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The Relationship Between Extracurricular Activities And Academic Achievement

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ABSTRACT

The purpose of this study was to determine if there is a relationship between extracurricular activity participation and academic achievement as measured by the composite score on the American College Test (ACT) and cumulative grade point average (GPA) throughout a student's attendance in high school. Specifically, this study examined student participants and nonparticipants in extracurricular activities and their academic performance in one Midwestern suburban high school district. Archival data were collected on the 2009 senior classes from two consenting high schools within the district. Gender, race, ACT scores, GPA, lunch status, and extracurricular activities were collected from both schools. A quantitative research design was used for this study. The results showed that academics were positively related to extracurricular participation.

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DEDICATION

I dedicate my dissertation to my mother and father, who supported my dream to pursue art as a career and profession, and instilled in me the passion for helping others and working hard to accomplish any goal I set out to do.

I also dedicate my dissertation to my loving wife (and best friend) who has always been by my side when times were great, but most importantly, when life got tough. Her love and support has always been my inspiration, and I look forward to all the years to come with her and our family.

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CHAPTER ONE: INTRODUCTION

Background of the Problem

Ever since I can remember, I have enjoyed helping people, and I have wanted to be a leader. Over the past 35 years, I have held a number of educational leadership positions, and each has afforded me the opportunity to change the climate and culture of my school. In addition, I have witnessed remarkable transformations in some students. A number of them had been entirely disengaged in school but rose to new levels of excellence when they involved themselves in extracurricular activities.

High school students who participate in extracurricular activities have been studied by many researchers, most of whom have tended to focus on athletic participation. Holland and Andre (1987) reported on a comprehensive review of the literature examining the relationship between athletic participation and academic achievement. In some, but not all studies, they found male athletes had slightly higher GPAs (grade point averages) than nonathletes. Demonstrating pro-academic behaviors, such as effort toward class work, preparedness for instruction, and interest in courses promote the academic resilience of student athletes (Braddock et al., 1991; Urban Child Research Center, Levin College of Urban Affairs, 1992).

In their examination of high school students' extracurricular involvement and academic performance, Silliker and Quirk (1997) studied 123 students who participated in interscholastic soccer during the first quarter of the school year and were not involved in any other major extracurricular activity during the second quarter. Their results indicated that, during the soccer season, soccer players had higher GPAs than they did out of season. More efficient use of time and the motivation to maintain athletic

eligibility may account for that increase in academic output. In a more recent study, research continued to suggest athletics' strong effect on student grade outcomes. Ostro (2006) spoke about how being a part of a team sets standards that motivate students to maintain higher academic levels to participate. Ostro continued to state that schools that perform well academically are encouraging athletic environments that create positive public perception.

While these research studies examined athletics, they did not cover the fine arts, various nonathletic clubs, and other extracurricular activities. While most prior research had a similarly narrow focus, I am interested in all types of extracurricular activities that foster positive change in students throughout high school. In chapter 1, I will discuss my leadership journey and define how that journey has prompted me to seek answers to several questions about how extracurricular activities affect academic achievement.

My Leadership Journey

All throughout my life I have been a leader. In elementary school I was the captain of our crossing patrol. In junior high I was chosen as the captain of our basketball team and elected as the vice president of our student government. In high school the students elected me as president of our student council, and in college I was a resident assistant in charge of 40 other students. Even during my summer employment, I held leadership positions as director of playgrounds and the aquatics director for local parks and recreation departments in Bloomington Illinois. I have always welcomed the challenges and responsibilities associated with being a leader for one simple reason: I truly love helping others. It is my true passion, and the paths I have chosen in my professional life have reflected that. Looking back, my early life experiences and past

leadership roles significantly impacted and shaped my future leadership positions in education.

I have dedicated my entire adult life to helping children, and I have always been told that I have a gentle and calm manner with people. But, while my demeanor is calm, my passion for ethics and doing the right thing come through loud and clear. I have always believed that helping others is a fundamental way of life. The core values that I believe exemplify me include honor, integrity, truth, respect, and above all, treating people the way you wish to be treated yourself.

In looking back at my life, I can identify several people who instilled these core values in me, the most important being my parents. My mother and father always stressed helping others above yourself and making sure you always did what was right. My family's core structure was strong, and my mother and father instilled in their children a sense of great pride for accomplishing goals and doing it the right way. I also watched my father start a youth center for teens late in his life. He was ahead of his time with service to others, and the youth center he created in Moline, Illinois, was a huge success. Even though he was a dentist, he understood that getting young people involved in activities would keep them out of trouble and enhance their lives. Little did I know or understand at the time how much I was greatly influenced by my father and his mission to connect students to activities. This mission and theme would play itself out later in my own life when I started to teach art after graduating from college.

When I was young, I always wanted to be a basketball player. I was very tall and had a great passion for the game. However, several knee injuries and four subsequent knee surgeries cut that dream short. However unfortunate, this did teach me a great deal

about humility and my need to have a focus for life beyond basketball. During my senior year of high school, I took an art course for the first time and immediately knew this was what I wanted to do with my life. The teacher I had was inspirational, and he gave me the focus for my life that I lacked. He helped me understand my potential and drove me toward excellence. I watched and admired the way he was simultaneously a friend to his students while keeping his professional boundaries in place. He was my mentor and guide, and after I became a teacher I let him know how much he meant to me and how much he had taught me.

Although I did not realize it at the time, my core values were being fashioned by my life experiences and by the important people in my life. These core values would be the guiding principles by which I would lead in the future. They would be the benchmarks that I would use to lead students and staff when I later became an administrator.

Important Discoveries

After graduating from college, I started teaching art. In addition, I took on coaching responsibilities for the first time. Having never done it previously, I did not realize that coaching would teach me several important core lessons that would additionally shape my thinking and approach toward leadership and extracurricular activities. As a coach, I immediately understood how to develop a sense of team and the importance of working together for success. I also watched how important collaboration and communication were to team development. One of the most important aspects of building a successful team and being an effective leader was getting everyone to work toward a common vision and having goals in place to reach that vision.

I loved teaching art and never really had any aspirations to go into administration, because I always loved being around students in the classroom. They fascinated me. I found it interesting that the students who performed "best" in my classes were the same ones that most teachers would have nothing to do with. Other teachers would often complain about how lazy or unengaged particular students were and how they should not have to waste their time helping them when they just did not care about learning anything in the subject area.

At first blush I somewhat agreed with their comments, because I too had a difficult time getting some students to be passionate about art. However, I began to notice a very important phenomenon happening in my classes. When students became involved in our art club or another extracurricular activity at our school, their attendance and academic performance started to improve. Some students even went from almost dropping out to making the honor roll. I took special note of how these students were changing … and for the better. I remember wondering why this was happening and whether there was some type of connection.

During the next 20 years of teaching art, I watched the same thing happen to several students each year. It was this discovery that led me to explore whether there is a correlation between students' involvement in extracurricular activities and their academic achievement. In particular, I wanted to answer two subsequent questions that needed to be asked:

1. If students are involved in extracurricular activities, will their academic performance improve?

2. Does the number of activities students are involved with make a difference on their academic performance?

The answer to these questions and the information gathered by looking at student data were the focus of my study. This research allowed me to put to rest the questions I had about student performance and academic achievement during the time I spent teaching art and working as an administrator.

After 18 years of teaching, I decided to go back to school and earn my master's degree in art in order to apply for a position as head of an art department. In order to move my professional career forward, I needed to make a decision between teaching and administration. I had reached a major turning point in my career as far as leadership. I knew it was time to start a new journey (administration) in order to challenge my leadership abilities and myself. I knew I wanted to go into administration to become a high school principal; that was my ultimate goal. It was at this time I reminded myself of the several of my top students, notably their extracurricular activities and academic success.

I took a particular interest in one student who was a valedictorian candidate in her senior year. She was also on several sport teams, was captain of three clubs, and played an instrument in the band. I spoke to her often about her commitment to being involved in so many activities and how she was able to balance her commitments with her outstanding classroom performance. She told me that the extracurricular activities kept her focused. She needed to have other things happening in her life besides the academic component. At one point late in her senior year, she was so stressed about grades and being the valedictorian that she almost completely shut down from school. I was able to

help by getting her to focus on her artwork and become involved with our art club. I was interested in seeing if the addition of one more extracurricular activity would help her. As it turned out, it did more than help relieve her stress. She went on to win a major art show in the spring for one of her paintings and ended up the valedictorian that year. She came back several years later after graduating and thanked me for not allowing her to fail. I did not realize it at the time, but this student was the model for being involved in extracurricular activities and academic achievement that I would later be interested in studying.

My Administrative Journey

After teaching art for 25 years, I entered a new world: administration. It was different from anything I had encountered previously in education and presented challenges beyond what I had imagined. During the next nine years I would be fortunate to hold many different types of administrative positions; serving as a principal intern, associate principal, elementary principal, director of fine arts, and high school principal. Each experience was different, but they all challenged my core beliefs on a daily basis. Through every challenge, though, my love for helping students kept me grounded and focused on creating a rich and meaningful experience for every student. This would be the defining characteristic of all my administrative experiences.

As an administrator, I found it crucial to create a culture where students could come to school and enjoy themselves. I dreamed of creating a student-centered learning community. In order to do this, I developed a simple set of core elements that defined the everyday educational experience:

- The school will be safe place for learning to take place every day.

- Everyone in the school will treat one another with respect.
- All students and staff will create a "learning community" that focuses on celebrating success while fostering an appreciation of lifelong learning.
- Students and staff will expect high standards of academic excellence every day.
- Our school will be comfortable and engaging for all students and staff.
- Our school will prioritize creating a new academic resource literacy center by adding literacy coaches and student mentors.
- All students will be expected to engage in some type of extracurricular activity to foster a stronger connection with the school.

My work was an exercise in balance. To try and create a culture for student success, I focused on the arts and student participation in extracurricular activities. However, as a high school principal, I was constantly held accountable for test scores and academic achievement. In all things, I held steadfast to my core values.

During the last five years of my administrative career (from 2005 to 2010), I was the principal of an amazing Chicago North Shore high school. In my first year as principal, I started making small changes in order to demonstrate to the students and staff how we could improve our school. Our school's incredible diversity and student involvement in helping others created a school culture that was amazing. However, I also pointed out to staff where we needed to improve our academic rigor and performance. Our school had not made adequate yearly progress (AYP) for the past two years; furthermore, the school's composite ACT (American College Test) score had fallen from 22.3 to 21.9 over the previous three years. I explained to our staff that our school's

demographics were shifting and that our newly enrolled students had many more needs than we had previously experienced. Several staff members wanted to know what we should do and what course of action I was going to take to reverse these trends. So I outlined the following plan:

1. All students would work harder to raise their GPA. They would do this by being placed in more rigorous classes that would challenge them to do better academically.
2. Students would be able to take advantage of our recently created Academic Literacy Center staffed with student tutors and teachers, known as "the Point." Students could come to the Point before, during, and after school for academic assistance. Located next to the Point would be the Instructional Resource Center (library), where students could go for research and help with books and articles.
3. I began a new program called "Head North" and put a sign with the slogan next to every clock in the school to remind everyone to try and raise the ACT school composite score, to aim higher … to head north!
4. I spoke to each class and to our staff to engage the students in test taking strategies and sample questions that could be given during class each day.
5. Our teaching staff and administrators would encourage all students to participate in at least one extracurricular curricular activity in order to be more connected to the school. This was important to me, because I always believed this would increase academic achievement.
6. We would build other resource areas in the center hallway of the school. This hallway would be called "the MARC" (multi-academic resource corridor) and

would house all types of specialized academic help centers for students to go to receive academic help and assistance.

Although these changes met with the usual naysayers, the overall majority of the staff bought in. The results were amazing! In 2006, we met AYP and raised the school composite ACT score from 21.9 to 22.5. The Point had 43,000 student visits, and the literacy coaches gave over 1,500 workshops to staff and students. In addition, the number of students who participated in at least one extracurricular activity increased from 64% to 74% in one year. Things were going well, and the students and staff were engaged in learning. My dream of creating a student-centered learning community was underway.

My duties as principal seemed endless—the athletic events, concerts, meetings, and special events I attended each week were an amazing display of the extraordinary commitment of our staff and students. I often thought about when I was an art teacher and how I had watched struggling students do better in school once they became engaged in a club or activity. I observed this same phenomeon as a principal: students became more involved in extracurricular activities, and our ACT test scores and individual GPAs improved. I wondered if this was related. I started to revisit my original discovery as an art teacher and wanted to find out more about a possible correlation between students' extracurricular activities and academic achievement. In addition to whether this existed, I wanted to understand why. I started to think about the core values I had put in place for our school and if the students were getting involved in the extracurricular activities because they had to or because they wanted to.

Statement of the Problem

In order to gain a better understanding of the relationship between student involvement in extracurricular activities and academic achievement, I decided to study the question. The primary problem was the lack of knowledge about this relationship. By conducting this study in a suburban Chicago high school, it was my intent to gain a better understanding of student performance and to determine if there was a correlation between academic performance and involvement in extracurricular activities.

Purpose of the Study

Although there have been many studies done on extracurricular activities, much of the past research has centered on specific areas of participation and did not address whether there was any improvement in academic achievement. The purpose of this study was to determine the relationship between extracurricular activity participation and academic achievement among suburban Chicago high school students as measured by ACT composite scores and individual grade point averages. This study examined student involvement and noninvolvement in extracurricular activities—including athletics, fine arts, and clubs—and their GPAs and composite ACT scores.

Research Questions

During the time I contemplated conducting my study, four essential questions came to mind about this research. Put simply, I wondered if there was a statistically significant relationship between four sets of factors:

1. Is there a statistically significant relationship between extracurricular activity participation and academic achievement?

2. Is there a statistically significant relationship between the number of extracurricular activities and a student's academic achievement?
3. Is there statistically significant relationship between gender, the number of extracurricular activities a student participates in, and academic achievement?
4. Is there a statistically significant relationship between free and reduced lunch status, the number of extracurricular activities a student participates in, and academic achievement?

Importance of the Study

This study is very personal to me, as I have been struggling for more than 30 years with the question of whether a relationship exists between extracurricular activity and academic achievement. I have observed students in my art classes do better in school when they became involved in extracurricular activities. If there is indeed a positive correlation between student involvement in extracurricular activities and academic performance, then I would like to share these findings with other educators. In education we often try to design some new initiative or program to raise test scores or help students with their academic performance. It would be wonderful if there were a solution to that problem as simple as connecting them to school through a club, activity, sport, or fine art in order to increase their academic performance.

I also wanted to conduct this study, because to date it had not been performed in a demographically diverse high school. Students come to the school from all over the world; more than 90 languages are spoken. This distinctive and incredibly diverse educational setting did not appear in any research I have examined. If a correlation exists between extracurricular activity participation and academic achievement at our diverse

high school, then that same correlation could be found in other high schools across the nation.

CHAPTER TWO: LITERATURE REVIEW

Introduction

The purpose of this chapter is to provide the reader with a comprehensive review of relevant literature and research related to academic achievement and student participation in extracurricular activities. This review notes a variety of researchers who observed interesting relationships between these factors. The information presented in this chapter will provide an understanding of the related literature and is organized into three sections. The first section is a historical overview of extracurricular activities, included to gain an understanding of where extracurricular actives started, how they evolved, and what types have had a positive or negative impact on academic achievement. The second section examines relevant literature pertaining to extracurricular activities, notably how students benefit from participating in them and the positive academic growth associated with specific types of activities. The final section summarizes the relevant literature discussed and how there is a need for additional study.

Historical Overview

A historical review of related literature indicates that extracurricular activity programs were important in early cultures. Extracurricular activities established in Athens and Sparta included student participation in student government, clubs, debate, dramatics, special day celebrations, public programs, and honor societies (McKown, 1952). Robbins and Williams (1969) traced the presence of extracurricular activity programs in schools to the Homeric, Platonic, and Hellenistic periods, as well as the Renaissance. These activities focused on athletic games, music, dancing, and singing.

Students were actively encouraged to participate in activities in order to develop the mind and body. This type of emphasis decreased during the Reformation.

When extracurricular activities began in the United States in the 19th century, they first existed as an additional part of the normal academic schedule for the year and usually had some practical or vocational interest built in. The first extracurricular activities that were well known in schools started at Harvard University and Yale University. They consisted of literacy clubs, different debate clubs, and Greek systems such as fraternities and sororities.

Students in American schools were the first to initiate athletic clubs (Casinger, n.d.). As these quickly became popular, literacy clubs began to decline. Around the time of World War I, schools started adding activities such as journalism clubs and student-run newspapers (Casinger, n.d.), which also have became popular. Many public high schools and grade schools had clubs for all interests. Today about 1 in 4 students participate in academic clubs (Sadker & Zittleman, 2010.).

In modern times, the importance of extracurricular activity programs has experienced a series of changes. Gholson (1983) identified three eras in the developmental process of extracurricular activities:

1. **Phase 1 (1870–1890)** was labeled as a period of rejection. Educational leaders concluded that few, if any, students would derive benefit from expanding human or material resources, which they labeled extracurricular.

2. **Phase 2 (1900–1920)** was a period of passive acceptance. Leaders concluded that student clubs and organizations were capable of providing learning experiences for young people.
3. **Phase 3 (1920–1956)** was a period of active acceptance and encouragement. The debate about the educational benefits of participation in student activities was settled in favor of student involvement.

Extracurricular activity programs have long been an integral component of American education. Various terms have become synonymous with extracurricular activity programs: co-curricular activities, the third curriculum, and student activities, for example. The impetus for promoting extracurricular activity programs in American high schools emerged in 1918 from the NEA report entitled *The Cardinal Principles of Secondary Education*, which outlined seven objectives for American secondary schools to teach (Gruhn & Douglass, 1971):

1. Health
2. Command of fundamental processes
3. Worthy home membership
4. Vocation
5. Citizenship
6. Worthy use of leisure
7. Ethical character

One of those principles suggested that schools should prepare students for wise use of leisure time (Gholson, 1983). As a result, many schools appointed a director to oversee the student activity program. Another major development in this area involved

the work of Elbert Fretwell of Columbia University. Fretwell, often referred to as the "father of extracurricular activities," offered the first college-level course in the student activity area (Gholson, 1983). The extracurricular activities movement gained even greater credibility in 1926 when the National Society for the Study of Education (NSSE) included a study of student extracurricular activities in its annual yearbook. Educational leaders gained incentives to incorporate activities such as dramatics, forensics, athletics, and student council into the regular school program (Wood, 1962). The NSSE criteria for evaluation maintained that student activities were the major means of accomplishing objectives that are not, or cannot, be served adequately by regular classroom activities (Wood, 1962). Throughout the Depression Era of the 1930s, American education faced tremendous economic obstacles. Schools were closed, teaching staffs were reduced, salaries were frozen, and programs were cut. However, the level of student extracurricular involvement remained unchanged; therefore, these programs were left intact. Dewey (1938) provided a philosophical basis for extracurricular activities by stating:

> If an experience arouses curiosity, strengthens initiative, and sets up desires and purposes that are sufficiently intense to carry a person over dead places in the future, continuity works in a very different way. Every experience is a moving force. Its value can be judged only on the grounds of what it moves toward and into. (p. 31)

During this time period, extracurricular activities became more closely aligned with the traditional curriculum by offering activities such as drama, speech, debate, band, chorus, and journalism.

The launch of the Sputnik satellite in 1957 forced America into a critical analysis of the public education system. While most other aspects of the American public high school were heavily scrutinized and altered at the time, student extracurricular activities programs remained unchanged. This event raised the consciousness level of all Americans and made extracurricular activity programs an invaluable part of education with an emphasis on the total growth of students (Castle, 1986).

Student extracurricular activity programs have continued to play an integral role in the educational process throughout the last three decades. Long, Buser, and Jackson (1977) reported that 70% of high school students surveyed felt that participation in extracurricular activities was more important than earning high grades or having a car. As student extracurricular activities flourished as a means for student growth and social acceptance, the National Association for Secondary School Principals (NASSP) offered support of these activity programs through publications, training sessions, and leadership seminars (Castle, 1986). Currently, NASSP continues to endorse the positive impact of extracurricular activities on students' overall development.

Relevant Literature and Student Growth

Student achievement and growth are the focus of this section of the literature review. Reeves (2008) defined student achievement as levels in which students acquire measureable and attainable educational goals acording to which activities the students participated. Student goals were measured by grade point averages, standardized test

scores, and by the particular extracurricular activity the student took part in during school.

Holland and Andre (1987) carried out a review of literature related to extracurricular participation and adolescent development with the aim of providing a critique of methodological approaches and possible directions for future research. However, while this review was relatively comprehensive, it lacked the evidence needed to support the conclusions drawn and, according to Taylor and Chiogioji (1988), it had no theoretical framework or definitions of its key terms. Apart from this, the study did raise the profile of extracurricular activities and exposed it as an area in need of more research. A number of studies, particularly in the last decade, have examined extracurricular activities within a school-sponsored context (e.g., Broh, 2002; Davalos, Chavez, & Guardiola, 1999; McNeal, 1995; Silliker & Quirk, 1997), and many others have taken broader views on the definition of "extracurricular" to include non-school-sponsored activity, such as community- and church-based activities (Eccles & Barber, 1999; Gerber, 1996; Lewis, 2004); organized and non-organized activities for high school students (Chambers & Schreiber, 2004); as well as social behaviors and high-risk activities, such as smoking or consumption of alcohol or drugs (Eccles & Barber, 1999; Eccles, Barber, Stone, & Hunt, 2003).

For the purposes of this study, extracurricular activities have been defined as those which are *school-sponsored*. It is acknowledged that this definition may not be the same as that used by other authors. Extracurricular activities relate to activities that are "external to the core curriculum" (Shulruf, 2010, p. 594). Bartkus, Nemelka, Nemelka, and Gardner (2012) defined extracurricular activities as "academic or nonacademic

activities that are conducted under the auspices of the school but occur outside of normal classroom time and are not part of the curriculum."

Bartkus et al. (2012) also stated that "extracurricular activities do not involve a grade or academic credit and participation is optional on the part of the student". The extracurricular activities experience has become an important component of many students' school lives today (Feldman & Matjasko, 2005/2012). Many schools have invested significant resources into extracurricular activities (Bartkus et al., 2012; Shulruf, 2010) and are expected to offer a wide range of extracurricular activities to provide a balanced education (Holland & Andre, 1987; Shulruf, Tumen, & Tolley, 2008). The impact of participation in extracurricular activities on student development has been widely examined in the general education literature (Broh, 2002; Feldman & Matjasko, 2005/2012; Holland & Andre, 1987; Mahoney, Cairns, & Farmer, 2003; Marsh & Kleitman, 2002; Shulruf, 2010). A more recent and comprehensive review of literature on extracurricular activities for high school students in the United States (Feldman & Matjasko, 2005) found that while such activities are viewed as being highly important "developmental settings for adolescents," little is understood about the contextual influences affecting that development, or the relationship between participation and outcomes (pp. 160–161). Studies such as Lewis' (2004) meta-analysis of extracurricular participation conclude that the best academic and social outcomes for students are gained through well-designed, developmentally appropriate activities; however, these studies are unable to describe or pinpoint the particular characteristics that contribute to these outcomes.

Additionally, there is very limited evidence to support the commonly held justification for offering extracurricular activities. Various studies and previous methodological approaches to the subject examine a multitude of activities. Some authors take a broad-based approach and examine participation across a range of activities, both those that are school-sponsored and those that occur outside of school time. Others examine particular extracurricular areas, such as athletics or academically related activities. Studies that focus only on school-sponsored activities tend to be the exception rather than the rule. However, in the past decade there has been a move toward examining extracurricular activities within school programs and their impact on student learning outcomes. McNeal (1995), for example, examined the impact of involvement in "formal" extracurricular activities on student retention, and Broh (2002) studied the educational impact of participation in athletic and nonathletic school-sponsored activities.

Many studies have examined how participation in such activities is beneficial for students (e.g., Guest & Schneider, 2003). Melnick, Sabo, and Vanfossen (1992) examined the educational effects of interscholastic participation on African-American and Hispanic boys and girls. They found that while high school athletic participation was for many a means of being included in social youth groups, it was not necessarily related to grades and standardized test scores. Other studies found a strong link between participation in athletics and the likelihood of students dropping out of school (Mahoney & Cairns 1997; McNeal, 1995); still more have found that participation in sports is linked to improved school attendance, academic outcomes, social relationships, and self-esteem (Marsh & Kleitman, 2002; McCarthy, 2000; Silliker & Quirk, 1997).

Certain literature highlights the role of participation in extracurricular activities in educational attainment and cultural capital gain (Buoye, 2004; Power, 1999; Thomas & Moran, 1991), as well as the role cultural capital plays in attaining higher academic ranking (Appelman, Gorter, Lijesen, Onderstal, & Venniker, 2003). Group membership through participation in activities is seen as providing access to the relationships and networks that influence and support positive outcomes for students, as well as improving the opportunities to access the knowledge and skills that support higher social or cultural status. Other studies have examined areas such as the association between extracurricular activities and improved chances for college attendance (Kaufman & Gabler, 2004; Mahoney et al., 2003) as well as mentoring and its impact on academic achievement and dropout rates (Slicker & Palmer, 1993). In the latter group, effective mentoring was found to significantly support improved academic outcomes and retention, while ineffective mentoring had no effect. Many studies emphasized the impact of moderating factors such as gender, ethnicity, and socioeconomic status on the level and type of outcome achieved.

Most of the early research on extracurricular activities focused on comparing athletes and nonathletes. This early research was inconclusive as to the benefits or drawbacks of extracurricular activity participation. Swanson (1924) found that athletes were more intelligent than students who did not participate in athletics. Monroe (1929) agreed with this research and further concluded that athletes earned higher grades than nonathletes. Conversely, in their extensive review of 41 studies conducted between 1903 and 1932, Davis and Cooper (1934) concluded that nonathletes demonstrated better academic performance than athletes. Rarick (1943) reviewed seven studies and concluded

that there was no significant difference between athletes and nonathletes. The inconclusive findings of these studies established the need for further research in this area.

Perhaps the most open critic of extracurricular activity participation was John Coleman. In the late 1950s, Coleman (1959) began to openly criticize high school extracurricular activities. He claimed that time and energy devoted to extracurricular endeavors detracted students from scholarly pursuits. In addition, he maintained that student rewards were divided into three systems: academic, athletic, and social (Coleman, 1961). While recognizing the social benefit of extracurricular participation, Coleman criticized the emphasis schools place on them. His theory maintained that students choose to become involved in those activities that deliver the greatest personal reward. As such, students choose extracurricular endeavors over scholarly pursuits because that is where society has placed the focus. He argued that extracurricular activities work against the academic nature of schools.

While the role of extracurricular activity programs has continued to grow throughout the 1900's, it is important to examine the objectives of these activities. Extracurricular activity programs should assist schools in meeting their goals. Such programs should be designed to work within the parameters of the traditional curriculum and complement it. The nonacademic needs of students—the social, emotional, and recreational—should be the focus of the programs (Fretwell, 1931).

In today's world of standards and accountability policies, policymakers, school administrators, and teachers have identified the instructional core as the primary focus for school improvement. Marsh's 1992 study on high school effectiveness, however, turns

our attention to activities in schools that support both the instructional core as well as the socio-emotional lives of students. The research from this study, as well as other research on personalization in schools, suggests that by providing for and attending to the personalization of academic and social learning (PASL), high schools may see rewards in student outcome (Rutledge, Cohen-Vogel, Osborne-Lampkin, & Roberts, 2015). In 2012, the ACT emphasized how strong relationships between teachers and students were the largest predictor of student achievement. The results of this study indicated that educators at higher performing high schools attributed much of their success to possessing supportive and orderly learning environments, along with a clear focus on academics (ACT, 2012).

Another study, which focused on ingredients to influence school improvements, included the following:

> A list of recommendations compiled in the [Institute of Educational Sciences] Practice Guide on School Turnaround, based on case studies of schools that showed substantial improvement, starts with establishing strong leadership focused on improving school climate and instruction, strengthening partnerships across school communities, monitoring instruction, addressing discipline, and building distributed leadership among teachers in the school. (De la Torre et al., 2013, p. 6)

Much of the literature continued to explain a variety of influences on student achievement. Aikens (2013) described how young people actively seek ways of achieving their goals and how students thrive when exposed to positive language, acts, people, and role models. Another study illustrated how school involvement, school commitment, and

attachment to teachers and schools were all correlated with positive achievement results (Bryan et al., 2012). The last emphasis that the literature made clear was that teachers should increase rigor in the classroom and students should take more challenging classes (National Governors' Association, 2008).

During the last century, extracurricular activity programs have continued to grow and have been accepted as educational elements of the total school program (Gholson, 1983). Student participation in extracurricular activity programs has increased as parents and educational leaders have urged students to remain in school. Extracurricular activity programs became a mechanism to keep schools interesting for students. Long, Buser, and Jackson (1977) suggested several reasons for the growth and acceptance of extracurricular activities:

1. Parents enjoyed seeing their children perform.
2. Teachers enjoyed student activities more than classroom activities.
3. Teachers received more reward for success in the extracurricular activities field than in academic work.
4. Young people enjoyed the activities more than the academic work.
5. Extracurricular activities grew as the country and nation became more urban, resulting in fewer chores to keep kids busy.
6. Extracurricular activities grew because they filled the "boredom" of the small town.
7. The extracurricular activities increased in popularity as more and more young people attended schools.

Extracurricular activities have also fulfilled a variety of functions since they first became a part of the American high school. Miller, Moyer, and Patrick (1956) offered a comprehensive summary of the various contributions and objectives of extracurricular activities' contributions to students:

1. To provide opportunities for the pursuit of established interests and the development of new interests
2. To educate for citizenship through experiences and insights that stress leadership, fellowship, cooperation, and independent action
3. To develop school spirit and morale
4. To provide opportunities for satisfying the gregarious urge of children and youth
5. To encourage moral and spiritual development
6. To strengthen the mental and physical health of students
7. To provide for well-rounded social development of students
8. To widen student contacts
9. To provide opportunities for students to exercise their creative capacities more fully

Since the early part of the 1980's and 90's, the overriding concern in American secondary education has been how to increase student academic achievement (Camp, 1990). Proponents of extracurricular activity participation suggested that students who participate will have higher self-esteem and will academically outperform non-participants (Camp, 1990; Sweet, 1986). In their extensive literature review, Holland and Andre (1987) found that the majority of available research has focused on the

relationship between participation in athletics and academic achievement. As stated earlier, this reinforces the need to extend research to include all extracurricular programs' effects on academic achievement.

Research supports the theory that extracurricular participants earn higher grades than non-participants. Camp (1990) researched 7,668 sophomore students and found a positive relationship between participation in student activities and higher grades. A longitudinal study conducted by the Office of Educational Research and Improvement containing a national sample of high school students reported that GPAs for participants were higher than they were for nonparticipants (Sweet, 1986). Another longitudinal study conducted by the Center for Education Statistics showed a positive relationship between extracurricular participation and academic achievement (O'Brien & Rollefson, 1995).

Otto (1975) found that participants in athletics had higher GPAs than nonparticipants, yet stated that these results were misleading. Otto gave two possible reasons for this difference in GPA:

1. Higher grades are generally associated with characteristics of students who choose to participate in athletics.
2. Eligibility requirements prevent students with poorer grades from participating, or may serve as incentive to perform better.

Haensley, Lupkowski, and Edlind (1985) found a positive relationship between extracurricular activity participation and grades for 508 seniors in high school. They suggested that this relationship existed because participation increased students' academic motivation and sense of involvement.

Studies that measured academic achievement by standardized test scores have produced interesting results, which differ slightly from those measuring academic achievement by GPA. In an extensive review of existing literature, Holland and Andre (1987) found that males who participated in athletics only tend to have lower scores than nonathletes. Males who participated in both athletics and service activities had significantly higher SAT scores. This pattern was very different for females. Feltz and Weiss (1984) and Hanks and Eckland (1976) found no significant difference in GPAs between female athletes and nonathletes. Feltz and Weiss studied senior females and classified each into four groups: athlete only, services only, athlete-service, and neither. They found no significant difference between the groups on ACT scores; however, females involved in five or more activities had significantly higher ACT scores than females involved in four or fewer, suggesting that the extent of activity participation plays a part in this process.

Other studies attempted to demonstrate a relationship between participation in extracurricular activities and aspirations of attending college. Spady (1970) studied 297 male seniors and found that students who were active in both athletics and service organizations had the highest aspirations to attend college. This study also found that participation in service organizations and in leadership positions yielded higher educational aspirations than athletics alone. Hauser and Lueptow (1978) researched 852 male senior athletes and found differences in GPAs between athletes and nonathletes. They posited that this difference was attributed to the "initial dissimilarity" of the subjects and "not to the socialization effects of athletics" (p. 308). Rehberg (1969) speculated that participation in interscholastic sports has certain socialization

consequences, which are beneficial to the educational interests of adolescents. Rehberg offered five possible explanations why this may occur:

1. Athletes are more likely than nonathletes to gain membership in the achievement-oriented leading crowd.
2. Athletics emphasizes achievement factors that may carry over into academics, such as hard work, persistence, self-improvement, and preparation today for competition tomorrow.
3. Attention given to athletes might lead to higher self-esteem.
4. The pressure to excel is greater for the athlete than the nonathlete.
5. Athletes usually receive more scholastic and career guidance and encouragement than nonathletes.

Others have measured academic achievement and aspirations to attend college. Although the percentage of extracurricular participation is lower for students from low socioeconomic backgrounds, students who participate in extracurricular activities have higher academic aspirations than nonparticipants (Spreitzer & Pugh, 1973; Spady, 1970). Spreitzer and Pugh (1973) studied 1,780 high school seniors and found that athletes have higher educational expectations than nonathletes and that a higher proportion of athletes were enrolled in the college preparatory curriculum at their high school (71%) than were nonathletes (58%). They also found a positive relationship between participation and college aspirations in schools where athletes were highly valued and rewarded. In schools where academic excellence was most highly valued and rewarded, a weak relationship existed between participation and college aspirations.

A comparison of the expenses and benefits of participating in extracurricular activities yielded a conclusion that it was simple to create a new club, activity, or team that would benefit the students and the schools (Reeves, 2008). In this article, Reeves also described how Woodstock High School in Illinois, which served more than 2,000 students, showed drastic improvements in academics and student behavior. Although there were many changes that led to these results, the most significant one was the 400% increase in student participation in extracurricular activities. Reeves (2008) also discovered that if even six or seven students showed interested in something, a new club would be started. Data analysis in this school showed that students who took part in three or four activities had better grades than students who had no participation, thus suggesting that if schools made a commitment in extracurricular participation, the entire school community benefited.

Extracurricular activities refer to those that are "external to the core curriculum" (Shulruf, 2010, p. 594). Bartkus et al. (2012) defined extracurricular activities as "academic or nonacademic activities that are conducted under the auspices of the school but occur outside of normal classroom time and are not part of the curriculum" (p. 698). In addition, they stated that "extracurricular activities do not involve a grade or academic credit, and participation is optional on the part of the student" (p. 698) The experience of participating in extracurricular activities has become an important and regular component of students' school lives (Feldman & Matjasko, 2005/2012). Many schools invested significant resources on extracurricular activities (Bartkus et al., 2012; Shulruf, 2010) and are expected to provide a wide range of extracurricular activities to provide a balanced education (Holland & Andre, 1987; Shulruf et al., 2008). The impact of extracurricular

activities participation on students' development has been widely examined in the general education literature (Broh, 2002; Feldman & Matjasko, 2005/2012; Holland & Andre, 1987; Mahoney et al., 2003; Marsh & Kleitman, 2002; Shulruf, 2010).

Summary

The related literature presented in this chapter provides an understanding of the historical origins of extracurricular activity participation and an understanding of how participation leads to student growth. Extracurricular activities are an integral component of school life. While participation rates are known to be very high in the United States—in 1995 approximately 60% of high school sophomores and 70% of seniors participated in at least one activity (Cooper, Valentine, Nye, & Lindsay, 1999)—there is very limited documentation on the extent of participation elsewhere. Investigations into the impact extracurricular activities have on students date back as early as the 1930s, with studies documenting the range of activities being offered in schools and questioning whether participation in certain high school activities could be related to higher achievement at college (Baxter, 1936; Holland, 1933). However, despite a bevy of studies on of extracurricular participation having been undertaken over nearly eight decades (mainly in the United States), little is known or understood about the causal effect between participation in such activities and educational outcomes. Most of the early research on extracurricular activities focused on athletics. That research is at best inconclusive in this area, and results were limited to the specific schools and students being researched. Existing research on nonathletic extracurricular activities is very limited, and even more so when examining their relationship with academic achievement. The limited literature suggests the need for further research in this area.

CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY

Introduction

This study has been a passion of mine since the time I started teaching art in 80's. During that time in my career, I noticed that students who were involved in extracurricular activities were more engaged in school than those who were not involved in activities. Students who were involved only with academic classes often were disconnected from school and on occasion had problems with discipline, attendance, social interaction, or academics. This chapter will outline the problem and purpose of my study in addition to describing the sample population used. Data for the study was obtained from district management software and included ACT scores and grade point averages among students categorized a number of ways: whether the student was male and female, whether the student was on free or reduced lunch, the amount of school the student attended, and a total of all extracurricular activities each student participated in during high school. The chapter will conclude with how the data will be analyzed.

Problem and Purpose

The problem relative to my study is incomplete knowledge and understanding of the relationship between extracurricular activity participation and academic achievement of high school students. The purpose of this study was to determine if a relationship existed between these factors when measuring the composite score on the American College Test (ACT) and a student's overall cumulative grade point average (GPA). Specifically, I examined student involvement and noninvolvement in extracurricular activities (academic and nonacademic), as well as their performance on the ACT and their cumulative GPA in one midwestern north suburban high school district in Illinois.

Research Questions

During the time I contemplated conducting my study, four important questions came to mind about this research:

1. Is there a statistically significant relationship between extracurricular activity participation and academic achievement?
2. Is there a statistically significant relationship between the number of extracurricular activities and a student's academic achievement?
3. Is there statistically significant relationship between gender, the number of extracurricular activities a student participates in, and academic achievement?
4. Is there a statistically significant relationship between free and reduced lunch status, the number of extracurricular activities a student participates in, and academic achievement?

Research Hypotheses

There are four research hypotheses for the study which include the following:

1. There is a difference in ACT scores between students who are involved in extracurricular activities and those who are not.

2. There is a difference in grade point averages between students who are involved in extracurricular activities and those who are not.

3. There is a difference in ACT scores between male and female students who are involved in extracurricular activities and those who are not.

4. There is a difference in ACT scores/GPAs between free and reduced lunch students who are involved in extracurricular activities and those who are not.

Population and Sample

The specific population used for this study consisted of high school seniors at both high schools within this district from the graduating class of 2009. The high school district used for my study covers approximately 19.2 square miles in Cook County in northern Illinois, 13 miles from downtown Chicago. In FY 2009, the high school district served 4,800 students from nine elementary and middle school districts, which included 19 individual schools, with students from the communities of Skokie, Lincolnwood, Morton Grove, and Niles, Illinois. The district has two high schools, both of which serve an exceptionally diverse community. More than 60% of students came from homes where a language other than English is spoken. Students speak more than 90 languages, with the most common being Urdu, Spanish, and Assyrian. In addition to their ethnic and cultural diversity, the high schools show significant socioeconomic diversity. Housing stock in the township ranges from multi-million dollar homes to subsidized public housing. One in three students qualifies for free or reduced-price lunch. The community strongly supports the district, which had an average expenditure per pupil of $23,353 in 2008–2009. Several colleges and universities, as well as trade schools, are located nearby. Residents of these communities have traditionally placed a high value on the reputation of the high school district, which is matched with a tradition of strong financial support.

In FY 2009, each of the two high schools in the district had an enrollment of approximately 2,500 students. According to the Illinois School Report Card, the demographic breakdown for the student population was as follows:

- 40.4% White
- 34.5% Asian
- 13.3% Hispanic
- 10.7% Black
- 4% American Indian
- 0.5% two or more races
- 0.2% Pacific Islander

In addition, 3% of the district's students had disabilities, and 34% came from low-income households. The district had a 5% student mobility, 94% attendance, and a 1% dropout rate. The average class size was 19, with a 16:1 pupil/teacher ratio. There are 335 teachers on staff, of which 46% are female and 54% are male. Approximately 86% of the teachers hold a master's degree or higher. For the 2008–2009 school year, the district teacher demographic summary was as follows: 85.4% White, 8.1% Asian, 4.0% Hispanic, 1.9% Black, .6% two or more races. Teacher retention in the district was 89%.

Description of Sample

There were two groups identified for this study: 1,029 participants in extracurricular activities and 116 nonparticipants in extracurricular activities. Participants were identified as those students who had participated in at least one school-sponsored extracurricular activity during the time they attended high school.

Nonparticipants were identified as students who had never participated in a school-sponsored extracurricular activity during the time they attended high school.

Students in the senior class of 2009 who took the ACT were identified by analyzing data obtained from the district management software database called Pentamation. Additional data included student grade point averages from the final semester of their senior year, student ID numbers, gender, and whether the student was eligible for free and reduced lunch. The senior class from both high schools was included in the sample, which produced a total of 1,145 students (575 male and 570 female), approximately 67.5% of both senior classes. Although there were more students in the total population at both schools, some were removed from the sample because parts of their student data were incomplete and not obtainable. The sample of the two senior classes had 116 students who were nonparticipants in any school-sponsored activity, and 1,029 who participated in at least one school-sponsored extracurricular activity.

Data Collection and Instrumentation

Data for this research study were quantitative and part of an archival data set located in the district's administrative software called Pentamation. The data necessary for my research existed at the time of the study. The District Superintendent granted me permission to access the existing archival data. Archival data is categoried into the following categories:

1. Public records
2. Research organizations
3. Schools and education departments
4. Academic and similar institutions

5. Business and industry

Originally generated for reporting or research purposes, archival data are often kept for legal requirements, for reference, or as an internal record.

This type of information provides a detailed data set for the study of organizations (Covaleski & Dirsmith, 1988) and an invaluable method of accessing historical data for analysis. Archival materials are among the few resources available for learning about past events and records. Thus, examination of archival data is strategically useful when conducting research, as this information is part of each educational institution.

Since the archival data for this research were part of a private data set and were gathered by district staff, the district agreed to make the data available to me for my dissertation study. The student data provided details on the following:

- Gender
- Ethnicity
- Grade level
- GPA,
- ACT scores
- Discipline referrals
- Attendance
- Participation (or lack thereof) in extracurricular activities

The information also included the activities the students took part in, as well as the year they participated.

The district gathered the data after the class of 2009 graduated. To collect this data, it was necessary to access each student's record on Pentamation so that the data could be later analyzed for the purpose of this study. Because student records were stored in Pentamation, the data could be analyzed after the fact, specifically for purposes of this study. The data from the graduating classes at both high schools were used for the final data set for this dissertation project and placed into Microsoft Excel for further analysis. Activities included in the database were placed in three categories: fine arts, athletics, and all extracurricular clubs and activities sponsored by the high school. The three categories were combined into one cumulative total during data collection in order to obtain a sum of all activities each student was involved with during his or her high school experience. Activities were recorded and collected from each student's Individual Learning Plan (ILP). The ILP was developed by the district to warehouse individual student test score data, goals, four-year plans, and extracurricular activities (termed iCare in the student's ILP). Teachers, students, and counselors entered each student's iCare activities, which were validated by the director of student activities at each high school.

The ILP is comparable to a student portfolio. It starts when a student entered high school and continues until his or her graduation. The student's counselor, the student activities director, and the administration collect data in order to create each ILP. Students in the study were identified by their ID number only, not by name. ID numbers were not used or shared for the data analysis and were included only to track total students in the study. Student gender was also included, as was participation in free or reduced lunch to indicate the student's socioeconomic status.

Data Collection

The quantitative data obtained for this study were divided into two groups. The first included any student who had participated in at least one or more school-sponsored extracurricular activities during their time in high school. The second groups included students who had never participated in any such activity during high school. Data were collected, and the researcher obtained the following records for each sample subject:

1. **Demographics.** Gender was recorded for each student (so differences by gender could be analyzed if needed).
2. **Academic achievement.** Academic achievement was measured by a student's ACT composite score in addition to their cumulative grade point average (GPA). The former was used as a measurement of academic achievement because it was the most widely accepted college admission test in the midwestern United States.
3. **Extracurricular participation.** Extracurricular activities were grouped into three areas: athletics, fine arts, and all school-sponsored clubs and activities. The total number of extracurricular activities each student was (or was not) involved in during high school was totaled and recorded.
4. **School ID number.** Each high school was given an identifying numerical value in order to keep track of the total participants from each school.
5. **Free and reduced lunch.** Students who were part of the free and reduced lunch program were recorded in order to analyze if their socioeconomic status was an important variable in the study.

Statistical Analysis

Archival data were collected and recorded using Microsoft Excel. The data were then analyzed further using a combination of Excel statistical software and a series of correlation-related formulas to provide a more comprehensive statistical analysis.

The independent variable for the analysis was student participation in extracurricular activities. The dependent variables were student ACT scores and cumulative grade point averages (GPAs). Extracurricular activity involvement (yes or no) and the total number of extracurricular activities were also entered into Excel software for analysis. Frequency distributions were created to visually depict the relationship between cumulative GPA and ACT score as it relates to involvement in extracurricular activity. Statistical analysis was conducted to test each null hypothesis. This analysis included correlation coefficients between the variables identified, as well as additional data points reflecting the statistical significance of each correlation. These data points were used to answer the four research hypotheses stated earlier in this chapter.

Summary

The statement of the problem, purpose and overview, research questions, hypothesis, population of the study, description of the sample, data collection and instrumentation, and statistical analysis were presented in this chapter. The results of this research are shown in the next chapter.

CHAPTER FOUR: DATA ANALYSIS AND FINDINGS

Introduction

This study investigated whether high school students who participated in extracurricular activities had higher academic achievement than those who did not participate in extracurricular activities. This chapter is organized into three sections: the first reviews the research questions of the study; the second section discusses the population sample and analyzes the data collected; the final section presents the conclusions from these results.

Research Questions

There are four essential questions for this research:

1. Is there a statistically significant relationship between extracurricular activity participation and academic achievement?
2. Is there a statistically significant relationship between the number of extracurricular activities and a student's academic achievement?
3. Is there statistically significant relationship between gender, the number of extracurricular activities a student participates in, and academic achievement?
4. Is there a statistically significant relationship between free and reduced lunch status, the number of extracurricular activities a student participates in, and academic achievement?

The following four null hypotheses were derived from the research questions:

- **Null Hypothesis 1.** There is no statistically significant relationship between student grade point average and student involvement in extracurricular activities.

- **Null Hypothesis 2.** There is no statistically significant relationship between student ACT scores and student involvement in extracurricular activities.

- **Null Hypothesis 3.** There is no statistically significant difference between academic achievement, measured by ACT scores and cumulative GPA, for males and females relative to student involvement in extracurricular activities.

- **Null Hypothesis 4.** There is no statistically significant relationship between ACT scores and GPAs for students who qualify for free and reduced lunch relative to their level of involvement in extracurricular activities.

Population

There were two groups identified for this study: students who participated in at least one school-sponsored activity during their time in high school and students who did not participate in any such activities. The first group included 1,029 students, while the second included 116. Students in the senior class of 2009 who took the ACT were identified by analyzing data from the district management software database called Pentamation. Additional data included cumulative student grade point averages (GPAs)

through the final semester of senior year, student ID numbers, gender, and eligibility for free and reduced lunch.

The senior class from both district high schools was included in the sample. Of the 1,145 students in the sample, 575 were male and 570 were female. The sample represented approximately 67.5% of the total population of both senior classes. (That number is not 100%, because some students were removed from the sample due to incomplete or unavailable data.) The 116 students who were nonparticipants in extracurricular activity represented 10.1% of the sample; the 1,029 who participated in at least one school-sponsored extracurricular activity represented 89.9%. In addition, 295 students (25.8% of the sample) had access to free and reduced lunch while 850 students (74.2%) did not. The average ACT score from the sample group was 22.72, while the average GPA was 2.86. The following chart highlights the sample population further:

Table 1. Variables for the sample population for the study.

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
Gender * No. Activities	1145	100.0%	0	0.0%	1145	100.0%
Cum GPA * No. Activities	1145	100.0%	0	0.0%	1145	100.0%
ACT Composite * No. Activities	1145	100.0%	0	0.0%	1145	100.0%
FRL = 1 * No. Activities	295	25.8%	850	74.2%	1145	100.0%
F = 1 M = 8 * No. Activities	1145	100.0%	0	0.0%	1145	100.0%

No. Activities		Gender	Cum GPA	ACT Composite	FRL = 1	F = 1 M = 8
0	N	116	116	116	41	116
	Mean		2.57	19.04	1.00	4.74
1	N	131	131	131	42	131
	Mean		2.58	19.28	1.00	4.79
2	N	116	116	116	22	116
	Mean		2.76	21.03	1.00	4.26
3	N	75	75	75	21	75
	Mean		2.71	20.01	1.00	3.71
4	N	95	95	95	26	95
	Mean		2.75	20.72	1.00	4.54
5	N	117	117	117	32	117
	Mean		2.93	21.66	1.00	4.77
6	N	66	66	66	21	66
	Mean		2.84	21.91	1.00	4.71
7	N	41	41	41	9	41
	Mean		2.86	23.46	1.00	4.07
8	N	79	79	79	15	79
	Mean		2.87	23.85	1.00	4.28
9	N	45	45	45	10	45
	Mean		3.02	26.31	1.00	4.27
10	N	51	51	51	10	51
	Mean		3.17	26.53	1.00	4.16
11	N	71	71	71	12	71
	Mean		3.07	26.86	1.00	4.85
12	N	38	38	38	10	38
	Mean		3.04	27.66	1.00	4.68
13	N	5	5	5	2	5
	Mean		3.43	29.60	1.00	2.40
14	N	35	35	35	9	35
	Mean		3.29	28.23	1.00	4.80
15	N	21	21	21	7	21
	Mean		3.41	29.48	1.00	5.00
16	N	12	12	12	3	12
	Mean		3.37	29.67	1.00	3.92
17	N	9	9	9	1	9
	Mean		3.20	31.56	1.00	4.89
18	N	12	12	12	1	12
	Mean		3.45	30.42	1.00	5.67
19	N	6	6	6	1	6
	Mean		3.51	32.17	1.00	4.50
23	N	1	1	1		1
	Mean		3.11	30.00		8.00
24	N	1	1	1		1
	Mean		3.90	35.00		1.00
Total	N	1145	1145	1145	295	1145
	Mean		2.86	22.72	1.00	4.52

Analysis of Data

Typically, when conducting correlation analyses of two independent groups representing different sample sizes, a comparison between the two correlations is examined (Fisher, 1921). This is recommended when the correlations are conducted on the same variables for two different groups (as is the case with this study), and when both correlations are found to be statistically significant (which has yet to be determined).

Finding the result of the comparison requires transforming the correlation coefficient values (or *r values*) into *z* scores (Kreysig, 1979). Appropriately known as Fisher's *r* to *z* transformation, this is done so that the *z* scores can be compared and analyzed for statistical significance, which is accomplished by determining the observed *z test* statistic (Gaus, 1777–1855). In essence, we do this to understand whether our results are valid or repeatable.

With the observed *z test* statistic (or $z_{observed}$) at a set level of significance (or *alpha level*), we can assess the statistical significance of the study results. My first step was to run the correlation analyses between the group of participating students and the group of nonparticipating students to determine their correlation coefficients (*r*)—that is, the extent of dependence between the variables. For this study, any negative signs can be ignored.

Next, I noted the sample sizes of each independent group. Then, using a statistical chart with *z* values and calculator, I determined the *z* values (z_1 *and* z_2) that correspond to the correlation coefficients (*r*). Usually, with a calculator, significance is also calculated once you enter in the two correlation values and different sample sizes (N_1 and N_2). With just a statistical chart containing *z* values and calculator, the following formula is used:

$Z_{observed} = (z_1 - z_2) / (\text{square root of } [\ (1 / N_1 - 3) + (1 / N_2 - 3)\ ]$

After determining the observed *z* value, I assessed the statistical significance of the study results by checking to see if the observed value was greater than the critical value (i.e., the point beyond which we reject the null hypothesis). For example, if the observed value was -1.97 and your level of significance is set at .05, that indicates that the critical value is ± 1.96. In this case, your $z_{observed}$ is greater than your critical value; it falls into the rejection regoin, indicating statistical significance. You can reject the null hypothesis if the two correlations are not significantly different.

Results

The results for this study are based on the correlation analyses of two independent groups of different sample sizes. The correlation coefficient (*r*) will fall between –1 and 1. And, as the following list explains, the farther that number is away from zero, the stronger the relationship is between the two variables:

- **Exactly –1.** A perfect downhill (negative) linear relationship
- **–0.70.** A strong downhill (negative) linear relationship
- **–0.50.** A moderate downhill (negative) relationship
- **–0.30.** A weak downhill (negative) linear relationship
- **Exactly 0.** No linear relationship
- **+0.30.** A weak uphill (positive) linear relationship
- **+0.50.** A moderate uphill (positive) relationship
- **+0.70.** A strong uphill (positive) linear relationship
- **Exactly +1.** A perfect uphill (positive) linear relationship

r = correlation coefficient

Fisher $(r_n) = z_n$

$Z_{observed} = (z_1 - z_2) /$ (square root of $[(1 / N_1 - 3) + (1 / N_2 - 3)]$

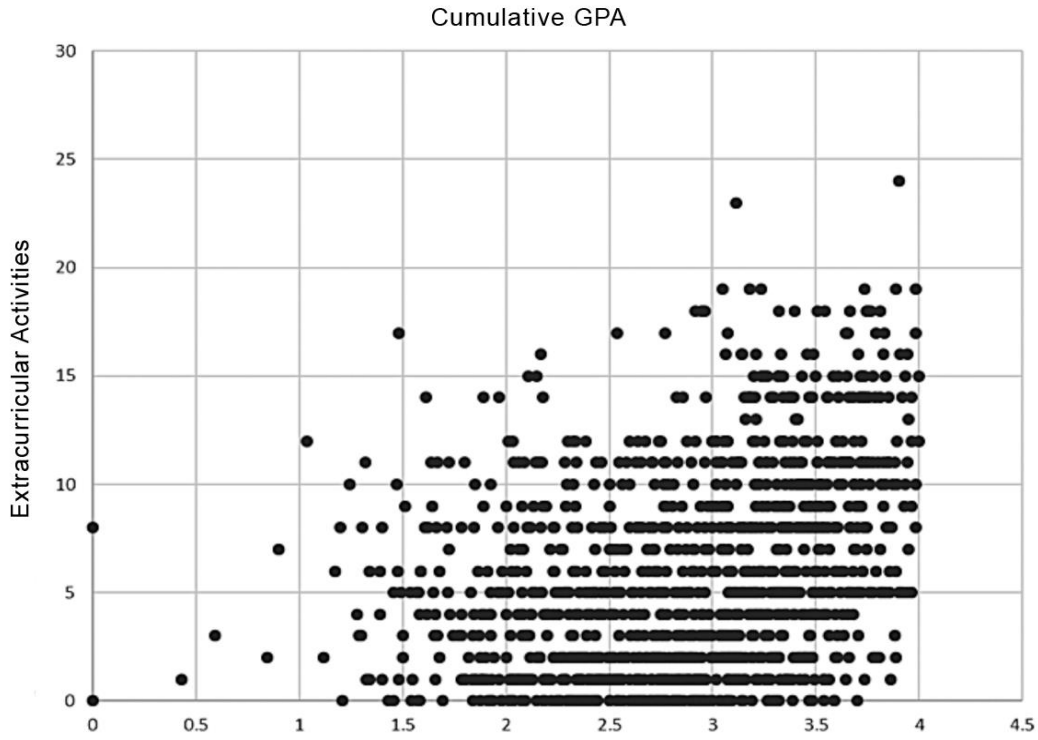
For the purposes of this study, the following statement is crucial: If the absolute value *of z* is greater than 1.96 at a .05 level of significance, then that correlation is statistically significant.

Null Hypothesis 1

There is no relationship between student grade point average and student involvement in extracurricular activities.

To measure the relationship between GPA and involvement in extracurricular activities, the correlation coefficient for those two variables was derived (as opposed to testing 0 activities to all others of 1 or more). The resulting correlation coefficient of 0.33 indicates a slight positive linear relationship between GPA and extracurricular activities—that is, to a certain (but mild) extent, as one rises, so does the other, and vice versa.

Table 2. Scatter chart depicting relationship between cumulative GPA and extracurricular activities.



Null hypothesis 1 conclusion.

The null hypothesis 1 is rejected, because the correlation coefficient of 0.34 means that there is a slight positive linear relationship between GPA and extracurricular activities—higher participation in extracurricular activities is correlated with higher GPA.

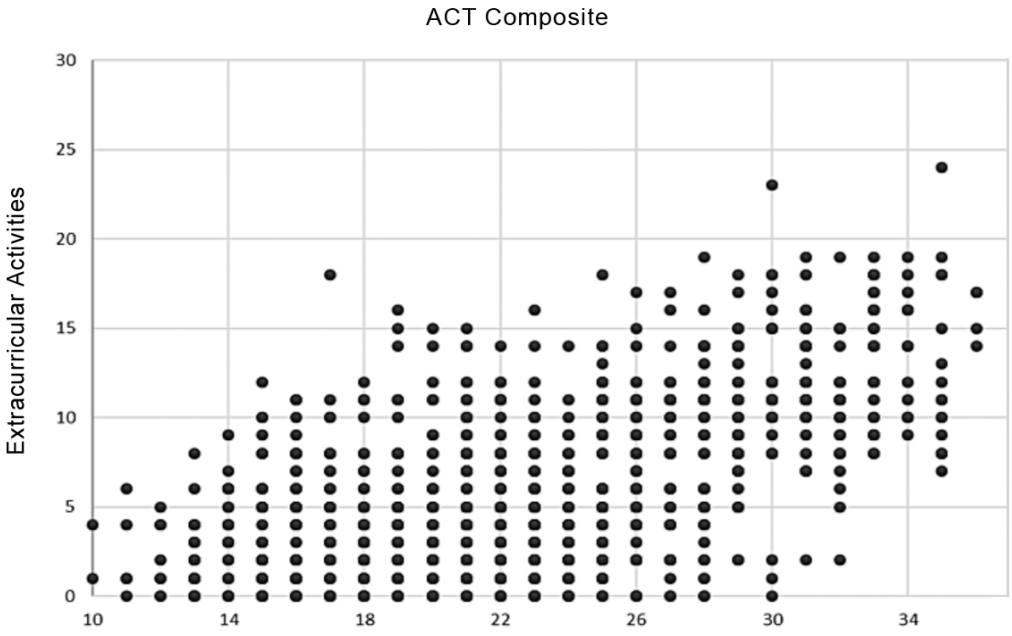
Null Hypothesis 2

There is no relationship between student ACT scores and involvement in extracurricular activities.

The correlation coefficient of 0.60 signifies a stronger positive relationship between ACT scores and extracurricular activities than was observed between GPA and extracurricular activities.

Null hypothesis 2 is rejected, because the data analyzed shows a moderate uphill (positive) relationship between ACT scores and the number of extracurricular activities.

Table 3. Scatter chart depicting relationship between cumulative ACT scores and extracurricular activities.



Null Hypothesis 3

There is no statistically significant difference between academic achievement, measured by ACT scores and cumulative GPA, for males and females relative to their involvement in extracurricular activities.

For male students, the correlation coefficient of ACT scores to extracurricular activity participation is 0.60. Thus, there is a moderate positive correlation between male students participating in extracurricular activities and earning higher ACT scores. For female students, the correlation coefficient for the same variables was calculated at 0.60.

Comparing correlation coefficients using Fisher to derive z_n values yielded $z_{observed} = 0.13$. As stated earlier, our critical value is ±1.96. As 0.13 is less than 1.96, the outcomes for participating in more extracurricular activities and earning higher ACT scores were statistically insignificant between genders at the .05 confidence level.

For male students, the correlation coefficient between GPA and extracurricular participation was 0.34. Similar to our results in examining null hypothesis one, this indicates a weak positive correlation between GPA and extracurricular participation. This was much the same for female students, as the correlation coefficient between GPA and extracurricular participation was 0.33, again indicating a weak positive correlation. Comparing coefficient correlations for males and females yielded an observed value of 0.28. As that too was less than 1.96 (operating at the .05 confidence level), there was no statistical significance between genders relating to GPA and extracurricular participation.

Null hypothesis 3 is accepted, because the data analyzed shows no statistically significant difference between academic achievement, measured by ACT scores and cumulative GPA, for males and females relative to student involvement in extracurricular activities.

Null Hypothesis 4

There is no statistically significant relationship between ACT scores and GPAs for students who qualify for free and reduced lunch and their level of involvement in extracurricular activities versus those who do not qualify for free and reduced lunch.

For free and reduced lunch students, the correlation coefficient between ACT score and involvement in a minimum of 8 extracurricular activities was 0.50, while it was 0.63 for students not on free and reduced lunch. For students not on free and reduced lunch, the strongest, positive correlation between ACT scores and extracurricular participation existed when the students took part in more than eight activities over their high school careers. Is this statistically significant? Using Fisher to derive z values yields a value of 2.76, which is greater than 1.96 at the .05 confidence level; therefore the difference between ACT scores, extracurricular participation, and whether a student received a free or reduced lunch was significant.

The correlation coefficient between GPA and extracurricular activity participation was 0.23 for students with free and reduced lunch versus 0.37 for students without free and reduced lunch. Thus, there is a stronger positive correlation between GPA and participation in extracurricular activities for students without free and reduced lunch than there is for those with free and reduced lunch. Using Fisher and the .05 confidence level, the observed value was -2.17, which is less than -1.96, meaning that there is a statistically significant difference between free and reduced lunch students and non-free and reduced lunch students as it relates to GPA and extracurricular activities.

Null hypothesis 4 is rejected because the data analyzed indicated a statistically significant difference in the relationship between ACT scores/GPAs and student

involvement in extracurricular activities when the correlation coefficients for students who qualifed for free and reduced lunch and those who did not were compared.

Conclusion

After examining the results, I have a better understanding of the relationship between academic achievement and extracurricular participation. It is clear that when students engage in extracurricular activities, their academic performance increases, regardless of whether they are male or female. However, the results showed a stronger correlation between the number of activities and academic achievement in students who did not qualify for free and reduced lunch compared to those who qualified for free and reduced lunch.

The following statistics summarize the sample population:

1. Students averaged just under six activities over their time in high school: the average female student participated in 5.74, while the average male participated in 5.81.
2. The average ACT score for females was 22.91; for males, it was 22.54.
3. The average GPA for females was 2.98; for males, it was 2.74.

Table 4. Group statistics.

	F = 1 M = 8	N	Mean	Std. Deviation	Std. Error Mean
Cum GPA	1	570	2.98	.635	.027
	8	575	2.74	.665	.028
ACT Composite	1	570	22.91	5.208	.218
	8	575	22.54	5.858	.244
No. Activities	1	570	5.74	4.579	.192
	8	575	5.81	4.779	.199

The following chart shows the number of activities students were involved in and the mean cumulative GPA of those students.

Table 5. Total student activity, mean cumulative GPA in students.

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
Cum GPA * No. Activities	1145	100.0%	0	0.0%	1145	100.0%

Report

Cum GPA

No. Activities	Mean	N	Std. Deviation
0	2.57	116	.563
1	2.58	131	.593
2	2.76	116	.560
3	2.71	75	.643
4	2.75	95	.607
5	2.93	117	.650
6	2.84	66	.706
7	2.86	41	.631
8	2.87	79	.766
9	3.02	45	.636
10	3.17	51	.635
11	3.07	71	.666
12	3.04	38	.619
13	3.43	5	.313
14	3.29	35	.585
15	3.41	21	.490
16	3.37	12	.489
17	3.20	9	.818
18	3.45	12	.339
19	3.51	6	.404
23	3.11	1	.
24	3.90	1	.
Total	2.86	1145	.660

Of the 1,145 students surveyed, the greatest number of students (131) participated in only one extracurricular activity. Average student GPAs rose from 2.58 to 2.93 when students participated in five activities or more, a group that included 117 students. When students participated in 10 activities, GPAs rose even higher to 3.17, but only 51 students engaged in that level of participation.

The following chart shows the number of activities students were involved in, the mean cumulative ACT score of those students.

Table 6. Total student activity, mean cumulative ACT score in students.

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
ACT Composite * No. Activities	1145	100.0%	0	0.0%	1145	100.0%

Report

No. Activities	Mean	N	Std. Deviation
0	19.04	116	4.058
1	19.28	131	4.063
2	21.03	116	4.327
3	20.01	75	3.474
4	20.72	95	4.242
5	21.66	117	3.948
6	21.91	66	4.793
7	23.46	41	4.869
8	23.85	79	5.354
9	26.31	45	4.926
10	26.53	51	5.519
11	26.86	71	4.676
12	27.66	38	4.744
13	29.60	5	3.715
14	28.23	35	4.298
15	29.48	21	4.523
16	29.67	12	4.697
17	31.56	9	3.712
18	30.42	12	5.107
19	32.17	6	2.483
23	30.00	1	.
24	35.00	1	.
Total	22.72	1145	5.545

This chart shows almost the same results in ACT composite scores and student activities. The greatest number of students participated in one activity. When students participated in five activities, ACT composite scores rose from 19.28 to 21.66. When students participated in 10 activities, cumulative ACT scores rose even higher to 26.53, but only 51 students engaged in that level of participation (compared to 117 who participated in five activities). Both GPAs and ACT scores were higher when students

participated in more activities, but the number of student participants also decreased as the number of activities increased. Additional conclusions and results will be discussed further in Chapter Five.

CHAPTER FIVE: DISCUSSIONS AND RECOMMENDATIONS

Introduction

This chapter presents the summary of the study, conclusions, and discussion and recommendations based on the results. It also includes the statement of the problem, research questions, instrumentation, population and sample, a statistical analysis, and a discussion about the conclusions of the study. Finally, recommendations are presented for future research and study.

Summary of the Study

The purpose of this study was to determine if there a relationship existed between extracurricular activity participation and academic achievement as measured by composite score on the American College Test (ACT) and cumulative student grade point average (GPA) through a student's senior year in high school. Specifically, this study examined student participants and nonparticipants in extracurricular activities and their academic performance in one midwestern suburban high school district.

Statement of the Problem

The problem relative for this study is the lack of knowledge and understanding regarding the relationship between extracurricular activities and academic achievement in high school students. By conducting this study in two suburban Chicago high schools, I intended to gain a better understanding of student academic performance by determining if there was a significant positive correlation between academic performance and involvement in extracurricular activities.

The study also included a review of existing literature directly related to this research. This review attempted to provide a better understanding of extracurricular

activity participation and and the resulting student growth. Despite an abundance of studies (Castle et al., 1987) on of extracurricular participation undertaken over nearly eight decades (mainly in the United States), little is known or understood about the causal effect between participation in such activities and educational outcomes. Most early research focused solely on athletics. That research is at best inconclusive, and results were limited to the specific schools and students being researched. Existing research on nonathletic extracurricular activities is very limited, and even moreso when examining their relationship with academic achievement. The limited availability of literature related to this topic suggests the need for further research, which provided the motivation to take on this research to further explore the topic.

Research Questions

1. Is there a statistically significant relationship between extracurricular activity participation and academic achievement?
2. Is there a statistically significant relationship between the number of extracurricular activities and a student's academic achievement?
3. Is there statistically significant relationship between gender, the number of extracurricular activities a student participates in, and academic achievement?
4. Is there a statistically significant relationship between free and reduced lunch status, the number of extracurricular activities a student participates in, and academic achievement?

Instrumentation

The quantitative data collected for this study were obtained and downloaded using Pentamation, the district's school management software The school district used this

management software to house student records, test scores, and demographic information. Verbal permission was granted to me by the superintendent and the district's Board of Education to study both high schools' graduating classes of 2009. ACT scores, cumulative GPAs, and all students' extracurricular activities were gathered from Pentamation. The data were then exported into an Excel spreadsheet for analysis. Activities included in the database were separated into three categories: fine arts, athletics, and all extracurricular clubs and activities sponsored by the high school. The three extracurricular categories were combined into one cumulative total during data collection in order to obtain a sum of all activities each student was involved with during his or her high school experience.

Student activities were collected from each student's Individual Learning Plan (ILP). The ILP was developed by the district to warehouse individual student test score data, goals, four-year plans, and extracurricular activities (iCare - termed used for student's extracurricular activities in the student's ILP). Teachers, students, and counselors entered each student's iCare activities. The director of student activities at each high school validated all iCare activities that were entered. The ILP is comparable to a student portfolio. It begins when a student enters high school and continues until his or her graduation. The student's counselor, the student activities director, and the administration collected data in order to create each ILP. Students in the study were identified by their ID number only, not by name. ID numbers were not used or shared for the data analysis and were included only to track total students in the study. Student gender was also included, as was meal status to indicate the student's socioeconomic status.

Sample

There were two groups identified for this study: 1,029 students who participated in at least one extracurricular activity, and 116 students who did not participate in any. Students in the senior class of 2009 who took the ACT were identified through analyzing data obtained from Pentamation, the district management software database. Additional data gathered included student grade point average (GPA) from the final semester of their senior year, student ID number, gender, and if the student was eligible for free and reduced lunch.

The population was grouped into one of two categories: participants in extracurricular activities and nonparticipants in extracurricular activities. Each senior class from both high schools was included in the total sample, which produced a total of 1,145 students—575 male and 570 female—which represented approximately 67.5% of both senior classes. (Some students were removed from the sample total because of incomplete or unavailable student data.) The sample of the two senior classes had 116 students who were nonparticipants in any school-sponsored activity, and 1,029 that participated in at least one school-sponsored extracurricular activity.

Statistical Analysis

Data were collected and recorded using Microsoft Excel. The data were then analyzed using a combination of Excel software and a series of correlation-related formulas to provide a more comprehensive statistical analysis.

The independent variable for the analysis was student participation in extracurricular activities. The dependent variables were student ACT scores and cumulative grade point averages (GPA). Extracurricular activity involvement (yes or no)

and the total number of extracurricular activities were also entered into Excel for analysis. Frequency distributions were created to visually depict the relationship between cumulative grade point average and ACT score as it relates to extracurricular activity involvement. Statistical analysis was conducted to test each null hypothesis. This analysis included correlation coefficients between the variables identified, as well as additional data points reflecting the statistical significance of each correlation. These data points were used to answer the four research hypotheses stated earlier in this chapter.

Findings

Null Hypothesis 1

There is no relationship between student grade point average and student involvement in extracurricular activities.

To measure this relationship, the correlation coefficient was derived for GPA and amount of extracurricular participation (as opposed to testing for merely zero participation versus any other amount). The resulting correlation coefficient of 0.33 indicates that there is a slight positive linear relationship between GPA and extracurricular activities—to a mild extent, as the number of extracurricular activities rise, so does GPA (and vice versa).

The null hypothesis 1 is rejected because the data analyzed show a weak uphill (positive) relationship between cumulative GPA and number of extracurricular activities.

Null Hypothesis 2

There is no relationship between student ACT scores and involvement in extracurricular activities.

The correlation coefficient of 0.60 signifies a stronger positive relationship between ACT scores and extracurricular activities than was observed between GPA and extracurricular activities.

Null hypothesis 2 conclusion.

Null hypothesis 2 is rejected because the data analyzed show a moderate uphill (positive) relationship between ACT scores and the number of extracurricular activities.

Null Hypothesis 3

There is no statistically significant difference between academic achievement, measured by ACT scores and cumulative GPA, for males and females relative to student involvement in extracurricular activities.

For male students, the correlation coefficient of ACT scores to extracurricular activity participation is 0.60. Thus, there is a moderate and positive correlation between participation in extracurricular activities and ACT scores for male students. For female students, the correlation coefficient for the same set of variables was calculated to be 0.60.

Comparing correlation coefficients using Fisher to derive z_n values yields $z_{observed}$= 0.13; thus, the outcomes regarding extracurricular activities and ACT scores are statistically insignificant between genders at the .05 confidence level, because 0.13 is less than 1.96. (See Chapter Four for an explanation of this determination.)

For male students, the correlation coefficient between GPA and extracurricular participation is 0.34, which indicates a weak positive correlation between the two. For female students, that number was 0.33, demonstrating a similarly weak relationship between GPA and extracurricular activity participation. Comparing coefficient correlations yields an observed value of 0.28. As this is less than 1.95 at .05 confidence

level, there is no statistical significance between genders relating to GPA and extracurricular participation.

Null hypothesis 3 is accepted because the data analyzed shows no statistically significant difference between academic achievement (measured by ACT scores and cumulative GPA) for males and females relative to student involvement in extracurricular activities.

Null Hypothesis 4

There is no statistically significant relationship between ACT and GPA scores for students who qualify for free and reduced lunch and their level of involvement in extracurricular activities versus those who do not qualify for free and reduced lunch.

For free and reduced lunch students, the correlation coefficient between ACT score and involvement in extracurricular activities was 0.50, while for students with no free and reduced lunch, it was 0.63. Thus, a stronger positive correlation between ACT scores and extracurricular participation exists for students who do not qualify for free and reduced lunch than for those who do. Is this statistically significant? Using Fisher to derive *z* values yields a result of 2.76, which, being greater than 1.96 at the .05 confidence level, means that this difference was significant. Students who didn't receive free or reduced lunch showed a stronger correlation between ACT scores and extracurricular participation.

The correlation coefficient between GPA and extracurricular activity participation was 0.23 for students who qualified for free and reduced lunch and 0.37 for students who did not. Again, a stronger positive correlation was found in the latter group. Using Fisher and the .05 confidence level, the observed value was -2.17, so once again, this is

statistically significant. There is a statistically significant difference between free and reduced lunch students and non-free and reduced lunch students as it relates to GPA and extracurricular activities.

Null hypothesis 4 is rejected because the data analyzed show a statistically significant difference in the relationship between ACT/GPA scores and student involvement in extracurricular activities when the correlation coefficients were compared for students qualifying for free and reduced lunch and those who did not.

Conclusions

The problem in approaching this study is the general lack of knowledge about the relationship between extracurricular activities and academic achievement in high school students. The literature contained research both supporting and denying that a relationship exists. When I first started to think about the relationship between extracurricular activities and academic achievement, its existence seemed only logical. During my 35 years as a teacher and administrator, I observed students in my classes and school who performed better academically when participating in sports, fine arts, or other school-sponsored activities. I was sure this was not coincidence, that a relationship existed, but I was not sure to what extent or how to quantify it.

After analyzing the statistical data collected for this study, several conclusions can be drawn. First, there is a clear and relatively strong, positive relationship between participation in extracurricular activities and ACT scores when students participate in more than five activities. When students engaged in extracurricular activities, their composite ACT exam scores were higher on average.

Second, while not as strong as that for ACT scores, there is nonetheless a moderate, positive correlation (.33) between cumulative student grade point averages (GPAs) and participation in extracurricular activities. The result is not overwhelming, but it does validate that when students are engaged in extracurricular activities, their academic performance improves. In all, these results validated my original belief.

I also found it interesting to analyze the literature—both positive and negative—regarding participating in sports, fine arts, or extracurricular activities. Certainly, extracurricular participation research has not been without its critics. Holland and Andre (1987) identified many weaknesses in their review of extracurricular participation studies. They warned of the potential selection bias on results and listed several variables that might interfere with extracurricular participation and various outcome measures. These confounding variables included family socioeconomic status, size of the school, extent of student participation, student ability, degree of participant success in the activity, student self-esteem, and the influences of significant others.

There have also been serious omissions in past research on extracurricular participation. Otto and Alwin (1977) reported that little evidence exists to suggest the effects of participation in activities. Other common omissions in the research include the absence of information on such factors as race, type of activity, age, length of student involvement, and social and political context (Taylor & Chiogioji, 1988).

As a result of these findings and the research being presented in this study, it is clear to me that a positive relationship *does* exist between participation in extracurricular activities—whether they are sports, fine arts, or other—and academic success.

The third conclusion of this study was that gender has no statistically significant impact on the strength of the correlation between academic performance and student participation in extracurricular activities. This finding did not come as a surprise; I observed both male and female students doing well in school after being directly involved with extracurricular activities. To gain a better understanding of what impact gender may (or may not) have with regard to extracurricular participation, I think a more detailed study on each specific area of sports, fine arts, and other activities would have to be undertaken.

The fourth and final conclusion that I derived from this study is that a statistically significant relationship exists between free and reduced lunch status and both GPAs/ACT scores and involvement in extracurricular activities. On average, students who qualified for free and reduced lunch had an 8.25% lower GPA, 11.98% lower ACT scores, and were involved in 13.77% fewer activities. Additionally, students on free and reduced lunch were more likely to forgo extracurricular activities entirely, as 5.32% fewer students were involved in 1 or more activities. There was a significant difference in the correlation coefficients for students qualifying for free and reduced lunch and those who did not: 0.23 for the former and 0.37 for the latter.

More activities still lead to better student success overall, but students who did not qualify for free and reduced lunch had a stronger positive correlation between number of activities and academic performance than those who qualified for free and reduced lunch. This difference in the strength of the correlation between these populations might be explained by external factors, such as home environment or students having to work jobs after school to help their families. These factors might limit a student's ability to take on

extracurricular activities after the school day. This is perceptible in the data, as the free and reduced lunch student population had a 44.59% higher incidence of students being involved in zero activities relative to students who did not qualify for free and reduced lunch (13.10% vs. 9.06% respectively). The data suggest that extracurricular activities need to be specifically designed to cater to the needs of this student population with the goal of improving academic success through increased participation in extracurricular activities.

Extracurricular activities are a part of most students' everyday lives. I believe these activities have positive effects on students by improving behavior, attendance, confidence, academic performance, school completion rates, preparation for post-high school life, and social growth. Educators need to be aware of the effects that extracurricular activities may have on student's lives and their academic trajectory.

Limitations

The limitations of this research include the following:

1. The study used the class of 2009 from both high schools instead of a random sample of extracurricular participants and nonparticipants.
2. The 116 students who were nonparticipants in any extracurricular activity represented 10.1% of the sample; the 1,029 who participated in at least one school-sponsored extracurricular activity represented 89.9%. Thus, the number of students participating in extracurricular activities was approximately 10 times greater than the nonparticipants.
3. Several students were not included in the data set due to incomplete test scores or data.

4. Extracurricular data that was submitted by each student (and compiled in their individual learning plans [ILPs]) might not have included all extracurricular activities the student participated in while in high school due to lack of recording. In addition, not all student organizations are required to register active members with the Student Activities Office.
5. The study is limited by the data that could be obtained through archival student records from the district office.
6. The study was conducted at a single school district; the results may not be applicable to other schools.
7. It is unclear how much more or less influence extracurricular activities have on academic achievement than other factors (e.g., academic ability, family background, and jobs after school). Additional research is needed to answer this important question.

Implications

The purpose for conducting this study was to determine if there was a relationship between participation in extracurricular activities and academic achievement of high school students. When the data were analyzed in this study, it was determined that a positive relationship exists between these variables.. The following are implications of this research:

1. High school student participation in extracurricular activities is positively related to academic achievement. This study determined that participation in extracurricular activities had a clear and positive relationship with academic achievement as measured by ACT scores. There was also a moderate, positive

correlation to extracurricular activity participation and academic achievement as measured by cumulative grade point average (GPA). These positive relationships support the benefits of student involvement in extracurricular activities in high school. It is my belief that it also supports the learning environment and overall success of each student.

2. High school students should be actively encouraged to participate in extracurricular activities. In the high school where this study was conducted, 62% of the students participated in at least one activity during 2006. Over the next two years, that number grew to 76.8%. During that time, the school's composite ACT scores rose from 21.9 to 22.8. This rise in academic achievement alongside extracurricular participation may also demonstrate the positive relationship between the two. Extracurricular activity participants have higher self-esteem (Dowell, Badgett, & Hunker, 1972), better attendance rates (O'Brien & Rollefson, 1995; Snyder & Spreitzer, 1978; Spreitzer & Pugh, 1973; Rehberg, 1969), and lower dropout (Landers & Landers, 1978) than nonparticipants. This study determined that a positive relationship exists between extracurricular activity participation and academic achievement. Given these factors, educational leaders must utilize extracurricular activity programs as a means to drive the further total development of each student. As more students seek college admission, educational leaders are faced with the challenge of identifying factors that improve students' academic achievement. Results of this study support the position that high school leaders and parents should actively encourage students

to participate in extracurricular activities to help facilitate further academic success.

3. High schools should to continue to offer students the opportunity to engage in extracurricular activities. When faced with budgetary constraints, educational leaders often begin cutting costs by eliminating extracurricular programs such as fine arts and athletics. Given the results of this study, doing so is not in the best interest of the students. If administration denies extracurricular activities to students, this may further contribute to the individual student's academic struggles. High school leaders must be mindful when examining what programs or extracurricular activities to eliminate. The results of this study support the value of extracurricular participation for the academic achievement of the student. In addition, the related literature also supports the overall development aspect of extracurricular participation.
4. There is a need to continue implementation of extracurricular programs representing involvement for all genders. The statistics of this study found no significant differences between gender participation, suggesting that academic achievement is similar for both males and females involved in extracurricular activities. The statistics of this study support a positive relationship between ACT composite score and extracurricular activity involvement for both males and females. When creating new extracurricular programs, opportunities for extracurricular participation should be equal for males and females.
5. High schools must offer extracurricular programs that meet the needs and interests of the student body at that school. Students will not become involved in

activities that do not interest them. Outdated or obsolete programs should be modernized or eliminated in order to reflect the interests of the student body. Schools could sponsor in-school work programs that aid the school. The programs would create opportunities for students to make money without leaving campus. This would help the students stay connected to the school by preventing them from having to worry about going to a job after school to help provide for their families. This population of students who seek part-time jobs is particularly vulnerable, since they largely underperform relative to the general student population. Participation in such an activity may also help them on a personal level, given the challenges of their socioeconomic situation.

In summary, high schools must provide students the opportunity to participate in extracurricular activities and programs to promote academic success. Based on both the related literature and the study results, extracurricular activity participation provides academic and developmental benefits. However, one caveat needs to be addressed: the opportunity to participate does not necessary translate into student success either academically or in general. High school leaders must provide these opportunities, but in the end, the students are the ones who must make positive choices and apply themselves for success.

Future Research

This study provides a foundation for future research to assist parents and school leaders in recognizing the benefits of student participation in extracurricular activities. This study provides valuable research concerning a positive relationship between

extracurricular activity participation and academic achievement. The following are suggestions for future research.

1. This research places all extracurricular activities into one category. An additional study could be performed to see if particular types of extracurricular activities have varying effects on academic achievement. A study of this nature could reveal that certain types of extracurricular activities might be able to raise student academic performance to a higher degree than other extracurricular activities.
2. Research might prove helpful to determine if withdrawal from activities has a negative effect on academic achievement. In addition, a related study could be undertaken to focus on students who have high grade point averages (or high ACT scores) but do not participate in extracurricular activities.
3. A study could be conducted to determine if extracurricular activities during elementary and junior high school have the same effect they do in high school.
4. A study could be conducted of self-selection for extracurricular activities to determine what factors contribute to self-selection and analyze their effect on academic achievement.
5. A study could be done to determine why students choose to participate in high school extracurricular activities, or why they do not.
6. A study might also be undertaken to include non-school-sponsored extracurricular activities (e.g., working a job) and their relationship to student academic achievement.

EPILOGUE

During the five years I was principal, I was very involved in creating a culture at our high school that embodied respect, academic success, and involvement in extracurricular activities.

This section will first outline my vision and blueprint for increasing academic success by promoting and increasing extracurricular activities in our school. Second, I will examine my interactions with students dealing with why they were or were not involved in activities. Finally, I will share methods and ideas on how to engage noninvolved students in extracurricular activities to help them become more woven into the fabric of your school and increase their academic performance.

Vision for Success

The first step in creating our school's culture of emphasis on extracurricular activities was to share my vision of extracurricular involvement with the staff, students, parents, and community. On my very first day as principal, I met with the faculty to let them know it was my plan to increase academic success by increasing student participation in our school. I told them of my expectation that every student would participate in at least one school-sponsored activity each year. I also sent home a newsletter to explain my vision to parents and guardians. I wanted everyone to be on the same page and understand why this was a priority for our school and for students' success.

My blueprint for enhancing academic success by increasing participation in extracurricular activities had many layers. The following action steps were implemented during the first two years of my tenure as principal. The ideas were not all mine; rather,

they were a combination of steps I knew to be effective, suggestions from other administrators and staff, and ideas I had gained from visiting and observing other schools.

Blueprint for Success

In order to get everyone on the same page with creating a culture of extracurricular activity involvement, I needed to establish a school-wide system in which every staff member and student knew my expectations. It was essential to instill in staff the importance of having students involved and engaged in school extracurricular activities in order to help increase academic success. Ongoing participation in extracurricular activities is critical for positive outcomes for students. In order to increase participation in activities, one needs to promote it. We needed to understand and implement a plan for doing so.

After sharing my vision with teachers and students, I started my plan by first creating a freshmen orientation that covers all the working components of our school: academics, clubs, activities, sports, and fine arts. This plan was a work in progress and took all of my administrative team's help. Their input, advice, suggestions, and leadership were instrumental in making the orientation a great success.

Freshmen orientation started a year prior to students coming to our school. A shadow day was held during the spring semester of each student's eighth grade year. Every incoming freshman was invited to "shadow" a high school student mentor during a regular school day. They would follow the high school student's daily schedule and routine, including lunch and classroom activities. If the student had a study hall, they were sent to large classrooms where teachers and administrators were stationed to answer

questions and help the freshman with any issues or problems. This gave teachers, mentors, and coaches time to let students know about academics and extracurricular activities and help them understand our school's culture for academics and student involvement.

Second, during the summer and before freshmen arrived on campus, I sent each incoming freshman a hand-written postcard welcoming them to our school. Although writing all the postcards took a great deal of time, the results were well worth the effort. It established my interest in each student and my desire to see them succeed while attending our school. It also invited them to get involved in at least one extracurricular activity each year while attending our school.

Third, I created a very important freshmen mentoring program called Impact, which paired each freshmen homeroom with a senior male and female mentor. This program was important for the following reasons:

1. Homerooms that were traditionally "holding pens" for students and for general announcements were transformed into learning environments where freshmen felt comfortable and connected to ask questions. In addition, they could have those questions answered by senior mentors and homeroom teachers. I visited each homeroom during the first semester to welcome new students and get to know them.
2. The senior mentors also guided and modeled appropriate behaviors so freshmen could be assimilated into the culture of our school.
3. Senior mentors led activities during homeroom that fostered growth and collaboration in freshmen. One major activity was a discussion about

bullying and how it impacts students. This discussion went on for several weeks and culminated in an all-day freshmen assembly. The assembly was hosted by the Anti-Defamation League and provided valuable information to help ensure our school was free from bullying and to build a climate of respect.

4. Each homeroom teacher followed their freshmen class throughout their four years of high school. As a final farewell to our school, homeroom teachers read their names during the commencement procedures at graduation.

(As a side note, I named the senior mentoring program Impact because I felt it was the perfect word for the program. Inside the word is are the letters "mp" which stood for mentor program. The letters remaining were "I act," which reflected what I was trying to teach our incoming freshmen: how to act and become woven into the fabric of our school culture.)

Fourth, an all-day freshmen orientation was held three days prior to the opening of school. This day was a time for freshmen to get to know each other, as well as participate and listen to ideas from speakers. This is an outline of the events and activities during the day:

1. When students arrived at the orientation, they were directed into the auditorium, where I greeted them. I presented my opening remarks and then challenged them to get involved not only in academics, but in extracurricular activities. I followed those remarks with a video I created to show them more about the school. (Here is a link to the video:

https://vimeo.com/4557261.) The purpose of the video was not only to show them about the school, but to challenge them to make the most of their high school experience and to be successful during the process.

2. Next, each student was given a colored T-shirt for group activities that would be staged outside and for inside tours of the building. Students were sent to the gym for a class photo and then divided into groups by color to participate in collaborative games and communication activities. The purpose of these activities was to help the freshmen get to know each other and their senior mentors. The tours given during this time also gave the freshmen a chance to see the high school and understand its layout.
3. Students were also given a drawstring tote bag with the high school's logo on it. In the bags were passes for their parents or guardians to attend a varsity sporting event and a fine arts performance during the year. The bags also contained a lunch pass for that day.
4. Lunch was provided for all in attendance and paid for by a local business. Students ate in the cafeteria, just like they would during a regular school day.
5. Parents were also part of the orientation process. They were asked to come one hour prior to the end of the day's activities to listen to speakers and be welcomed by myself and others. The end of the session was a question-and-answer period during which parents could voice their questions or concerns.

6. Students finished the day by attending a symposium with information on all of the school's extracurricular activities. Each sport, fine art, and club set up a display in the gymnasium to allow incoming freshmen the opportunity to talk to students who were part of that organization at our school. If students wanted more information on becoming involved in a particular activity, they could fill out sign-up cards to have the organization contact them.
7. That evening, a freshmen dance was held in the gym to welcome all the students to the high school and allow them time to get to know each other.

Reflections on the Blueprint

It is important to note that this plan has evolved over two years. The orientation process was modified many times to make it more efficient and effective. Students and staff gave input into the process, and the orientation and freshmen mentor program became stronger and more dynamic each year.

The following list includes ideas that administrators and leaders might consider when implementing their vision:

1. If funds are available, hire an activities director (or reserve a portion of a teacher's schedule for that role) at your school. I have always believed that if you want something to succeed in education, you must allocate money to it and monitor it. The activities director would organize and promote all clubs and activities at the school. In addition, a database of student involvement would be created, monitored, and warehoused by the activities director. Our school had a program called iCare, which served as

our database of all student activities, clubs, and organizations. We also had the activities director help organize and oversee homecoming, dances, charity drives, and prom.

2. When students wanted to have a new club or activity, a pilot period was granted to establish membership and find a teacher sponsor. The club sponsor was paid a stipend, and the club had to hold a minimum of 10 meetings during the year. The club was monitored by the activities director, and at the end of the school year, a discussion and evaluation would take place to see if the club would continue the next year.
3. Each club should highlight the club's outstanding accomplishments and student leaders. These can be done by posting the club's "student of the month" in a highly trafficked area—in our case, the hallway by the cafeteria. Students can see the club's accomplishments as well as the students who lead it. This might also encourage others to get involved.
4. I always made a point of attending as many club meetings, fine arts performances, organization events, and athletic contests as possible. As the educational leader of the school, I should be visible. Being seen at these events allows students to understand leaders' commitment to their activity and the importance of their activity to the school. It also helps build rapport with students, so they will come and talk to you directly if they have a problem or concern.

5. Our school had a one-hour end-of-year awards assembly where students were recognized for their leadership in their club, fine art, or activity. The entire school was present for the ceremony.
6. I also created "The Principal's Award," which I presented at a special evening award ceremony each year. This award was presented to senior students who had exhibited amazing leadership and dedicated many hours of service to our school. I also gave this same award to staff members using the same criteria.
7. Celebrating student involvement is an important aspect to the success of your vision. Create displays, awards, newsletters, and community announcements to illustrate the dedication of your students to their sport, fine arts program, or activity. Note that it *is* possible to over-celebrate these activities. Maintain a good balance to make sure that too much emphasis is not created.

One important thing to remember is that there will be staff opposed to the ideas you try to implement. They potentially represent some of your greatest challenges. You must create your vision and dedicate yourself to its success. Above all, you must stay the course and not let negative ideas or comments influence what you know is the right thing to do for your students. You must remain strong, steadfast, and unwavering. You must demonstrate your total commitment to the success of the vision you have set forth and let students know that you are building a school culture where respect, learning, and extracurricular activities are essential components of their high school experience.

Finally, it is imperative to have a plan for implementing your vision. If you do not have the funds or resources I have outlined, then make your vision fit what you can accomplish based on what you have available. The important thing is to start to enact your vision of extracurricular involvement for the students at your school.

Discussions with Students on Extracurricular Participation

Although I was primarily interested in having students get involved in extracurricular activities, I also wanted to understand why they did so. I took a great deal of time to survey and interview many of the students at our high school to find out what drove them to get involved and why they remained involved. During our discussions, several underlying themes emerged as to why students wanted to participate in extracurricular activities. These themes included the following reasons:

- For fun and personal enjoyment
- For personal achievement
- As an outlet for individual needs and special interests
- To broaden personal and social activities/try something new
- To achieve popularity and social status
- To explore experiences not available in a regular school program
- To participate with their friends and make new friends
- To develop leadership capabilities
- To earn awards, letters, and prizes
- To prepare for a vocation
- To make their college application stronger
- To please their parents and family

- To prepare to become a more effective citizen
- To participate in the identification and solution of a school problem
- To serve the school or community
- To supplement and enrich the classroom
- To improve relationships with teachers and administrators
- To get their photo in the yearbook
- Because teachers expected it

Students had a wide range of reasons for their involvement. When I asked them to describe their extracurricular experiences, they often smiled and were excited to do so, which told me they really enjoyed their activity. It also helped me understand the added value that extracurricular activities provide to each student and the climate of the school. Without these activities, many students would be less likely to attend school; some would possibly drop out. It is essential that schools foster a high academic learning environment, but it is equally important that schools offer extracurricular activities to make each student's high school experience exciting, fun, and memorable. The climate we create is essential for academic success. Students need to have many options for their extracurricular experiences. When this is the case, students are more engaged and have a more positive academic and social educational experience. The extracurricular offerings provided by our school made school more enjoyable and a place students enjoyed coming to each day. It became their second home.

While most students I spoke with were participating in extracurricular activities, some were not. Those students had the following responses as to their reasons for not participating:

- Fear that it would affect their classwork and grades
- Concern that they could not balance academic work and extracurricular activities
- Lack of interest in the extracurricular offerings at the school
- Need to work after school
- The student's race or religion prohibited participation in the activity
- Transportation problems getting to or from the activity
- Extracurricular activities were not valued at home
- Inability to afford the expenses associated with the extracurricular activity (e.g., equipment)
- Family constraints

It is important to examine and address these reasons as they represent roadblocks to student success. The students I spoke with wanted to participate but often felt disassociated from the school, had few friends, or worked a great deal of the time after school. In the research I conducted, many students who did not participate in extracurricular activities or had free and reduced lunch did not perform as well academically as did those who participated. This group of students needs special attention from staff and administration. They also need a different set of activities with added structure to help foster their desire to participate get connected to the school. Although these students will tell you they do not like structure, it has been my experience that they thrive on it. I believe there are several fundamental reasons these students do not get engaged in extracurricular activities. These students often carry feelings of:

1. Not belonging to the school

2. Being a loner/not having many friends
3. Being rejected by the staff or administration
4. Being insecure, timid, or shy
5. Having less respect than other students at school
6. Receiving less interest from teachers and administration
7. Low self-esteem
8. Not wanting self-growth or self-improvement

Based on my experience, students who exhibit these characteristics are often the hardest to reach. They require a different approach to academics and extracurricular activities. Often, they do just enough to get by but do not have a positive educational experience. Some are forced to attend school, which destroys their concept of self-worth, instills feelings of insecurity and frustration, and reinforces the idea that they are incapable of learning. These students may also exhibit excessive absences, low or failing grades in multiple classes, difficulty in communicating, and noninvolvement in the school. This disconnect often leads misconduct or in students just turning off altogether.

So how do we reach these students? What can we do to turn them on to school and engage them in extracurricular activities to make school exciting and interesting? As principal, I used strategies with five components to help these studentes:

1. **Planning.** Teachers must plan carefully on how to identify these students and get them actively engaged in school. District office administration must plan to establish resources and unique programs for helping these students get engaged in school. Community resources can be used to create a plan to help these students. Finally, a dynamic working action

plan must be established with counselors and deans to help support and monitor student attendance and student behavior.

2. **Attendance.** Students need to attend school every day and be spoken to if they miss school. Improved attendance is critical to helping students see school's attractiveness and relevance and the wayas it can prepare them for a successful future. (Note: I highlighted staff and student attendance each year with special awards to demonstrate the importance of being at school.)
3. **School climate.** Schools must give more focus on ways to make school a more caring, supportive, and nurturing atmosphere for all students.
4. **Parental involvement.** Schools must reach out to parents to help them get involved in their sons' or daughters' education. The school can do home visits when necessary to link the school to the student's home, stress attendance with parents, and help understand individual student needs. This is a key component in helping understand the student's perception of school and gaining valuable insight into the student's background and home life.
5. **Staff development.** Staff need to be continually updated on methodology, techniques, and strategies to address students who are struggling at school. Success in addressing these students depends first and foremost on how well-prepared staff are and how well they can address each student's problems.

These strategies are just the beginning for helping students who are not engaged in school become more excited about participating in extracurricular activities. Once they get motivated and see the value of getting involved, these students often become highly successful and regular attendees. In some cases, these students can even mentor others who are not involved in extracurricular activities. They can identify with them and relate to their situation. The final section will include other ideas and methods for helping faciliate student participation in activities.

Ideas and Methods to Help Students Get Involved in Extracurricular Activities

There are numerous ideas and methods administrators can use to help engage students who are not involved in extracurricular activities. Many of these ideas were used at our high school and proved successful in helping students get involved:

1. Create extracurricular activities that foster a spirit of belonging. These activities could include a safe place for meetings, a core group of students who work well together at creating leadership, a caring and enthusiastic teacher sponsor/advisor, a system to track attendance, and a method for celebrating performance when appropriate.
2. Promote an environment that allows students to take part in the decision-making process of that activity. This helps students develop a sense of control and mastery of skills, along with promoting growth in their leadership abilities.
3. Create extracurricular activities that develop positive decision making and independence. This helps build a greater sense of individual freedom and

creates an atmosphere in which students are less likely to succumb to peer pressure.

4. Create a school service project that provides an outlet for caring for others. This type of all-school project focuses on caring for others and helps build students' self-worth. Each year, our school picked one charity to raise money for, and every club, fine arts performance, athletic event, and organization helped raise money to benefit that organization.
5. Target student leaders as positive role models for students who are not participating in extracurricular activities. These student leaders serve as an important resource for demonstrating how to balance academics with extracurricular activities and build lasting friendships in the process.
6. Develop a culture that makes extracurricular activities a valued part of every student's high school experience.
7. Use community resources to help connect school to real-life experiences.
8. Survey the students to find out what their needs are and what it would take to get them involved.
9. Create a four-year plan for each student that includes their academic classes and extracurricular requests.
10. Promote ideas that involve students in ownership of the school. One example I used many times was painting a mural in the school. Students can submit ideas and then a student committee will select one to present to the administration for approval. The mural can be completed by several students as an activity to improve the school.

11. Start a school store that students oversee, organize, stock, and run to benefit the entire school.
12. Start a student-created activity newsletter through which students can showcase the current happenings of clubs, athletics, and fine arts. This could be done either on paper or digitally.
13. Have club or organization leaders make presentations to homerooms to help recruit membership. If your school does not have a homeroom, you may consider blocking out some time one day a month for these types of presentations.
14. Train your student leaders to have the same skills as your activity advisor. These could include communication, team building, and problem solving.

In today's educational environment, where there is an emphasis on privatization and accountability, it is more important than ever to create a school culture where extracurricular activities play an important role in student development. Without extracurricular activities, students will receive a limited and incomplete education. It is up to school leaders to advocate for their students and provide these important opportunities to enhance academic achievement, as well as social and emotional success.

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