AT-RISK STUDENTS’ ACADEMIC PERFORMANCE INDICATORS AND EXTRACURRICULAR PARTICIPATION

A Dissertation presented to
the faculty of the Graduate School
at the University of Missouri-Columbia

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

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DECEMBER 2012
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AT-RISK STUDENTS’ ACADEMIC PERFORMANCE INDICATORS AND EXTRACURRICULAR PARTICIPATION

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DEDICATION

Thank you to my best friend. You have been my confidante, motivator, sanity, and best of all, my wife for the greatest years of my life. You inspire me and I am always cognizant of the sacrifices you have made for me. Some have money and fame, I have you. How sad for the former. I love you Jennifer.

Thank you to Kyron and Maya. You are my world.

Thank you to my mom and dad. I love you. Mom, I remember you deftly pretending that you and I had previously planned to spend the day together when it became apparent that girl stood me up on my first date in junior high. Dad, I remember you being the only person left in the stands at the end of that extremely cold football game my senior year. Thank you to my mother-in-law for her undying support of me and my father-in-law for his wisdom.

Thank you to both of my grandmas for always making me feel like I was the favorite.

Thank you to Andre Harrison, Ben Sharp, Ali Baker, and Jo Dixon.

Thank you to Mr. Lawrence McDowell (my 7th grade History teacher). You believed in and inspired me to want to achieve. I’ve never forgotten you.

Thank you to Barb Rhodes. Barb, you have no idea how much I have always appreciated your kindness and candor.

Thank you to Dr. Jinks. You gave me my first chance. I will always remember.

Thank you to Dr. Belcher who served as a mentor for me early in my career.

And thank you to a chocolate lab named Cleo. You have been diligently at my feet while I have worked on this for the past few years.
ACKNOWLEDGEMENTS

Thank you to Liz, Faye, Sarah, Kayla, H.T., and Bryan for helping collect the data.

Thank you to Dr. Hutchinson for all of your help through this process.

Thank you to Dr. Jinks, Dr. Thomas, Dr. Martin, and Dr. Grigsby for serving on my committee.

Thank you to Dr. Kreiner for your help through the dissertation journey. It was much appreciated.
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AT-RISK STUDENTS’ ACADEMIC PERFORMANCE INDICATORS AND EXTRACURRICULAR PARTICIPATION

Jason K. Beavers

Dr. Sandra Hutchinson, Dissertation Supervisor

ABSTRACT

The purpose of this study was to determine what, if any, associations exist between at-risk students’ academic indicators and participation (or nonparticipation) in a school sanctioned extracurricular activity. The subjects from the study were drawn from three high schools in Missouri. The study included all students who were enrolled in the Federal Free and Reduced Lunch Program in each respective school. The researcher collected data on these students’ attendance rates and grade point averages. The participants were divided into four categories. The first were at-risk students who participated solely in an athletic activity (e.g. baseball, football, and track). The second group consisted of at-risk students who only participated in a nonathletic activity (e.g. drama, speech and debate, FFA). The third group included at-risk students who participated in both an athletic and non-athletic activity. The fourth group was comprised of at-risk students who did not participate in any extracurricular activity. The researcher then compared each group to determine if a significant difference existed between the academic indicators between each of the groups. Analysis determined that at-risk students who participated in some form of activity have significantly better academic performance indicators than students who did not participate. In addition, there was a significant difference in the academic performance indicators of dual participants when compared to the other three groups.
CHAPTER ONE
INTRODUCTION

The educational system in the United States has been plagued by an historic achievement gap. Specifically, students classified as minorities or lower socioeconomic statuses (SES) have consistently achieved at lower levels than the majority or higher socioeconomic status. For example, a national study conducted by the United States Department of Education determined that while 17% of white students in eighth grade scored below basic in mathematics, 50% of blacks scored below basic. Similarly, 60% of Hispanic twelfth graders scored below basic in math while 30% of whites scored in the same category (USDE, 2009).

The United States Department of Education reports similar figures in comparative reading scores. In 2005, 49% of white twelfth graders scored at or above proficient/advanced compared to 17% of blacks who scored in the same range. Hispanic students had 22% scoring in the proficient or advanced range for the same year (USDE, 2007). The dichotomy in academic indicators also extends to graduation rates. Eighty percent of white students matriculated, while 60% of black and 62% of Hispanic students completed the requirements for a high school diploma.

Because educational achievement is so closely tied to the overall well-being of an individual, many have long sought ways to close this gap in achievement (USBLS 2011; Weiher & Tedin, 2006). School officials, parents, legislators, state governments, and other agencies have tried to identify ways to overcome this historical phenomenon in an effort to promote the success of minority or economically disadvantaged students.
Many researchers have pointed to the cultivation of student and parent connections to the school as a means of addressing the achievement gap dichotomy (Brown & Evans, 2002; Ford, 2008). The rationale for incorporating social capital connections to school is that students and parents who have connections (e.g. cultivated and maintained relationships with the school) will be more apt to take a more visible stake in their student’s education (Hirschfield & Gasper, 2010). For example, Bogenscheider, Small, and Riley (1992) assert that parents would be more likely to attend parent/teacher conferences, communicate with teachers on a regular basis, and have a better understanding of the overall educational process if they perceived a more personal or welcoming atmosphere from the school. In addition, Hunter (1998) and Brown and Evans (2002) postulate that students who have connections to the school will be less apt to drop out or skip school, and will put more effort into their education.

The relationship benefits associated with extracurricular participation can be understood through tenets of the social capital theory. The social capital theory originated in the field of economics (Shriner, 2008). Coleman (1988) was one of the first researchers to apply this theory to the familial context. Specifically, Coleman (1988) relays that social capital is fundamentally the “relations among people” (p. 19). Farr (2004) provides a clear explanation of social capital, stating that it is “complexly conceptualized as the network of associations, activities, or relations that bind people together as a community” (p. 9). Broh (2002) expands upon this with the assertion that students and parents acquire benefits through these relations to overcome barriers to overall success. This assertion is supported by Coleman (1988) who states “social capital
inheres in the structure of relations between actors and among actors” (p. 58). The researcher plans to apply the social capital theory as the theoretical underpinning for the proposed study. Using Coleman’s (1998) terms, the researcher wishes to gain insight into the benefits, if any, these “actors” (i.e. low SES students) gain from the structure of relations with other “actors” within the organization (i.e. coaches, sponsors, etc.) (p. 58).

Extracurricular activities have had a long established record of providing connections to the school for both parents and students alike. Indeed, many researchers argue that extracurricular participation is one of the best methods for cultivating connectedness for all stakeholders and building social capital. Since students spend a significant amount of time with coaches and sponsors preparing for games, competitions, performances, and other activities (O’Brien & Rollefson, 1995), and parents or guardians often attend these events in support of their student, one could argue that stakeholders have interactions with the school because the student participated in extracurricular activities, thus building social capital.

Statement of the Problem

Minority and economically disadvantaged students have historically underperformed their majority counterparts (Palardy & Rumberger, 2005). Arguably, this gap in achievement has negatively impacted minority and lower socioeconomic status post-secondary options (USBLS 2010; Weiher & Tedin, 2006). The historic underperformance of minorities and lower socioeconomic students has had a detrimental impact on attending college, continuing on to post-secondary training, and overall employability. In fact, many researchers have demonstrated that underperformance in
school is positively related to lower wages, poorer health, and propensity for incarceration (Berkman & Epstein, 2008; USBLS 2010).

Recent legislation such as No Child Left Behind 2001 and other initiatives have required school districts to take an even closer look at closing the so-called “achievement gap” (Hawkins & Mulkey, 2005). Specifically, districts are struggling to find the most effective methods to end the historical underperformance of minority and at-risk youth compared to their majority counterparts (Collum, 2003). This dichotomy has been attributed to a multitude of causalities. Proposed causes include, but are not limited to, school funding, school staff compositions, parental involvement, and early childhood education (Ford et al., 2008). Although some of the influences related to student academic success may be outside of the domain of schools, districts have begun a concerted effort to identify factors they can control and allocate resources accordingly.

Extracurricular activities have become an integral part of most of the high schools in the United States. Indeed, large numbers of students across the nation participate in various forms of school-sponsored sports, clubs, and other activities. Specifically, these activities include, but are not limited to, football, soccer, basketball, cheerleading, speech and debate, theatrical plays, band, and dance teams. Schools invest large amounts of resources into these activities under the arguably well-supported assumption that these activities increase levels of student performance (i.e. grade point average, attendance, dropout rate, etc.) due to the previously-mentioned factor of school connectedness among students and parents (Hoffman, 2006; O’Brien & Rollefson, 1995).

Although much research has been conducted on the impact participation in activities has on students, a substantial amount of the research was conducted from a
global perspective (Fredericks & Eccles 2006a, 2008; Miller, 2004; Nocetti, 2003; Parish, 1984; Power, 1999; Wing, 1986). Relatively few studies have specifically examined the involvement of minority and/or at-risk students in extracurricular activities. In many cases, these students are aggregated into the majority of the participants of the study with very little examination of the impact on the subgroups (Fredricks & Eccles 2006, 2008).

Several factors can be used to determine if a student can be classified as at-risk. According to Payne and Slocumb (2011), these factors might include, but are not limited to, race, gender, disability, and socioeconomic status. Students who are classified as at-risk differentiate themselves from the majority population in several ways. Specifically, these students have a higher propensity to have lower academic performance indicators (e.g. grade point average, attendance rates, graduation rates, etc.). Naturally, school district officials have continuously sought to find ways to improve this circumstance and close the achievement gap between at-risk students and the majority.

Purpose of the Study

The purpose of this study is to examine the difference, if any, that participation in extracurricular activities has on at-risk students’ GPA and attendance rate using high school students from three high schools in Missouri. This research study seeks to examine free and reduced students who attend predominately middle to upper middle class schools and thus are surrounded by more affluent middle and upper class populations. Furthermore, the study seeks to determine if a particular type of activity (e.g. athletic, non-athletic, or combination of the two) has more or less of an impact on the academic performance of at-risk students.
Research Questions

The research sought to determine if a significant difference exists in academic performance indicators of students who are eligible for free and reduced benefits who are contained within a larger more affluent population by examining the following research questions.

RQ1- Does a significant difference exist in the academic performance indicators of at-risk students who only participate in athletic activities as compared to at-risk students who participate in non-athletic, dually participate, or do not participate in any form of activity?

RQ2- Does a significant difference exist in the academic performance indicators of at-risk students who only participate in non-athletic activities as compared to at-risk students who participate in athletic, dually participate, or do not participate in any form of activity?

RQ3- Does a significant difference exist in the academic performance indicators of at-risk students who dually participate in activities as compared to at-risk students who participate in athletic, non-athletic, or do not participate in any form of activity?

RQ4- Does a significant difference exist in the academic performance indicators of at-risk students who do not participate in activities as compared to at-risk students who participate in athletic, non-athletic, or dually participate in activities?
Hypotheses

H1- A significant difference exists in the academic performance indicators of at-risk students who only participate in athletic activities as compared to at-risk students who participate in non-athletic, dually participate, or do not participate in any form of activity.

H2- A significant difference exists in the academic performance indicators of at-risk students who only participate in non-athletic activities as compared to at-risk students who participate in athletic, dually participate, or do not participate in any form of activity.

H3- A significant difference exists in the academic performance indicators of at-risk students who dually participate in activities as compared to at-risk students who participate in athletic, non-athletic, or do not participate in any form of activity.

H4- A significant difference exists in the academic performance indicators of at-risk students who do not participate in activities as compared to at-risk students who participate in athletic, non-athletic, or dually participate in activities.

Definition of Terms

This study will use the following terms and definitions to classify participants and the different types of activities in which they may participate.

*Academic Performance Indicators:* Quantifiable measures of student functioning as related to school matters. For the purposes of this study academic performance indicators will refer to the GPA and attendance rate.
**Athletic activities:** Activities that are athletic in nature. Athletic activities include volleyball, cross country, football, baseball, basketball, swimming, cheerleading, dance (pom pons), softball, track, wrestling, and soccer.

**At-risk:** Students who have a higher probability of dropping out of school, lower grade point averages, and lower attendance rates when compared to the majority of students at a given site. For the purposes of this study at-risk participants will refer to students receiving Federal Free and/or Reduced aid.

**Attendance Rate:** A percentage calculated by the number of days a student attends school divided by the total number of school days.

**Dual participation:** Participation by students in both an athletic and non-athletic activity

**Economically Disadvantaged:** A student who qualifies for the Federal Free and/or Reduced Lunch Program.

**Extracurricular Participation:** Involvement in a school-sponsored athletic or non-athletic activity.

**Grade Point Average (GPA):** A numerical value calculated by averaging a point system assigned to each grade a student receives at the conclusion of an academic course (i.e. A=4, B=3, C=2, D=1, F=0).

**Low Socioeconomic Status:** A category of economic classification in which individuals generally share similarly lower earnings, education levels, health status, etc. (Berkman & Epstein, 2008). For the purposes of this study the term low SES student will refer to a student who qualifies for the Federal Free and/or Reduced Lunch Program.
Majority: Student who is classified in a group that is not one of the minority groups in their respective setting. For the purpose of this study the term majority student (in terms of participants) will refer to a student who does not receive Federal Free and/or Reduced Lunch aid who is contained in a population where the preponderance of other students similarly do not receive any aid.

Minority: A student who is classified in a group other than the majority in their respective setting. For the purpose of this study the term minority student (in terms of participants) will refer to a student who does receive Federal Free and/or Reduced Lunch aid who is contained in a population where the preponderance of other students divergently do not receive any aid.

Non-athletic activities: Activities that are non-athletic in nature. Non-athletic activities include band (marching, jazz, ensemble), drama club, chess club, yearbook, newspaper, Future Farmers of America, Future Teachers of America, Future Business Leaders of America, speech and debate, academic club, science club, foreign language clubs, Multicultural Club, and any other non-athletic activity not listed under athletic participation.

Limitations and Delimitations

As with any study, a number of limitations exist. Therefore, the limitations of the current study include the following:

1. The study is limited by sample size. The researcher purposefully sought to gain insight into lower SES students who were the minority in a given setting. This circumstance inherently limits the number of subjects that are available to the study.
2. The study was conducted on lower SES students who are the minority in a
more affluent majority and, therefore, cannot be generalized to all lower SES students, especially lower SES students who may be the majority in a given setting.

3. The study is delimited to students who applied for and are enrolled into the Federal Free and Reduced Lunch Program. The study does not include all low SES students in the given settings, as some families do not submit the application even though they qualify.

4. The study is a snapshot of present academic performance of at-risk students.

5. The study is delimited to one school year.

6. The possibility of data collector bias exists, as each school district will have their own employee collecting the data for the study and transmitting it to the researcher.

7. The researcher is a former school district Activities Director and athletic coach.

8. The researcher has been a proponent of school activities for a number of years.

Design Controls

Fraenkel and Wallen (2003) suggest the researcher should identify threats to internal validity and decide if those threats could affect the outcome of the results. As this study is an ex-post facto design, the researcher will not be directly manipulating any treatment variables, as the data are historical. The researcher does not believe any of the listed limitations negatively impacted the validity of the study. However, to mitigate any possibility, two steps were taken. First, the researcher met with each person responsible for collecting the data at each site. This helped to ensure the data collector knew exactly what data were needed and helped to provide consistency in reporting strategies across the sites. Second, the researcher relied on statistical calculations rather than his own previous experience as an Activity Director to decide on the significance of the data.
Summary

The United States has been plagued by an historic achievement gap. Students classified as a minority or low socioeconomic status have underperformed the majority population of students. Because educational attainment is directly tied to such factors as employability and overall health, school officials, legislators, parents, state governments, and other agencies have long sought ways to close this achievement gap. The purpose of this study was to determine what impact, if any, participation in extracurricular activities has on the academic performance indicators of at-risk high school students who are the minority in number contained within a larger more affluent student population. Moreover, this study sought to determine if the type of activity participation (athletic, nonathletic, dual participation) has any impact on the academic indicators when compared to at-risk students who did not participate in any activity.
CHAPTER TWO

REVIEW OF LITERATURE

The following chapter is intended to review current literature as related to extracurricular participation and socioeconomic status. The chapter is organized into separate sections that discuss various components. Specifically, the chapter will cover educational attainment, underperforming subgroups, extracurricular participation, overview of extracurricular involvement, extracurricular activities and grade point average, extracurricular participation and attendance, extracurricular participation and behaviors, extracurricular participation and dropout rates, and low socioeconomic status and participation. The chapter then presents research that demonstrates that most of the studies in this area have been focused on the majority population. Further, the chapter concludes with a discussion of the social capital theory and its relation to the above-mentioned.

Educational Attainment

Educational attainment has been positively associated with several aspects of one’s income, health, and general quality of life (USBLS, 2011; Weiher & Tedin, 2006). According to the United States Bureau of Labor Statistics, a high school graduate earns, on average, one-third more per week than a high school dropout. Similarly, a college graduate earns, on average, three times the per-week compensation of a high school dropout (USBLS 2011). Persons who graduate high school and continue on to some sort of post-secondary training (e.g. college or trade school) are much more likely to earn wages that would classify them as middle class or above than those who do not complete high school. Perhaps most alarming is Weiher and Tedin’s (2006) statement that “those
who do not graduate high school are more likely to be in prison, unemployed, and to fall below the poverty level” (p. 965).

The educational attainment, and therefore earning ability, of an individual has wide ranging impacts on one’s life. Steward, Stewart, Blair, Jo, and Hill (2008) state that “social class differences significantly influence development, daily life experience, and potentially, life success” (p. 523). Evidence has shown that even the overall physical health of a person can be affected by which class they are classified. Berkman and Epstein (2008) found in a study of 16 countries (including the United States) that “socioeconomically disadvantaged men and women had higher overall mortality rates than did persons with a higher socioeconomic status” (para. 3). Further, the researchers found a significant negative correlation between socioeconomic level and cardiovascular disease in the United States.

Due to the impact educational attainment has on a person’s overall quality of life (e.g. crime rates, earning potential, and general health) federal, state, and city governments have looked for ways to improve all aspects of the educational process. Or, as aptly stated by Hunter and Bartee (2003), “the ability of the United States to continue as a powerful nation, in many ways, resonates within its capacity to provide quality education for all” (p.157). The No Child Left Behind Act of 2001 (NCLB) is the latest effort to address school improvement at the federal level. The legislation can be broken into four main areas.

The first portion of the legislation (and most pertinent to this study) seeks more accountability from schools for the overall academic performance of their students. Further, it requires that states implement rigorous standards in reading, math, and science.
Additionally, the legislation incorporates sanctions for schools that do not meet these benchmarks. The second component of the legislation affords states more flexibility in allocating money given to them by the federal government. The third provision concerns the allocation of federal education money to programs that have proven results. Last, the legislation seeks to give parents more options if their student is attending a school that is not meeting the established benchmarks (NCLB, 2001).

Historically Underperforming Subgroups

States, and therefore schools, have long sought to improve the academic indicators (e.g. grade point average, graduation rate, standardized tests scores, attendance rates, etc.) of historically underperforming subgroups. This effort to identify proven strategies and interventions that facilitate the academic success of historically underperforming subgroups has come to the forefront in part due to the NCLB legislation’s mandate for increased accountability. Researchers, bureaucrats, and school officials alike are seeking to identify and implement the best and most effective practices to close the achievement gap (Hunter & Bartee, 2003).

Several subgroups have historically academically underperformed the majority population. These include, but are not limited to, racial minorities, students of lower socioeconomic status, and English Language Learners. For example, a study conducted by Jacobson, Olsen, Rice, Sweetland, and Ralph (2001) found that African-Americans scored lower on math and reading tests than their white counterparts. The United States Department of Education reports similar figures in comparative reading scores. In 2005, 49% of white twelfth graders scored at or above proficient/advanced, compared to 17% of blacks who scored in the same range (USDE, 2009). A finding supported by Stewart,
Stewart, Blair, Jo, and Hill (2008) concluded that “children from households high in resources entered prekindergarten with more well-developed language and math skills and fewer behavior problems” (p. 522).

Students classified as minorities or lower socioeconomic statuses have consistently achieved at lower levels than the majority or higher socioeconomic status students. For example, a national study conducted by the United States Department of Education determined that while 17% of white students in eighth grade scored below basic in mathematics, 50% of blacks scored below basic. Similarly, 60% of Hispanic twelfth graders scored below basic in math while 30% of whites scored in the same category. Hunter and Bartee (2003) state, “only the most talented students gain access to the best academic programs” (p. 154), therefore educators must find a way to close the achievement gap.

Extracurricular Participation

Extracurricular activities have become a significant part of both public and private schools in the United States. Indeed, according to a national data sample presented by O’Brien and Rollefson (1995), approximately four out of five high school seniors indicated they participated in an extracurricular activity. These students participated in activities ranging from athletics (such as football, baseball, soccer, basketball) to activities (e.g. academic clubs, foreign language clubs, chess clubs, and FFA). In fact, data collected in 1992 by the National Center for Educational Statistics (NCES) reported that 99.8% of all schools offered some form of extracurricular activity to their students. Specifically, 98.7% offered some form of sport, 99.4% offered publications, and 98.8% of schools offered performing arts to their students. Further, schools also incorporated
honor societies, student government, and academic clubs at rates of over 95%.

Vocational, service, and hobby clubs were incorporated at rates of 93.3%, 89.2%, and 87.5%, respectively (NCES, 1992).

Participation by students and the support offered by school districts for extracurricular activities is all-encompassing. Students from every socioeconomic status, race, gender, and academic level participate in extracurricular activities. Further, districts large and small, rural and urban, rich and poor, support extracurricular activities (NCES, 1992). Arguably, given the context of the large amounts of resources schools and participants invest in activities; these endeavors have become a substantial component of American schools.

Overview of Extracurricular Involvement

Although some divergence exists, research has produced numerous studies that have espoused the benefits of extracurricular participation and its positive effects on student performance indicators (Braddock, 1980, 1982; Brown & Evans, 2002; Camp, 1990; Eidsmore, 1964; Fredricks & Eccles, 2006a, 2008; Hansley et al., 1986; McNeal, 1995; McNeal, 2001; Taylor & Chiogioji, 1988; Trent, 1982; Trent & Braddock, 1992). Indeed, the overwhelming amount of research has concluded that involvement in extracurricular activities has positive impacts on student achievement indicators such as dropout rates, attendance, grade point average, discipline incidents, standardized test scores, post-college aspirations, and self-esteem (Butler & Hagewen, 2010; Hawkins & Mulkey, 2005; Hines et al., 2005; Wang, 2000). In fact, many argue that students who participate in activities during school years not only benefit from participation while in
school, but also continue to reap the benefits long after their graduation from high school (Fredricks & Eccles, 2006, 2008; Marsh, 1992).

Extracurricular Activities and Grade Point Average

Many researchers have espoused the positive relationship of participation in extracurricular activities and student grade point averages. For example, a longitudinal study conducted by Fredricks and Eccles (2006) that incorporated 1,480 students concluded that students who participated in extracurricular activities had statistically significant higher grades than their nonparticipating counterparts ($f = 12.75$, sig, $p < .001$). The study used data collected from the Maryland Adolescent Development in Context Study (MADICS) over a six-year period with respondents coming “from a county that consists of several ecological settings, including low-income communities; high-risk urban neighborhoods; middle-class suburban neighborhoods; and rural, farm-based communities” (p. 700).

The conclusion that students who participate in extracurricular activity have higher grade point averages is supported by similar findings in a study conducted by Steiner (2001). The researcher used a cohort format to study 695 students in seven public schools in the southeastern United States. The researcher divided the subjects into four groups, with the first group being characterized by scoring highly competent in all domains of the Interpersonal Competence Scale. The second group was similar to group one but had a socioeconomic status (SES) below the mean. The third group had moderately low academic competence and higher levels of physical aggression. Group four was characterized by multiple at-risk indicators. Steiner found that students who
participated in extracurricular activities had higher grade point averages than their nonparticipating counterparts. This finding was consistent across all groups.

Similarly, research conducted by O’Brien and Rollefson (1995) supports the conclusion that students who participate in extracurricular activities have higher grade point averages. The researchers used data from the second wave of information collected in 1992 from the National Education Longitudinal Study (NELS) conducted by the United States Department of Education’s (USDE) National Center for Educational Statistics (NCES), which was initiated in 1988. The study used questionnaires to gather data from a nationally representative sample of 10,944 eighth grade students. O’Brien and Rollefson (1995) concluded that 30.6% of subjects who participated in an extracurricular activity had a grade point average of 3.0 or higher on a 4.0 scale. This compares to just 10.8% of their nonparticipating counterparts.

McNeal (2001) reached similar conclusions as the NELS when he examined the same students during a subsequent wave of data collection. McNeal found that the “typical individual” in the sample was a middle-class white student carrying a 3.0 grade point average (S.D. =.7). Again, this grade point average was significantly better than that of the non-participants.

Stephens and Schaben (2002) compared the grade point averages of 136 middle school athletes and non-athletes at an urban middle school in Omaha, Nebraska. Divergent to the abovementioned studies, the researchers in this case did not include activities (chess club, foreign language clubs, speech and debate, etc.). The researchers defined “an athlete as any student who participated in one or more of the five interscholastic sports…” and a non-athlete as one who did not (p. 3). Despite this
limitation, one could argue the findings are relevant in the given context. Stephens and Schaben found that athletes had a mean grade point average of 3.151 compared to a mean of 2.4 for non-athletes ($t = 4.85$, $p < .05$, one tailed). The results indicated a more positive relationship for female participants, as female athletes had just under a full point better grade point average than females who did not play a sport (3.4 and 2.453, respectively).

Fredricks and Eccles (2008) determined that participation in middle school clubs “was related to positive academic adjustment in both the middle and high school years” (p. 1040). Their study, which included 1,047 participants, sought to determine if a relationship exists between extracurricular participation and positive academic development. The study included 67% African-American subjects and followed them for three waves of data collection.

To summarize, numerous studies have concluded that students with involvement in extracurricular activities have higher grade point averages than their non-participating counterparts. This conclusion has been replicated at the national, regional, and district/building level. Further, the association between higher grade point average and participation holds true for gender as well as athletic and non-athletic participation

**Extracurricular Participation and Attendance**

Similarly to grade point average, scholars have produced a wealth of research that indicates a positive relationship between extracurricular participation and attendance rates. This is not to say that all of the research is congruent (Hunter, 1998; Wing, 1986). With that said, one could make a valid argument that the overwhelming majority of research supports this assertion. The following section will examine some of the most
relevant research and the conclusions reached concerning extracurricular participation and student attendance rates.

Researchers have determined that students who participate in activities have higher attendance rates than their nonparticipating counterparts (Corbett, 2007; Collum, 2003; Fredricks & Eccles, 2006; O’Brien & Rollefson, 1995; Steiner, 2001). For example, research using data from the 1988 NELS study concluded that 50.4% of participating students had no unexcused absences. This compares to just 36.2% of nonparticipants. Further, O’Brien and Rollefson (1992) found that 57% of students who participated in an activity had not skipped a class during the year while 42.3% of students who were not involved in an activity had not skipped a class.

Hawkins and Mulkey (2005) found that participation in activities was negatively correlated with “attendance issues” using the same NELS data (p. 20). Their study, which focused on the academic resilience of African American youth, included a national sample of 24,599 eighth graders from 1,052 school districts across the nation. This particular research included a subsample of 2,217 students who met the parameters of being at-risk African Americans enrolled in a public school. In relation to attendance, the study findings indicated that participation in activities and attendance problems were negatively correlated for both males and females.

Similar conclusions were reached by Fredricks and Eccles (2006) and Darling (2005). Both studies used state-level data. Specifically, Fredricks and Eccles used data from a Maryland database, and Darling used data collected in California public schools. In both cases, the findings of the research maintained that students who participated in activities had significantly higher attendance rates than did their non-participating
counterparts. Miller (2004) reached a similar conclusion in a study of senior students at two Idaho Schools (n = 179). This study incorporated both qualitative and quantitative design methods. The former was used to collect background information on the students and the latter to determine if a statistically significant relationship existed. Miller found that participating students had significantly better attendance than their non-participating counterparts. Randolph et al. (2004) found a significant difference in the attendance rates of participants and non-participants. The researchers studied the attendance rates (among other indicators) of these groups in one school in the southwestern United States.

Extracurricular Participation and Behaviors

Some of the aforementioned research, as well as others to be included in this section, have examined the relationship of extracurricular participation and behaviors. While “behaviors” is a vague term that can be applied to a host of student actions, for the purpose of this section, it will include general delinquency. Examples are drug (e.g. marijuana, alcohol, tobacco) use, gang affiliations, and other socially or legally unacceptable actions engaged in by school-aged youth. With the exception of drug use, the majority of research in this area is concurrent in the assertion that extracurricular participation has positive outcomes for student behavior indicators (Collum, 2003; Hawkins & Mulkey, 2005; Hines et al. 2005; Hoffman, 2006; Wang, 2000).

Steiner (2001) provides excellent insight into the connection between extracurricular participation and criminal activity. As presented earlier, the researcher divided the sample of 695 students into four groups. Two of the groups included students who participated in an activity and two groups of students who did not. The researcher found that female students who had not participated in an activity were 1.5 times more
likely to be arrested than their participating counterparts. Similarly, the researcher concluded that male students who participated in an activity were two to five times less likely to be arrested than non-participants, a conclusion supported by Wang’s (2000) study of 216 at-risk girls and gang affiliation. Wang determined that 50% of the respondents stated that their involvement in extracurricular activities was the primary reason they had not been arrested.

These results are supported by Cohen et al. (2007), who analyzed data collected in a 2002 survey administered in the Los Angeles public schools. Overall, 175 schools provided information related to extracurricular offerings and student participation rates. Perhaps the most interesting statistic to emerge concerned the relationship of activities offered and delinquency rates. The researchers noted a juvenile arrest rate of 1.7 per 10,000 youth in schools offering 16 or more extracurricular programs. This compares to a rate of 30.9 per 10,000 in schools offering 13 or fewer extracurricular activities.

Part of Fredericks and Eccles’ (2006) study using NELS data examined the rates of drug use among participants and non-participants. The researchers examined the self-reported rates of alcohol and marijuana use among the two groups. Related to alcohol use, the results indicated that males who participated used alcohol at lower rates than nonparticipants (F= 4.45, p < .05). A similar pattern was found for marijuana use between participants and nonparticipants (F= 6.10, p < .05). Interestingly, the study found no significant difference in the rate of alcohol or marijuana use for participating and non-participating females.

A somewhat similar conclusion was noted by Nocetti (2003), who examined “the impact of athletic participation on the risk behaviors of adolescent females” (p. 4). The
sample (n = 448) came from female students enrolled in Catholic schools in California and Oregon. These students were sampled using an adapted version of the Youth Risk Behavior Survey developed by the Center for Disease Control. Although the research indicated that a significant difference existed in alcohol use for females who participated in athletics versus non-participants, no significant difference was observed in marijuana use for the two groups.

Hoffman’s (2006) examination of the 1990-92 National Education Longitudinal Study (n = 9,893) data concluded that involvement in nonathletic activities such as school clubs, student government, and honor societies was associated with a decrease in alcohol use. This dynamic was only significant with the male participants. Further, Hoffman found that athletic participation actually correlated with an increase in alcohol use over a two year period for both males and females, meaning a decrease in alcohol use was only noted for nonathletic participation.

Finally, Darling (2005) noted no significance in the relationship between extracurricular activities and alcohol use. This longitudinal study was conducted over a three-year period with students from six California high schools (n = 3,761). Although the researcher did find a significant relationship between extracurricular participation and use of tobacco, marijuana, and other drugs, no relationship existed when it came to alcohol.

Although many researchers have noted a negative correlation between extracurricular involvement and delinquency, the relationship is only conclusive when it concerns juvenile arrest rates. The same cannot be said of drug and alcohol use. Research conducted in this area is inconclusive, with studies often displaying contradictory
findings. In some cases, a relationship is found in relation to marijuana and not for alcohol or vice versa. Furthermore, many studies have concluded that no significant relationship exists for either variable (Hawkins & Mulkey, 2005; Hoffman, 2006; Nocetti, 2003; Steiner, 2001). For example, one of the findings of Fredricks and Eccles’ (2008) longitudinal study of extracurricular participation was that students who participated in sports-related activities were more likely to engage in risky behavior than those who did not participate (e.g. “stole from a store”, “damaged public property”) (p. 1033).

Extracurricular Participation and Dropout Rates

As with attendance, researchers have produced a wealth of information that affirms extracurricular activities have a positive relationship to reducing dropout rates. The data sets used to draw these conclusions have come from the national, regional, state, and individual district level. The following section will offer some of the most relevant literature concerning this topic.

Randolph et al. (2004) is a good example of how the relationship of extracurricular participation and lower dropout rates was found to be significant at the individual district level. Randolph et al. examined 692 files from one urban school district. Despite the fact the study was partially focused on the implication of retention, the researchers found a significant relationship existed “between retention, extracurricular activity participation, and high school completion” (p. 39). Further, “the risk of dropping out is lower for those youth who were retained and were involved in activities during high school” (p. 39).
Mahoney and Cairns’ (1997) longitudinal study of the relationship between extracurricular participation and dropout rates provides excellent insight into this phenomenon. Subjects were selected from a larger sample of students attending two middle schools. The researchers tracked 392 students from seventh grade until graduation from high school. They found that “results indicate that engagement in school extracurricular activities is linked to decreasing rates of early school dropout in both boys and girls” (p < .001) (p. 248). Furthermore, the researchers noted an even stronger correlation among at-risk students.

Brown and Evans (2002) assert that the relationship between participation and dropout rate could at least in part be attributed to the students’ sense of connectedness. The researchers asked the question: “Do students of non-European American ethnic groups who participate in extracurricular activities receive similar increases in school connection?” (p. 42) The sample (n = 1,755) was drawn from two large school districts in California. The researchers found a positive correlation (p < .001) between the amount of time students spent involved in extracurricular activities and measures of school connectedness.

Low Socioeconomic Status and Participation

Most of the research reviewed in this chapter has included subjects from low socioeconomic status (SES). For example, several studies have examined low socioeconomic status students in the context of participation rates and impediments to participation (Miller, 2004; Nocetti, 2003; Parish, 1984; Power, 1999; Wing, 1986). Although students classified as low socioeconomic status are present, very few researchers have examined this group in the context of type of activity participation (e.g.
athletic vs. nonathletic) and positive student academic outcomes. The following section is dedicated to presenting findings of the most relevant literature between these variables.

McNeal’s (2001) study of the participation rates among students using data collected from the NELS (1992) provides insight into the extracurricular involvement of students based on SES. The researcher found that students from high SES were much more likely (66%) to participate in athletics than their average SES counterparts (56%). In fact, McNeal noted that “most differences indicate that students from more advantaged backgrounds participate nearly 7% more” across all categories (p. 186). Further, students from low SES backgrounds were more likely to participate in vocational activities than higher SES students.

Similar conclusions were reached by O’Brien and Rollefson (1992), who concluded that students from low SES participated at rates about 12% less than their high SES counterparts. Similarly to McNeal (2001), O’Brien and Rollefson found much higher participation rates for higher SES students in vocational activities than low SES students. Academic clubs had the most divergence in participation among SES groups. Students from high SES were almost 16% more likely to participate in vocational clubs than their low SES counterparts.

Most Research Focused on the Majority

It would not be difficult to substantiate the statement that the majority of research in the area has focused on the middle class (Cohen et al., 2007; Kirkpatrick, 1988; McNeal, 2001; Power, 1999; Brown & Evans, 2002). In fact, much of the research in the area of extracurricular participation and student performance advocates more in-depth analysis of subgroups such as minorities, gender, and socioeconomic status (Fredricks &
Eccles, 2008; Miller, 2004; Nocetti, 2003; Power, 1999). The purposes of the following section are twofold. First, it will offer examples of how subgroups have been incorporated into the most relevant research. Also, it will make the argument for a closer examination of these subgroups, especially low socioeconomic status extracurricular participants.

The overwhelming majority of research in the area of extracurricular activities and student performance indicators (such as attendance rate, grade point average, graduation rate, discipline rate) have in large part been composed of subjects who are white and classified as middle or upper class socioeconomically (Brown & Evan, 2002; Chhin, 2006). The fact that studies on extracurricular participation and student performance have mainly white middle or upper class subjects could be in part attributed to the possibility that the studies are primarily composed of “adolescents who chose to participate in extracurricular activities tend to be of higher socioeconomic status, are more likely to be white, and have higher academic adjustment than non-participants” (Fredricks & Eccles, 2008, p.1030).

Generally, a divergence exists in the types of activities in which students from differing socioeconomic status choose to participate. Students from lower socioeconomic status tend to participate in vocational clubs more frequently than their higher socioeconomic classified counterparts (McNeal, 1995). Chhin (2006) postulates that this difference may exist due to the lack of resources such as time, money, and transportation that lower socioeconomic families have to draw from. In addition, the researcher goes on to explain that “vocational clubs may serve a practical purpose for low
socioeconomic and low ability students by helping them prepare for employment after high school” (p. 10).

Although researchers have incorporated subgroups of participants into some of the most relevant studies of this topic, most studies have controlled for academic performance indicators to allow these subgroups to be compared to the majority. Indeed, subgroups such as minorities, females, and students from low socioeconomic status are present in these studies (Braddock, 1982; Brown & Evans, 2002; Camp, 1990; Eidsmore, 1964; Frederick & Eccles, 2006; Hansley et al., 1986; McNeal, 1995; McNeal, 2001; O’Brien & Rollefson, 1995; Taylor & Chiogioji, 1988; Trent, 1982; Trent & Braddock, 1992) but the indicators are often statistically controlled to determine if the experimental hypothesis holds for minorities, gender, and socioeconomic status. Brown and Evans (2002) determined that little research has focused on how these “relationships might differ among ethnic groups” (p. 43).

Fredericks and Eccles (2008) aptly state that “patterns of association [as they relate to extracurricular participation and student performance indicators] may vary by individual characteristics such as race, gender, and socioeconomic status, though surprisingly few studies have examined this question” (p. 1030). This assertion is further supported by their 2006 statement that “Because few studies have tested for interactive effects, we know surprisingly little about whether the relations between activity participation and development are similar by race, gender, and socioeconomic status” (p. 24). White and Gager (2007) posit a similar circumstance in their study of youth and extracurricular involvement. The researchers aptly point out that most research tends to focus on one group. Specifically, “many studies on extracurricular activities tend to focus
either solely on white, suburban, or middle class youth without examining a comparison group.” (p. 76)

This circumstance is especially true for studies using the NELS (1992) or similar national normative data samples. For example, McNeal (2001) states that the “typical individual from this sample is a middle-class white female student from a two-parent household…” (p. 185). Indeed, due to several factors, students from low SES are underrepresented in much of the research conducted in this area. Further, students from low SES contained within more affluent schools are even less represented.

Social Capital and Extracurricular Activity

A plethora of research exists on the relationship of extracurricular activity participation and academic/social indicators. The overwhelming amount of the research has found a positive relationship between participation in extracurricular activities and positive outcomes (such as higher grade point average, attendance rates) (Chin, 2006). For example, participation in extracurricular activities has been positively linked to a wide range of student success indicators including school connectedness, self-esteem, educational goals, and parental involvement (Brown & Evans, 2002; Chin, 2006; Fredricks & Eccles, 2008; Hunter & Bartee, 2003; Roberts, 2007; Schmit, 2007). Fredricks and Eccles (2008) point out that “some studies have linked involvement to lower dropout rates, lower delinquency, and less frequent substance abuse” (p.1030).

Bourdieu (1986) and Bourdieu and Wacquant (1992) would argue that there is no one definition for social capital because it depends on the discipline and type of investigation (Robison et al., 2002). However, there are identified dimensions of the theory that are essential to one’s understanding of the theory’s application. Many
researchers view social capital as multi-dimensional with no one dimension capturing the full understanding of the construct (Hean et al., 2003). Many researchers argue that the central dimensions are trust (Welsh & Pringle, 2001), rules governing social action (Fukuyama, 2001), types of social interaction (Collier, 1998; Snijders, 1999), and network resources (ABS, 2002). Ultimately, Uslaner (2001) summarized this research by identifying that the components of social capital should be viewed as multi-dimensional rather than one-dimensional. For purposes of this inquiry each of the dimensions will be discussed and applied to school attainment and extracurricular activity.

Coleman (1988) relays how essential the concept of trust is to all aspects of social capital. An assertion echoed by Farr (2004) who aptly states that “social capital is complexly conceptualized as the network of associations, activities, or relations that bind people together as a community via certain norms and psychological capacities, notably trust, which are essential for a civil society and productive of future collective actions or goods, in the manner of other forms of capital” (p. 25). Coleman (1988) goes on to give the example of a precious gems market where traders exchange these gems without any inspection as this would hinder the efficiency of the market. Coleman’s example demonstrates how trust is critical to market functioning at optimal capacity. Coleman (1988) states that “without a high degree of trustworthiness among the members of the group, the institution could not exist” (p. 103). Fafchamps (2002) adds that “fostering generalized trust can potentially facilitate large efficiency gains” (p. 2)

The actual social interactions needed to transmit social capital as one would expect can have various outcomes. Claridge (2004) states that these outcomes can be positive or negative at the micro (individual), meso (group), and macro (societal) level.
Meaning, positive social interactions foster beneficial outcomes (social mobility, economic improvement, educational attainment, etc.) for the previously mentioned categories. Further, negative social interaction can cause loss of social capital and can lead to undesirable outcomes (e.g. crime, poverty, exclusion) (Claridge, 2004).

The concept of a network is critical to social capital (Sobel, 2002). Within this network are resources that can be exchanged among its members. It is difficult to quantify these resources as they are subjective and nuanced (Claridge, 2004). For example, Sandefur and Lauamann (1998) explain that these resources can be described as “an individual's potential stock of social capital consists of the collection and pattern of relationships in which she is involved and to which she has access, and further to the location and patterning of her associations in larger social space” (p.484). These relationships are the cornerstone of resources associated with social capital (Winter 2000). Or, as stated by ABS (2002), “Social capital refers to the patterns and qualities of relationships in a community” (p. 4).

In order for social capital to be exchanged a network must exist. Sobel (2002) states that social capital is optimally transmitted when the network is dense. Sobel contends that dense networks “may act to create common knowledge of information” and “may increase the quality and reliability of third-party monitoring needed to enforce cooperative dynamic equilibrium” (p. 151). Coleman (1998) suggests that closure in these networks is crucial. To summarize, networks must have closure to facilitate sharing of established norms. Coleman (1998) also notes that open networks are not conducive to facilitating trust, as the oversight needed to sanction actions that do not create trust cannot occur.
Woolcock (2000) offers an excellent explanation of the three types of relationships within a network: bonding, bridging, and linking. To summarize, Woolcock describes bonding as relationships people have with others who are similar to them (e.g. socioeconomic status, race, geographic location). Further, the author relates that bridging is relationships people have with those who are not like them. Lastly, linking is associated with relationships individuals have with power brokers within and outside of the community. These relationships are called upon to transmit both structural and cognitive resources (ABS, 2002; Claridge, 2004).

As with resources, it is difficult to define the rules of governing social action in terms of social capital. These rules are subject to given cultural, economic, or even religious context. In fact, Fukuyama (2001) relates social action can even be two tiered depending on the circumstances within a given context. Fukuyama explains that individuals, while extremely open and altruistic to family, may be distrusting of strangers resulting in hindering the transmittance of social capital.

Summary

Educational attainment has been positively linked to an individual’s overall health, employability, and lifetime earnings. Studies have consistently demonstrated a positive correlation with educational attainment and life span, quality of life, and general health. Researchers have also concluded that educational attainment is positively correlated to an individual’s prospect of gaining employment. Further research has posited that educational attainment is directly linked to hourly wages and salaries.

Students who participate in a school sponsored activity generally have better academic indicators than those who do not. Schools across the nation offer
extracurricular activities, in part, to foster school connectedness and, therefore, increase student performance. Studies have indicated increased student participation is positively correlated with attendance, grade point average, and graduation rate.

Minorities and low socioeconomic status students have historically underperformed in academic indicators when compared to students who are not minorities or not low socioeconomic status. Minority and low socioeconomic status students score lower on standardized tests, have poorer attendance, and lower graduation rates than students who are not minorities or not low socioeconomic status. School districts have attempted to close this achievement gap in several ways. Extracurricular activities, due to the increased student academic indicators, are one way schools have attempted to address this circumstance.

Most of the research in the area of at-risk students and extracurricular participation has been conducted in a setting where at-risk students are the majority. The vast majority of the studies examining extracurricular participation and at-risk students have been conducted in settings where the majority of the student population is at-risk. Little information exists on at-risk students and extracurricular participation from studies conducted in settings where at-risk students are the minority in numbers.
CHAPTER THREE
METHODOLOGY

Extracurricular activities have historically been and presently are a large part of school culture (NCES, 1992). Specifically, data collected by National Center for Education Statistics (1992) indicated that 99.8% of schools offered some type of extracurricular activity to their students. In most instances these schools offer both athletic and nonathletic forms of activities for students. Examples of athletic types of activities include soccer, football, track, baseball, and softball. Nonathletic forms of extracurricular activities include speech and debate, chess club, drama club, FFA, FBLA, and foreign language.

Schools across the United States support extracurricular activities by allocating resources including staff, facilities, and equipment. The allocation of these resources is, in part, justified with the positive outcomes associated with student achievement and student involvement in extracurricular activities (Clark, 1995; Hawkins & Mulkey, 2005; Hirschfield & Gasper, 2010; Hunter, 1998). Research has posited that students who participate in school-sponsored activities have better attendance, grade point averages, lower dropout rates, and more school connectedness (Bogenscheider, et al., 1992; Clark, 1995; Hirschfield & Gasper, 2010; Hunter, 1998; Jeynes, 2004).

Given the noted positive correlation between extracurricular activities and student performance indicators (i.e. attendance rates, grade point averages, lower dropout rates, etc.), research has sought to examine the implications of extracurricular participation on historically underperforming subgroups such as minorities and lower socioeconomic
status students (Berkman & Epstien, 2008; Frederick & Eccles, 2006, 2008; Weiher & Tedin, 2006).

The purpose, procedures, and methodology used to examine extracurricular activity participation and socioeconomic status will be explained in Chapter Three. The chapter is organized into the following sections: research design, pragmatic approach and quantitative rationale, purpose, research questions, setting, participants, variables, data collection, and timeline.

Research Design

The research was conducted as an ex post facto study, meaning the research was conducted “after-the-fact because the researcher [drew] conclusions about the apparent effect of the treatment” (i.e. extracurricular participation) (Thomas & Brubaker, 2000, p.127). Ex post facto studies are also referred to as causal-comparative studies (Fraenkel & Wallen, 2003). To summarize, a causal comparative student seeks to identify “cause or consequence of differences that already exist between or among groups or individuals” (Fraenkel & Wallen, 2003, p. 369).

An ex post facto approach to the research was appropriate as the researcher selected this method for one main reason. An ex post facto study is the best method to examine variables that cannot be manipulated by the researcher. Or, as aptly stated by Fraenkel and Wallen (2003), “the group difference variable in a causal-comparative study is either a variable that cannot be manipulated (such as ethnicity) or one that might have been manipulated but for one reason or another has not been (such as teaching style)” (p. 368). The variable of socioeconomic status cannot be manipulated by the researcher in the present study. Further, Johnson (2001) offers support of using an ex post facto
research method with the assertion that “educational researchers are often faced with the situation in which neither a randomized experiment nor quasi-experiment (with a manipulated independent variable) is feasible” (p. 3).

Incorporating the proper sample for any study is critical (Heppner & Heppner, 2004). The researcher must ensure that the sample is representative of the target population (Gravetter & Wallnau, 2005). The researcher incorporated a convenience sample for the purposes of this study. The subjects for the study had to meet a set criterion. First, the subjects had to be in a setting in which they were the minority in a more affluent majority. Further, the setting had to contain enough subjects who meet that standard in order to be an appropriately generalizable sample. The sample could be classified as convenience as the researcher was limited to incorporating a sample who met the above-mentioned criteria and whose school district was willing to compile the information needed to conduct the study. Indeed, compiling the necessary information required several days to complete, and the researcher had to take this into consideration when selecting a setting. Or, as stated by Gay (1996), the selection of a “population is generally a realistic choice, not an idealistic one” (p. 113).

Pragmatic Approach and Quantitative Rationale

The researcher used quantitative methods to interpret the data collected in the current study. Each method of research inquiry is generally associated with a paradigm. Quantitative methods, with its roots in Positivist paradigm, are experimental and manipulative by definition and seek to verify a stated hypothesis using data that have been assigned a number value greater than nominal value (Gravetter & Wallau, 2005; Sale et al., 2002). Bucci (2002) defines a research paradigm as “a model with particular
constructs” (para. 1). Furthermore, Guba (1992) adds that these models are a "basic set of beliefs that guides action" in research (p.17). Patton (1997) contends that these models or beliefs are created and reinforced by our “implicit assumptions, accepted definitions, comfortable habits, values defended as truths, and beliefs projected as reality” (p. 267). A research paradigm can be likened to the lens that a researcher is predisposed to applying to all aspects, whether consciously or subconsciously, of a particular study (Bucci 2002).

The underlying pragmatic assumptions of quantitative methods (positivism) differ from the underpinnings of qualitative inquiry. Specifically, qualitative inquiry is based on interpretivism and constructivism (Sale et al., 2002). Perhaps one of the most obvious differences concerns the two pragmatic views of reality. Quantitative assumptions indicate that there is one discoverable reality in which the researcher is objectively disconnected, while qualitative thought postulates that there are multiple realities that are discovered by individuals through their own context (Heppner & Heppner, 2004; Sale et al., 2002).

The fundamental nature of a research paradigm has wide-ranging implications to a given study. Indeed, the type of paradigm selected by the researcher can not only significantly impact what is studied, but also will have outcomes on how the data are collected and interpreted, as well as on the implications of the research. To summarize, Patton (1997) states that paradigms influence our perspective of “what is important, legitimate, and reasonable” (p. 267).

Ontology, or the form and nature of reality, is a critical concept associated with paradigms. Further, ontology is concerned with what exists and what can be known about it (Bucci, 2002). In addition to ontology, Bucci (2002) suggests that researchers must
also consider epistemology or “the nature of the relationship between the knower or the
would-be-knower and what can be known” when selecting a research paradigm (para. 13). Sale et al. (2002) succinctly states that “the ontological position of the quantitative paradigm is that there is only one truth, an objective reality that exists independent of human perception” (p. 44).

Quantitative methods are generally employed in an attempt to discover cause-effect relationships (Gay, 1996). Quantitative inquiry was articulated by Golafshani (2003) as having four distinct characteristics. First, it has an emphasis on quantifiable facts. Second, the method collects data in the form of numbers. Third, the data are collected and interpreted through a mathematical process. Last, the results are expressed in the form of statistics (Gulafshani, 2003).

Purpose

The purpose of the study was twofold. First, the study sought to determine if a relationship exists between involvement in activities and at-risk students’ academic performance. In addition, the study also sought to determine if the type of activity at-risk students participated in, such as athletic, non-athletic, dual (both athletic and non-athletic participation), or no involvement had more effect on academic performance.

Research Questions

The proposed research seeks to determine if a significant difference exists in academic performance indicators of free and reduced students who are contained within a larger more affluent population by examining the following research questions.

RQ1- Does a significant difference exist in the academic performance indicators of at-risk students who only participate in athletic activities as compared to at-risk students
who participate in non-athletic, dually participate, or do not participate in any form of activity?

RQ2- Does a significant difference exist in the academic performance indicators of at-risk students who only participate in non-athletic activities as compared to at-risk students who participate in athletic, dually participate, or do not participate in any form of activity?

RQ3- Does a significant difference exist in the academic performance indicators of at-risk students who dually participate in activities as compared to at-risk students who participate in athletic, non-athletic, or do not participate in any form of activity?

RQ4- Does a significant difference exist in the academic performance indicators of at-risk students who do not participate in activities as compared to at-risk students who participate in athletic, non-athletic, or dually participate in activities?

Population and Sample

The research was conducted at three school districts in west central Missouri. For the purposes of this study they will herein be referred to as “School District 1”, “School District 2”, and “School District 3”. All of the districts are geographically close and share similarities in student composition. The following section will provide key information in relation to the individual districts.

School District 1 served 3,253 students during the 2011-2012 school year. The district has one high school. The district reported an enrollment of 969 students in grades nine through twelve for the 2011-2012 academic school year. Demographically, the students were 2.2% Asian, 6% African American, 3.2% Hispanic, .9% Indian, and 84.8% White. The district reported that 27% of these students received free or reduced
lunch during the 2011-2012 school year. This percentage was notably smaller than the 46.9% state average (DESE).

Students in District 1 High School had several activities (both athletic and non-athletic) available to them. Specifically, the school reported 24 non-athletic activities: Art Club, Band, Book Club, Charades, Creative Writing Club, Distributive Education Clubs of America (DECA), Environmental Club, Future Business Leaders of America (FBLA), Family Career & Community Leaders of America (FCCLA), FFA, French Club, Future Teachers of America (FTA), Knowledge Team, Math Relays, Multicultural Club, National Honor Society (NHS), Students Against Destructive Decisions (SADD), School Musical/Play, Science Olympiad, Spanish Club, Speech & Debate Team, Step Team, Student Council, and Yearbook. Further, the high school offered 18 athletic activities for students. Specifically, these activities included basketball (boys/girls), baseball, cross country, football, golf, soccer, swimming, tennis, track, volleyball, wrestling, cheerleading, pom pons, and softball.

School District 2 served 2,576 students during the 2011-2012 school year. The district has one high school. The district reported an enrollment of 892 students in grades nine through twelve for the 2011-2012 academic school year. Demographically, the students were .4% Asian, 1.1% African American, 2.4% Hispanic, .6% Indian, and 95% White. The district reported that 28.6% of these students received free or reduced lunch during the 2011-2012 school year less than the 46.9% state average (DESE).

District 2 High School reported 19 non-athletic activities: Academic Club, Art Club, Drama Club, FCCLA, Freshman Mentor Program (FMP), Newspaper, Yearbook, History Club, International Student Club, Key Club, National Forensics League, National
Honor Society, PRIDE, Quill & Scroll, Robotics, SADD, Science Club, WCN, and Student Council. In addition, the high school offered 16 athletic activities for students. These activities included baseball, basketball, tennis, soccer, track, golf, volleyball, cheerleading, softball, wrestling, dance team, swimming, color guard, and football.

School District 3 served 1,731 students during the 2011-2012 school year. The district has one high school. The district reported an enrollment of 615 students in grades nine through twelve for the 2011-2012 academic school year. Demographically, the students were 8% Asian, 2.9% African American, 2.1% Hispanic, and 93% White. The district reported that 43% of these students received free or reduced lunch during the 2011-2012 school year.

School District 3 High School reported 19 non-athletic activities: Alumni Association, band, choir, DECA, FBLA, FCCLA, Junior Reserve Officer Training Corps (JROTC), Junior Class, Lumberjack Club, Newspaper, Spanish Club, Speech and Debate, Theatre, Student Council, TSA, and yearbook. Fourteen athletic activities were offered for students. Specifically, these activities included baseball, basketball, soccer, tennis, cheerleading, cross country, football, golf, pom pons, softball, track, volleyball, wrestling.

Participants

The non-random sample of participants consisted of all high school students receiving free or reduced lunch (n = 655) enrolled in District 1, District 2, and District 3 during the 2011-2012 academic year. In other words, every student in the high school who received free or reduced lunch aid at District 1, District 2, District 3 are included in this study. The participants came from three different campuses. These included three
high schools (9-12 grades), for a total of 655 students. The participants ranged from 14 to 19 years of age and were 54% male and 46% female.

Data collection

The researcher used quantitative methods for two main reasons, both related to data collection and analysis. Data were collected from several sources. First, the researcher obtained demographic data of the schools examined in the study from the Missouri Department of Elementary and Secondary Education. In addition, information about the respective communities was obtained from the United States Census Bureau. Second, the researcher was provided a coded matrix of students. The matrix included free and reduced status, grade point average, attendance rate, and dropout status. The matrix was created by cross referencing the free and reduced lunch composite and the eligibility list submitted to the Missouri High School Activities Association for each respective school.

Initial contact with the districts’ superintendents concerning the study was made in March of 2012. The high school principal, food service coordinator, and high school activities and counseling departments were contacted after securing permission from the superintendent. Coaches and sponsors were made aware of the study through email in March of 2012. School district personnel provided masked data without any personally identifiable data to the researcher during the spring of 2012.

Data Analysis

Student performance was measured using three dependent variables: grade point average, attendance, and dropout rate. Grade Point Average (GPA) was calculated for each participant using a four-point scale (e.g. 4=A, 3=B, 2=C, 1=D, and 0=F); G.P.A was
then incorporated into the study as interval data. Attendance was also used as a performance indicator. Specifically, students were assigned a number value based on the amount of school they had missed. This value was incorporated into the study as interval data.

Participants were divided into subgroups based on their specific type of participation. Students were divided into four subgroups for the study. “Group 1” (n=74) consisted of at-risk students who only participated in an athletic activity. At-risk students who only participated a non-athletic activity were placed in “Group 2” (n=162). “Group 3” consisted of at-risk students who dually participated (n=64). Lastly, students who did not participate in any form of extracurricular activity were put into “Group 4” (n=355).

The researcher performed a one-way analysis of variance (or ANOVA) to test for variance between the four groups in relation to the first three research questions. An ANOVA is defined by Field (2000) as “a statistical procedure that uses the F-ration to test the overall fit of a linear group” (p. 724). Researchers use an ANOVA when they want to discover if multiple independent variables are present. As Field (2000) states, “ANOVA has the advantage that it can be used to analyze situations in which there are several independent variables” (p. 309).

The four groups were compared on each of the two dependent variables. The researcher used a one-way ANOVA for GPA and attendance. In addition, the researcher incorporated three planned comparisons. First, the average attendance rate and GPA of Group 1 (athletic only participants) was compared to the average attendance and GPA of the other three groups. Second, the average attendance rate and GPA of Group 4 (non-participants) was compared to the average attendance rate and GPA of Group 2 (non-
athletic only participants) and Group 3 (dual participants). Third, the average attendance rate and GPA of Group 2 (non-athletic only participants) was compared to the average attendance rate and GPA Group 3 (dual participants).

To summarize, Research Question 1 was addressed by incorporating a one-way ANOVA to test for significance between the four groups in relation to two of the dependent variables (attendance rate and GPA). Similarly, Research Questions 2, 3 and 4 were addressed using a one-way ANOVA to test for significance between the four groups in relation to two of the independent variables (attendance and GPA).

Summary

Extracurricular activities are part of school culture. This phenomenon can be, in part, attributed to a wealth of research that posits that students who participate in extracurricular activities have better academic performance indicators than students who do not participate. Researchers have sought to gain insight into how this enhancement of academic performance indicators and its relation to historically underperforming groups such as minorities and low socioeconomic students can be facilitated.

The research examined the relationship, if any, extracurricular participation has on the academic performance indicators of low socioeconomic students who are the minority in a larger more affluent population. The research was conducted as an ex post facto study. Subjects came from three high schools in three separate school districts.
CHAPTER FOUR

DATA ANALYSIS

Research has demonstrated that students who participate in extracurricular activities have better academic performance indicators than students who do not participate in any form of extracurricular activities (Fredericks & Eccles 2006a; Miller, 2004). This researcher sought to determine if at-risk students who participate in extracurricular activities who were the minority (in number) in a more affluent majority share the same pattern of higher academic performance indicators than at-risk students who do not participate.

Conceptual Framework

The researcher of the present study hypothesizes that the relationships or connections at-risk students create during extracurricular participation have a positive impact on their academic performance indicators (GPA and attendance). Further, at-risk students make connections with coaches and sponsors (among others) who afford at-risk students access to knowledge, resources, support, etc., that they may not have had access to had they not participated. In other words, these at-risk students receive social capital through the networks created via participation in extracurricular activities. The present study was conducted under the conceptual framework of the social capital theory as it is the most appropriate framework for examining relationships and the transfer of knowledge, resources, support, etc.

Although Bourdieu and Wacquant (1992) would contend there is no one definition of social capital due to the various disciplines in which the theory is applied, the present study incorporates the social capital theory in the context of the transfer of
resources (both tangible and intangible) through connections, relationships, and interactions (ABS, 2002; Collier, 1998; Snijders, 1999). These concepts are critical to the transfer of social capital in a given network (ABS, 2002).

Arguably, Coleman (1988) was one of the first to elaborate on the importance of relationships in the transfer of social capital. Coleman described these relationships in terms of the interactions “actors” within the network had between each other (p. 58). The actors in the present study were at-risk students and their interactions (or lack thereof) with coaches and sponsors. Coleman (1998) also provided insight into the importance of trust for the transfer of social capital. This assertion is supported by Farr (2004) who contends that trust is the essential element in a society that facilitates the transfer of social capital. The present study theorizes that at-risk students, through repeated interactions with the individuals they come in contact with through extracurricular participation, develop trust with persons they may not have made connections with had they not participated. The cultivation of trust, in turn, leads to the transfer of social capital and, therefore, higher academic performance indicators.

One cannot overstate the importance of a viable network as a critical component of the successful transfer of social capital (Sobel 2002). Stated plainly, a viable network is what allows the connections and relationships to exist to transfer social capital (Coleman, 1998). The present study contends that the practices, contests, performances, games, etc., provide the network needed for the transfer of social capital. This network provides opportunities for at-risk students to receive knowledge, support, and resources they may have otherwise not received had they not participated in extracurricular activities.
Demographics

The population in this study consisted of 655 students from three different high schools in Missouri. Data were collected from the 2011-2012 school year. The subjects were selected based on their Federal Free and Reduced Lunch status which qualifies them as at-risk students. The students were divided into several different groups for comparisons. The first group included those who only participated in an athletic activity. The second group included those who participated in only a non-athletic activity. The third group contained those who participated in both an athletic and a non-athletic activity. The last group included those who did not participate in any form of extracurricular activity (athletic or non-athletic).

The study included 354 males and 301 females (see Table 1). Seventy-four of the students participated in an athletic activity only. A total of 162 students participated in a non-athletic activity only. Students who dually participated in both an athletic and a non-athletic activity had a total of 64. Finally, 355 of the students did not participate in any form of activity (see Table 2).

Students who only participated in an athletic activity had an average GPA of 2.79 (on a four point scale) and an average attendance rate of 93.93%. Students who participated in only a non-athletic activity had an average GPA of 2.85 (on a four point scale) and an average attendance rate of 93.84%. Further, students who dually participated had an average GPA of 3.32 (on a four point scale) and an average attendance rate of 96.49%. Lastly, students who did not participate in any form of activity had an average GPA of 2.31 and an average attendance rate of 89.06% (see Tables 3 and
4). Overall, the sample population had an average GPA of 2.60 (on a four point scale) and an average attendance rate of 91.52%.

Table 1

**Demographics**

![Demographics Pie Chart]

Male n = 354
Female n = 301

Table 2

**Extracurricular Participations Status**

![Extracurricular Participations Status Chart]

<table>
<thead>
<tr>
<th>Category</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athletic Only</td>
<td>n=74</td>
</tr>
<tr>
<td>Non-athletic Only</td>
<td>n=162</td>
</tr>
<tr>
<td>Dual</td>
<td>n=64</td>
</tr>
<tr>
<td>Non-Participants</td>
<td>n=355</td>
</tr>
</tbody>
</table>
Table 3

Average GPA

<table>
<thead>
<tr>
<th>Category</th>
<th>Average GPA Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athletic Only Participants</td>
<td>2.79</td>
</tr>
<tr>
<td>Non-athletic Only Participants</td>
<td>2.85</td>
</tr>
<tr>
<td>Dual Participants</td>
<td>3.32</td>
</tr>
<tr>
<td>Non-Participants</td>
<td>2.31</td>
</tr>
</tbody>
</table>

![Average GPA Chart](chart.png)
Table 4

*Average Attendance*

<table>
<thead>
<tr>
<th>Attendance</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>74</td>
<td>93.93</td>
<td>7.14</td>
</tr>
<tr>
<td>2</td>
<td>162</td>
<td>93.84</td>
<td>9.78</td>
</tr>
<tr>
<td>3</td>
<td>64</td>
<td>96.49</td>
<td>3.29</td>
</tr>
<tr>
<td>4</td>
<td>355</td>
<td>89.05</td>
<td>13.66</td>
</tr>
<tr>
<td>Total</td>
<td>655</td>
<td>91.51</td>
<td>11.77</td>
</tr>
</tbody>
</table>

Figure 1 displays the descriptive statistics for attendance. At-risk students who only participated in an athletic activity had a standard deviation of 7.14. At-risk students who only participated in a non-athletic activity had standard deviation of 9.78. At-risk students who dually participated and at-risk students who did not participate in any form of activity had standard deviations of 3.29 and 13.66 respectively.
Figure 2

**ANOVA Attendance**

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendance Between Groups</td>
<td>5037.17</td>
<td>3</td>
<td>1679.06</td>
<td>12.737</td>
<td>.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>85818.43</td>
<td>651</td>
<td>131.83</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>90855.60</td>
<td>654</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 2 displays the results of the one way ANOVA calculated for attendance. The sum of squares between groups was 5,037.17 with three degrees of freedom and a mean square of 1,679.06. The sum of squares within groups was 85,818.43 with 651 degrees of freedom and a mean square of 131.83. The total of the sums was 90,855.60 with 654 degrees of freedom. This yielded an F value of 12.737 at an alpha level of .000.

Figure 3

**Descriptive GPA**

<table>
<thead>
<tr>
<th>GPA</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>74</td>
<td>2.79</td>
<td>.71</td>
</tr>
<tr>
<td>2</td>
<td>162</td>
<td>2.85</td>
<td>1.57</td>
</tr>
<tr>
<td>3</td>
<td>64</td>
<td>3.32</td>
<td>.74</td>
</tr>
<tr>
<td>4</td>
<td>355</td>
<td>2.31</td>
<td>.91</td>
</tr>
<tr>
<td>Total</td>
<td>655</td>
<td>2.60</td>
<td>1.13</td>
</tr>
</tbody>
</table>

Figure 3 displays the descriptive statistics for GPA. At-risk students who only participated in an athletic activity had a standard deviation of .71. At-risk students who only participated in a non-athletic activity had a standard deviation of 1.57. Dual participants had a standard deviation of .91 while non-participants had a standard deviation of 1.13.
Table 4 displays the results of the one-way ANOVA conducted on GPA. The sum of squares between groups equaled 75.09 with three degrees of freedom and mean square of 25.03. The sum of squares within groups equaled 760.80 with 651 degrees of freedom and a mean square of 1.169. The total sum of squares equaled 654 which yielded an F value of 21.418 and an alpha level of .000.

Research Question One Findings

Research Question One compared the academic performance indicators of at-risk students who only participated in an athletic activity with at-risk students who only participated in a non-athletic activity, at-risk students who dually participated, and at-risk students who did not participate in any form of activity.

RQ1- Does a significant difference exist in the academic performance indicators of at-risk students who only participate in athletic activities as compared to at-risk students who participate in non-athletic, dually participate, or do not participate in any form of activity?

H1- A significant difference exists in the academic performance indicators of at-risk students who only participate in athletic activities as compared to at-risk students who participate in non-athletic, dually participate, or do not participate in any form of activity.
A one-way ANOVA was used to determine if a statistical relationship existed between athletic participation and academic performance indicators of GPA and average attendance when compared to the other three groups. At-risk students who participated only in an athletic activity were compared to students who only participated in a non-athletic activity, dually participated or did not participate. The result for each comparison follows.

**Athletic Only Participants Compared to Non-Athletic Only Participants**

Table 5

**Athletic Only/Non-Athletic Only Average GPA**

<table>
<thead>
<tr>
<th></th>
<th>Average GPA</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athletic Only Participants</td>
<td>2.79</td>
<td></td>
</tr>
<tr>
<td>Non-athletic Only Participants</td>
<td>2.85</td>
<td></td>
</tr>
</tbody>
</table>

Table 5 shows the average GPA of students who only participated in an athletic activity and students who only participated in a non-athletic activity. Students who only participated in an athletic activity had an average GPA of 2.79 while students who only participated in a non-athletic activity had an average of 2.85. Students who participated in an athletic activity only did not have significantly higher GPA when compared to GPA of students who only participated in a non-athletic activity at the p<.05 level \([F (1, 234) = .076, p=.783]^{[1]}\).
Table 6

Athletic Only/Non-Athletic Only Average Attendance

<table>
<thead>
<tr>
<th></th>
<th>Athletic Only Participants</th>
<th>Non-Athletic Only Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Attendance</td>
<td>Mean = 93.93%</td>
<td>Mean = 93.84%</td>
</tr>
<tr>
<td>Rate</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 6 displays the average attendance rate of students who only participated in an athletic activity and students who only participated in a non-athletic activity. Students who only participated in an athletic activity had an average attendance of 93.93%. Students who only participated in a non-athletic activity had an average attendance rate of 93.84%. Students who participated in an athletic activity only did not have significantly higher attendance rates when compared to students who only participated in a non-athletic activity at the p<.05 level [F (1, 234) = .004, p=.947].
Athletic Only Participants Compared to Dual Participants

Table 7

Athletic Only/Dual Participants Average GPA

Table 7 includes information on the average GPA of students who participated in an athletic only activity and those who dually participated. Students who participated in an athletic activity only had an average GPA of 2.79. Students who dually participated had an average GPA of 3.32. A one-way ANOVA was used to test for significance between the groups. Students who participated in only an athletic activity had significantly lower GPA when compared to students who dually participated at the p<.05 level [F (3, 654) =21.418, p =.005].
Table 8

Athletic Only/Dual Participants Average Attendance

Table 8 displays the average attendance for students who either participated only in an athletic activity or dually participated. Students who only participated in an athletic activity had an average daily attendance of 93.93%. Students who dually participated had an average attendance rate of 96.49%. A one-way ANOVA was used to test for significance between groups. Students who only participated in an athletic activity had significantly lower attendance rates when compared to students who dually participated at the p<.05 level [F (1, 136) = 17.885, p =.000].
Athletic Only Participants Compared to Non-Participants

Table 9

Athletic Only/Non-Participants Average GPA

<table>
<thead>
<tr>
<th></th>
<th>Average GPA</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athletic Only</td>
<td>2.79</td>
<td>2.79</td>
</tr>
<tr>
<td>Non-Participants</td>
<td>2.31</td>
<td>2.31</td>
</tr>
</tbody>
</table>

Table 9 shows the GPA of students who participated in an athletic activity only and for student who did not participate in any form of activity. Students who only participated in an athletic activity had an average GPA of 2.79. Students who did not participate in any form of activity had an average GPA of 2.31. Students who participated in only an athletic activity had a significantly higher GPA than students who did not participated in any form of activity at the p<.05 level [F (1, 427) =18.443, p =.000].
Table 10

Athletic Only/Non-Participants Average Attendance

Table 10 displays the average attendance rate for students who either only participated in an athletic activity and students who did not participate in any form of activity. Students who only participated in an athletic activity only had an average attendance rate of 93.93%. Students who did not participate in any form of activity had an average of 89.06%. Students who participated in only an athletic activity had significantly higher attendance rates then students who did not participated in any form of activity at the p<.05 level [F (1, 427) = 8.897, p =.003].

The results of the statistical analysis indicate that Hypothesis 1 is partially supported. Specifically, a significant difference exists in the academic performance indicators of students who only participated in an athletic activity when compared to students who dually participated and students that did not participate. No significant difference exists in the academic performance indicators of students who only participated in an athletic activity when compared to students who only participated in only a non-athletic activity.
Research Question Two Findings

Research Question Two concerned the academic performance indicators of at-risk students who only participated in a non-athletic activity in comparison to the other three groups. GPA and attendance rate of at-risk students who only participated in a non-athletic activity were compared to at-risk students who only participated in an athletic activity, dually participated, or did not participate in any form of activity.

RQ2- Does a significant difference exist in the academic performance indicators of at-risk students who only participate in non-athletic activities as compared to at-risk students who participate in athletic, dually participate, or do not participate in any form of activity?

H2- A significant difference exists in the academic performance indicators of at-risk students who only participate in non-athletic activities as compared to at-risk students who participate in athletic, dually participate, or do not participate in any form of activity.

A one-way ANOVA was used to determine if a statistical relationship existed between non athletic participants and academic performance indicators when compared to the other three groups. At-risk students who participated only in a non-athletic activity were compared to students who athletically participated, dually participated, or did not participate. A summary of results for each comparison follows.
Non-Athletic Only Participants Compared to Athletic Only Participants

Table 1

Non-Athletic/Athletic Only GPA

Table 1 contains the average GPA of non-athletic only participants and athletic only participants. Non-athletic only participants had an average GPA of 2.85. Athletic only participants had a mean GPA of 2.79. Non-athletic only participants did not have significantly different GPA when compared to athletic only participants at the p< .05 level [F (1, 234) =.076, p = .783].

Table 12

Non-Athletic Only/Athletic Only Attendance
Table 12 contains the average attendance rate for non-athletic only participants and athletic only participants. Athletic only participants had an average attendance of 94.04%. Non-athletic participants had average attendance rate of 94.30%. Non-athletic only participants did not have significantly higher attendance rates when compared to athletic only participants at the p<.05 level [F (1, 234) =.004, p= .947].

Non-Athletic Only Participants Compared to Dual Participants

Table 13

Non-Athletic Only/Dual Participants GPA

Table 13 displays the GPA of non-athletic only participants and dual participants. Non-athletic only participants had an average GPA of 2.85. Dual participants had an average GPA of 3.32. Non-athletic only participants had significantly lower GPA than dual participants at the p< .05 level [F (1, 222) = 5.387, p =.021].

61
Table 14

*Non-Athletic Only/Dual Participants Average Attendance*

<table>
<thead>
<tr>
<th></th>
<th>Non-Athletic Only Participants</th>
<th>Dual Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Attendance</td>
<td>Mean = 93.84%</td>
<td>Mean = 96.49%</td>
</tr>
</tbody>
</table>

Table 14 displays the average attendance rates for non-athletic only participants and dual participants. Non-athletic only participants had an average attendance rate of 93.84%. Dual participants had an average attendance rate of 96.49%. Non-athletic only participants had significantly lower attendance rates than dual participants at the p < .05 level [F (1, 222) = 4.468, p = .036].
Non-Athletic Only Participants Compared to Non-Participants

Table 15

Non-Athletic Participants/Non-Participants GPA

Table 15 displays the mean GPA of non-athletic only participants and non-participants. Non-athletic only participants had a mean GPA of 2.85 while non-participants had a mean GPA of 2.31. Non-athletic only participants had a significantly higher GPA than non-participants at the $p < .05$ level [$F (1, 515) = 23.7548$, $p = .000$].

Table 16

Non-Athletic Participants Only/Non-Participants Average Attendance

Table 16
Table 16 contains the attendance rates of non-athletic only participants and non-participants. Non-athletic only participants had an average attendance rate of 93.84%. Non-participants had an average attendance rate of 89.06%. Non-athletic only participants had significantly higher attendance rates than non-participants at the p<.05 level [F(1, 515) =16.121, p=.000].

The results of the statistical analysis indicate that Hypothesis 2 is partially supported. A statistical difference exists in the academic performance indicators of non-athletic only participants when compared to dual participants and non-participants. No significant difference exists in the academic performance indicators of non-athletic only participants and athletic only participants.

Research Question Three Findings

Research Question Three compared the academic performance indicators of dual participants to the other three groups. Specifically, the question compared the average attendance rate and GPA of at-risk students who participated in both an athletic and a non-athletic activity to the academic performance indicators of at-risk students who only participated in an athletic activity, only participated in a non-athletic activity, or did not participate in any form of activity.

RQ3- Does a significant difference exist in the academic performance indicators of at-risk students who dually participate in activities as compared to at-risk students who participate in an athletic, non-athletic, or do not participate in any form of activity?

H3- A significant difference exists in the academic performance indicators of at-risk students who dually participate in activities as compared to at-risk students who participate in athletic, non-athletic, or do not participate in any form of activity.
A one-way ANOVA was used to determine if a statistical relationship existed between dual participation and academic performance indicators when compared to the other three groups. At-risk students who participated in only an athletic activity were compared to students who athletically participated, did not participate, or only participated in a non-athletic activity. A summary of results for each comparison follows.

**Dual Participants Compared to Athletic Only Participants**

Table 17

**Dual Participants/Athletic Only Participants GPA**

<table>
<thead>
<tr>
<th></th>
<th>GPA Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dual Participants</td>
<td>3.32</td>
</tr>
<tr>
<td>Athletic Only</td>
<td>2.79</td>
</tr>
</tbody>
</table>

Table 17 displays the average GPA of dual participants and athletic only participants. Dual participants had a mean GPA of 3.32. Athletic only participants had an average GPA of 2.79. Dual participants had significantly higher GPA than athletic only participants at the p < .05 level [F (1, 135) = .6939, p = .009].
Table 18

Dual Participants/Athletic Only Participants Attendance Rate

Table 18 shows the average attendance rate of dual participants and athletic only participants. Dual participants had an average attendance rate of 96.49%. Athletic only participants had an average attendance rate of 93.93%. Dual participants had significantly higher attendance rates than athletic only participants at the p<.05 level [F(1, 135) = 17.885, p = .000].

Dual Participants compared to Non-participants

Table 19

Dual Participants/Non-Participants Average GPA
Table 19 shows the average GPA of dual participants and non-participants. Dual participants had an average GPA of 3.32 while non-participants had an average GPA of 2.31. Dual participants had a significantly higher GPA than non-participants at the p<.05 level [F (1, 222) = 5.387, p =.021].

Table 20

_Dual Participation/Non-Participants Average Attendance_

<table>
<thead>
<tr>
<th></th>
<th>Dual Participants</th>
<th>Non-Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Attendance Rate</td>
<td>Mean = 96.49%</td>
<td>Mean = 89.06%</td>
</tr>
</tbody>
</table>

Table 20 shows the average attendance rate for dual participants and non-participants. Dual participants had an average attendance rate of 96.49%. Non-participants had an average attendance rate of 89.06%. Students who dually participated had significantly higher attendance rates than non-participants at the p<.05 level [F(1, 222) =4.468, p=.036].
Dual Participants Compared to Non Athletic Participants

Table 21

Dual Participants/ Non-Athletic Only Participants Average GPA

Table 21 reports the GPA of dual participants and non-athletic only participants. Dual participants had an average GPA of 3.32 as compared to an average of 2.85 for non-participants. Dual participants had a significantly higher GPA when compared to non-athletic only participants at the p<.05 level [F(1, 222) =5.387, p=.021].

Table 22

Dual Participants/Non-Athletic Only Participants Average Attendance

Dual Participants
Average GPA
Mean = 3.32
Non-Athletic Only Participants
Average GPA
Mean = 2.85

Dual Participants
Average Attendance Rate
Mean = 96.49%
Non-Athletic Only Participants
Average Attendance Rate
Mean = 93.84%
Table 22 displays the average attendance rate for dual participants and non-athletic only participants. Dual participants had a mean attendance rate of 96.49%. Non-athletic only participants had a mean attendance rate of 93.84%. Dual participants had significantly higher attendance rates than non-athletic only participants at the p<.05 level [F(1, 222) =4.468, p=.036].

The results of the one-way ANOVA indicated Hypothesis 3 is found to be true. Dual participants had better academic performance indicators than athletic only participants and non-athletic only participants. Further, a significant different exists in the academic performance indicators of dual participants and non-participants.

Research Question Four Findings

Research Question Four compared the academic performance indicators of at-risk students who did not participate in any form of activity to at-risk students who only participated in an athletic activity, only participated in a non-athletic activity, and students who dually participated.

RQ4- Does a significant difference exist in the academic performance indicators of at-risk students who do not participate in activities as compared to at-risk students who participate in athletic, non-athletic, or dually participate in activities?

H4- A significant difference exists in the academic performance indicators of at-risk students who do not participate in activities as compared to at-risk students who participate in athletic, non-athletic, or dually participate in activities.

A one-way ANOVA was used to determine if a statistical relationship existed between non participation and academic performance indicators when compared to the other three groups. At-risk students who did not participate were compared to students
who athletically participated, dually participated, or only participated in a non-athletic activity. A summary of results for each comparison follows.

*Non Participants Compared to Athletic Only Participants*

**Table 23**

*Non-Participants/Athletic Only Participants*

<table>
<thead>
<tr>
<th></th>
<th>Average GPA</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Participants</td>
<td>2.31</td>
<td>2.31</td>
</tr>
<tr>
<td>Athletic Only Participants</td>
<td>2.79</td>
<td>2.79</td>
</tr>
</tbody>
</table>

Table 23 displays the average GPA of non-participants and athletic only participants. Non-participants had an average GPA of 2.31. Athletic only participants had an average GPA of 2.79. Non-participants had a significantly lower GPA than athletic only participants at the p<.05 level [F(1, 427) =18.443, p=.000].
Table 24

*Non-Participants/Athletic Only Average Attendance*

Table 24 displays the average attendance rates for non-participants and athletic only participants. Non-participants had an average attendance rate of 89.60% as compared to 93.84% for athletic only participants. Non-participants had significantly lower attendance rates than athletic only participants at the p < .05 level [F (1, 427) = 8.897, p = .003].
Non-Participants Compared to Non-Athletic Only Participants

Table 25

Non-Participants/Non-Athletic Only Participants Average GPA

Table 25 shows the average GPA for non-participants and non-athletic only participants. Non-participants had a mean GPA of 2.31. Non-athletic only participants had a mean GPA of 2.85. Non-participants had a significantly lower GPA’s than non-athletic participants at the $p<.05$ [F(3, 654) = 21.418, $p=.000$].

Table 26

Non-Participants/Non-Athletic Participants Only Average Attendance

Table 26 displays the average attendance rate for non-participants and non-
athletic only participants. Non-participants had an average attendance rate of 89.06%. Non-athletic only participants had an average attendance rate of 94.30%. Non-participants had significantly lower attendance rates than non-athletic only participants at the $p < .05$ level [$F(3, 654)=12.74, p=.000$].

*Non-Participant Compared to Dual Participants*

Table 27

*Non-Participants/Dual Participants GPA*

<table>
<thead>
<tr>
<th></th>
<th>Non-Participants</th>
<th>Dual Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average GPA Mean</td>
<td>2.31</td>
<td>3.32</td>
</tr>
</tbody>
</table>

Table 27 reports the average GPA of both non-participants and dual participants. Non-participants had an average GPA of 2.31. Dual participants had an average GPA of 3.32. Non-participants had a significantly lower GPA than students who dually participated at the $p<.05$ level [$F(3, 654) =21.418, p=.000$].
Table 28

*Non-Participants Average Attendance/Dual Participants*

![Bar chart showing average attendance rates](chart.png)

Table 28 reports the mean attendance rates of non-athletic only participants and dual participants. Dual participants had an average attendance rate of 96.49%. Non-participants had a mean attendance rate of 89.06%. Non-participants had significantly lower attendance rates than non-athletic only participants at the p<.05 level [F(3, 654) =21.418, p=.000].

The results of the statistical analysis indicate Hypothesis 4 should be accepted. Non-participants had significantly lower academic indicators than dual participants. Further, non-participants had significantly lower academic performance indicators than athletic only participants and non-athletic only participants.

Summary

The research questions for this study were posed to determine if a significant difference exists in the academic performance indicators of at-risk students in relation to their extracurricular participation status. All of the proposed hypotheses were proven to
be at least partially true. Indeed, a significant difference exists in the academic performance indicators of at-risk students who participated in some form of activity when compared to at-risk students who did not participate in any form of activity.

At-risk students who dually participated had the highest academic performance indicators. Dual participants had significantly higher attendance rates and GPA than all other groups in the study. Similarly, at-risk students who only participated in an athletic or non-athletic activity had significantly higher academic performance indicators than at-risk students who did not participate. Lastly, students who did not participate had significantly lower attendance rates and GPA when compared to all other subgroups in the study.
CHAPTER FIVE

FINDINGS, CONCLUSIONS, AND IMPLICATIONS

Economically disadvantaged students have historically suffered an achievement gap (Palardy & Rumberger, 2005). Arguably, this gap in achievement has negatively impacted minority and lower socioeconomic status post-secondary options (USBLS 2010; Weiher & Tedin, 2006). Schools in the United States have long sought remedies to close this gap (Collum, 2003).

Extracurricular participation has become an integral part of secondary schools in the United States. Students who participate in activities have historically higher grades, as well as higher attendance and graduation rates (Hoffman, 2006; O’Brien & Rollefson, 1995). Although much research has been conducted on the impact participation in activities has on students, a substantial amount of the research was conducted from a global perspective (Fredericks & Eccles 2006a, 2008; Miller, 2004; Nocetti, 2003; Parish, 1984; Power, 1999; Wing, 1986). Relatively few studies have specifically examined the involvement of minority and/or at-risk students in extracurricular activities. In many cases, these students are aggregated into the majority of the participants of the study with very little examination of the impact on the subgroups (Fredricks & Eccles 2006, 2008).

Objective of the Study

The purpose of this study is to examine the difference, if any, that participation in extracurricular activities has on at-risk students’ GPA and attendance rate using high school students from three high schools in Missouri. This research study seeks to examine free and reduced students who attend predominately middle to upper middle class schools and thus are surrounded by more affluent middle and upper class
populations. Furthermore, the study sought to determine if participation in a particular type of activity (e.g. athletic, non-athletic, or combination of the two) or lack of participation in an extracurricular activity has more or less of an impact on the academic performance of at-risk students.

Research Questions

The following research questions compared the academic performance indicators of at-risk students who only participated in an athletic activity, only participated in a non-athletic activity, dually participated, or did not participate in any form of activity.

RQ1- Does a significant difference exist in the academic performance indicators of at-risk students who only participate in athletic activities as compared to at-risk students who participate in non-athletic, dually participate, or do not participate in any form of activity?

RQ2- Does a significant difference exist in the academic performance indicators of at-risk students who only participate in non-athletic activities as compared to at-risk students who participate in athletic, dually participate, or do not participate in any form of activity?

RQ3- Does a significant difference exist in the academic performance indicators of at-risk students who dually participate in activities as compared to at-risk students who participate in athletic, non-athletic, or do not participate in any form of activity?

RQ4- Does a significant difference exist in the academic performance indicators of at-risk students who do not participate in activities as compared to at-risk students who participate in athletic, non-athletic, or dually participate in activities?
Educational attainment is positively correlated with a wide variety of benefits for individuals. Indeed, persons who graduate high school have greater income, better overall health, and general quality of life (USBLS 2011; Weiher & Tedin, 2006). Federal, state, and local school officials continuously search for ways to increase student achievement due to the gains associated with educational attainment (Hunter 2003).

Several subgroups have historically underperformed the majority. These include, but are not limited to, racial minorities, students of lower socioeconomic status, and English Language Learners (Jacobsen et. Al., 2001; USDE, 2009). Students in these subgroups have lower test scores, attendance rates, and a higher likelihood of dropping out of school (USDE, 2009). Hunter and Bartee (2003) state, “only the most talented students gain access to the best academic programs,” therefore educators must find a way to close the achievement gap (p.154).

Extracurricular activities have become a significant part of both public and private schools in the United States (O’Brien & Rollefson, 1995). Schools in the United States invest vast amounts of resources in extracurricular activities due to the supported contention that student involvement in activities improves school culture, climate, academic indicators, connectedness, self-esteem, and overall image (Bogenscheider, et al., 1992; Clark, 1995; Hirschfield & Gasper, 2011; Hunter, 1998; Jeynes, 2004).

Design

The research was conducted as an ex post facto study or causal comparative study. The study best fit this method because the researcher was examining variables that could not be manipulated (i.e. socioeconomic status and extracurricular participation). The researcher employed a convenience sample for this study. The researcher chose this
type of sample for several reasons. First, the subjects had to be in a setting in which they were the minority in a more affluent majority. Second, the researcher had to select districts that would be willing to participate and compile the data needed in a timely manner so it could be analyzed.

Subjects

The subjects used in this study came from three different high schools from three different school districts in Missouri. Each subject had met the criteria of being enrolled in the Federal Free and Reduced Lunch program for the 2011-2012 school year, and every student enrolled in the Federal Free and Reduced Program in the three high schools was included in the study. These students were then classified into four subgroups: participants in only athletic activities, participants in only non-athletic activities, dual participants, and students who did not participate in any form of activity.

Limitations

As with any study, a number of limitations exist. A discussion of the limitations of this study follows. First, the study is limited by sample size. The researcher purposefully sought to gain insight into lower SES students who were the minority in a given setting. This circumstance inherently limits the number of subjects that are available to the study.

Second, the study was conducted on lower SES students who are the minority in a more affluent majority and, therefore, cannot be generalized to all low SES students. This is especially true for lower SES students who may be the majority in a given setting.

The study is delimited to students who applied for and enrolled into the Federal
Free and Reduced Lunch Program. The study does not include all low SES students in the given settings, as some families do not submit the application even though they qualify. Therefore, all students who meet the criteria of being at-risk plausibly were not included in this study.

The study is a snapshot of present academic performance of at-risk students and the study is delimited to one school year. Further, the possibility of data collector error exists as each school district had their own employee collecting the data for the study and transmitting it to the researcher. Lastly, the researcher is a former school district Activities Director and athletic coach, and the researcher has been a proponent of school activities for a number of years.

Summary of Findings

This study examined extracurricular participation (or lack thereof) of at-risk students and their academic performance indicators. The study determined that a significant difference exist in the academic performance indicators (GPA, attendance rate) of at-risk student who participated in a school sponsored activity when compared to at-risk students who do not participate in school sponsored activities. Further, in some cases the type of participation (athletic, non-athletic, or dual) was important when comparing significance between the subgroups. A summary of the findings for each group follows.

At-risk students who only participated in an athletic activity were the first group to be examined. Overall, this group has significantly higher GPA (mean = 2.79) and attendance rate (mean = 93.93%) when compared to at-risk students who did not participate in any form of activity GPA (mean = 2.31) and attendance rate (mean
= 89.05%). In addition, this group had no significant difference in attendance rates and GPA when compared to the non-athletic only groups’ GPA (mean = 2.85) and attendance (96.49%). At-risk students who only participated in an athletic only activity had significantly lower GPA (mean = 2.85) than at-risk students who dually participated (mean = 3.32). No significant difference existed in the attendance rate of at-risk students who only participated in an athletic activity (mean = 93.93%) and at-risk students who only participated in a non-athletic activity (mean = 93.84%).

Similarly, at-risk students who only participated in a non-athletic activity had higher average GPA (mean = 2.85) and attendance rate (mean = 93.84%) than at-risk students who did not participated in any activity (means = 2.32 and 89.06%). As stated above, at-risk students who participated only in a non-athletic activity had no significant difference in attendance rate (93.84%) and GPA (mean = 2.85) than at-risk students who only participated in an athletic activity. Further, at-risk students who only participated in a non-athletic activity had a significantly lower average GPA (mean = 2.85) than students who dually participated (mean = 3.32). No significant difference existed in the attendance rates of students who only participated in a non-athletic activity (mean = 93.84%) and at-risk students who dually participated (96.49%).

At-risk students who dually participated in an athletic activity and non-athletic activity had a significantly higher average GPA (mean = 3.32) than every other group (athletic only, non-athletic only, and non-participants) in the study. Indeed, this group had a higher average GPA than the other three groups in the study. Similarly, at-risk students who dually participated had significantly higher attendance rates (mean = 96.49%) than the non-participants (mean = 89.05%).
At-risk students who did not participate in any form of activity were consistently significantly lower in both academic performance indicators when compared to the other three groups in the study. At-risk students who did not participated in any form of activity had significantly lower GPA (mean = 2.31) than at-risk students who participated in only an athletic activity (mean = 2.79), only a non-athletic activity (mean = 2.85), or who dually participated (mean = 3.32). Similarly, at-risk students who did not participate in any form of activity had significantly lower attendance rates than the other three groups included in the study.

Research Questions Answered

RQ1- Does a significant difference exist in the academic performance indicators of at-risk students who only participate in athletic activities as compared to at-risk students who participate in non-athletic, dually participate, or do not participate in any form of activity?

A significant difference exists in the GPA of at-risk students who only participated in athletic activities when compared to at-risk students who dually participated and at-risk students that did not participate in any form of activity. Specifically, at-risk students that only participated in an athletic activity had a significantly lower GPA than students who dually participated. At-risk students who only participate in an athletic activity had a significantly higher GPA than at-risk students who did not participated in any form of activity. No significant difference existed in the GPA of at-risk students who only participated in an athletic activity when compared to at-risk students who only participated in a non-athletic activity.
A significant difference existed in the attendance rate of at-risk students who participated in only an athletic activity when compared to at-risk students who did not participate in any form of activity and at-risk dual participants. Specifically, at-risk students who only participated in an athletic activity had a significantly higher attendance rate than students who did not participate in any form of activity. At-risk students who only participated in an athletic activity had a significantly lower attendance rate than at-risk students who dually participated. No significant difference existed in the attendance rate of at-risk students who only participated in an athletic activity when compared to students who only participate in a non-athletic activity.

RQ2- Does a significant difference exist in the academic performance indicators of at-risk students who only participate in non-athletic activities as compared to at-risk students who participate in athletic, dually participate, or do not participate in any form of activity?

A significant difference exists in the GPA of at-risk students who only participated in a non-athletic activity when compared to students who dually participated and at-risk students who did not participate in any form of activity. At-risk students who only participated in a non-athletic activity had a significantly lower mean GPA than at-risk students who dually participated. At-risk students who only participated in a non-athletic activity had a significantly higher mean GPA than at-risk students who did not participate in any form of activity. No significant difference existed in the mean GPA of at-risk students who only participated in a non-athletic activity and at-risk students who only participated in an athletic activity.
At-risk students who only participated in a non-athletic activity had a significantly higher attendance rate than at-risk students who did not participate in any form of activity. At-risk students who only participated in a non-athletic activity had significantly lower attendance rates than at-risk students who dually participated. No significant difference existed in the attendance rate of at-risk students who only participated in non-athletic activities and at-risk students who only participated in athletic activities.

RQ3- Does a significant difference exist in the academic performance indicators of at-risk students who dually participate in activities as compared to at-risk students who participate in athletic, non-athletic, or do not participate in any form of activity?

At-risk students who dually participate have significantly higher academic performance indicators than at-risk students who only participate in athletic activities, non-athletic activities, or did not participate in any activity.

RQ4- Does a significant difference exist in the academic performance indicators of at-risk students who do not participate in activities as compared to at-risk students who participate in athletic, non-athletic, or dually participate in activities?

At-risk students who did not participated in any form of activity had significantly lower academic performance indicators than at-risk students who only participated in an athletic activity, non-athletic activity, or dually participated.

Discussion

Although this researcher sought to examine the relationship of extracurricular participation and at-risk student academic performance in a very specific setting (i.e. at-risk students who are the minority in numbers who are contained within a more affluent
population) the results of this study are similar to other studies conducted in the general area of extracurricular participation and academic performance. At-risk students in this study who participated in a form of activity have higher academic performance indicators than at-risk students who do not participate in any form of activity. Indeed, the results of the statistical analysis of the current study demonstrate that the more types of activities an at-risk student participates in the higher their academic performance indicators.

The researcher examined two academic performance indicators in relation to the extracurricular activity participation status of at-risk students. The first was GPA. It was determined that at-risk students who participate in an extracurricular activity have a significantly higher GPA than at-risk students who do not participate. Similar conclusions were reached by McNeal (2001) who examined NELS data and found that extracurricular participants had a significantly higher mean GPA than their non-participating counterparts. Stephens and Schaben’s (2002) study of middle school students also similarly determined that students who participated in an athletic activity had a significantly higher GPA than students who did not participate in any form of activity.

O’Brien and Rollefson’s (1995) examination of data collected by the USDE also determined a significant difference in the GPA of extracurricular participants when compared to non-participating counterparts. O’Brien and Rollefson determined that in their sample of 10,944 respondents, 30.6% of extracurricular participants had a GPA of 3.0 or higher. In the same sample, only 10.8% of non-participating respondents reported having an equivalent or higher GPA.
The researcher also concluded that at-risk students who participate in extracurricular activities have significantly higher attendance rates than at-risk students who do not participate in any form of activity. Several similar studies in the area of extracurricular participation and student academic performance have reached similar conclusions.

Hawkins and Mulkey (2005) concluded that poor attendance was negatively correlated with participation in extracurricular participation in a study of 24,599 eighth graders. Fredricks and Eccles (2006) reached similar conclusions in their study of data from a database of school statistics for the state of Maryland. The relationship between higher attendance rate and extracurricular participation was also noted by Miller (2004) in a study of data from two Idaho schools.

The present study concluded at-risk students who participated in an extracurricular activity had significantly higher academic performance indicators than did their non-participating counterparts. The conclusion that a positive relationship exists between extracurricular participation and academic performance indicators is widely established and supported by several studies (Braddock, 1980, 1982; Brown & Evans, 2002; Camp, 1990; Eidsmore, 1964; Fredricks & Eccles, 2006a, 2008; Hansley et al., 1986; McNeal, 1995; McNeal, 2001; Taylor & Chiogioji, 1988; Trent, 1982; Trent & Braddock, 1992;). The results of the data analysis of the present study are similar to much of the research in the area of extracurricular participation and academic performance.

Conclusions

This researcher sought to examine at-risk populations who are contained within
a larger, more affluent population. The following section will discuss the conclusions
determined from conducting this study.

This study determined that a significant difference exists in the academic
performance indicators of at-risk students who participate in school sponsored
activities when compared to at-risk students who do not participate in any form of
school sponsored activity. At-risk students who participated in a school sponsored
activity had a higher GPA and attendance rate than at-risk students who did not
participate in any form of activity. One could argue that the dynamic of trust as
related by Coleman (1988) has some impact on these academic performance
indicators. Students who participate may have greater levels of trust between
themselves and coaches/sponsors. Greater levels of trust facilitate positive outcomes
for individuals within a given social capital network (Sobel, 2002).

The conclusion that students who participate in extracurricular activities have
better academic performance indicators has been supported by several studies. For
example, Fredericks and Eccles (2006) determined that students who participated in
some form of extracurricular activity had a higher GPA than students who did not.
Similarly, Steiner’s 2001 study of four groups of at-risk students found that students
who participated in extracurricular activities had a significantly higher GPA than
students who did not participate.

Students who dually participated had a higher mean GPA than the other three
groups included in the study. These students had a significantly higher mean GPA and
attendance rate than non-participants. At-risk students who dually participated
performed significantly higher in every academic performance variable measured in
this study when compared to non-participants. Dual participants have more opportunities for the very interactions necessary for the transmission of social capital (Claridge, 2004). Sandefur and Laumann (1998) contend that individuals build social capital through interactions. Dual participants have more contact with coaches/sponsors which leads to more opportunities for the transfer of social capital.

Both at-risk students who only participated in an athletic activity and at-risk students who only participated in a non-athletic activity had a significantly better mean GPA and attendance rate than at-risk students who did not participate in any form of activity. The conclusion that at-risk students who participate have significantly higher academic performance indicators concurs with Woodlock’s (2000) research into the three types of relationships associated with the social capital theory. Students who do not participate do not have the same opportunities to bridge and link with other populations who may have beneficial social capital as students who do participate.

At-risk students who did not participate in any form of extracurricular activity consistently had significantly lower academic performance indicators than the other three groups included in the study. At-risk students who did not participate in an activity had a significantly lower mean GPA than at-risk students who only participated in an athletic activity, only participated in a non-athletic activity, or dually participated. Further, at-risk students who did not participate in an activity had significantly lower average attendance rates than at-risk students who only participated in an athletic activity, only participated in a non-athletic activity, or dually participated.
No significant difference existed in the attendance rates between at-risk students who only participated in an athletic activity and at-risk students who only participated in a non-athletic activity. Similarly, no significant difference existed in the average GPA of at-risk students who only participated in an athletic activity and at-risk students who only participated in a non-athletic activity.

Implications

While this study was targeted at a very specific population (i.e. at-risk students who were the minority in numbers contained within a larger, more affluent, population) the conclusions reached could have impact on at-risk students in similar settings. Indeed, school districts of similar composition could incorporate the conclusions reached in this study to improve the academic performance indicators (GPA, attendance rate) of at-risk students.

School district leaders, teachers, and coaches should identify ways to encourage and facilitate at-risk students to participate in both a non-athletic and an athletic extracurricular activity. At-risk students who dually participated had significantly better academic performance indicators than non-participants. At-risk participants who dually participated had a significantly higher mean GPA than at-risk students who only participated in an athletic activity and at-risk students who participated in only a non-athletic activity. Identifying ways to recruit, encourage, and retain at-risk students in dual participation could have a significant impact on at-risk students’ academic performance indicators (GPA, attendance rates). For example, schools could offer special recognitions, privileges, or other incentives to entice students to participate in both forms of extracurricular activities. Further, coaches and sponsors should identify their at-risk
participants who only participate in one form of activity and encourage them to dually participate.

Schools should also facilitate at-risk students’ dual participation by removing possible barriers to dual participation status. For example, at-risk students often face transportation issues that can impede their participation (Fredricks & Eccles, 2006). Schools could examine the feasibility of incorporating an activity bus to help facilitate at-risk students’ dual participation. Further, schools should examine the logistics of participation. Often athletic and non-athletic activities practice at the same times. Schools should examine the feasibility of some form of alternating when the two types of activities practice and compete.

School districts should identify ways to recruit/encourage at-risk students to participate in some form of activity (athletic only or non-athletic only). At-risk students who participated in some form of activity consistently had significantly better academic performance indicators (GPA, attendance rates) than at-risk students who did not participate in any form of activity. Identifying ways to recruit, encourage, and retain at-risk students in some form of activity could have a significant impact on at-risk students’ academic performance indicators (GPA, attendance rate).

Schools should examine ways to recruit and retain at-risk students’ participation in some form of activity. Coaches and sponsors are a critical component to facilitating at-risk students’ participation in some form of activity and therefore should be expected to identify and actively recruit at-risk students to participate in some form of activity. The expectation that coaches and sponsors recruit and retain at-risk students to participate
could be reflected in their annual evaluation, and coaches and sponsors should be able to demonstrate they have recruited and retained at-risk students in their activity.

As mentioned above, at-risk students can face transportation issues that may impede their participation. Schools should examine alternative means of transportation for at-risk students. Conceivably, alternative forms of transportation (e.g. an activity bus) could help overcome transportation issues that may impede at-risk students’ participation.

Schools could also examine incentives for participation in some form of activity. Incentives could be in the form of rewards, recognitions, and privileges. The incentives could encourage more at-risk students to participate in some form of activity. Schools should examine tangible forms of rewards. Students would be motivated to earn a special patch, letter, or other form of article to be displayed on their letter jackets or in their home.

School districts must also examine best practices in mentoring at-risk students. Schools should identify proven methods of successful at-risk mentoring and train coaches and sponsors on these methods in order to facilitate greater at-risk student achievement. These trainings should be ongoing and part of their professional development.

School districts should identify ways to reduce the cost of extracurricular participation. At-risk students, by definition, lack disposable income and are, therefore, less likely to participate in an activity that has large out of pocket expenses. Examples of expensive activities include, but are not limited to, cheerleading, band, choir, and pom pons. These activities can cost hundreds of dollars up front to even attempt to try out for the respective teams. Schools should examine ways to offset these cost in ways such as community partnerships, grants and fundraisers.
School leaders need to address “territory” issues among coaches and sponsors. To clarify, often coaches and sponsors tend to want their participants to specialize in their respective activity. Highly encouraged attendance at off season workouts/practices in some cases are an example of coaches and sponsors trying to get their participants to specialize. These workouts/practices, while not technically mandatory, can be presented to participants by coaches/sponsors as not optional implicitly or even explicitly. School leaders need to establish a culture in the activities department that dual participation is not only encouraged but is the expectation. Further, school leaders must aggressively investigate any allegations of undue pressure being placed on participants to attend non-mandatory workouts/practices and appropriately sanction offending coaches/sponsors if substantiated.

School district personnel must work to establish a culture in which extracurricular activities are not only valued in the school itself, but also in the larger community. Coaches and sponsors are critical to achieving improved perceptions of activities by the community. School leaders should provide coaches and sponsors training in public relations in order to facilitate positive interactions between stakeholders and representatives of the activities department. Indeed, public relations should be a large component of coaches/sponsors annual evaluation, as they are ambassadors of the activities to the larger community.

School districts should examine ways to increase the stipends that coaches/sponsors receive. These stipends have historically been well below minimum wage when one accounts for the actual hours coaches and sponsors spend working on their respective activities. Stated plainly, many excellent coaches and sponsors simply
choose not to be involved with an activity because the stipend does not offset the time spent working on the activity. Increasing coach/sponsor stipends could serve as a motivator to recruit and retain quality individuals to work with at-risk students.

Schools should examine implementing income based before and after school child care services. At-risk students often do not participate because they are charged with watching siblings before and after school. At-risk children rarely come from houses that can afford child care so they are often the de facto child care providers for siblings. Further, in some cases the at-risk student may have already had a child of their own. Schools could alleviate the impediment of participation for at-risk youth by providing a place where siblings could be supervised during practice and games.

Suggestions for Future Research

First, this study should be replicated on a larger scale. A researcher should replicate this study with more schools and incorporate a greater number of subjects. Further, this study should be conducted with variables such as race and gender are controlled to determine if extracurricular participation has more or less of an impact on their respective academic achievement.

Second, this study should be conducted in a qualitative form to determine if the subjects perceived extracurricular participation had a significant impact on their academic performance indicators. The research should interview at-risk students and their parents to determine if they attribute their significantly higher academic performance indicators to extracurricular participation. The research should also attempt to determine what impediments at-risk students and parents face that hinder extracurricular participation.
A study should be conducted with coaches/sponsors to determine best practices for mentoring at-risk students. The researcher could obtain this information with a mixed design of both surveys and interviews. The best practices in mentoring at-risk youth could then be reported and implemented by coaches and sponsors.

A form of this study should be conducted to examine if a specific activity (e.g. drama, cheerleading, and baseball) has any more or less impact on academic performance indicators. If a significant difference exists in the academic performance indicators of at-risk youth who participate in a specific activity over another, this significance could obviously be used to encourage at-risk students to participate in said type of activity. Research should also be conducted to determine if the types of combinations of activities (e.g. baseball and band, or football and speech and debate) have more or less of an impact on academic performance indicators.

Further, a form of this study should be conducted that includes external extracurricular activities (e.g. Boy Scouts, religious organizations, etc.). The research should seek to determine if at-risk students who participate in these types of activities share the pattern of higher academic performance indicators than at-risk students who do not participate. Lastly, a form of this study should be conducted in which other academic performance indicators are examined (e.g. standardized tests scores and dropout rates).

Summary

The United States has been plagued by a historic achievement gap. Students classified as a minority or low socioeconomic status have underperformed the majority
population of students (Hunter & Bartee, 2003). Because educational attainment is
directly tied to such factors as employability and overall health, school officials,
legislators, parents, state governments, and other agencies have long sought ways to close
this achievement gap (NCLB, 2001).

Educational attainment has been positively linked to an individual’s overall
health, employability and lifetime earnings. Studies have consistently demonstrated a
positive correlation with educational attainment and life span, quality of life, and general
health. Researchers have also concluded that educational attainment is positively
correlated to an individual’s prospect of gaining employment (Berkman & Epstein,
2008). Further research has posited that educational attainment is directly linked to
hourly wages and salaries (USBLS 2011).

Students who participate in a school sponsored activity generally have better
academic indicators than those who do not. Schools across the nation offer
extracurricular activities, in part, to foster school connectedness and, therefore, increase
student performance. Studies have indicated increased student participation is positively
correlated with attendance, grade point average and graduation rate (Fredricks & Eccles,
2006a, 2008; McNeal, 2001).

Minorities and low socioeconomic status students have historically
underperformed in academic indicators when compared to students who are not
minorities or not low socioeconomic status. Minority and low socioeconomic status
students score lower on standardized tests, have poorer attendance, and lower graduation
rates than students who are not minorities or not low socioeconomic status. School
districts have attempted to close this achievement gap in several ways (Hunter and
Bartee, 2003). Extracurricular activities, due to the increased student academic indicators of participants, are one way schools have attempted to address this circumstance (Brown & Evans, 2002).

Most of the research in the area of at-risk students and extracurricular participation has been conducted in a setting where at-risk students are the majority of the population (Cohen et al., 2007; Kirkpatrick, 1988; McNeal, 2001; Power, 1999; Brown & Evans, 2002). The vast majority of the studies examining extracurricular participation and at-risk students have been conducted in settings where the majority of the student population is at-risk. Little information exists on at-risk students and extracurricular participation from studies conducted in settings where at-risk students are the minority in numbers (Fredricks & Eccles, 2008; Miller, 2004; Nocetti, 2003; Power, 1999).

The purpose of this study was to determine what significance, if any, participation in extracurricular activities has on the academic performance indicators of at-risk high school students who are the minority in number contained within a larger, more affluent student population. Moreover, this study sought to determine if the type of activity participation (athletic, nonathletic, dual participation) has any impact on the academic indicators when compared to at-risk students who did not participate in any activity.

The research found that a significant difference exists in the academic performance indicators (GPA and attendance rate) of at-risk students who participated in some form of activity and those at-risk students who did not participate in any form of activity. Further, the study found that at-risk students who participated in both an athletic activity and a non-athletic activity had significantly higher mean GPA than the other three groups (athletic only, non-athletic only, and not-participant) included in the study.
It is this researcher’s hope that school districts, teachers, coaches, and sponsors will find ways to encourage students to participate in extracurricular activities, as well as break down barriers that may impede the participation of at-risk students.
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VITA

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