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THE CORRELATION BETWEEN ACADEMIC ACHIEVEMENTS
AND EXTRACURRICULAR ACTIVITIES

A Paper Prepared for the Graduate Seminar
in Partial Fulfillment of
the Requirements for the Degree
Master of Education

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TABLE OF CONTENTS

LIST OF TABLES iv

CHAPTER

I. THE PROBLEM ................................................................. 1
   Introduction ................................................................. 1
   Statement of the Problem ................................................. 1
   The Purpose of the Study ................................................ 3
   Assumption/Research Questions ........................................ 3
   Importance of the Study ................................................ 4
   Scope of the Study ....................................................... 4
   Definition of Terms ..................................................... 5

II. REVIEW OF THE LITERATURE ....................................... 7
   Introduction .............................................................. 7
   Historical Overview .................................................... 7
   Findings and Implications of Extracurricular Activities ........... 8
      General Benefits of Extracurricular Activities ................. 9
      Students’ Feelings Toward Benefits of Extracurricular Act... 12
      Effects on Teenage Pregnancy ..................................... 13
      Effects of Limited English Proficient Students .............. 15
      Effects on School Connectedness .................................. 17
<table>
<thead>
<tr>
<th>TABLE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Selection of Samples According to Grade Level</td>
<td>26</td>
</tr>
<tr>
<td>2. GPA Numerical Ranks on a Scale from 1-12</td>
<td>28</td>
</tr>
<tr>
<td>3. Summary of Data Collection</td>
<td>31</td>
</tr>
</tbody>
</table>
CHAPTER 1

THE PROBLEM

Introduction

Children and Adolescents have been participating in extracurricular activities (see definition of terms) for almost a century now. A variety of activities are used to reach all talents, interests, and ability levels. The benefits of such activities have been debated since they began. Are sports good for girls (Brackenridge, 1998)? Does music enhance overall academic and athletic performance (Kelstrom, 1998)? Do activities detract from the basic educational skills needed to succeed in life (Stegman, 2000)? Should funds be allocated for such activities when academic performance is not at its full potential (Pressley & Whitley, 1996)? Do activities prevent school dropout (Mahoney & Cairns, 1997)? With the majority of elementary, middle school, junior high, and high schools offering extracurricular opportunities the issues above are being addressed extensively by researchers, educational administers, politicians, and even classroom teachers.

Statement of the Problem

Today’s educators and administrators are faced with budget cuts and financial stress; demands for higher test scores and accountability for student achievement, overcrowding facilities and higher technological demands (Kelstrom, 1998). Many school reform movements today have been designed to change the formal curriculum such as,
instruction time, subject matter, and competencies to be mastered. Reform initiatives are generally focusing on increasing students’ academic achievement (Wanlass, 2000).

In the darkness of these many obstacles the importance of extracurricular activities and their correlation to academic achievement have been neglected; often the first programs to be targeted during budget constraints (McNeal, 1998). The National Federation of State High School Associations (1991) reported that in the average U.S. high school today, 50 percent of the student body participates in at least one extracurricular activity and the cost for this participation is only 1-3 percent of the total school budget (Pressley & Whitley, 1996). “Trimming the funding in this situation will not generate much in terms of money that could be re-allocated for more intellectually rigorous pursuits on a per school basis” (Pressley & Whitley, 1996, p.74). Some schools and districts have resorted to a pay to play format where students must pay a fee for access to each activity. Other schools and districts have eliminated all or some of their nonacademic programs with the belief that they are not central to the students’ overall academic development.

Educators in schools and districts who do realize the importance of extracurricular activities to the school culture and student development have difficulty discerning which activities are the most beneficial and for whom (McNeal, 1998). Pressley and Whitley (1996) stated,

Eliminating interscholastic athletics, however, will not help solve the problem of mediocre performance by U.S. public school students. In fact, cocurricular activities in general and interscholastic athletics in particular may be solutions to our educational problems. Expanding cocurricular activities may also be the cheapest means of improving academic performances as well as of instilling socially acceptable values and norms of conduct in young people (p.74).
Jordan and Nettles (1999) state that there has been considerable concerns about how children and adolescents use their time when not in school and the overall effects of non-school experience to their educational outcomes as well as one’s human development. Timmons, Eccles, and O’Brien (1985) reported that young adolescents (9-14) spent 42% of their time outside of school participating in “discretionary” activities, such as watching television, hanging out with friends, playing sports/hobbies, without the presence of a positive adult role model. Participation in extracurricular activities is associated with a host of positive outcomes that include the increase in academic achievement, self-esteem and confidence, well-rounded individuals, and many other facets of life’s expectations (Jordan & Nettles, 1999).

**The Purpose of the Study**

The purpose of the study was to show a positive correlation between involvements in extracurricular activities to one’s academic achievement in grades 4-6.

Assumptions/Research Questions

Do students that participate in extracurricular activities perform academically better in school in terms of GPA? Do students who do not participate in extracurricular activities earn lower GPAs? My hypothesis is that the more activities students are involved in, the better one’s GPA.

**Importance of the Study**

The results indicate a need for more extracurricular activities for all students of all ages. Whether the reason for lack of involvement be financial, ability level, or transportation problems; all issues must be discussed and solutions to these problems met. Any programs that necessitate payment by a student must be revamped similar to
the requirements for reduced or free lunch programs or other adjustments of funds should be considered. In order to desire participating in activities outside the classroom students need to feel comfortable and competent in the setting, thus competitive and non-competitive programs need to be offered to reach all ability and interest levels. Transportation for all activities must be a priority and be organized by administrators, teachers, and parents in a joint effort.

Scope of the Study

The study was narrowed down to focus on students in grades 4-6 at an elementary school in a mid-sized city in California’s San Joaquin Valley. City life is very apparent, but agriculture is also a large economic force in this town. The school is very diverse with 763 students in grades kindergarten through sixth grades. Grades 4-6 have a population of 345. Amongst the 345 students in grades 4-6, 1% is American Indian/Alaskan Native, 2% Asian, 12% African American, 26% Hispanic, and 59% White. Students were randomly selected (N=208) to provide information regarding activities they participated in for one full year, and how one ranks school enjoyment on a scale of 1-4. Grade point averages were collected to correlate with extracurricular involvement.

Definition of Terms

Extracurricular Activity

For the purpose of the study, an extracurricular activity is any adult organized activity outside of the required core curriculum in the classroom, such as, math, reading, English, science, and social studies. The activities range from sports, academic (math club, science fair…), performance (chorus, dance, oral language…), prosocial (tutoring,
church, girl scouts), and to school involvement (student government). Also commonly referred to as cocurricular activities, out-of-school activities, and outside of school activities.

**Participation Rank**

For the purpose of this study participation rank is the number of activities a student participated in from June of 2000 to June of 2001. The ranks range from 0-12, and are the $x$ variable in Pearson’s Correlation Coefficient.

**GPA Rank**

Each subject’s GPA was given a numerical ranking from 0-12. This is the $y$ variable in Pearson’s Correlation Coefficient. See Table 2 (page 28) for more information.

**School connectedness**

For the purpose of this study this term means the feeling of belonging to one’s school personnel and environment. Also referred to as “school engagement.”

**Limited English Proficient (LEP) Students**

A student whose native language is not English, but one is progressing in their English skills in verbal and written forms.

**School Enjoyment Rank**

Each subject was asked in a survey, “Do you enjoy school?” The answers were on a scale of 1-4: 1=not at all; 2= sometimes; 3= most of the time; 4= all of the time. For the purpose of this study one’s answer became their school enjoyment rank.

**Specially Designed Academic Instruction in English (SDAIE)**
The focus of SDAIE is to provide curriculum content for all students, especially those challenged by less than proficient English skills, through engaging students in a variety of student centered activities.
CHAPTER II
REVIEW OF THE LITERATURE

Introduction

School-age children between the ages of 5-14 spend up to 80% of their time out of school. These hours represent an opportunity to help children grow and acquire important social, emotional, cognitive, and physical skills that will help them develop lifelong interests (Coltin, 1999). Desired outcomes of schooling have traditionally been defined in purely academic terms. That is, mastering subject matter in the traditional core content areas of math, science, language arts, and social science, thus the more subjects mastered the more competent one feels. However, this exclusive focus on academics neglects the other talents and capacities that many children bring to school (Wanlass, 2000).

Historical Overview

Prior to 1900, many educators were opposed to extracurricular activities, for the purpose of schooling was solely the pursuit of knowledge. Participation in other activities was not considered beneficial and was discouraged. Fraternities and sororities did exist, but were kept hidden from educators and policy makers. The Boy Scouts was the only organized activity at this time, and even so, was conducted outside of the school campus (Gholson & Buser, 1983).
A complete reversal of attitudes toward extracurricular activities sprouted during the first two decades of the 20th century. Educators shifted their attention from the importance of school to the child’s overall development, and with these beliefs participation in clubs and organizations were encouraged as a necessity to one’s overall development (Gholson & Buser, 1983). Still, eighty years later, Wanlass (2000) states, “Academic competencies are not the only means of attaining life success, nor are they any longer sufficient for productive functioning in today’s changing society.” (p. 2) Wanlass also reveals that many people whom have made significant contributions to society and attained success in life were far from excellent students in school. Since the early 1900’s an astonishing amount of research has focused on the overall effects of participation in extracurricular activities. Many studies have shown a positive relationship for those who participated in extracurricular activities to self-concept, self-esteem, delinquency, responsibility, self-confidence, educational aspirations, and more than ever, academic achievement (Gerber, 1996).

Findings and Implications of Extracurricular Activities

Almost every school in the United States offers some type of extracurricular activity, such as music, academic clubs, sports, and much more. Activities offer opportunities for students to learn the values of teamwork, individual and group responsibility, physical strength and endurance, competition, and diversity. Extracurricular activities also provide another avenue for reinforcing the lessons learned in the classroom. Students are given the opportunity to apply academic skills in a real-world context, and are considered part of a well-rounded education (O’Brien, 1995).
It is essential that extracurricular activities be introduced during the elementary school years. Longevity in activities has been strongly associated with the probability that students will be involved during their high school years. “Students are more likely to participate in an extracurricular activity in high school if they have been in a similar activity during elementary and middle school” (McNeal, 1998, p.3). This only strengthens the research and reasons for administrators to allocate funds for programs that enable students to explore one’s talents at the elementary level in order to promote success and lifelong skills in the future.

**General Benefits of Extracurricular Activities**

Data from the National Educational Longitudinal Study of 1988, sponsored by the U.S. Department of Education, National Center for Education Statistics were analyzed by Jordan and Nettles (1999). In this study 25,000 students, along with teachers, parents, and principals, spread among 1,000 schools were surveyed on ways the students spent their out-of-school time. “During the months when school is in session, students typically spend about three-fourths of their non-sleeping hours outside of school as compared to within school” (p.5). In 1988 the students were eighth graders, which as the base year of the study. The students were then surveyed every two years there after. Currently the students have been surveyed in grades 8, 10, 12, and two post high school graduation.

The students were surveyed on multiple issues, and the results will be discussed on only the related issues. The participation in clubs and school groups (sports, band, orchestra, chorus, math club, government, etc.) and how often one spends time on outside of school activities (tennis lessons, volunteering, art lesson, etc.) was asked to determine
the level of involvement in structured activities. The students also indicated on a scale from 1-4 “Student Preparation for Class” (how often they came to class without pencil, paper, books, or homework done), hanging out with friends (going to the park, playing ball, driving around, etc.), and time spent alone (using computer, hobbies, reading, etc.). Standardized test scores for math, reading, and science were also gathered for each individual (Jordan & Nettles, 1999).

Jordan and Nettles (1999) found a significant (sample size on all cases are above 10,000, making virtually all of them significant) correlation to those students participating in extracurricular activities to positive outcomes academically. Those involved in structured activities were more prepared for class and had higher standardized test scores. The students who spend more time hanging out with friends were negatively correlated to being prepared for class and standardized test scores. Interestingly, students who spent time alone had an especially strong relationship with mathematics and science achievement and were well prepared for class.

A National Education Longitudinal Study (1992) of high school students indicated that students who participate in extracurricular activities were three times more likely to perform in the top quartile on math and reading assessments compared to nonparticipants. Participants were also more likely than nonparticipants to aspire to higher education. Two-thirds were expected to complete at least a Bachelor’s Degree, while only half of nonparticipants were expected to do so (O’Brien, 1995). The U.S. Education Department’s Center for Educational Statistics conducted a study of some 18,500 students in high school or beyond and found that students who participated in activities generally had a higher GPA than students who did not (Pressley & Whitley, 1996).
A study conducted by Eccles and Barber (1999) began in 1983 with a sample size of approximately 1,800 sixth graders that were followed into the 1996 and 1997 years when most of the participants were 25 to 26 years old. The study ended with 1,259 of the original sample that completed the survey items about activity involvement. The study examines “the potential benefits (psychological attachment to school, better GPA, lower rates of school absences, and higher rates of college attendance)” (p.4). Five types of involvement were considered: prosocial (church and volunteer activities), team sports, school involvement (pep club, student council), performing arts (drama, marching band), and academic clubs (science fair, math club).

The students were given a list of 16 sports and 30 school and community clubs. Each student was asked to check off all activities that they had participated in. Surveys were conducted during regular school hours, but as students became young adults the surveys were mailed and returned in postage paid envelopes. On completion the participants were sent $20.00. In addition, complete school records were collected from grade 5 to 12 for all participants; these included grades, absences, courses taken, and any disciplinary measures.

The results were broken into the 5 categories of involvement: prosocial, sports, performing arts, school-involvement activities, and academic clubs. Eccles and Barber (1999) concluded,

Consistent with the majority of studies, we found clear evidence that participation in extracurricular activities during school years provides a protective context in terms of both academic performance and involvement in risky behaviors. Participation in all five types of extracurricular involvement predicted better than expected high school GPA’s.
Participation in sports, school-based leadership, school-spirit activities, and academic clubs predicted increased likelihood of being enrolled full-time in college at age 21. Involvement in sports also predicted increases in school attachment. Participation in prosocial activities was related to lower increases in alcohol and drug use, as well as to lower levels at both grades 10 and 12 (p.8).

In contrast, Eccles and Barber point out that involvement in team sports was linked to engagement of risky behaviors such as drinking alcohol. Although Schulenberg, Maggs, and Hurrelmann (cited in Eccles and Barber, 1999) state, “The fact that this activity was associated with both good educational outcomes and drinking is consistent with other studies reporting that some involvement in risky activities such as drinking and cutting school is not necessarily problematic in terms of the consequences for long-term educational success” (p. 15).

Students’ Feelings Toward Benefits of Extracurricular Activities

Many researchers and educators have found benefits of extracurricular activities, but very few have touched the issue of the students’ perceptions of how these activities have assisted them throughout their educational careers. Researchers Haensly, Lupkowki, and Edlind (1986) found positive correlations between participation in extracurricular activities and grades for 508 high school students. These researchers were interested in finding the directionality of this relationship, so they included two open ended questions asking students to indicate how participation in extracurricular activities have helped their life successes. Students stated that participation increased their self-confidence, sense of responsibility, and self-discipline. Other common benefits
expressed by students were an increase in academic motivation and a sense of involvement in school (Gerber, 1996).

Effects on Teenage Pregnancy

Birthrates among adolescents in the United States are substantially higher than in other Western industrialized countries, and were higher in the mid-1990’s than in the mid-1980’s. The proportion of births occurring outside of marriage has risen steadily (Moore, Romano, Gitelson, and Connon, 1997). Programs and initiatives aimed to decrease these high rates of nonmarital parenthood need to focus on the factors that contribute to the lives of adolescents. Although several recent studies have explored the effects of neighborhood and community level variables on adolescent pregnancies, relatively little research attention has been paid to the influence of school level factors (Moore, Manlove, Glei, and Morrison, 1998).

Numerous measures have been correlated to the risk of teenage pregnancy: socioeconomic status, parental education level, (Hayward, Grady, and Billy, 1992) single parent families, family background, community disorganization and welfare benefits, academic performance, school engagement, school mobility, peer pressure, and school safety (Moore, Manlove, Glei, and Morrison, 1998). Moore, Manlove, Glei, and Morrison (1998) also stated, “A substantial level of involvement in school clubs, sports, and religious organizations was associated with a lower risk of school-age motherhood.” (p.2) A 1997 report by the Alberta Schools Athletic Association found that students involved in school sports were less likely to smoke or use drugs, and had lower rates of teenage pregnancy (Schofield, 2000). Allen, Kuperminc, Philliber, and Herre (1994)
found that establishing a high level of involvement in a school related organization may be a promising strategy for preventing early childbearing.

In a current study with a sample of approximately 8,000 females who were in the 8th grade in 1988 were followed across a 4-year time period to the age when high school graduation would occur. The participants were surveyed on their home and school life in detail. Of the 8,349 girls that participated and completed all three waves of surveys, 471 had nonmarital births, and 7,459 had no birth by 1992. The remaining 419 cases were excluded from the analysis for numerous reasons; 174 were currently pregnant and it was unknown if the pregnancy would be successful or one would give birth prior to high school graduation, 49 married the father before the birth, 132 had a birth with an unknown marital status, and 64 were missing data on birth status. Moreover, 890 females became pregnant (Moore, Manlove, Glei, & Morrison, 1998).

In relation to the 8,349 girls that participated in the longitudinal study many factors influenced whether or not girls had a nonmarital birth. Although, Moore, Manlove, Glei, and Morrison (1998) state,

If there is any single theme that crosses the varied analyses presented here, it is that those young women least prepared for motherhood are at the greatest risk of a high school age nonmarital birth. School and family strategies to help adolescents become engaged in school work and school activities and to be successful in academic pursuits need to be considered as a promising direction for affecting adolescent fertility (p.17).

Involvement in school organizations, particularly clubs in which African American students were involved in, and school religious organizations that White adolescents participated in was associated with a lower risk of school-age motherhood (Moore,
Manlove, Glei, & Morrison, 1998). White adolescents involved in problematic behaviors such as, early substance abuse, delinquency, and violence have been found more likely to have sexual intercourse, whereas girls on grade level and earning good grades are more likely to abstain or use some form of birth control if one chose to have sexual intercourse (Brewster, Billy, & Grady, 1993). Clearly, adolescents with higher educational expectations and school involvement have been more likely to delay sexual intercourse and to avoid teenage parenthood (Moore, Manlove, Glei, & Morrison, 1998).

**Effects on Limited English Proficient Students**

The United States is a melting pot of various cultures and languages. Cota (1997) examined indicators that could affect academic success and the development of English language skills in intermediate school limited English proficient (LEP) students who were receiving their second year or more of specially designed academic instruction in English (SDAIE) and mainstream academic English instruction. A total of 103 students in grades 7-8 were carefully chosen based on their most recent standardized test. An interview was conducted to obtain information regarding the study. The students’ participation in extracurricular school activities and organized out-of-school activities was among many of the questions asked (Cota, 1997).

Cota (1997) stated these results, eighty-two point five percent (82.5%) of the students said that they do not participate in extracurricular school activities, while 17.5% said they do participate in extracurricular school activities. Seventy-seven point seven percent (77.7%) indicated that they do not participate in out of school organized activities and 22.3% specified they do participate. “The data indicate that in most cases the students are not participating in either school or out of school extracurricular activities” (p.7). “Such
activities provide opportunities to develop a variety of social and leadership skills, as well as the purposeful use of their English skills in social contexts” (p.11).

The History-Social Science Framework for California Public Schools Kindergarten Through Grade Twelve (1988) emphasizes that teachers should encourage all students to participate in school and community service programs and activities (Cota, 1997).

Researchers Hallinan and Teixeira (1987) have found that students who participated in extracurricular activities were also more likely to have friends different than their own racial group and to have more positive racial attitudes than students who do not participate in extracurricular activities.

Cota (1997) suggests,

Every effort should be made to inspire the students to participate in extracurricular school activities. Students need to become aware that participating in school activities can help them practice their English language skills and can give them opportunities to interact with a variety of students from different ethnic groups (p.12).

**Effects on School Connectedness and School Dropout**

Research suggests that participation in extracurricular activities may increase students’ sense of engagement or attachment to their school, and thereby decrease the likelihood of school failure and dropping out (O’Brien, 1995). These activities play a key role in developing a school’s culture. Schools generate an internal culture that revolves around the groups that student’s form, which is partially dependent upon student membership in school activities. Students begin to feel a sense of belonging and school spirit (McNeal, 1998).
Having feeling of “school connectedness” is defined as a student’s experience of caring at school and a sense of closeness to school personnel and environment. Researches have found that students with high school connectedness, compared to those with low connectedness had significantly low rates of emotional stress, suicidal thoughts and behaviors, violence, substance use, and early sexual experiences. In addition there was a strong correlation to low absenteeism, delinquency, and pregnancy. The number of extracurricular activities available in schools will have a positive effect of school connectedness (Bonny, Britto, Klostermann, Hornung, & Slap, 2000). “Extracurricular activities are one of the components of participation that is proposed to increase one’s stake in and identification with school. Thus, children who take part in extracurricular activities are believed to be more likely to identify with and remain in school” (Gerber, 1996, p.43).

Ninety four percent of high school dropouts in the United States did not participate in extracurricular activities (Pressley & Whitley, 1996). Data from the National Education Longitudinal Study on high school seniors in 1992 indicated that during the first semester of the students’ senior year, those participating in activities reported better attendance than their non-participating classmates. Fifty percent of the students had no unexcused absences from school and 50% had never skipped a class, compared to 36% and 42% of the students not participating in extracurricular activities (O’Brien, 1995).

Mahoney and Cairns (1997) examined the relation of extracurricular involvement to early school dropout by interviewing 392 students annually for 6 years, from 7th through 12th grade. Information was also obtained from teachers and peers on a range of social and
academic measures. In addition, annual information on extracurricular activities was available from school yearbooks.

The results indicated that engagement in school activities is linked to decreasing rates of early school dropout in both girls and boys. “Extracurricular involvement, particularly for persons at risk for dropout, may be one component of that transition that could help shift the balance toward greater engagement in school.” (Mahoney & Cairns, 1997, p. 249)

Researchers have found that dropouts participate in significantly fewer extracurricular activities than those students that remain in school. A study conducted by Ekstrom, Goertz, Pollack, and Rock (1986) indicated that dropouts reported having much lower self-esteem than students who graduate. Self-esteem has been correlated to participation in extracurricular activities, and there is reason to expect a link between involvement in extracurricular activities and staying in school (Gerber, 1996). Participation in extracurricular programs provides a vital link to school that may prevent some at-risk students from withdrawing from school, first emotionally and then physically (Finn, 1989).

Benefits of Sports

The most common activities participated by United States youth are sports with band and orchestras coming in second (Eccles and Barber, 1999). The relationship between academic achievement and athletics has been of a particular interest to researchers for years. As early as 1961 Eidsmoe found that athletes had higher GPA’s than the overall class average. Edwards in 1967 and Schafer and Armer in 1968 also found similar results, continuing on to this past decade with Marsh in 1992 finding a
statistically significant relationship between academic achievement and participation in extracurricular activities (Silliker and Quirk, 1997).

In a recent study Silliker and Quirk (1997) researched the effect of extracurricular activity participation (EAP) on the academic performance of male and female high school students using soccer as the key activity. Silliker and Quirk defined a major extracurricular activity as “one in which students spend at least 5 supervised hours per week.” Soccer was chosen because the season is limited to one grading period and large numbers of both male and females participate.

Silliker and Quirk found that EAP in athletics does not endanger academic performance, but on the contrary even enhances. Each researcher continued to state that it has been the typical experience that parents and school personnel tend to blame and often restrict to the EAP when students’ grades fall. Suggestions were made that peer tutoring and study-skills training may be a more fitting solution to academic difficulties (1997).

Research has also promoted the benefits of athletics by comparing the academic performance of athletes both in season and out of season. Durbin’s (1986) study (discussed in Stegman, 2000) found evidence that athletes performed better academically during the time they were competing. Soltz (1990) determined that athletes received more failing grades when they were not participating in a sport than when they were involved (Pressley & Whitley, 1996). A study by Laughlin (1978) involving a sample of high school wrestlers proved that GPA’s were better during the wrestling season than when these athletes were not participating in a sport (Silliker & Quirk, 1997). Silliker and Quirk (1997) used the same sample of soccer players mentioned earlier to compare
the academic performance of each individual in and out of season. The results showed
better attendance at school and higher GPA’s while soccer season was in session than the
off-season time.

Other interesting facts in regards to athletics have been pointed out. Athletes from
low-income families earn better GPA’s than non-athletes at the same economic level.
Athletes not only have better GPA’s than non-athletes, but were also more often enrolled
in college preparatory classes. Student athletes have also been found to have a lower
incidence of delinquency, with a possible explanation being that while participating one
has less time to get in trouble (Pressley & Whitley, 1996). Girls in sports are accepted
more readily by their peer group, feel healthier, have higher self-esteem, and have less
stress (Brackenridge, 1998).

It is not only the sports that assist in the success of children and adolescents, but
the physical activity itself. Physical activity benefits children now and in the future.
Children who are physically active on a regular basis are more energetic, more content
with themselves, peers, family, and school, miss fewer days of school due to illness, and
the culmination of the prior enhances one’s academic achievement. Physically active
students are less likely to smoke and become involved in delinquent and criminal
behavior. Most importantly students are more likely to continue leading a healthy
lifestyle as an adult (Anderson, 1998).

Benefits of Music, Drama, and Art

Music and art in the elementary years are often described using terminology such
as “specials” and are used as either rewards for good behavior, to kill time between
academic lesson, or as a once a week class. In middle and high schools, art, music, and
drama are considered elective courses and are often taken for no more that one or two semesters throughout a student’s entire educational career (Wanlass, 2000). In addition, high school music programs are fighting to maintain enrollment because of ever increasing college academic admission requirements. Students are left with little room in their schedule for music as they find pressure to achieve higher grades and scores on college entrance exams (Kelstrom, 1998).

Music in other countries is already a high priority. Seventeen countries were analyzed on their scientific achievement by the International Association for Evaluation of Educational Achievement (1988). Japan, Hungary, and the Netherlands were all rated at the top, where music is an integral part of the school curriculum. In fact, the U.S. was ranked 14th of the 17 countries (Kelstrom, 1998).

In Japan all students learn both choral and instrumental music from grade school through secondary school. The Dutch made art and music mandatory subjects in their secondary schools in 1968, and they are even used on exams to determine university admissions. Hungary provides vocal and instrumental music lessons twice a week for the first eight years of schooling, and students who would like more instruction are given daily lessons and learn a new instrument each year. Oddleifson (cited in Kelstrom, 1998, p.3) states, “It would appear that the Hungarians, Japanese, and The Dutch understand something we Americans have yet to fully grasp—that music and the arts are vital to the development and expanse of the human intellect, which in turn results in superior academic and career performance.”

Case studies have been conducted in America by numerous researchers. A study involving 5,154 fifth graders in 1980 and 5,299 in 1981 took the Comprehensive Test of
Basic Skills (CTBS). Of these groups almost one-fourth of all participants were in the instrumental music program both years. The results indicated that the longer students were in music, the higher the achievement was in comparison to the non-music students (Kelsrom, 1998). In 1992 a different group of 270 fifth graders took the same standardized test (CTBS), and the study inferred that the time out of regular classes for music instruction does not negatively affect academic achievement (Dryden, 1992).

The National Center for Educational Statistics (1990) conducted a survey of 18,000 high school sophomores to gather information on the social and academic life of U.S. teenagers. Kelstrom (1998) reports,

While 22.8 percent of these students participated in school music programs, the percentage of music students was much greater than 22 percent of the entire group in receiving academic honors, making the honor roll, or being elected to class office. The GPA of music students was also higher (p. 2).

Students’ attendance at music programs is also associated with many other positive outcomes. These include good peer relationships and behavior (Sharp and Osgood, 2000), critical thinking, reading, writing, and math skills, eye-hand coordination, spatial intelligence (Kelstrom, 1998), sense of rhythm, physical coordination, fine and gross motor skills, critical thinking, memory recall, listening, and logic (Dryden, 1992).

Math and reading skills are positively affected the most. The rhythm of music transfers to the rhythm of reading. Auditory discrimination developed by musical study helps phonetic skills blossom and improves the reading readiness skills in slow learners (Kelstrom, 1998; Dryden, 1992). Studying music also enables students to learn multiplication tables and math formulas more easily (Kelstrom, 1998).
Summary

Children and Adolescents spend up to 80% of their time outside of the classroom. How children spend this time has become an important issue. The literature review presented has shown the multifaceted benefits that extracurricular activities provide for today’s youth. Students participation in extracurricular activities have a strong advantage over their nonparticipating peer in numerous educational and life skills. Higher academic achievement in all core subjects was a common benefit presented by numerous researchers. In addition to academics, participation has been linked to preventing teen pregnancy and school dropout, assisting in the language and cultural growth of LEP students, higher self-esteem and feelings of competence, better peer relations, lower rates of delinquency and substance abuse, growth of leadership skills, greater educational aspirations, greater sense of responsibility, and school attachment.

As students participate in a variety of extracurricular activities it begins to close the gap between students’ actual and potential achievement. Students can develop competencies that will lead to other school and life success, for these talents could generate numerous career options that might otherwise have gone unconsidered.
CHAPTER III

METHODOLOGY

Research Design

A nonexperimental study was designed using a survey for correlational research. The relationship between academic achievement and participation in extracurricular activities was measured. GPAs and participation ranks (score given to the number of activities involved in) were the two quantitative variables.

Selection of Subjects

The population of grades 4-6 total 345 students with 1% American Indian/Alaskan Native, 2% Asian, 12% African American, 26% Hispanic, and 59% Caucasians. In order to have a random and diverse sample the subjects were chosen on a class basis, for classes are predisposed according to race, age, academic ability, and conduct. Two fourth, 3 fifth, and 3 sixth grades classes were chosen; totaling 217 students. The sample was then narrowed to N=208, because 9 surveys were voided out due to improper completion of the survey and/or dubious answers. Refer to Table one for grade level selections.

Instrumentation

A survey was developed in accordance to the extracurricular activities offered to students at the particular school and community to gather data (see Appendix A). In order to assure the survey fit this particular group, students and
Table 1

Selection of Samples According to Grade Level

<table>
<thead>
<tr>
<th>Grade</th>
<th>Total Population</th>
<th>Sample Size</th>
<th>% of N=208</th>
</tr>
</thead>
<tbody>
<tr>
<td>4th</td>
<td>119</td>
<td>64</td>
<td>31%</td>
</tr>
<tr>
<td>5th</td>
<td>128</td>
<td>97</td>
<td>46%</td>
</tr>
<tr>
<td>6th</td>
<td>98</td>
<td>47</td>
<td>23%</td>
</tr>
</tbody>
</table>

Parents were asked to list the various activities that one knows are available in the community and/or the student or parent’s child had participated in. A list of the activities offered by the school was provided by the principal. This research led to the survey listing 16 sports, 16 other activities including performance, academic, prosocial, and school involvement categories, an “other” section for writing in activities that were not listed, and a place to check if one has not participated in any activities. The students checked the activities they had participated in from June of 2000 to June of 2001 only. The number of activities a student checked here becomes one’s participation rank.

The survey also asked, “Do you enjoy school?” The answers were on a scale from 1-4: 1-not at all, 2-sometimes, 3-most of the time, and 4-all of the time. Although, the question was not asked in scale format, but rather as a multiple choice question to ensure validity since students in these grade levels are more familiar with the multiple choice format. The answer becomes their school enjoyment rank.
The survey was tested by a group of 15 students ranging in grades 4-6 in order to ensure the level of comprehension of what it was asking. At this point a question concerning the amount of stress one feels about school was thrown out, for two-thirds of the students were very unclear as what defines stress. The remaining part of the survey was understood easily with little clarification after the directions were read and discussed.

Teachers also played an integral role in the collection of data. A letter to the teachers that was attached to the surveys may be found in Appendix B. Teachers read the instructions out loud and discussed with the students the definition of an extracurricular activity. The teachers then walked through each activity listed giving examples of what would count as a proper extracurricular activity. During this time students were able to raise their hands and ask about the validity of certain activities in which were involved.

Finally, teachers reviewed each survey to spot any questionable answers and/or improper completion and confronted the student for further explanation. At that time surveys were changed to reflect accurate data or voided out.

**Data Gathering**

Data was collected and organized into participation and GPA ranks. The amount of activities participated in ranged from 0-12, thus this became each student’s numerical participation rank. GPA’s were also given a numerical rank from 1-12. Table 2 explains the ranks for each GPA interval. For Example, if a student had a GPA of 2.6 then one’s GPA Rank would be 8. At that point each subject had two variables (x= participation rank and y=GPA rank).

Table 2
GPA Numerical Ranks on a Scale from 1-12

<table>
<thead>
<tr>
<th>GPA Interval</th>
<th>Rank</th>
<th>GPA Interval</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0-0.3</td>
<td>0</td>
<td>2.2-2.4</td>
<td>7</td>
</tr>
<tr>
<td>0.4-0.6</td>
<td>1</td>
<td>2.5-2.7</td>
<td>8</td>
</tr>
<tr>
<td>0.7-0.9</td>
<td>2</td>
<td>2.8-3.0</td>
<td>9</td>
</tr>
<tr>
<td>1.0-1.2</td>
<td>3</td>
<td>3.1-3.3</td>
<td>10</td>
</tr>
<tr>
<td>1.3-1.5</td>
<td>4</td>
<td>3.4-3.6</td>
<td>11</td>
</tr>
<tr>
<td>1.6-1.8</td>
<td>5</td>
<td>3.7-4.0</td>
<td>12</td>
</tr>
<tr>
<td>1.9-2.1</td>
<td>6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Limitations

The study does not explain what other factors could contribute to this correlation of extracurricular activities to academic achievement. It is unclear if these students participate because they are better students, have a higher socio-economic level, live in a two-parent family, etc. It is also unknown as to why students don’t participate. Is it because of low academic levels and socio-economics, living in a single parent home, lack of transportation, and more?

The samples represent only one school in a mid-sized city and were not compared to any other demographically similar or different schools.
The samples used in the collection of data may have had an inconsistent year as far as academic achievement (GPA). One may have earned better or less than their typical average.

Grades itself can be very subjective and vary from teacher to teacher.
CHAPTER IV
DATA PRESENTATION AND ANALYSIS

Presentation of Data and Analysis

As the participation ranks ranged from 0-6 there was a clear positive progression in average GPAs. Average GPA ranks also made a steady increase from 6-10 making a range of 4. One hundred and seventy-five (84%) of sample N=208, fell within the participation ranks from 0-6. As the participation ranks increased (7-12) only 16% of the sample represented this area, and the average GPAs began to vary from a 3.08-3.57. Average GPA ranks equaled 10 (9-11) with a range of only 2.

Average school enjoyments ranks for students with a participation rank of 1 and 2 was a 2, indicating that these students enjoyed school only some of the time. However, students with a participation rank from 3-12 had an average school enjoyment rank of 3, indicating that they enjoy school most of the time. Table 3 summarizes the data presented above by each participation rank being broke down to the number of subjects that fell in the rank, GPA average and GPA average rank, and finally the school enjoyment rank.

Using the Pearson’s Correlation Coefficient calculation with the \( x \) variable (participation rank) and \( y \) variable (GPA rank), a moderate to strong correlation was found (\( r = .60 \)). Being that grades may vary from teacher to teacher and make this study more subjective, then a correlation coefficient of .60 tends to be on the strong side.

Table 3
## Summary of Data Collection

<table>
<thead>
<tr>
<th>Participation Rank</th>
<th># of Students in each Participation Rank</th>
<th>GPA Average for each Participation Rank</th>
<th>School Enjoyment Rank Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>19</td>
<td>1.95 *(6)</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td>25</td>
<td>2.07 *(6)</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>25</td>
<td>2.34 *(7)</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>37</td>
<td>2.34 *(7)</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>29</td>
<td>2.57 *(7)</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>26</td>
<td>3.02 *(9)</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>14</td>
<td>3.29 *(10)</td>
<td>3</td>
</tr>
<tr>
<td>7</td>
<td>11</td>
<td>3.19 *(10)</td>
<td>3</td>
</tr>
<tr>
<td>8</td>
<td>8</td>
<td>3.32 *(10)</td>
<td>3</td>
</tr>
<tr>
<td>9</td>
<td>4</td>
<td>3.08 *(9)</td>
<td>3</td>
</tr>
<tr>
<td>10</td>
<td>2</td>
<td>3.25 *(10)</td>
<td>3</td>
</tr>
<tr>
<td>11</td>
<td>5</td>
<td>3.57 *(11)</td>
<td>3</td>
</tr>
<tr>
<td>12</td>
<td>3</td>
<td>3.44 *(11)</td>
<td>3</td>
</tr>
</tbody>
</table>

*= Average GPA Rank; N=208; r =.60
Summary

Students that participate in extracurricular activities do perform better academically when using GPAs as the measurement for achievement. Students who do not participate clearly earn lower GPAs. From the data collected here it seems that it does not indicate that one needs to participate in an overload of activities in order to have a “B” average (3.00 or GPA rank of 9-12), for as some GPAs do increase with a participation rank of 5-12 their GPA ranks from 9-11 has a range of only 2, staggering in the low “B” to a mid “B” average. The hypothesis mentioned earlier, that the more activities one participates in the better one’s GPA, has not been strongly proven.

Students do not need to overload on activities to enjoy school either, for participation in just 2 activities enable students to have a sense of school connectedness and belonging. Involvement in a few activities provides students with an advantage over nonparticipants in academic achievement and feelings of school enjoyment. This correlation should suggest to educators and administrators alike to reevaluate priorities for programs and funds.
CHAPTER V
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

As today’s educators and administrators are faced with budget cuts, demands for higher test scores, accountability for student achievement, overcrowding facilities, and higher technological demands students are being neglected when it comes to a well-rounded education, as special programs for sports, music, debate, math club, band, and much more are being eliminated. In order for students to become well round and reach their full potential, they must be exposed to a variety of activities in and out of school.

Chapter II presented valid research of the positive benefits that extracurricular activities provide to a developing child or adolescent. The main benefit is higher academic achievement (Pressley & Whitley, 1996), but one can’t forget the multitude of assistance extracurricular activities have assisted in the prevention of school dropout (Mahoney & Cairns), teenage pregnancy (Moore, Manlove, Glei, & Morrison, 1998), delinquency, and substance abuse (Bonny, Britto, Klostermann, Hornung, & Slap, 2000). In addition extracurricular activities have assisted in the language and cultural growth of LEP students (Cota, 1997), higher self-esteem and feelings of competence, better peer relations, leadership skills, higher educational aspirations, greater sense of responsibility, and school engagement (Wanlass, 2000).
The methodology in Chapter III described a nonexperimental study that used a survey for correlational research. A sample of 208 students in grades 4-6 were given a survey to gather data in regards to the amount of extracurricular activities one had participated in for one full year, and how one would rank the their enjoyment of school on a scale of 1-4. The relationship between academic achievement and participation in extracurricular activities was measured. GPAs and participation ranks (score given by the number of activities involved in ranging from 1-12) were the two quantitative variables.

Chapter IV provided the results using the Pearson’s Correlation Coefficient calculation. A moderate to strong correlation (r=.60) was found, which indicated that students tend to achieve higher GPAs and enjoy school more when one is involved in some extracurricular activities. However, involvement in an overload of activities in not necessary to gain the benefits; for 5 or 6 would be suffice.

Conclusions

As students are spending up to 80% of their time outside the classroom programs must be implemented and encouraged in order for students to spend this time positively. An enriched environment will provide student with nonacademic competencies that would indirectly complement achievement in traditional academic subjects. Many school administrators argue that the endorsement of extracurricular activities would leave students with an educational deficit, thus tampering with successful career and life options. When taken into perspective only a small percentage of individuals become professional musicians or athletes, but the majority of students do not grow up to be biochemists, mathematicians, or Rhode Scholars either. Exposing students to an
assortment of activities might even generate career options that might have otherwise gone unconsidered.

Extracurricular activities have been a part of the lives of numerous children and adolescents for a century. They must not be eliminated due to lack of funds or demands for higher test scores. Participation in these activities are clearly correlated to higher academic achievement, and school administers must find a way to enable schools to become places where all students can cultivate their talents and abilities necessary for successful functioning in today’s society.

**Recommendations for Further Study**

The factors that lead to the positive correlation of higher academic achievement and school enjoyment and participation in extracurricular activities need to be explored in further detail, for a correlation does not imply causality, rather a relationship. Extracurricular activities and academic achievement may be correlated due to the effect of a third variable. Other variables must be examined in greater detail to find any underlying causes for this correlation. Some suggestions for researchers to study are the student’s socio economic status, parent education level, mode of transportation, family background, school environment, quality of teachers and coaches, self-motivation, gender, and parental encouragement to name a few. This correlation requires further study in order to see the whole picture.
REFERENCES


