more negative especially after the first game or two. The student body will then begin with a ‘this is more of the same’ and that ‘nothing has changed attitude.’ Our students are usually good about showing a lot of support for the first game [especially in football], but when they see there is no difference, the negativity races in and students start bashing each other and the programs, talking about how bad they are and even joke about their classmates being horrible at their sport.” A different participant shares their experiences during a bad period of time for their football program and the effect in the school. They stated, “Two years ago when we had the football season that was dreadful and you could feel it in the hallways it was just terrible. Even teachers seemed to be down come the middle of the season so I am sure this has some type of effect on the classroom.”

While the other participants chose to discuss more of the effects on the school in its totality one of them chose to discuss the impact that they see the individual athletes
and teams dealing with as they progress through those times and seasons. This participant said, “In the hallways after a big loss our students and athletes are disappointed and that is definitely a different feel. We were fortunate enough to win a couple of football playoff games and then lost in the second round. You could just tell people were so disappointed that it ended; it was over so when you look at some of these successful programs and some of these non-successful programs you could see a difference in those athletes. They want to be successful, but there is not that same sense of accomplishment, not that energy that you find around programs that are winning every single day so I think there is a definite school culture issue thing going on there.”

6. What impact do you feel the athletic program at your school has (had) on your students and teachers?

The responses from the participants were once again positive in the type of impact the athletic program has on students and teachers in the school. The main theme from this question was the building of relationships between the teachers and the students, which transpired to a type of partnership when athletics are going well. The second theme that was identified was that the school culture was impacted due to these relationships and the support for the programs.

One of the respondents touched in two separate areas of their interview on the partnership that develops between students athletes and teachers by stating, “I think our kids want to be successful not only in their athletics, but in the classrooms. The great thing is our teachers understand that students have to be successful in the classroom before they can be successful in the outside and our teachers are willing to work with kids.” Additionally, the participant said, “We are done with the days of the dumb jock and the athletes not working hard. Our kids are working really hard and the teachers are
helping them through that process and provide any extra help needed now.” In a separate interview the participant stated, “Our coaches for the most part are teachers and it bonds the teachers and the students together. Our teachers tend to, whether they’re coaching a sport or not, have a tendency to support our students. The kids see that their teachers are out there supporting them. I think the kids want to do better for those teachers who come out and support them.”

The topic of school culture seems to tie into each of the interviews with the responses focusing on how the students and teachers feel during the times of success and then equally during the troubled times. In one of the interviews the participant was discussing the highs and lows that they have been experiencing at their school and described the effect on the school as a “cultural rollercoaster.” They then proceeded to talk about the spirit by stating that “from the teacher standpoint, they are a lot like the kids; they get very excited, and they will dress up in the school spirit gear. They are excited for the games and will bring their families and support their students. It’s an overall positive.” In describing the hardships in the school one participant said, “We had a couple of students who were removed from basketball this year due to academics and the school felt it because everyone is paying attention to what is going on in the sports. It has a big impact on the school and what teachers feel.”

7. What impact do you feel that the success of a high school athletic program has on student achievement in school?

In talking about the impact that a successful high school athletic program has on student achievement in a school, all of the participants seemed to feel as though there is a positive impact that is noticeable. Even though they felt there was an impact, none of them had any justification for their feelings on this matter other than pulling from their
experiences at different schools with different success levels. This was echoed by all
with one participant stating, “I do not have any basis for that except watching students at
the different schools I’ve been in, and the schools that have the better athletic programs
student achievement does seem to be a little higher.” This question presented two
themes, which were that success breeds success and when students do well in athletics, it
correlates to the classroom because they lead by example. The second theme was that a
school that has established a culture of success in all aspects of the school will take that
success and translate it into the classroom.

One of the administrators said, “I think just because of common sense the better
the athletic program the better the student achievement. Moral goes up and more kids are
participating in the athletic program. I’m assuming the better athletic programs have
more kids participating and being monitored by their coaches and teachers. Which means
student athletes also have to pass their classes? I think it’s huge on the culture of the
school. If you have an excellent athletic program it transfers over to the classroom.” This
seemed to be the consensus of the school culture as discussed by all the participants,
which was also supported by another who said, “I think there is a direct impact that if a
school has a great athletic program and it has success, it will do well academically.”

The influence that students within the school can have on others through their
leadership, which is leading by example, is thought to play a role on the academic
achievement in the school. This is expressed by one participant by saying, “I think they
go hand in hand. I think that the athletes usually perform better in the classroom and
their personal success or failure can bleed over into the classroom environment and the
other students because they are leaders within the school.” Another participant talked
about the difference when they were at a less affluent school stating, “I was in a very
tough county, but was in a great high school because of the athletics and kids, it’s success just contagious. They were competitive, they wanted to be successful in all endeavors, and when they are finding success in one factor in life they will look for it in other areas. I think it [success in a high school athletic program] has a huge impact on all students.”

Summary

In summary, correlations were conducted to test the relationships between the success of a high school athletic program and academics and the success of a high school athletic program and the school climate and culture. The first research question was; Is there a significant relationship between the success of a high school’s athletic program and student achievement? Statistical analysis showed that there was a significant correlation between the success of a high school’s athletic program and student achievement and therefore the null hypothesis was rejected. The second research question was: Is there a relationship between the success of a high school athletic program and the perception of the school climate and school culture by students? Upon analysis of the statistics it was shown that there was a significant correlation between the success of a high school’s athletic program and the school culture and climate. Consequently, the null hypothesis for research question two was rejected.

During the qualitative research there was a consensus that the success of a high school athletic program has a significant positive impact on the school culture. It was also believed that it is probable or more likely that during times of great athletic success that the school culture changes in such a way that it provides for a positive learning environment for all students to succeed. Participants were not as straight forward as to
declare if an unsuccessful athletic program has a negative impact on student achievement, but through their statements dealing with how a positive culture will affect student achievement one can only infer from their comments that an unsuccessful program creates a negative school culture that there would be a negative impact on student achievement. This was largely in part because of the described effect that losing had on the teachers and the entire school climate and culture.
CHAPTER V
SUMMARY
Introduction

The purpose of this study is to identify if the success of a high school athletic program affects the school climate and culture, which in turn has a positive impact on student achievement. Additionally, this study should contribute to the body of literature and research pertaining to the impact that a high school athletic program has on the academic achievement of the student body. As a result of this study, it may be used to assist central office personnel and local high school administration to be equipped with the knowledge on how the quality of coaches affects a school culture and climate through success in the athletic arena, which in turn may affect student achievement. When administrators and other school personnel analyze the school culture, they must be aware that the athletic program is the center of the community in many places and adds to the support of student achievement while providing a positive school culture (Jable, 1992). In their analysis, Ediger (1997) and Wagner (2006) describe that if schools want to continue to see academic growth in their school, they must focus on the culture within the school. As schools always attempt to find the best teacher and not settle when they are hiring for the content area, research shows that through positive relationships with coaches and teachers students perform better academically.

As was supported in the meta-analysis conducted by Hattie (2009) students who are involved in athletics perform better academically, have better mental health, and a higher self-esteem. Although Hattie’s (2009) meta-analysis supported an increase in student G.P.A from participating in sports, Broh (2002) went further in examining the effect on standardized tests in English and math and found that not only did students’
grades increase, but their standardized test results showed significant gains. Meanwhile, these student athletes, due to their success in athletics, seem to come to school with a better attitude and tend to contribute to an overall better school culture for everyone in the building (Darling, et al., 2005).

This chapter includes an overview of the problem, the research questions, the research design, and a summary of major findings all which were discussed in the first four chapters. Additionally, the chapter includes conclusions and discussions based on the findings from the study, while providing their relevance with the theories that were discussed in Chapter II. Recommendations for the school leaders to practice and implement are discussed along with recommendations for future research to assist those researchers who wish to expand on this study.

Summary

The problem that prompted this study was the current economic situation that the nation and most school districts across the United States are currently deliberating. One of the more common cuts within district budgets occur with athletics, and there is a lack of research for school leaders to refer to when they are making these decisions on how they impact student achievement in their schools. The research questions that were studied are:

1. Is there a significant relationship between the success of a high school’s athletic program and student achievement?

   $H_1$: There is no significant relationship between student achievement and the success of a high school athletic program.

2. Is there a relationship between the success of a high school athletic program and the perception of the school climate and school culture by student?
H₂: There is no significant relationship between the success of a high school athletic program and the perception of the school climate and school culture by student.

3. How does the administration of a successful high school athletic program feel about the impact that the athletic program has on school climate and culture and student achievement?

4. How does the administration of an unsuccessful high school athletic program feel about the impact that the athletic program has on school climate and culture and student achievement?

The research for this study began with first identifying and presenting the theories that pertain to achievement, learning, and culture. These theories include: Maslow’s (1954) behavioral theory of hierarchy of needs, Heider’s (1958) attribution theory, and Blumer’s (Blumer, 1969) symbolic interactionism theory, Bandura’s (1977) social learning theory, and constructivist theory of learning.

The research design was a quasi-experimental quantitative cross sectional research approach that contained a qualitative interview component. Data from the Director’s Cup total point standings was retrieved for the 2008-2009, 2009-2010, and the 2010-2011 school years to determine the success of a high school athletic program. Then, data from the GHSGT English and math sections was retrieved for each student within the district who was a first-time eleventh grade test taker for the 2009-2010 and 2010-2011 school years. Lastly, archival data was retrieved from a school climate and culture survey that was administered to all high school students within the district for the 2009-2010 and 2010-2011 school years. A series of simple correlations were then used to analyze the data and determine if a high school athletic program had a significant
impact on student achievement and school climate and culture. The level of significance for this study was set at $p < .05$.

Upon completion of the statistical analysis, it was found that success of a high school athletic program did have a statistically significant impact on student achievement. The null hypothesis was then rejected. Additionally, it was found that the success of a high school athletic program had a statistically significant impact on the school climate and culture. The null hypothesis was then rejected. Through the qualitative interviews it was found that principals and athletic directors feel as though the success of an athletic program has a positive impact on student achievement and the climate and culture within the school. Administrators were not as strong in their opinions if an unsuccessful athletic program had a negative impact on student achievement. It could be inferred through some of their comments regarding student and teacher attitudes in the building during unsuccessful times that there may be a negative impact.

Conclusions and Discussions

The first research question asked, “Is there a significant relationship between the success of a high school’s athletic program and student achievement?” A correlation was performed and analyzed. During the analysis 75% of the correlations between the total point standings for the Director’s Cup and the GHSGT English and math tests were found to be statistically significant. Therefore, the null hypothesis “There is no significant relationship between student achievement and the success of a high school athletic program” was rejected due to the findings of this study.

The theories that were discussed in the theoretical framework explain why there is a significant relationship between the success of a high school athletic program and student achievement. The theories which have the greatest impact on this academic
success are Heider’s (1958) attribution theory, Bandura’s (1977) social learning theory, and Maslow’s behavioral theory of *Hierarchy of Needs* (Maslow, 1954). The basis of Heider’s (1958) theory is that student achievement stems from motivation. The factors for this may either be internal or external as well as controllable or uncontrollable. One of the points of this theory is that individuals wish to remain seen in a positive image and therefore work towards that or attempt to make excuses so it does not appear to be their fault (Slavin, 1997). The attempt to attain or maintain that success academically due to others having success around them serves as the motivation to continue to achieve the positive image that all individuals strive.

The social learning theory is another theory that supports this causal effect due to successful athletics. The foundation of this theory is that when one student sees another peer or adult perform something that is desirable and has positive reinforcement, as a result of that action the student attempts to reproduce that action in hopes for a similar result (Slavin, 1997). This is the notion behind trend setting in any culture as these trends are usually glorified in magazines and movies and others attempt to reproduce that trend in hopes for the equivalent result. As student athletes are being recognized outside of their athletics for their academic achievements it would only be natural for other students to strive to attain the same recognition through their academic achievements.

In Maslow’s theory (1954) he presented ideas to explain why individuals act the way they do and he determined that it was in due to the individual striving to attain their needs in life. The physiological needs that everyone strives for are safety, love and belongingness, esteem and self-respect, and self-actualization (Maslow, 1954). Although each of these needs can help describe justification for the relationship between
the successes of a high school athletic program and student achievement, the need for self-esteem and self-respect has the most relevance. Every student within a school has the innate desire to be valued by their peers and to have their own personal success, which may gain recognition from their peers (Slavin, 1997). This aspect of Maslow’s (1954) theory attributes to why when more students are being successful in the school through athletic or academics, the competition rises to gain recognition from their peers and therefore produces high academic quality in efforts to gain that respect.

The findings from this study also support the findings that Hattie (2009) noted in his meta-analysis when he stated that participation in athletics had a medium effect on student achievement. This study also supports the findings from Marsh’s (1993) study in which he found that the participation in athletics had a positive impact on English and math courses. The studies which were most similar to this study and had similar findings in the measure of student achievement were conducted by Broh (2002) and Rees and Sabia (2010) when both studies found that participation in athletics had a positive impact on student achievement through increased scores on English and math standardized test scores.

The second research question asked, "Is there a relationship between the success of a high school athletic program and the perception of the school climate and school culture by the students?" After the correlations were conducted and analyzed it was determined that 100% of the data that was analyzed showed a significant correlation between the success of a high school athletic program and school climate and culture through the perception of the students. Consequently, the null hypothesis of “There is no significant relationship between the success of a high school athletic program and the perception of the school climate and school culture by students” has been rejected, as a
result of the findings of this study. These results support the findings that a school culture and climate have on student achievement that were conducted by Ediger (1997) and Wagner (2001) in their respective studies. Additionally, the findings support the discussions that Fullan (2001) had when discussing the importance that school culture has on the achievement of the students in the school.

In referring to the theoretical framework to determine which theories would be the most applicable in explaining this significant relationship between the success of a high school athletic program and school climate and culture, Blumer’s theory of symbolic interactionism (Blumer, 1969), Maslow’s behavioral theory of Hierarchy of Needs (Maslow, 1954), and Vygotsky’s (1978) constructivist theory were identified. These theories would also address the qualitative research questions regarding how the high school athletic program affects the school climate and culture and student achievement.

Blumer’s theory describes an individual’s role within their larger community and how their interaction with those around them shape their community based on the use of communication and symbols. Additionally, the more significance an individual has, the more power they obtain with the ability to impact and influence others. This is relevant in explaining the relationship with athletics and school climate and culture because through communication the symbols or logos of the school provide a sense of pride and value in students’ life. When there is success in a high school athletic program, there is more pride and spirit, which brings about more respect and value to the symbols that ultimately represent the school and, therefore, improving the climate and culture within the building. Additionally, when there are student athletes who have had great success at their school, they have a sense of pride and recognition from their peers and are able to positively influence their classmates in improving the school climate and culture.
As with the previous research question, each of these needs has a place in justifying the relationship that is being analyzed in this study, but specifically, the needs of love and belongingness are the central needs towards this explanation. Through the need of love and belongingness, students inherently attempt to build positive relationships and often participate in groups to satisfy their needs (Slavin, 1997). These groups may range from clubs, social groups, or teams. In the school setting, often these social groups and clubs will rally around the success of a high school athletic team to join them in a united cause of school spirit and school pride through supporting their school’s teams. Through this social outlet, groups will typically grow in size when there is success, thus building more friendships, increased school spirit, and increased school pride. All of these attributes will translate to an improved school culture which will benefit all students in the school.

Schools that have positive cultures imbedded in them need great leaders in their administrators, teachers, and student body, and Vygotsky’s (1978) constructivist theory helps to explain the development of the student leaders within the school building. Gerdes (2001) described how sports are believed by behavioral scientists to be a catalyst towards teaching and developing students into leaders and people of sound character. Through a student athlete’s interactions and observations with their coaches and other athletes they will go through the process of building their knowledge on how to become leaders and men and women of good character in their school building. The two main stages of this process that the student athletes will go through are social learning and zone of proximal development (Vygotsky, 1978; Slavin, 1997). During the social learning stage the student athletes will learn these skills through watching each other and the coaches’ model the behavior. This was supported through Gerdes’ (2001) research in
which he found that the majority of a student athlete’s leadership and character
development took place through observation. The zone of proximal development is the
stage in which the coaches or other athletes will assist the learner to accomplish their
learning goals on their own (Vygotsky, 1978; Slavin, 1997). Together with the
development of these student leaders with quality character in the class and the school
they will have the ability to have a positive impact on the remainder of the student body
and improved the school culture for all students.

Limitations

The purpose of this study was to determine if there was a relationship between the
success of a high school athletic program and student achievement. During the process
of the research in this study there were limitations that were discovered that would be
beneficial for future researchers to address so to expand on the body of literature.
Although the sample size includes a large diverse school district in the State of Georgia,
the sample size was not large enough to generalize the results for all school districts
across the country. This study was limited to only high school sports and many school
districts throughout the country have middle school sports programs that could be
included in further studies. The study was also limited in that the only standardized tests
that were used to analyze student achievement were the GHSGT in math and English.
Lastly, the study only included qualitative surveys from two principals and two assistant
principals who also serve as athletic directors within the same district.

Recommendations for Policy and Practice

The findings of this study, although statistically significant, only represent a
cross-section of the educational population. The first recommendation is that all high
school principals should be aware of the trends involved in the triangulation of athletic
success, school climate and culture, and student achievement and that student G.P.A. is not necessarily an appropriate gage of achievement. If a high school principal does not already utilize a school climate and culture survey tool they should implement the use of one for the school and the community. Following the implementation the principal must analyze this data and use the feedback to make future decisions for the school. If a principal realizes that the findings of this study seem to hold true in their school it is suggested to ride the school climate and cultural wave of success and nurturing the climate and culture to help imbed that climate and culture into the school.

The second recommendation is to educate school leaders in all levels from central office down to the local schools on the significance their athletic programs have on the student academic success in their schools. In this education the school leaders should be informed that when looking for a new coach along with a coach that is very knowledgeable in the X’s and O’s, they should focus on an individual who will grow student leaders and build young men and women of character. By including those two attributes in the coaching search, school leaders will have the greatest opportunity to influence the whole student body and not just the wins and losses. This recommendation is also important due to the current economic shortfalls that most school districts throughout the nation are facing. In tough economic times come tough decisions and all too often athletic and extracurricular programs feel the brunt of those economic cuts without the full understanding of their impact on the entire student body not just the student athletes.

Recommendations for Future Research

Even though this study did produce significant results, it would be recommended reproducing this study with some expansions on the research. Those expansions would
include a larger sample size from multiple states and districts, include middle school
athletic programs in the study and since an inclusion of other states would be involved, it
would be recommended to use the SAT’s as one of the standardized methods of
measuring student achievement. Since it will be a larger sample of school districts,
include more principals and athletic directors in the study. Since the measure of success
for a high school athletic program is unique to Georgia, it is recommended that future
researchers replicate this determination of success, which will allow a comparison
between the studies.

In addition to the expansions that can be performed on the current study, a theme
that came was noticed in regards to fundraising and the impact that a successful athletic
program had on the school’s athletic program’s economic health. It was said by one of
the administrators during the interview, “It [success] helps out in fundraising as well
because kids and parents are buying team gear to support those teams.” Another
administrator echoed those thoughts while saying, “A successful program allows you to
do fundraising and people want to donate money to your program.” From those two
comments and a few more through the interviews regarding sponsorships it would be an
interesting correlation to study. Additionally, this study would be a starting point for a
qualitative study on how a high school athletic program affects the school culture and
climate. Through the addition of this study the researcher may be able to determine
causation for the results that were found in this study and not just the correlations.

Summary

Athletics play a major role in a school not just for the students who are involved
on the teams, but their successes or failures can be felt throughout the entire school and
community and shape the climate and culture that students learn in everyday. Students
learn and are influenced socially by watching the adults and peers around them and therefore will begin to attempt to replicate those actions if they are deemed beneficial (Bandura, 1977; Vygotsky, 1978). Each of these students also have a need to belong and feel loved and want to have a higher self-esteem and be respected by their peers (Maslow, 1954). All students and all athletes have a drive for motivation which can be internally or externally driven, and will affect them in their academics as well as their athletic ventures (Heider, 1958). As the research of Boucher, et al. (2010) supported, students who participate in peer groups that perform at high levels will permeate other groups throughout their school, thus causing other students within the school to achieve at higher levels.

Recommendations from this study include expanding on the current research to deepen the body of literature on this topic through inclusion of more states and school districts to allow for generalization. It is also recommended to include a standard assessment, such as the SAT when conducting research from state to state for means of comparison. It is also recommended that high school principals become aware of the correlation data trends regarding athletic success and student achievement within their school. Additionally, local school and central office personnel should familiarize themselves with the impact that high school athletic programs have on the school climate and culture and student achievement.
APPENDIX A

HIGH SCHOOL PRINCIPALS AND ATHLETIC DIRECTORS/ASSISTANT PRINCIPALS SURVEY ON THE IMPACT AN ATHLETIC PROGRAM HAS ON STUDENT ACHIEVEMENT

1. What is the role of the high school athletic program?

2. How does the athletic program affect the students who actively participate in athletics academically?

3. How does the athletic program affect the students academics in the school who do not actively participate in athletics?

4. What is the atmosphere within the school when your athletic program is (was) successful?

5. What is the atmosphere within the school when your athletic program is (was) unsuccessful?

6. What impact do you feel the athletic program at your school has (had) on your students and teachers?

7. What impact do you feel that the success of a high school athletic program has on student achievement in school?
Consent to Participate in a Research Study

Date:

Title of Study: An Analysis of the Success of a High School Athletic Program on Student Achievement.

Research will be conducted by: Peter Giles

Email Address: peter.giles@k12.org

Faculty Advisor: Dr. Rose McNeese

What are some general things you should know about research studies?
You are being asked to take part in a research study. To join the study is voluntary. You may refuse to join, or you may withdraw your consent to be in the study, for any reason, without penalty.

Research studies are designed to obtain new knowledge. This new information may help people in the future. You may not receive any direct benefit from being in the research study. There also may be risks to being in research studies.

Details about this study are discussed below. It is important that you understand this information so that you can make an informed choice about being in this research study. You will be given the first two pages of this consent form and the researcher will keep the third sheet which contains your signature. You should ask the researcher named above, or staff members who may assist them, any questions you have about this study at any time.

What is the purpose of this study?
The purpose of this study is to allow central office personnel and local high school administration to be equipped with the knowledge on how the quality of coaches affects a school culture and climate through success in the athletic arena, which in turn may affect student achievement.
**How many people will take part in this study?**
If you decide to be in this study, you will be one of approximately 4 people in this research study.

**How long will your part in this study last?**
You will be asked to sign a consent form and complete a 7 interview questions which will last no longer than 30 minutes. A report of my findings will be made available to you upon request at the conclusion of this study by emailing me at peter.giles@cobbk12.org.

**What will happen if you take part in the study?**
You will be asked to sign a consent form and participate in the interview. The researcher will record the interview to maintain integrity of responses. The consent form will be shredded upon completion of this project.

**What are the possible benefits from being in this study?**
The benefit of the study will be the contribution of findings on the impact that a high school athletic program may have on student achievement. The potential of creating a positive culture and climate within a school due to the success of an athletic program could be beneficial towards student success.

**What are the possible risks or discomforts involved from being in this study?**
The risks are that the respondents may get tired disinterested during the interview.

**How will your privacy be protected?**
Participants will not be identified in any report or publication about this study. Only researcher and faculty advisors will view the interview responses. Interview tapes will be kept secure and locked in a file cabinet in the researcher’s home office. Interview responses and consent forms will be shredded after a 5 years.

**What if you have questions about this study?**
You have the right to ask, and have answered, any questions you may have about this research. If you have questions, or concerns, you should contact the researchers listed on the first page of this form.

**What if you have questions about your rights as a research participant?**
This project has been reviewed by the Human Subjects Protection Review Committee, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research subject should be directed to the chair of the Institutional Review Board, The University of Southern Mississippi, 118 College Drive #5147, Hattiesburg, MS 39406-0001, 601-266-6820

**Title of Study: An Analysis of the Success of a High School Athletic Program on Student Achievement**

**Principal Investigator:** Peter Randall Giles
**Participant’s Agreement:**

I have read the information provided above. I have asked all the questions I have at this time. I voluntarily agree to participate in this research study.

_________________________________________________  ____________________
Signature of Research Participant                             Date

_________________________________________________
Printed Name of Research Participant

_________________________________________________
Signature of Research Team Member Obtaining Consent         Date

_________________________________________________
Printed Name of Research Team Member Obtaining Consent
APPENDIX C

UNIVERSITY OF SOUTHERN MISSISSIPPI IRB

NOTICE OF COMMITTEE ACTION

The project has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the “Adverse Effect Report Form”.
- If approved, the maximum period of approval is limited to twelve months. Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: 12021410
PROJECT TITLE: An Analysis of the Success of a High School Athletic Program on Student Achievement
PROJECT TYPE: Dissertation
RESEARCHER(S): Peter Giles
COLLEGE/DIVISION: College of Education & Psychology
DEPARTMENT: Educational Leadership & School Counseling
FUNDING AGENCY: N/A
IRB COMMITTEE ACTION: Expedited Review Approval
PERIOD OF PROJECT APPROVAL: 02/22/2012 to 02/21/2013

Lawrence A. Hosman, Ph.D.
Institutional Review Board Chair
February 20, 2012

Mr. Peter Giles
4958 Willow Creek Dr
Woodstock, GA 30188

Dear Mr. Giles,

Your research project titled, An Analysis of the Success of a High School Athletic Program on Student Achievement, has been approved. Listed below are the schools where approval to conduct the research is complete. Please work with the school administrators to schedule administration of instruments or conduct interviews.

Should modifications or changes in research procedures become necessary during the research project, changes must be submitted in writing to the Academic Division prior to implementation. At the conclusion of your research project, you are expected to submit a copy of your results to this office. Results cannot reference the _____ or any District schools or departments.

Research files are not considered complete until results are received. If you have any questions regarding the process, contact our office at ______.

Sincerely,

Chief Academic Officer
REFERENCES


Mahoney, J. L. (2001). Children who participate in school extracurricular activity were less likely to drop out or have been arrested. *Evidence-Based Mental Health, 4*, 29-30.


