

**MIDDLE SCHOOL STUDENTS' PARTICIPATION IN EXTRACURRICULAR  
ACTIVITIES: RELATIONSHIPS TO SCHOOL IDENTIFICATION AND  
ACHIEVEMENT**

---

A Dissertation

Presented to

The Faculty of the School of Education

The College of William and Mary in Virginia

---

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

---

Stenette Byrd III  
December 6, 2010

**MIDDLE SCHOOL STUDENTS' PARTICIPATION IN EXTRACURRICULAR  
ACTIVITIES: RELATIONSHIPS TO SCHOOL IDENTIFICATION AND  
ACHIEVEMENT**

by

Stenette Byrd III

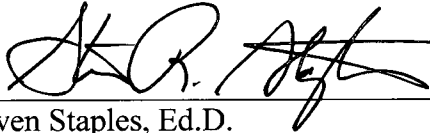
---

Approved December 2010 by



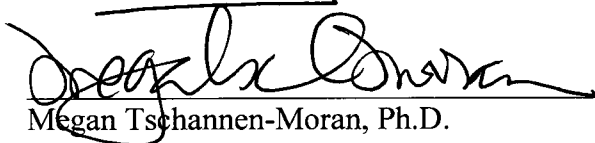
---

Michael F. DiPaola, Ed.D.  
Committee Chair



---

Steven Staples, Ed.D.



---

Megan Tschannen-Moran, Ph.D.

## DEDICATION

This research is dedicated to my beautiful wife, Tonya, who has helped me more than anyone will ever know; and to the twins, who came at a time in my life when I needed them most to help maintain my focus: Our son, Stenette Byrd IV “Ivy”, and our daughter, Trae Denise Byrd.

## TABLE OF CONTENTS

ACKNOWLEDGMENTS .....	viii
LIST OF TABLES .....	ix
LIST OF FIGURES .....	x
ABSTRACT .....	xi
HALF-TITLE PAGE .....	1
CHAPTER I: INTRODUCTION .....	2
Introduction .....	2
Statement of the Problem .....	3
Purpose of the Study .....	5
Conceptual Framework .....	6
Research Questions .....	9
Delimitations .....	9
Definitions of Related Terms .....	9
CHAPTER II: LITERATURE REVIEW .....	12
Extracurricular Activity Participation (EAP) .....	13
Developmental Timing .....	14
EAP and Problem Behaviors .....	15
Impact of EAP .....	18
School Belonging .....	20
School Identification .....	23
School Connection .....	23
Trust .....	24

Attitude .....	25
Confidence .....	27
Academic Achievement .....	29
Grade Point Average (GPA) .....	30
Virginia Standards of Learning (SOL) .....	31
Summary .....	34
CHAPTER III: METHODOLOGY .....	35
Research Questions .....	35
Setting .....	36
Population .....	37
Design .....	38
Instruments.....	38
Involvement in Extracurricular Activities .....	39
School Identification Survey.....	42
Virginia Standards of Learning (SOL) Assessments .....	43
Grade Point Average (GPA) .....	45
Variables of Interest.....	46
Independent Variables .....	46
Dependent Variables .....	47
Data Analysis .....	47
Ethical Safeguards .....	49
CHAPTER IV: FINDINGS .....	50
Introduction.....	50

Purpose of the Study .....	50
Data Collection Procedures.....	50
Virginia Reading and Math SOL Tests.....	51
GPA .....	52
School Identification Score.....	52
EAP Score .....	52
Description of the Sample.....	53
Findings .....	55
First Research Question - The Relationship Between EAP and School Identification .....	56
Second Research Question - The Relationship Between EAP and Student Achievement .....	60
Third Research Question - The Relationship Between Students' School Identification and Student Achievement.....	67
Fourth Research Question – Relative impact of EAP and School Identification on Achievement.....	68
 CHAPTER V: DISCUSSION, SUMMARY, CONCLUSIONS AND	
RECOMMENDATIONS .....	71
Discussion .....	71
Summary of Findings.....	71
Limitations .....	73
Possible Explanation of Results.....	74
Implications for Practice .....	75

EAP and School Identification.....	75
Student Achievement .....	77
REFERENCES .....	78
APPENDIX A Student EAP and School Identification Survey Instructions .....	93
APPENDIX B Student EAP Survey.....	94
APPENDIX C Student School Identification Survey.....	95
APPENDIX D Parent Survey Participation Request .....	96
APPENDIX E Student Survey Participation Request .....	97
APPENDIX F Documentation Regarding Human Subjects .....	98

## ACKNOWLEDGMENTS

This study was completed with the support of numerous committed individuals from The College of William and Mary. I would like to extend my deepest gratitude to my committee chair, Dr. Michael F. DiPaola, who has proven to be an excellent mentor in the areas of instructional leadership and leadership development. I want to also acknowledge the support of the other committee members, Dr. Steven Staples and Dr. Megan Tschannen-Moran. They each demonstrated patience as well as an eagerness to help me achieve success as I progressed through my graduate studies.

## LIST OF TABLES

Table 1. 2009-2010 School Comparison.....	37
Table 2. Clubs Offered.....	40
Table 3. Research Design.....	48
Table 4. Description of the Sample.....	54
Table 5. Descriptive Data.....	56
Table 6. Extracurricular Activities Participation.....	57
Table 7. Chronbach’s Alpha of ISI Measure .....	58
Table 8. Pearson Correlations for Extracurricular Activity Participation (EAP) and School Identification Survey (SIS).....	60
Table 9. Pearson Correlations for EAP, SIS, GPA, SOL Reading (SOLR), and SOL Math (SOLM).....	61
Table 10. Relationship Between EAP and Student Achievement.....	62
Table 11. Mean Reading Test Scores by Participation in Extracurricular Activity.....	63
Table 12. Mean Math Test Scores by Participation in Extracurricular Activity .....	65
Table 13. Multiple Regression Analysis of the Relationship of EAP and School Identification on GPA.....	68
Table 14. Multiple Regression Analysis of the Relationship of EAP and School Identification on Reading SOL Scaled Scores.....	69
Table 15. Multiple Regression Analysis of the Relationship of EAP and School Identification on Math SOL Scaled Scores.....	70

LIST OF FIGURES

*Figure 1.* A conceptual framework for extracurricular activity participation (EAP),  
school identification, and student achievement ..... 8

# **MIDDLE SCHOOL STUDENTS' PARTICIPATION IN EXTRACURRICULAR ACTIVITIES: RELATIONSHIPS TO SCHOOL IDENTIFICATION AND ACHIEVEMENT**

## **ABSTRACT**

This study sought to build on existing research in the areas of student extracurricular activity participation, school identification, and improvement of student achievement. The purpose of this study was to determine the impact of extracurricular activity participation and school identification upon one another and their combined and individual contributions to the goal of student achievement.

The study was conducted using archival data from the 2009-2010 school year along with data from a survey that target extracurricular activity participation and school identification. Data were analyzed for a sample of 314 students out of a population of over 900 in Grades 6, 7, and 8 from two different middle schools. Students were given a survey at the start of the 2010-2011 school year, after being promoted to Grades 7, 8, and 9. The survey results provided the researcher with a school identification and extracurricular activity participation score for each student. These scores were compared to achievement data comprising the end-of-year grade point average and the mathematics and reading Virginia Standards of Learning scaled scores.

The results of the study indicated that there was a mild relationship between students' participation in extracurricular activities and their identification with their school. The findings revealed no significant relationships between students' participation in extracurricular activities and any of the achievement measures, or between student school identification and academic achievement.

**STENETTE BYRD III**

**PROGRAM IN EDUCATIONAL PLANNING, POLICY, AND LEADERSHIP**

**THE COLLEGE OF WILLIAM AND MARY IN VIRGINIA**

MIDDLE SCHOOL STUDENTS' PARTICIPATION IN EXTRACURRICULAR  
ACTIVITIES: RELATIONSHIPS TO SCHOOL IDENTIFICATION AND  
ACHIEVEMENT

## CHAPTER 1: THE PROBLEM

### Introduction

In this ever-expanding global economy, a capitalistic society must constantly seek ways to compete and improve in order to survive. An educated workforce is critical to this process. A number of researchers believe focusing our attention on childhood development would have the greatest potential to impact our economy (Currie, 2000; Eccles & Templeton, 2002). With an increasing number of studies supporting the idea of quality education as crucial to allowing youth to thrive in a global society (Vredevelde, 2010; Woessmann, 2001), legislators continue to create mandates they believe will not only prepare our children for the future, but also close the academic achievement gap between students of different socioeconomic levels, races, and disabling classifications. Public Law 107-110, more commonly known as the No Child Left Behind Act (2001), requires school districts to demonstrate yearly progress in raising student proficiency in reading and mathematics, thereby narrowing the achievement gap. The No Child Left Behind Act sets five performance goals for schools:

1. All students will reach high standards, at a minimum attaining proficiency or better in reading/language arts and mathematics by 2013–2014.
2. All limited-English-proficient students will become proficient in English and reach high academic standards, at a minimum attaining proficiency or better in reading, language arts, and mathematics.
3. Highly qualified teachers will teach all students by 2005–2006.

4. All students will learn in schools that are safe and drug free.
5. All students will graduate from high school (No Child Left Behind Act, 2001).

#### Statement of the Problem

A lot of public pressure has been placed upon Virginia school administrators and teachers to produce students who are able to successfully meet achievement benchmarks, thereby allowing schools to acquire state accreditation. A review of middle schools across the state of Virginia shows minimal advances toward meeting the 2013-2014 goal of 100% of students scoring in the proficient range or better in the areas of language arts and mathematics (Virginia Department of Education, 2010). As evidenced by three-year trends, the Virginia Department of Education's websites lists many schools with improved pass rates; however, an examination of the same 3-year trends indicates that this number is starting to plateau. The pressure to improve pass rates and the resulting federal and state mandates cause staff to focus on academic results, with little attention to the needs and holistic development of the middle school child.

A number of researchers have suggested that an important part of youth development is extracurricular activities participation (EAP; e.g., Cooley, Henreksen, Nelson, & Thompson, 1995; Eccles & Barber, 1999; Eccles & Templeton, 2002; Parish, 1985; Woods, 1995). Such participation can range from sports activities to debate clubs. A defining characteristic of EAP is that it involves youth in a structured or semistructured activity that may or may not be focused around the regular academic curriculum. EAP is positively associated with a wide range of variables, such as personal development, academic achievement, race relations, political and social participation, and nondeviant

behavior (Holland & Andre, 1987). Several studies have found that youth participation in EAP is associated with improved outcomes such as good grades, positive feelings about school and attendance (Holland & Andre, 1987; Steinberg, Cider, Kaczmarek, & Lazzavo, 1988). These findings can provide useful information to those who are concerned about academic achievement, as well as those who design and implement dropout prevention programs. By better understanding the type and level of involvement in extracurricular activities that yields the greatest impact, EAP developers and school administrators can seek to implement these programs in the school setting and justify their importance to school staff, parents, and educational decision makers.

The term *school identification* addresses the idea that students identify with their school through their relationships with peers and adults, and experience increased motivation in school as a consequence. Numerous research studies conclude that school identification is one of the factors that affect student achievement (Burrueta-Clement, Schweinhart, Barnett, Epstein, & Weikart, 1984; Kushman, Sieber, & Hearnold-Kinney, 2000; Newman, Wehlage, & Lamborn, 1992; Voelkl, 1995). In many schools, students do not have positive attitudes about learning, causing them to fail to identify with their school (Voelkl, 1997). They become more disengaged from the learning environment as they move from elementary to high school. Klem and Connell (2004) estimated that 40 to 60% of urban, suburban, and rural high school students are disengaged from their school. This percentage does not include those who dropped out. Strengthening students' identification with their school is one way to positively influence students' attitudes and enhance learning (Voelkl, 1997).

## Purpose of the Study

A school's performance rates may be significantly impacted by the 10 to 20% of its students who have historically demonstrated poor academic achievement. Within each Virginia school, this population directly impacts pass rates on end-of-year standards of learning (SOL) tests, adequate yearly progress (AYP) measures, grade retention percentages, and graduation rates. Effective school administrators and teachers can use available data to identify these students prior to the test administration in an effort to develop programs to help maximize student learning. Schools have traditionally used interventions such as grade retention, suspension, expulsion, alternative settings, afterschool tutoring, grouping practices, and various other types of remediation. All of these strategies can be effective to varying degrees, but without student acceptance, the task is much more difficult and less enjoyable for both the teachers and the students. Therefore, helping educators to realize the importance of students building connections to their school and teachers may increase student achievement and create more positive school experience for students and teachers.

A review of research on students' achievement-related beliefs, values, and performance after the transition to middle school revealed that the transition to middle school leaves some students less engaged in school and unmotivated to learn (Anderman & Midgley, 1998). Researchers have examined possible causes for these undesirable effects (e.g., Berndt, Hawkins, & Jiao, 1999; Eccles, Midgley, & Adler, 1984; Finger & Silverman, 1966; Hirsch & Rapkin, 1987; Simmons & Blyth, 1987; Sprinthall, 1985; Ward, Mergendoller, & Tikunoff, 1982). Some have suggested that low motivation is an age-related phenomenon that results from pubertal changes and cognitive maturation,

whereas others suggested that a lack of school connection or identity contributes to a lack of motivation. The purpose of this study was to determine if middle school students' participation in extracurricular activities is related to their identification with school and to their academic success.

### Conceptual Framework

Schools continue to try to reach the 2013-2014 goal of a 100% proficiency rate in mathematics and language arts. However, low-achieving students still represent a sizable population in schools (U.S. Department of Education, 2002). Although the "school report card" located on the Virginia Department of Education's website indicates that all subgroups are showing improvement towards meeting minimum standards in math and reading (U.S. Department of Education, 2002), it is still not 100% proficient. Low achievers have been identified using a variety of criteria, typically by comparing their achievement to that of their peers. For example, Fuchs, Young, and Zweidler-McKay (1998) and Slavin (1990) have identified low achievers as those students performing 1 to 2 years behind their same-age peers. In addition to academic difficulties, low achievers are more likely to have failed to develop a connection with their school (Osborne, 1995), otherwise known as school identification. School identification is the bond or attachment that may be formed between an individual and the institution (Burrueta-Clement et al., 1984; Rabinowitz & Hall, 1977; Voelkl, 1997). One study suggested that there may be a significant relationship between school identification and achievement (Forsyth & Mitchell, 2004).

Participation in extracurricular activities has the potential to be a mechanism for developing school identification. Identification can be divided into four context-specific

domains: (a) student's feelings of belonging, (b) the degree to which they value school and school-related outcomes, (c) their level of confidence about their ability to attack and solve problems, and (d) their attitude toward the learning process (Hamachek, 1995; Voelkl, 1997). Belonging is a connection by way of personal relationships that are developed with peers (Finn, 1989). This attachment is understood to provide a degree of acceptance and emotional support. Valuing is described as the student's perception regarding whether the institution is intrinsically important to the individual student (Goodenow, 1993b). The present study examined the magnitude of EAP and school identification by analyzing data from mathematics and reading standardized testing reports and end-of-year grade point averages (GPA), then comparing these results to the data collected using an EAP and school identification survey.

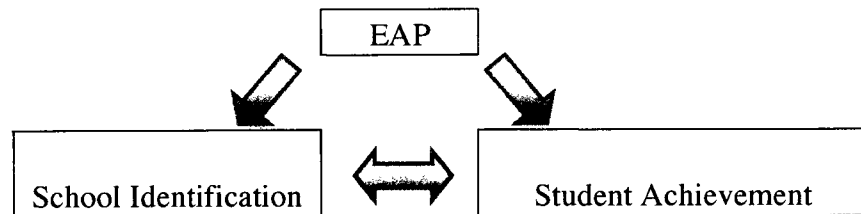
Some researchers have suggested that EAP can be an important influence in the lives of students (Holland & Andre, 1987; Steinberg et al., 1988). As a result, the present study will examine the effect of EAP on students' sense of identification with their schools and EAP's relationship to achievement through the use of a school identification survey and the Extracurricular Activities Participation Inventory.

School identification, is defined in this study as an individual as well as a structural phenomenon based on the perception of the individual and differing from one social institution to another. In addition, school identification is the interaction between power, commitment, and belonging that a person feels in a given situation (Kurango, 1979). Several fields of study concurrently argue that a sense of connection to a pro-social institution encourages pro-social youth behavior (Goodenow, 1993a; Hirschi, 1969; Seeman, 1975).

The present study tests three hypotheses:

1. There is a positive relationship between EAP and school identification.
2. There is a positive relationship between EAP and student achievement.
3. There is a positive relationship between school identification and student achievement.

If school identification is indeed related to student achievement, will EAP help schools to finally reach that last 10 to 20% of students who have had little success with standardized testing? If the results of this study demonstrate a significant connection between school identification, EAP, and student achievement, then schools may use this information to develop strategies to more sufficiently meet their academic goals.



*Figure 1.* A conceptual framework for extracurricular activity participation (EAP), school identification, and student achievement.

This study sought to provide insight into which factors best help students to achieve success in school. If EAP is the key to school identification, schools can direct some of their focus away from the typical emphasis on academics and toward meeting the needs of children who lack identification to their school.

## Research Questions

This study investigated the impact of EAP on school identification and the achievement of middle school students in a school district in Virginia. The following research questions were addressed:

1. Is there a relationship between students' involvement in extracurricular activities and school identification?
2. Is there a relationship between EAP and student achievement?
3. Is there a relationship between students' school identification and student achievement?
4. What is the combined influence of EAP and school identification on student achievement, and to what extent do they make an independent contribution to explaining variances in achievement?

## Delimitations

The study was conducted after the approval of the dissertation committee, and the results were analyzed according to the following parameters and limitations:

1. Only two schools were involved in this study.
2. One school consisted of sixth-, seventh-, and eighth-grade students, whereas the other school comprised seventh- and eighth-grade students.
3. The study was conducted in the researcher's own school district, which is a potential cause of researcher bias.

## Definitions of Related Terms

*Achievement.* For the purpose of this research, student achievement is based solely on student's end-of-year GPA and standardized test scores—in this case, scaled

scores from the Spring, 2010 Virginia SOL assessments. In the state of Virginia, these data are used to judge the success of educational leaders, the school, and students. The federal No Child Left Behind Act of 2001 aimed to bring all students up to the proficient level on state tests by the 2013–2014 school year and to hold states and schools more accountable for results.

*Adequate Yearly Progress (AYP).* The Elementary and Secondary Education Act (also known as No Child Left Behind) requires states to set annual measurable objectives of proficiency in reading and mathematics, participation in testing, and graduation and attendance. These objectives are in addition to the standards for learning and achievement required under Virginia’s SOL program. Schools and school divisions that meet the annual objectives required by the federal education law are considered to have made adequately yearly progress (AYP) toward the goal of 100 percent proficiency of all students in reading and mathematics by 2014.

(<http://www.doe.virginia.gov/VDOE/src/ayp.shtml>)

*Extracurricular Activities Participation (EAP).* EAP is defined as activities that extend beyond the regular curricular programs and are designed to reach a specific goal (Holland & Andre, 1987). EAP will be measured through an EAP questionnaire that will determine the types of activities the students engage in and their levels of involvement. The categories of this survey are based on prior categorizations in the research literature (e.g., Eccles & Barber, 1999).

*Grade Point Average (GPA).* Cumulative GPAs are the result of various interactions within the educational institution. All learning opportunities are given a grade or percentage that reflects an individual’s performance on all assessment within a

class. The final grade or percentage is then compiled to give one overall score between 0 and 4. This variety and collection of assessments over a long period of time may provide a more accurate determination of a student's academic achievement than the 1-day snapshot provided by a standardized test (Cliffordson, 2008; Geiser & Santelices, 2007).

*School Identification.* School identification is defined as the bond or sense of belonging that may or may not be formed between an individual and his or her school (Voelkl, 1997). Connection is another term that is used in conjunction with School Identification and is described as an individual and a structural phenomenon based on the perception of the individual. Connection differs from one social institution to another (Kurango, 1979). Connection patterns exist between contextual systems and the individual, including his or her personal and cultural subsystems (Bronfenbrenner, 1974; Finn, 1989).

Chapter 2 includes a review of the literature related to student achievement, school identification, extracurricular activities participation, and their relationship to one another.

## CHAPTER 2: LITERATURE REVIEW

K–12 schools across the nation have the difficult task of ensuring that all students meet benchmark standards. Poor school performance results in students that fall behind and fail to reach their academic potential. Consequences for poor overall school performance may include required remediation, school closures, and staff removal. Although still a relatively new practice, consequences for poor educational performance have been credited with motivating improvement in some schools. Education scholars have noted that any consequences—positive or negative—should be consistent and equitable, and scholars should recognize school improvement as well as the school’s efforts to comply with federal and state mandates. One clear consequence for poor academic performance lies in schools losing their accreditation status. Educational leaders continue to search to find the interventions that will yield the greatest gains in student achievement.

Student participation in extracurricular activities is believed to positively relate to several variable of importance to educational leaders such as attendance, belonging and academic achievement. Research also suggests that participation in extracurricular activities, which is defined as activities outside of the scope of the regular curriculum, helps students to become connected to their school (Gerber, 1996), and these connections closely resemble the concept of school identity (Finn, 1989; Goodenow, 1993b; Voelkl, 1995). Both school connection and school identity appear to have a positive relationship with achievement. Scholars also suggest that educational leaders should implement programs to help students to identify with their schools and encourage opportunities to participate in extracurricular activities in an effort to improve achievement (Finn, 1989).

This chapter will review the literature concerning extracurricular activity participation (EAP) and will be considered in light of developmental timing, EAP and problem behaviors, impact of EAP, and belonging. Next, literature about school identification will be examined by way of connection, trust, attitude, and confidence. Finally, a rationale for the measures for academic achievement will be presented. Understanding the benefits of EAP may help educational leaders to improve students' identification with their school. This identification, in turn, has the potential to increase student achievement.

A youth's ability to identify with his or her school has to be understood as a developmental relationship that is dynamic and interactive. According to developmental systems theory (Ford & Lerner, 1992), individual development is a sequence of transactions between multiple levels of systems. These systems range from the personal to cultural levels and expand beyond the regular classroom setting; thus, they may be influenced by extracurricular activities.

#### Extracurricular Activity Participation (EAP)

Social development theory (Hawkins & Weis, 1985) and participation identification theory (Finn, 1989) both suggest that participation in extracurricular activities may be an important step toward helping students feel they are a part of their school. These theories also suggest behavior will improve if students take ownership of their place of learning. Extracurricular activities are most commonly referred to athletics such as football, softball and soccer; however, Holland and Andre (1987) provide a definition that allows non-athletic activities such as drama, yearbook, and book club to be included. Students are often drawn to activities based on their talents, hobbies, influence of peers and influence of respected adults. Typically a list of activity offerings are posted

each year around the school, mentioned in the school news and advertised in student handbooks. A student who is interested in participating in an activity expresses interest to the activity sponsor who accepts, evaluates or rejects membership into the activity. At the middle school level, only Junior Varsity sports and Junior Beta, a club for students who have demonstrated high academic achievement and good behavior, have a selective process. Most of the other extracurricular activities are open to all students. Research suggests that EAP offerings are very important at the middle level as students seek to gain acceptance and a sense of belonging (Finn, 1989). The time actively engaged in any activity varies greatly for one EAP opportunity to another. That is, the potential impact of a student who participates twice a month in the yearbook club may differ greatly from a student who is involved in various JV sports, daily, throughout the school year.

Regardless of duration, participation in extracurricular activities exposes youth to communal values, involves them in communal activities, and assists them in building communal relationships, all of which may increase their sense of connection to school (Burbach, 1978; Fetro, 1987; Finn, 1989; Hawkins & Weis, 1985; Nover, 1981; Otto & Alwin, 1977). The increased sense of connection to school influences outcome behaviors such as attendance and substance use (Calabrese & Adams, 1990; Goodenow, 1993b).

Educators must seek to understand the role of school identification in order to understand how EAP influences youth development.

### *Developmental Timing*

Schools are given the great task of ensuring that students receive positive interactions and experience while at school. Extracurricular activities provide an ideal setting to positively shape student's views of themselves and others. Keating (1990) has

suggested that adolescence is a period of increased cognitive capacity in a variety of abstract and conceptual domains. These changes have been argued to result in a fundamental shift in an adolescent's view of himself or herself and his or her role in the social world (Harter, 1990). School is an important social environment, and children's connections with their schools can impact them greatly as they develop an understanding of their roles in the social world.

Adolescence is also a time when the nature of school itself changes. Classrooms often become bigger, and a student may have several different teachers. All of these factors change the dynamics of school connecting (Bronfenbrenner, 1974; Calabrese, 1987). These changes take place at the same time an adolescent is dealing with various influences is developing a more complex social identity (Berndt, 1979; Bronfenbrenner, 1974; Harter, 1990). School identification might play an important role in understanding the effects of participation in extracurricular activities.

#### *EAP and Problem Behaviors*

Research on EAP has generally focused on its relationship to academic achievement. Researchers in this field have compiled cross sectional and longitudinal findings that have demonstrated EAP's association with academic achievement variables such as test scores (Feltz & Weiss, 1984; Gerber, 1996; Landers, Feltz, Obermeier, & Brouse, 1978), fulfillment of academic goals (Otto, 1975), grades (Haensly, Lupkowski, & Edlind, 1986; Marsh, 1992; Otto & Alwin, 1977; Parish, 1985), academic honors (Haensly et al., 1986; Marsh, 1992), and educational attainment (Hanks & Eckland, 1976; Lindsay, 1984). In an attempt to explain this association, some scholars have suggested that participation in activities encourages academic success through socialization (Finn,

1989; Gerber, 1996; Hanks & Eckland, 1976; Marsh, 1992; Otto & Alwin, 1977; Spady, 1970).

An initial attempt to examine the relationship between EAP and delinquency was conducted by Schafer (1969). The author compared the delinquency records of 164 male athletic participants and 421 male nonparticipants. The author found a significant negative relationship between athletic participation and delinquency. In an attempt to extend the above findings to other categories of extracurricular activities, Landers and Landers (1978) compared extracurricular activity participants and nonparticipants on their respective delinquency records. Analysis of variance testing revealed that athlete-only, athlete-service, and service-only participants were significantly less likely to have been adjudicated for delinquent acts than nonparticipants. These results were obtained even after controlling for SES. There were no significant differences between activity categories. The authors concluded that there seems to be an important negative relationship between EAP and delinquency.

Additional research has investigated the relationship between EAP and problem behaviors using substance use as the variable of interest. Shilts (1991) surveyed 237 seventh- and eighth-grade students on their substance use, involvement in extracurricular activities, friends' substance use, family involvement, and personal attitudes. The groups were compared according to category (i.e., nonusers, users, and abusers). The nonuser and user groups were significantly different, with nonusers reporting more extracurricular activity involvement, more family involvement, and fewer friends' substance use. The authors concluded that these results suggest a profile of a substance user as an individual

who spends less time in conventional extracurricular activities and is more connected to an antisocial peer culture.

Another study compared different types of extracurricular activities and their respective effects upon substance use (Cooley et al., 1995). Using a cross sectional sample of 5,639 secondary students, Cooley et al. (1995) examined reported substance use and EAP, which was measured dichotomously using the categories of athletics, government clubs, music and drama, and multiple activities. Students involved in athletics and student government were prone to experimentation and use of more socially accepted substances like alcohol and cigarettes, whereas those involved in other or multiple activities used less of these substances.

Additional research has been conducted to investigate the relationship between EAP and another important factor, the school dropout rate (McNeal, 1995). McNeal (1995) sampled 14,249 high school students at baseline and again 2 years later. Logistic regression models controlling for ethnicity, sex, age, SES, academic ability, academic or vocational track, and hours working were employed to predict dropout. Four dichotomously measured categories of extracurricular activities (i.e., sports, fine arts, academic clubs, and vocational clubs) were entered separately into the overall equation. Only sports and fine arts participation were significantly related to continued student attendance. Mahoney and Cairns (1997) further examined the relationship between EAP and dropout. The authors followed a group of seventh-grade students through Grade 12, assessing them annually. The authors found that for those students who were deemed “at risk,” there was a significant positive relationship between participation in activities and continued student attendance. There is evidence to suggest that EAP can diminish the

likelihood of dropouts, particularly for those who are at risk (Mahoney & Cairns, 1997; McNeal, 1995).

### *Impact of EAP*

Although several researchers have reported the process whereby EAP affects disciplinary referrals, few have examined possible explanations for this relationship (Brown, 1988; Holland & Andre, 1987). However, one of these efforts examined whether relationships with adults in the context of an activity influenced the impact of EAP (Snyder, 1975). The study revealed that there is a relationship between the depth of one's relationship with one's coach and educational aspirations. Snyder (1975) concluded that pro-social relationships within an athletic activity might contribute in some way to improved academic outcomes.

Hanks and Eckland (1976) also investigated the importance of pro-social relationships within the context of extracurricular activities. The authors surveyed high school sophomores in 1955 and again in 1970. Employing multiple regression equations, the authors found that participation in nonathletic extracurricular activities (e.g., drama, debate, and student government) had a strong association with academic achievement, even when controlling for academic aptitude and sociodemographic variables. Hanks and Eckland also tested the mediation effects of teacher- and college-oriented peer relationships. Both of these variables demonstrated significant mediation effects. The authors suggested that social relationships experienced in an activity might contribute importantly to pro-social participant outcomes.

Otto and Alwin (1977) further examined relationships as a possible explanation of the effects of participation. They tested several factors that might help us understand the

relationship between EAP and educational outcomes. Whereas other variables tested did not yield significant results, peer aspirations, degree of encouragement from friends, and parental encouragement were found to be significant mediators of EAP impact, even after statistically controlling for several sociodemographic and academic aptitude variables. The authors contended that although pro-social relationships are indeed important, their importance can be measured by their influence on the values and attitudes of participants. It is these values and attitudes, the authors argued, that directly influence outcomes.

Marsh (1992) has investigated which internal conceptions in particular might be the source of EAP's effects. Marsh followed 10,130 students for 2 years over the course of their sophomore to senior years of high school. The data revealed EAP to be a significant predictor of higher senior grades, honors, homework, locus of control, academic and social self-esteem, and lower absenteeism and delinquency. These results remained even when SES and ability levels were controlled. The author also tested the value of self-esteem as a mediator of the impact of EAP. The only self-esteem measure that seemed to have any mediation value was academic self-esteem (in this study, academic self-esteem was a youth's reported attitudes about school). In conclusion, the author argued that these findings support a commitment to school rather than a self-esteem model. The commitment to school hypothesis predicts that experiences within an extracurricular activity enhance a youth's commitment to school, which mediates positive effects on outcomes.

Other researchers have examined EAP's relationship to concepts similar to Marsh's (1992) definition of commitment. Nover (1981) examined the effects of extracurricular participation on variables reflecting the bond between a youth and his or

her school. The author examined 239 high school student's grades, extracurricular activity involvement (tested dichotomously by hourly involvement and by offices held), and feelings of connection to school. The authors conceptualized connection as a perceived sense of: belonging to the school, influence on the school, school functioning, and social support. The authors found that EAP involvement was significantly associated with all of the school connection variables. This relationship persisted even when SES and sex were statistically controlled. The authors concluded that EAP impacts students' feelings about their school and about their role within it.

The limited research regarding how EAP impacts youth behavior suggests that the social interaction experienced within an activity is the mechanism of the supposed influence (Hanks & Eckland, 1976; Otto & Alwin, 1977; Snyder, 1975; Spady, 1970). Researchers have only hypothesized, however, about what internal representations or understandings these mechanisms might influence. Although many researchers have suggested the importance of a sense of school connection (Finn, 1989; Mahoney & Cairns, 1997; Marsh, 1992; McNeal, 1995; Spady, 1970), few studies have examined the link between EAP and school identification. The studies that have been conducted, however, suggested that there are important relationships between EAP and connection (Fetro, 1987; Nover, 1981). It is argued that experiences within extracurricular activities affect an individual's understanding of the meaning and character of the school as a social institution (Finn, 1989; Marsh, 1992; Mahoney & Cairns, 1997; Nover, 1981).

### *School Belonging*

As previously suggested, a psychosocial sense of belonging might be an important variable in explaining the impact of EAP upon various outcomes such as alienation which

has been an important theme in philosophy since the dawn of the industrial revolution. Hegel and Marx spoke of alienation as a feature of industrialization that isolated workers from their work and indeed from their world (for a review of this tradition, see Denise, 1973). Trusty and Dooley-Dickey (1993) considered alienation to be a reflection of modern man's disconnection from more natural, traditional roots. Fields as diverse as organizational psychology (Kurango, 1979) and criminology (Hirschi, 1969) have developed constructs that resemble alienation or its opposite, connection.

Learning and education theorists have also utilized similar concepts. Ross (2000), for example, argued that a sense of belonging was a necessary precursor to knowledge and to understanding a learning hierarchy. More recently, several researchers have argued that relatedness to one's learning environment is a fundamental element in one's motivation to learn (Cornell & Wellborn, 1990; Ryan, Stiller, & Lynch, 1990). Relatedness is defined as the existence of "secure and satisfying connections with others in the social milieu" (Deci, Vallerand, Pelletier, & Ryan, 1991, p. 327). This relatedness encourages an embracing of the norms and values of the larger learning environment (Deci et al., 1991).

Goodenow (1993a) has also expressed the importance of a sense of connection to youth's behavioral motivation. She suggested that belonging directly impacts motivation, which in turn influences youth behavior. The author argued that much of the motivational research focuses on strictly cognitive influences; for example, variables such as self-efficacy (Schunk, 1989) or expectations for success or failure (Weiner, 1992). Goodenow submits that as defensible as these relationships to motivation might be, there is a larger environmental-dependent constituent that frames the development of these and other

factors. Goodenow (1993b) initially described this construct as school belonging, and later as a psychological sense of school membership. Belonging is defined as youths' "sense of being accepted, valued and included, and encouraged by others (teachers and peers) in the academic setting and a feeling of oneself to be an important part of the life and activity of the classroom" (Goodenow, 1993a, p. 25). Goodenow claimed that belonging involves mutual support and respect.

As with the other theoretical treatments, these constructs have several shortcomings, which suggest a new approach for this study. Firstly, these educationally oriented conceptualizations leaves the reader wondering about the necessary elements of the construct or how these attitudes or perceptions might lead to improvements in outcomes. In addition, little empirical research has been done to assess these constructs. Thus, the theoretical details of these perspectives have not been provided.

These educational perspectives also seem to focus on one particular aspect of a connection bond. For example, school belonging (Goodenow, 1993a) and relatedness (Ryan et al., 1990) are primarily concerned with the socioemotional bond a student has with other individuals in the school context. These approaches omit the rational or cognitive elements of a connective bond. A youth's understanding of the rational importance of a social bond might indeed be fundamental to its strength (Wehlage et al., 1989).

School connection and belonging are the constructs that serve as the link between EAP and school identification. Connection is an individual and structural phenomenon that is based on the perception of the individual. Although this perception is a result of the characteristics of the institution, the institution does not determine it. In other words,

students may perceive the same characteristics of an institution differently based on the paradigm with which they view the world (Kuhn, 1970). Moreover, these perceptions and cognitions are influenced by a history of past connection experiences (Bronfenbrenner, 1974; Finn, 1989). These perceptions are influenced by their connections to individuals' histories and past experiences.

### School Identification

School identification derives from a long history of membership, trust, confidence and attitude research. Ogbu and Simons's (1998) research concerning minorities' struggles to identify with their educational institutions led to the theory that school membership impacts children's education. Baier (1986) introduced the idea of trust as a means to help students identify with their schools. Prior experience with success, the structural environment of the school, stereotypes, poverty, and peer pressure all appear to align with the idea that school identification is an important topic that must be addressed (Finn, 1989; Finn & Voelkl, 1993; Fordham, 1996; Osborne, 1997; Steele, 1992). To fully understand the impact of school identification, one must understand the roles of trust and feelings of belonging in education, and one must also realize the effect that school identification has on attitude towards school and confidence (Bryk & Schneider, 2002; Hoy & Tschannen-Moran, 1999; Smith, Hoy, & Sweetland, 2001).

### *School Connection*

School connection has been defined and studied by several researchers (Goodenow, 1993a; Hirschi, 1969; Seeman, 1975). The studies comprising this body of research have reached similar conclusions: The interplay between the environment and the youth produces internally perceived connections. Furthermore, these studies suggest

social connections influence pro-social behavior in important ways. However, these studies differ in what they consider to be the most important elements of the phenomenon. Power is an individual's sense of control over social institutions, whereas commitment is an individual's understanding that the social institution is consistent with his or her own goals. Dworkin (1987), Finn (1989), and Hirschi (1969) have defined similar constructs. Social control theory (Hirschi, 1969) is also based on the idea of the social institution. Goodenow (1993a) focused on the belonging one feels in the school setting. Other researchers have portrayed similar ideals (Dworkin, 1987; Finn, 1989; Hirschi, 1969; Ryan et al., 1990; Seeman, 1975). Together, these constructs form a more comprehensive sense of connection.

### *Trust*

Research seems to suggest that school identification and trust both support the importance of establishing and maintaining positive relationships between students and adults within the school (Bryk & Schneider, 1996; Wehlage, 1989). Over the last 10 years, researchers have given greater attention to the social condition of trust in the school (Bryk & Schneider, 2002; Goddard, Tschannen-Moran & Hoy, 2001; Meier, 2004; Tschannen-Moran, 2004). This research explored whether school policies that focus on mechanical and structural controls inadvertently create distrust within organizations. If this is the case, one must understand the effect efforts to build trust ultimately have on student achievement. Williams' (2001) idea that trust develops over a period of time suggested that this issue is one that must be addressed at an early stage in a child's education and maintained over time. There is the period of time when both parties, the student and the teacher, contemplate and decide to engage in a relationship,

followed by time for courtship where the relationship either evolves or degenerates.

Finally, the members involved make contributions to a unified sense of purpose such as high achievement, positive behavior, and improved work ethic (Cornell & Klem, 2004).

Students who do not identify with their schools often display low motivation, failure to complete assignments, behavior problems, absenteeism, truancy, delinquency, drug use, crime, violence and the potential to drop out (Finn, 1989; Finn & Voelkl, 1993; Voelkl, 1997). These tendencies and behaviors can be very disruptive to the educational process.

#### *Attitude*

Students who are able to successfully identify with their school are more likely to have a positive attitude towards school. The importance of positively influencing student's attitude towards school should be address by educational leaders. To help students identify with their school, educational leaders must seek ways to positively shape student's attitudes (Wlodkowski & Jaynes, 1990). Attribution style refers to students' views on achievement (Bridges, 2001). For example, students view achievement, whether good or bad, as a result of their own efforts or as a function of their native ability. Research suggests that students invest effort in activities in proportion to their level of confidence and their attribution style (Abelson, 1976; Ames, 1992).

Attribution theory suggests that students who attribute success and failure to effort (or lack of it) work harder and persevere more when facing challenging material (Boersma & Chapman, 1992). As a way of measuring attribution styles, researchers have explored the effects of failure on student performance. Dweck and Licht (1980) describe the effect of failure:

Failure has a dramatic effect on performance. For some children these effects are positive ones: effort is escalated, concentration is intensified, persistence is increased, strategy use becomes more sophisticated, and performance is enhanced. For other children, the effects are quite the reverse: efforts are curtailed, strategies deteriorate, and performance is often severely disrupted. (p. 176)

Some researchers believe that the most significant factor in shaping student attitude is the home rather than the school (Maehr & Braskamp, 1986; Shapiro & Whitney, 1997). A great deal of research has established a link between SES and reading achievement (Guthrie & Greaney, 1991). However, research suggests that the value placed on reading in the home is a greater predictor of achievement potential than a student's overall SES (Greaney & Hegarty, 1987).

Other researchers, however, suggest instructional practice is the most important factor in determining children's attitudes toward and likelihood of engaging in leisure reading (Kush, Watkins, & Brookhard, 2005). Programs that allow students to choose reading materials and offer sustained reading periods may have a positive effect on reading attitude (Guthrie & Greaney, 1991). In his examination of the International Association for the Evaluation of Educational Achievement (IEA) survey data, Wilkinson (1998) found that teachers who had the capacity "to handle diversity" (p. 145) reduced the gender gap for reading comprehension. Effective educators were described as teachers who constantly assess student needs and adapt their instruction accordingly while working one-on-one with each child. These teachers also tended to have large classroom libraries and to be more committed to their students. Furthermore, Wilkinson

found that time spent in silent reading was positively correlated with achievement for nearly all students, with the exception of ESL students.

Shapiro and Whitney's (1997) study comparing avid and nonavid 8-year-old readers found four home factors that influenced comprehension and fluency. These were books as gifts, visits to the library, the age at which parents stopped reading to or with them, and parental encouragement to read. In addition, Elley reported in the 1992 IEA study of reading that those who watch more television generally "tend to score at lower levels than those who watch less" (p. xiii). It is important to know that this study included a nonrandom, small sample, which warrants questions for further investigations rather than allowing the author to generalize results. Nonetheless, although a significant relationship is usually found between television viewing and reading achievement, it is not always consistent or straightforward (Shapiro & Whitney, 1997). In summary, instructional practices, SES, and home support for reading influence reading achievement.

### *Confidence*

Increasing the number and quality of assessments that students take can be detrimental to struggling students' sense of confidence and is often counterproductive to the goal of overall student achievement (Stiggins, 1999). Confidence plays an essential role in mathematical learning, but it is not the only indicator of student ability. In her survey of the confidence literature, Reyes (1984) reported that boys in middle and high school usually express greater measures of confidence than girls. Although greater measures of confidence generally yield higher academic performance, there is no

difference in achievement at times. More needs to be known about the role confidence plays in student achievement, as well as how and why its effect differs by gender.

Confidence is considered to be a significant variable in understanding the rate at which students will push themselves and aggressively attack challenging material. Meyer and Koehler's (1990) longitudinal analysis of affective variables (i.e., confidence, mathematics as a male domain, and usefulness) as a result of a study of the mathematical achievement of 151 students in Grades 6, 8, and 12 offers some revealing findings. Fennema and Leder (1990) suggested in their review of the Meyer and Koeler study that confidence should be viewed in a complex way, both as a predictor and as a result of achievement scores. First, the achievement gap is nonexistent in Grade 6, emergent in Grade 8, and significant by Grade 12. In Grade 12, girls and boys do equally well on lower order cognitive measures, but boys are significantly better at tasks requiring higher order thinking. In Grade 6, boys and girls are equally confident, yet girls' earlier confidence was more predictive of their later achievement scores than was boys' confidence.

Confidence is also cited as the attitudinal variable that most influences later participation rates for girls. Eccles and Jacobs (1986) identified student self-esteem as one of the three factors significantly predicative of both later achievement and later participation rates. However, the general population may show a smaller gender difference in confidence than higher achievers.

Confidence is described as having a strong belief, firm trust, or sure expectation. Confidence differs between people in the same situation, and people have different levels of confidence depending upon the situation (Bandura, 1993). Academic confidence is

proposed as the difference between an individual's inherent abilities, his or her learning style, and the opportunities provided to the individual by his or her academic environment (Multon, Brown, & Lent, 1991).

In summary, school administrators play an important role in ensuring that each child develops a bond with key individuals within the building. They must also ensure their relationship evolves in such a way that the student feels supported and is able to experience future positive interactions with key individuals. Wehlage (1989) stated that in order for students to bond with their school, the school must cultivate a sense of attachment, commitment toward goals, trust in the school, and involvement in activities. These are the same qualities found in the literature regarding EAP and school identification. Although operational definitions of EAP and school identity appear to intertwine, the present study will seek to determine if the two are indeed linked and have an impact on student achievement in a small school division in Virginia.

#### Academic Achievement

This section will provide a rationale for the use of two tools to make generalizations about the impact of EAP and school identification. The first is a GPA. This tool provides a culminating numeric value that encompasses all of the formative and summative assessments used to measure student progress within the scope of a particular course of study. The second measure for determining student achievement is the Virginia SOL assessments. These tests have gone through a rigorous process that included field-testing to determine their validity. Recently, schools have undergone great transformations in the way lessons are delivered in order to better meet the needs of students who learn differently. Gardner and Hatch (1989) suggested that educators must

appeal to the different learning styles of students in order to maximize instruction. The same argument can be made about the ways students should be assessed. However, in this age of accountability, when data are needed to make determinations about students' futures, it is not practical to develop various assessments that may assess each student as an individual. As a result, the state of Virginia, in an effort to comply with federal mandates, has developed the Virginia Standards of Learning (SOL) assessments.

#### *Grade Point Average (GPA)*

Traditionally, GPA has been used for ranking purposes, scholarship considerations, or educationally based financial assistance. It provides a solid indication of academic achievement, but provides little independent information about potential academic performance, as a student's GPA is not related to how well he or she will perform beyond high school. Cumulative GPAs are the result of various interactions within the educational institution. All learning opportunities are given a grade or percentage that reflects an individual's performance on all assessments within a class. The final grade or percentage is then compiled to give one overall score between 0 and 4. It is this variety and collection of assessments over a longer period of time that may provide an even more accurate determination of a student's academic achievement than the one-day snapshot of a standardized test (Cliffordson, 2008; Geiser & Santelices, 2007).

An individual's undergraduate GPA has not shown significant relationships to future outcomes such as postgraduate GPA (Ainslie et al., 1976). As a result, GPA is often considered along with other measurement outcomes such as Scholastic Aptitude Test (SAT) and Graduate Record Examination (GRE) scores when determining the

potential of an applicant (Hines, 1988; Patton, 1980). As an independent variable of measurement, GPA provides little information about the success or inadequacy of an individual's potential. Cliffordson (2008) argued that grades are unique in that they are used to give a value to a culmination of effort, grades, attitude, and performance. In other words, a student with a high GPA has put in more effort, has a better attitude towards school, performs better on assessments, and earns better grades. GPA is also used as a tool to communicate this message to students and parents. For the most part, it is the teacher's responsibility to assign and give a value to assignments (Brookhart, 2004). It is the subjectivity within the process that leads others to believe that standardized scores are more reliable (Geiser & Santelices, 2007).

The importance of GPAs should not be minimized as grades assigned by a teacher. GPAs are more suited to quantify what the student has learned at that school. Standardized tests are based on state standards (Brookhart, 2004) and may or may not cover the topics that were taught in school. This lack of alignment may give students of high SES an advantage; test bias seems to emerge in literature about standardized testing (Cliffordson, 2008; Geiser & Santelices, 2007).

Brookhart (1991) recommended that GPA be used when making comparisons or predictions about the academic self-concept construct. As a result of GPA's dependence upon the students' experiences with teachers, the school environment, and personal learning experiences, motivation is most likely to be affected (Marsh & Yeung, 1997).

#### *Virginia Standards of Learning Assessments (SOL)*

The 1998 SOL assessments were composed of multiple-choice items and writing prompts designed to test all of the SOL content. Crocker and Algina (1986, p. 410)

pointed out that “any situations require the setting of cutoff scores before test performance is interpreted. . . . The practice of setting cutoff scores is commonly called *standard setting*.” The committees set three cut scores for the SOL assessments: advanced attainment of the standards (i.e., pass advanced), proficient attainment of the standards (i.e., pass), and does not meet the standards (i.e., fail).

Each student receives an overall scaled score on the SOL test. Scaled test scores range from 0 to 600. A total scaled test score of 400 or more means that the student is considered “proficient” in that subject area. A test score of 500 or more means that the student passed the test at an “advanced” level. A scaled test score of 399 or less means the student was described as “does not meet standards” in the subject area tested. Each SOL test is divided into reporting categories that describe various areas included on the test. Reporting category scores, which are evaluated on a scale of 0 to 50, can be used to identify students’ strengths and weaknesses. A score of 30 or above indicates strength. A score of less than 30 indicates that the student may benefit from additional instruction in this area.

No Child Left Behind (2001) requires that all districts and schools receiving Title I funds meet state AYP goals for their total student populations and for specified demographic subgroups, including major ethnic and racial groups, economically disadvantaged students, limited English proficient students, and students with disabilities. If these schools fail to meet AYP goals for 2 or more years, they are classified as schools “in need of improvement” and face severe consequences. As a result of the impact that standardized tests have on students and schools, the Virginia SOL assessment has been developed as the best tool to determine student success. Students understand the

importance of this test because many schools have tied the state assessment to graduation and promotion to the next grade. As a result of the numerous resources available, including pacing guides, benchmark tests, and remediation programs, the Virginia SOL test is one of the best tools to determine a student's level of achievement at the end of a course.

### Summary

Even though schools are beginning to plateau, the No Child Left Behind Act (2001) still requires 100% pass rates in the very near future. The need to explore new ways of raising achievement makes a study of this nature worthwhile. Failing to meet SOL benchmarks can negatively impact an institution, and can impact students in the future if they are unable to maintain competitive grades, GPA, SOL scores, SAT scores, and so forth. It is the mission of schools to provide students with the education and experiences needed to compete on a global level. If research has shown EAP and school identification to be an important influence on achievement, schools cannot afford to maintain the status quo. The 2013 to 2014 goal of 100% is more difficult to accomplish when schools are unsuccessful at helping students to identify with their school. Researchers have looked for ways to improve achievement as well as help student to identify with their schools. The present study differs from previous studies in that it not only looks at the correlation between EAP and student achievement or the correlation between school identification and student achievement, but also determines whether there is a relationship between the two. In addition, this study will take place in a small rural school division in Virginia. It is important that we begin to understand all variables that

affect student achievement, along with how they relate to one another, to truly maximize learning and help educational leaders to produce high-achieving schools.

Chapter 3 describes the methodology of the study, including the background and development of the school identification and EAP survey instruments. A description of how SOL and GPA data were gathered and analyzed is also included.

## CHAPTER 3: METHODOLOGY

The purpose of this study was to explore the relationships among three variables: students' (a) participation in EAP, (b) identification with their school, and (c) achievement on end-of-year standardized tests and GPAs. Holland and Andre (1987) defined EAP as programs that fulfill two conditions: (a) they are not part of the regular curricular program and (b) they are structured to meet some pro-social mission or goal. This definition encompasses activities that include but are not limited to athletics.

This study incorporated a quantitative, correlational approach that sought to determine if a relationship existed between student participation in extracurricular activities and academic achievement, as well as student school identity and academic achievement. A correlational analysis was performed to test those relationships. In addition, a regression analysis was conducted to determine if EAP or student school identification has a greater influence on achievement.

The research methodology addressed in this chapter is divided into the following sections: (a) research questions, (b) setting, (c) sample, (d) design of the study, (e) variables of interest, (f) plan for data analysis, and (g) ethical safeguards.

### Research Questions

This study investigates the relationships among seventh- and eighth-grade middle school students' participation in extracurricular activities, identification with their school, and achievement in a rural district in Virginia. In this study, seventh- and eighth-grade students were surveyed in an attempt to answer the following research questions:

1. Is there a relationship between students' involvement in extracurricular activities and school identification?

2. Is there a relationship between EAP and student achievement?
3. Is there a relationship between students' school identification and student achievement?
4. What is the combined influence of EAP and school identification on student achievement, and to what extent do they independently contribute to explaining variances in achievement?

#### Setting

The participants in this study were sixth-, seventh-, and eighth-graders in two Virginia middle schools, which were part of the same school division in the state of Virginia. As of October 1, 2010, there were 5,406 students in the district. Nine hundred thirty of these students attend one of two middle schools (see Table 1, below). One of the schools is considered suburban and is generally populated by families of high and middle SES. The other is more rural, and comprises mostly middle and low SES families.

Table 1

*2009-2010 School Comparison*

Student population N=930	School 1 N=335	School 2 N=595
Free and Reduced Lunch	33%	27%
Ethnicity		
Asian	1%	2%
Black	23%	36%
Hispanic	1%	2%
White	75%	60%
Gender		
Male	45%	48%
Female	55%	53%
Grade		
6th	30%	0%
7th	34%	49%
8th	36%	51%

## Population

The potential sample group consisted of all students in Grades 6, 7, and 8 whose parents gave them permission to participate and who were willing to complete the survey. In order to gain a diverse sample, all sixth-, seventh-, and eighth-grade students from both schools were asked to participate in the study. The survey administrators used a

standard administration protocol (see Appendix A). The administrators assisted students who had difficulties with the language and content of the survey by rephrasing questions when students expressed difficulty with comprehension.

### Design

This study employed a quantitative, correlational approach to determine if a relationship exists between school identity and student participation in extracurricular activities or academic achievement. Correlational analyses were performed between EAP and academic achievement, as well as between school identity and student achievement. In addition, a regression analysis was conducted to determine how much variance in achievement may be explained by EAP and student school identification, in addition to whether either makes an independent contribution to explaining that variance.

### Instruments

The two instruments used in this study were a questionnaire measuring students' involvement in extracurricular activities and the School Identity Inventory. These instruments were combined into one survey form and were given at the start of the 2010-2011 school year to students who were in 6<sup>th</sup>, 7<sup>th</sup>, and 8<sup>th</sup> grade during the 2009-2010 school year. Students' spring, 2010 Virginia SOL assessments in math and reading served as the achievement measure, along with students' end-of-year GPA. To maintain confidentiality, only the researcher has access to the raw survey data. Once survey data were linked to SOL scaled scores, student names were immediately removed from the database and replaced with a random number. Because the survey was in an electronic format, there is no way to identify participants after the link has been made.

*Involvement in Extracurricular Activities*

Part A of the survey lists the 28 extracurricular activities that are offered at the two schools. Students were asked to select all activities that they have participated in during the 2009-2010 school year for the purpose of determining a measure for EAP. As each activity was weighted based on the number of sessions the activity meets, students received a total score that was related to the number of days that a student was engaged in the extracurricular activity during the school year. For example, a student who selected involvement in junior varsity (JV) basketball and Drama Club would receive a score of 7 (i.e., 4 points for participation in JV basketball and 3 points for participation in Drama Club; see Table 2). Students took the survey online using Qualtrics, a program that assists in collecting and interpreting data. Students could only see a list of activities and were instructed by the administrator, as well as the directions, to select all in which they have participated.

When the data were analyzed, all JV sports, along with the Morning News Crew and the Technically Oriented People (TOPS) Club, were given the highest rating. They met 5 days a week, on average, over the course of 3 months. The number of times students were engaged in the aforementioned activities equates to approximately 45 sessions, and was given a rating of 4. Basketball Club, Future Problem Solvers, Technology Students Association, and Racquetball Club all met one day each week over the course of the school year. The time of engagement for those activities equates to 36 sessions and therefore was given a rating of 3. Majorettes, Flags, and Ribbons and Drama Club met twice per month throughout the entire school year. The time of engagement equates to approximately 20 sessions and was given a rating of 2. Sign Language,

Yearbook, C.H.R.O.M.E., Reader's Café/Book Café, Rock Club, Junior Beta, and Great Computer Challenge met once per month over the course of the year, which equates to 10 sessions and was given a rating of 1 (See Table 2).

Table 2

*Clubs Offered*

Clubs	Duration	Equation	Rating
No EAP Involvement			0
Sign Language	Monthly	1 day X 10 Month = 10 sessions	1
Yearbook	Monthly	1 day X 10 Month = 10 sessions	1
C.H.R.O.M.E.	Monthly	1 day X 10 Month = 10 sessions	1
Readers Café /Book Café	Monthly	1 day X 10 Month = 10 sessions	1
Rock Club	Monthly	1 day X 10 Month = 10 sessions	1
Jr. Beta Club	Monthly	1 day X 10 Month = 10 sessions	1
Great Computer Challenge	Monthly	1 day X 10 Month = 10 sessions	1
Majorettes, Flags, and Ribbons	Twice a Month	2 day X 10 Month = 20 sessions	2
Drama Club	Twice a Month	2 day X 10 Month = 20 sessions	2
Basketball Club	Weekly	1 day X 36 Weeks = 36 sessions	3
Future Problem Solvers	Weekly	1 day X 36 Weeks = 36 sessions	3
Technology Student Association	Weekly	1 day X 36 Weeks = 36 sessions	3
Racquetball Club	Weekly	1 day X 36 Weeks = 36 sessions	3

Table 2, continued

Clubs	Duration	Equation	Rating
JV Football	Daily	5 days X 15 Weeks = 45 sessions	4
JV Volleyball	Daily	5 days X 15 Weeks = 45 sessions	4
JV Cross Country	Daily	5 days X 15 Weeks = 45 sessions	4
JV Golf	Daily	5 days X 15 Weeks = 45 sessions	4
JV Sailing	Daily	5 days X 15 Weeks = 45 sessions	4
JV Basketball	Daily	5 days X 15 Weeks = 45 sessions	4
JV Wrestling	Daily	5 days X 15 Weeks = 45 sessions	4
JV Track & Field	Daily	5 days X 15 Weeks = 45 sessions	4
JV Cheerleading	Daily	5 days X 15 Weeks = 45 sessions	4
JV Swim Team	Daily	5 days X 15 Weeks = 45 sessions	4
JV Baseball/Softball	Daily	5 days X 15 Weeks = 45 sessions	4
JV Tennis	Daily	5 days X 15 Weeks = 45 sessions	4
JV Soccer	Daily	5 days X 15 Weeks = 45 sessions	4
JV Weightlifting/Conditioning	Daily	5 days X 15 Weeks = 45 sessions	4
Morning News Crew/TOPS	Daily	5 days X 15 Weeks = 45 sessions	4
Club			

*Note.* EAP = extracurricular activity participation; JV = Junior Varsity; TOPS = Technically Oriented People.

The rating system was adapted from the Quality Benchmarks Rating System (Huang et al., 2008) and was designed as a quick and efficient solution to gauge participation in extracurricular activities. The features of this tool allow the rating system to apply to a variety of afterschool activities, regardless of whether the focus is on academics, global awareness, physical education, or any other area. The score for each indicator was established by reviewing the number of days that a student is engaged in an activity, as well as by revisiting the literature related to similar types of surveys (Huang et al., 2007; Kane, 2004).

It is important to note that this instrument only applies to this body of research, as it includes only the activities offered at the two schools. Further research is needed to validate this tool with other schools and sample sizes. Additional features could be added to further expand its usefulness. Nevertheless, the preliminary rating system is promising and represents the first steps toward the goal of assessing quality for a wide range of afterschool programs.

#### *School Identification Survey*

Part B of the survey was designed to determine the level of each student's identification with school. Students were asked to rate 12 questions in self-statement form by selecting *strongly agree*, *agree*, *neutral*, *disagree*, or *strongly disagree*. The original questionnaire comprised 16 items and was administered in the spring of 1994 to all eighth-grade students who had been followed in the Project STAR experiment, which began earlier that year (Voelkl, 1996). Most of the questions were specifically designed for the Identification With School experiment (Voelkl, 1996). Three of the items were

adopted from the Psychological Sense of School Membership questionnaire developed by Goodenow (1993b).

In an earlier factorial analysis of the instrument by Voelkl (1996), it was determined that single-factor and two-factor solutions were comparable when compared with four indices of fit (i.e., goodness-of-fit index, root mean square error of approximation, non-normed fit index, and the ratio of chi-square to degrees of freedom). The identification score was computed as the sum of all items, with modes substituted for missing-item responses for a small number of cases. High scores on the questionnaire represented a strong sense of identification with the school. The alpha coefficient reliability for the scale is .84.

Students, who at the time of survey administration were promoted to the 7<sup>th</sup>, 8<sup>th</sup> and 9<sup>th</sup> grades, took the survey online using Qualtrics (see Appendix, Part 2) in September 2010 and their score indicates their level of identification with school. The survey administrator used a standard administration protocol (see Appendix A). The students' names were kept confidential, and both the parent letter and the test directions explained that there was no penalty for declining to participate in the survey.

#### *Virginia Standards of Learning (SOL) Assessments*

The 2010 Virginia SOL math and reading assessment scaled scores, along with student's end-of-year GPA, served as the measure of student achievement in this study. A separate analysis was run for reading and math for each grade level (i.e., sixth, seventh, and eighth). The Virginia SOL are used to establish the goals and objectives for the curriculum taught at each grade level. Schools and divisions use these standards to direct instruction. The SOL tests are a way of assessing students' understanding of the

prescribed standards. The reliability of the math and reading SOL tests are based on the KR-20 internal consistency reliability estimate, a statistical estimate of how each test question contributes to the overall score averaged over all questions. It ranges from 0 (i.e., no reliability) to 1 (i.e., perfect reliability). Reliability estimates are calculated for each edition of the test. During the 2000 school year, 55 schools in various school divisions noted a reliability of .88 for the math SOL and .89 for the reading SOL.

The published validity evidence available for the SOL test is primarily related to content and predictive validity. Content validity is established by having the authors keep the standards directly in their view as they write, review, and revise each test item. Each item measures a specific standard and is reviewed by teachers, administrators, and curriculum specialists. Three different curriculum guidelines from 20 school divisions were considered as each test was developed. When SOL questions are released by the state, these items are also subjected to the review process.

Predictive score validity measures how well scores on previously developed tests predict scores obtained in particular test administrations. One small school division was used to run a set of regressions to predict the scores on the Virginia SOL test. The simulation test percent-correct scores for the individual students given early in spring were correlated with their later scaled scores on the state SOL test given in April. Correlations of .44 for eighth-grade mathematics and .54 for eighth-grade reading were found.

Predictive validity is the extent to which a score on a test predicts scores on some criterion measure. This is measured by comparing the average number correct on the pretest to the average number correct on the actual SOL test. A rank correlation was used,

as the percent-passing scores were not normally distributed. Over 31 schools, the Grade 5 reading scores correlated about .91 to the percentage of students passing reading. Over 32 schools, the Grade 5 mathematics was correlated .81 with the percentage of students passing mathematics. Each student receives a scaled score on the SOL test. These scaled scores range from 0 to 600. A total scaled score of 400 or more means that the student passed the test. A test score of 500 or more means that the student passed the test at an advanced level. A scaled test score of 399 or less means the student did not pass the test.

#### *Grade Point Average (GPA)*

GPA's provided a good indication of academic achievement, as it is the result of various interactions within the educational institution. Because all learning opportunities are given a grade or percentage that reflects an individual's performance on all assessment within a class, the final GPA is a measureable and attainable data source. This variety of assessments over a longer period of time may provide an even more accurate determination of a student's academic achievement than the snapshot of a standardized test (Cliffordson, 2008; Geiser & Santelices, 2007). Cliffordson (2008) suggested that grades are unique in that a student with a high GPA has put in more effort, has a better attitude toward school, performs better on assessments, and earns better grades. It is the subjectivity within the process of developing and grading a test that leads others to believe that standardized scores are more reliable (Geiser & Santelices, 2007).

GPA's should not be minimized as merely grades assigned by a teacher. A student's GPA is a representation of what the student has learned at that school, whereas standardized tests are based on national standards (Brookhart, 2004) and may or may not cover the topics that were taught in school. This lack of alignment may give students of

high socioeconomic status (SES) an advantage, as test bias seems to emerge in literature about standardized tests (Cliffordson, 2008; Geiser & Santelices, 2007).

Brookhart (1991) recommended that GPA be used when making comparisons or predictions about an academic self-concept construct. Motivation is most likely to be affected by the GPA's dependence upon students' experiences with teachers, the school environment, and personal learning experiences (Marsh & Yeung, 1997).

Students who received parental permission took the survey at the beginning of the 2010 school year. The survey was administered electronically and included students' names, which were later removed, in an effort to match survey results with 2010 Virginia SOL math and reading scaled scores.

### Variables of Interest

#### *Independent Variables*

The independent variables are (a) the extracurricular activity questionnaire score, which measures participation in extracurricular activities, and (b) the school identity inventory, which measures students' level of school identification. The EAP questionnaire gave students a score based on the level and number of activities selected. For example, a student who participated in JV basketball was given a score of 4. A student who selected both JV basketball and Drama Club received a score of 6; 4 points for the JV sport and 2 points for Drama Club (Table 2). The Student School Identification Survey also gave students a numerical rating based on their answers to the 12 questions (see Appendix C).

### *Dependent Variables*

The dependent variable for Research Questions 2, 3, and 4 are the 2010 end-of-year Virginia SOL math and reading scaled scores and student's end of year GPA. Data were also analyzed to determine whether the findings reached statistical significance.

### *Data Analysis*

Mathematics and reading 2010 SOL scaled scores, student GPA, and descriptive statistics were calculated and reported for the EAP and school identification inventory scores. Data were collected and analyzed using the online survey program Qualtrics, along with SPSS. Students answered survey questions online via the Internet. Research Questions 1, 2, and 3 were computed using correlational analysis, and Research Question 4 was answered using a multiple regression analysis (Table 3).

Table 3

*Research Design*

Research Question	Data and Survey Tools	Statistical Measure
1) Is there a relationship between students' involvement in extracurricular activities and students' school identification?	Extracurricular Activity Questionnaire School Identity Inventory	Correlation
2) Is there a relationship between extracurricular activity participation and student achievement?	Extracurricular Activity Questionnaire Virginia Standards of Learning (End of year assessment)	Correlation
3) Is there a relationship between students' school identification and student achievement?	School Identity Inventory Virginia Standards of Learning (End of year assessment)	Correlation
4) What is the combined influence of EAP and school identification on student achievement and to what extent do they make an independent contribution to explaining variances in achievement?	Extracurricular Activity Questionnaire School Identity Inventory Virginia Standards of Learning (End of year assessment)	Regression

*Note.* EAP = extracurricular activity participation; All data collection performed in Spring 2010.

### Ethical Safeguards

This study was conducted in a manner that protected the confidentiality of each participant in the study. Approval of this research project was obtained prior to the study from the Research Approval Committee in the school division whose auspices the study will be conducted. In addition, procedures were followed that conform to the requirements for appropriate research at the College of William and Mary. The research proposal was also approved by the Human Subjects Committee of the College of William and Mary, and ethical safeguards were maintained.

## CHAPTER IV: FINDINGS

### Introduction

This chapter reports the findings and answers to the research questions driving this study. The study was an effort to build on previous research about the relationship between student extracurricular activity participation, school identification and achievement. Presented in this chapter are the characteristics of the sample, and descriptions of the analyses and results.

### Purpose of the Study

The purpose of this study was to explore the relationships among students' participation in extracurricular activities (i.e., EAP), identification with their school, and academic achievement. This study incorporated a quantitative, correlational approach that sought to determine if relationships existed between academic achievement and student participation in extracurricular activities or student school identity. A correlational analysis was performed between EAP and academic achievement, as well as between school identity and academic achievement. In addition, a regression analysis was conducted to determine whether EAP or student school identification had a greater influence on achievement.

### Data Collection Procedures

Survey data were collected at the beginning of the 2010-2011 school year and compared to achievement data from the 2009-2010 school year. The researcher traveled to schools in the district to solicit parent and student permission. The researcher visited both schools in August, prior to student arrival, to discuss the study with teachers. All schools in the division offered an Open House night where parents and students could

visit the school and meet with teachers prior to the first day. The researcher was in attendance at each Open House to pass out permission slips and provide an overview of the study. In addition, forms were also sent home to students not in attendance. It is important to note that the 8<sup>th</sup> graders discussed in this study had been promoted to the 9<sup>th</sup> grade. As a result, the researcher also visited a high school to solicit permission from the previous year's eighth grade student's parents. After permissions were obtained from parents, students were asked to report to the computer lab at their respective schools to take the survey if they agreed to participate. All student demographic data and GPAs were obtained from the division's academic database. The grade levels of the population ranged from sixth to eighth grade during the 2009-2010 school year. Gender was dummy coded, such that 0 represented females and 1 represented males, for the purpose of utility within the statistical software (SPSS) used in this study. For the purposes of this study, ethnicity was viewed as a dichotomous variable. All minority students were grouped together regardless of race or ethnicity to form a single minority group, dummy coded as 1; and a non-minority group, dummy coded as 0, for purposes of analysis in SPSS.

#### *Virginia Reading and Math SOL Tests*

Possible scaled scores from the Virginia SOL reading and math test range from 200 to 600, whereas the range for the sample data was from 276 to 600. A low score represents a low degree of mastery of the subject area content. A high score represents a high degree of understanding of the subject content area. A score of 400 is considered to be proficient and a score of 500 or above is considered pass advance. The SOL reading scaled score mean and standard deviation for this sample was 490.32 and 66.34

respectively, and the SOL math scaled score mean and standard deviation was 467.97 and 79.37 respectively.

### *GPA*

GPA's could range from 0.00 to 4.00, whereas the range for the sample data was from 1.17 to 4.00. A low score represents a low degree of academic achievement in all subject areas during the course of the school year. A high score represents a high degree of overall academic achievement. Typically a 4.00 equates to a student who has received all A's over the course of the year. A GPA of 3.00 is described as a B average, 2.00 is described as a C average, 1.00 is describe as a D average and anything below is failing. The GPA mean and standard deviation for this sample was 3.00 and 0.64 respectively.

### *School Identification Score (SIS)*

School identification scores could range from 12 to 60, whereas the range for the sample data was from 27 to 60. A low score represents a low degree of student identification with his or her school. A high score represents a high degree of school identification. The SIS mean and standard deviation for this sample was 45.75 and 5.94 respectively.

### *EAP Score*

EAP scores could range from 0 to 60, whereas the range for the sample data was from 0 to 16. A low score represents a low level of student participation in extracurricular activities in his or her school. A high score represents a high degree of student participation in extracurricular activities. The EAP mean and standard deviation for this sample was 1.73 and 2.70 respectively.

### Description of the Sample

Students logged on to the Qualtrics website and entered an access code, given by the survey administrator. Three hundred fourteen students, who at the time of data collection were in grades seven, eight and nine, completed the survey within a 1-week time frame. This sample of 314 students was approximately one third of the potential population studied. The survey targeted these students previous year's experiences in grades six, seven, and eight from two middle schools in one Virginia district. These schools served a diverse population of over 900 students during the 2009-2010 school year. Table 4 provides a description of the subjects in regard to gender and ethnicity by race for each grade level.

Table 4

*Description of the Sample (N = 314)*

Grade, Gender and Race	<i>n</i>	% 2009-2010 population
<b>Grade 6</b>		
Minority	23	7%
Non-Minority	49	16%
Male	37	12%
Females	35	11%
<b>Grade 7</b>		
Minority	61	19%
Non-Minority	148	47%
Male	97	31%
Females	112	36%
<b>Grade 8</b>		
Minority	7	2%
Non-Minority	26	8%
Male	15	5%
Females	18	6%

Although the research questions did not specifically address grade, race or gender, they are important in order to interpret the data and understand the limitations of the study. It is also important to note that the majority of the sample population consisted of 7<sup>th</sup> grade

students and that 6<sup>th</sup> and 7<sup>th</sup> grade students did not have access to JV sports. As a result 90% of the students studied were unable to participate in 54% of the activities offered.

### Findings

The findings in this section will be presented by addressing each of the research questions individually, followed by additional findings of interest. Descriptive statistics found in table 5 show that most of the students involved in this study had a low level of extracurricular activity participation. Only 139 students, or 56 percent, participated in an extracurricular activity. Table 6 shows that of the 139 students who participated in an extracurricular activity, only 31 students received an EAP score greater than 6. Additionally, 175 students had a score of zero meaning that they did not participate at all. In other words, this study did not have a large sample of students who participated in extracurricular activities, limiting the ability to find relationships to EAP.

In addition, further examination of descriptive data, reveals means of all academic indicators in the above average range. An average GPA is a 2.00, the mean of the data collected was 3.00. The SOL reading measure indicated a mean of 490 in which 500 is considered pass advance. The SOL Math measure was slightly closer to the pass advance end of the spectrum with a mean of 467.

Table 5

*Descriptive Data (N=314)*

Variables	Mean	Standard Deviation	Minimum	Maximum
EAP	1.73	2.70	0	16
SIS	45.75	5.94	27	60
GPA	3.00	0.64	1.17	4.00
SOL R	490.32	66.34	319	600
SOL M	467.97	79.37	276	600

*First Research Question**The Relationship Between EAP and School Identification*

The first research question examined the relationship between EAP and school identification. Each activity was assigned a numeric value based on the amount of time that a student participated in the activity. The scores for each student were summed to create a total EAP score. Thus, the higher the EAP score, the more involved a student was in afterschool activities.

Table 6

## Extracurricular Activities Participation (N=314)

Total Score Frequency	N	%
0	175	56%
1-5	108	34%
6-10	26	8%
11-15	4	1%
> 15	1	1%

The process for calculating a total school identification score was similar. Each of the 12 questions received a score between 1 and 5. A score of 5 equated to the most positive response to any given question and 1 was given to most negative response. The sum of the scores for each question created a total school identification score (SIS). A student who selected the most positive answer to all questions would have received a score of 60. A student who selected the most negative response would receive a score of 12.

Descriptive statistics revealed that the survey tool was effective at examining different aspects of school identification. Table 7 shows the correlation of each item with the scale itself, as well as the average intercorrelation of the items and the alpha score.

Table 7

*Chronbach's Alpha ( $\alpha$ ) of International Statistical Institute (ISI) Measure*

Variable in scale	Correlation with index
Proud	.59
Trouble	.40
Favorite	.68
Important	.57
Adult interest	.41
Worthless	.61
Good job	.35
Waste	.68
Responsible	.52
Enjoy	.71
Part	.68
Fit in	.45
Average inter-item correlation	.21
Chronbach's alpha for scale	.79

Chronbach's alpha is a measure of scale reliability. The logic behind Cronbach's alpha indicates that if several variables are measuring the same underlying concept, then the answers to those questions should be similar for each respondent. The average inter-item correlation and the number of items in the scale are used to derive the alpha score—in this case,  $\alpha = 0.79$ . In the social sciences, anything above 0.70 is generally acceptable (Nunnally & Bernstein, 1994).

Once the validity of the instruments was established, Pearson correlations were conducted using SPSS, yielding the following results. Table 6, below shows that students' total EAP scores were mildly related ( $r = .135, p < 0.05$ ) to their total school identification scores. In addition, there was a significant relationship ( $r = .136, p < 0.05$ ) between EAP and students' grade level. This finding may be explained by the fact that there are more EAP offerings as grade level increases. No relationship existed between school identification and grade level. Additionally, EAP does not appear to be related to a student's gender or race, whereas mildly significant relationships existed between school identification and both gender ( $r = -.181, p < 0.01$ ) and race ( $r = -.182, p < 0.01$ ). In other words, findings suggest males are more likely to have a positive identification with school than females; and non-minority students are more likely to positively identify with their school than minority students.

Table 8

*Pearson Correlations for Extracurricular Activity Participation (EAP) and School Identification Survey (SIS) (N=314)*

EAP and SIS Correlations	Total EAP Score	Total SIS Score	Grade	Gender F=0 M=1	Race NM=0 M=1
Total EAP Score		.135*	.136*	.026	-.088
Total SIS Score			.057	.181**	-.182**
Grade				-.039	.051
Gender					.002
Race					

\*\* . Correlation is significant at the .01 level (2-tailed).

\* . Correlation is significant at the .05 level (2-tailed).

Note: Gender is coded Female = 0; Male = 1. Race is coded Minority=1; Non-Minority=0.

### *Second Research Question*

#### *The Relationship Between EAP and Student Achievement*

For the purpose of determining student achievement, three forms of data were collected about individual students from the end of the 2009-2010 school year: end-of-year GPA, Virginia SOL reading (SOLR) scaled scores, and SOL math (SOLM) scaled scores. The correlation between each of the scores and each student's total EAP score was calculated. Analyses revealed that a significant relationship was not found between the total EAP score and any of the achievement data collected (see Table 9).

Table 9

*Pearson Correlations for EAP, SIS, GPA, SOL Reading (SOLR), and SOL Math (SOLM).*

	EAP	SIS	GPA	SOLR	SOLM
EAP		.135*	.043	-.036	.012
SIS			.022	-.006	.035
GPA				.523**	.594**
SOLR					.565**
SOLM					

\*\* . Correlation is significant at the .01 level (2-tailed).

\* . Correlation is significant at the .05 level (2-tailed).

A review of individual activities revealed some relationships to achievement. For example, student participation in the Reader's Café (i.e., a club in which students agree to read a common book prior to participation in discussion about the book over lunch), Junior Beta (i.e., a club that involves high-achieving students in community service activities), and Racquetball Club were mildly related to GPA ( $r = .134, p < .05$ ;  $r = .289, p < .01$ ; and  $r = .154, p < .05$  respectively). Basketball Club showed a mild relationship to student's reading SOL scaled scores ( $r = .111, p < .05$ ). Majorettes showed a mild relationships to student's math SOL scaled scores ( $r = -.129, p < .05$ ). In other words student who participated in majorettes were less likely to perform well on the math SOL test. Future Problem Solvers and Technology Student Association participation were also mildly related to reading SOL scaled scores, however, only two students were involved,

for each, from this sample. There was a mildly significant relationship between Junior Beta in all academic categories; reading SOL ( $r = .152, p > .01$ ), math SOL ( $r = .113, p > .05$ ), and GPA ( $r = .289, p > .01$ ). This finding is consistent with Junior Beta's status as the only club requiring high academic standing ( $GPA > 3.2$ ) as a prerequisite for membership.

Table 10

*Relationships Between EAP and Student Achievement (N=314)*

Achievement	GPA	SOL R	SOL M
vs. EAP			
Morning News	-.021	-.040	-.071
Readers Café	.134*	.081	-.020
Jr. Beta	.289**	.152**	.113*
Majorettes	-.046	.008	-.129*
Drama	.079	.060	.074
Basketball	-.096	.111*	-.057
Racquetball Club	.154**	.008	.044

Note – Only activities with 10 or more participants were included in this chart.

\* $p < .05$ , \*\*  $p < .01$

Further examination into specific individual activities and their effect on school achievement yielded the following independent samples  $t$  test results, which are outlined in Tables 11 and 12. These  $t$  tests determined whether the difference between the test scores for those participating and those not participating are statistically distinguishable

from zero. Due to small sample sizes, one would need to interpret the results with caution. Nevertheless, one can determine that some of the activities are statistically related to test scores.

Table 11

*Mean Reading Test Scaled Scores by Participation in Extracurricular Activity (N = 314)*

Extracurricular Activity	Participated	Did not participate
	<i>M (n)</i>	<i>M (n)</i>
Football	452.62 (8)	492.92 (305)
Volleyball	458.75 (4)	492.32 (309)
Cross Country	482.00 (1)	491.92 (312)
Golf	n/a	n/a
Sailing	n/a	n/a
Basketball	441.67 (6)	492.87 (307)
Wrestling	535.00 (1)	491.75 (312)
Track and Field	465.50 (2)	492.06 (311)
Cheerleading	493.83 (6)	491.85 (307)
Swim Team	n/a	n/a
Baseball/Softball	448.33 (3)	492.31 (310)
Tennis	539.25 (4)	491.28 (309)
Soccer	567.00 (1)	491.65 (312)
Weightlifting/Conditioning	485.62 (8)	492.05 (305)

Table 11, continued

Extracurricular Activity	Participated	Did not participate
	<i>M (n)</i>	<i>M (n)</i>
Morning News/TOPS	480.07 (15)	492.48 (298)
Sign Language	475.00 (4)	492.11 (309)
Yearbook	500.22 (9)	491.64 (304)
Chrome	471.75 (8)	492.42 (305)
Readers Café	508.00 (31)	490.12 (282)
Rock Club	n/a	n/a
Jr. Beta Club	524.11** (28)	488.72 (285)
Great Computer Challenge	n/a	n/a
Majorettes, Flags and Ribbons	494.64 (11)	491.79 (302)
Drama Club	506.62 (21)	490.83 (292)
Basketball Club	467.42 (26)	494.10* (287)
Future Problem Solvers	600* (2)	491.19 (311)
Technology Student Assn.	588.50* (2)	491.27 (311)
Racquetball Club	493.67 (24)	491.74 (289)

\*  $p < .05$ . \*\*  $p < .01$ .

Table 12

*Mean Math Test Scaled Scores by Participation in Extracurricular Activity (N = 314)*

Extracurricular Activity	Participated	Did not participate
	<i>M (n)</i>	<i>M (n)</i>
Football	483.62 (8)	475.33 (301)
Volleyball	435.00 (4)	476.08 (305)
Cross Country	478.00 (1)	475.54 (308)
Golf	n/a	n/a
Sailing	n/a	n/a
Basketball	496.33 (6)	475.14 (303)
Wrestling	523.00 (1)	475.39 (308)
Track and Field	519.50 (2)	475.26 (307)
Cheerleading	448.67 (6)	476.08 (303)
Swim Team	n/a	n/a
Baseball/Softball	462.67 (3)	475.67 (306)
Tennis	513.50 (4)	475.05 (305)
Soccer	514.00 (1)	475.42 (308)
Weightlifting/Conditioning	508.25 (8)	474.68 (301)

Table 12, continued

Extracurricular Activity	Participated	Did not participate
	<i>M (n)</i>	<i>M (n)</i>
Morning News/TOPS	450.53 (15)	476.82 (294)
Sign Language	507.33 (3)	475.24 (306)
Yearbook	435.78 (9)	476.74 (300)
CHROME	482.25 (8)	475.37 (301)
Readers Café	470.90 (30)	476.06 (278)
Rock Club	n/a	n/a
Jr. Beta Club	503.82* (28)	472.73 (281)
Great Computer Challenge	n/a	n/a
Majorettes, Flags and Ribbons	422.36 (11)	477.51* (298)
Drama Club	497.70 (20)	474.01 (289)
Basketball Club	460.65 (26)	476.92 (287)
Future Problem Solvers	568.50** (2)	474.94 (307)
Technology Student Assn.	510.50 (2)	475.32 (307)
Racquetball Club	487.62 (24)	474.53 (285)

\*  $p < .05$ . \*\*  $p < .01$ .

The mean scaled scores for all SOL reading and Math tests ranged from 452 to 569 with 400 being a passing score and 500 or greater considered pass advanced. Academically all students within this district are performing at high levels which may pose a challenge when looking for significant impacts. Second, scores that varied greater than 10 points from the mean ( $M = 490$  reading and  $M = 467$  math) were typical of less

than 10 study participants with the exception of Readers Café ( $M = 508$  reading) and Jr. Beta ( $M = 524$  reading and  $M = 503$  math).

Although not a specific research question, a tool for measuring student achievement was examined in Table 9. Table 9 shows that a student's GPA is significantly related to math ( $R = 0.594$ ,  $p < .01$ ) and reading ( $R = 0.523$ ,  $p < .01$ ) SOL scaled scores. This finding confirms that either measure could be used to determine student achievement. SOL scaled scores, however, are the more interesting measure as they allow the researcher to make generalizations based on student achievement in math and/or reading.

### *Third Research Question*

#### *Relationship Between Students' School Identification and Student Achievement*

Students' total school identification scores were not related to their end-of-year GPA ( $r = .022$ ), their reading SOL scaled scores ( $r = -.006$ ) or math SOL scaled scores ( $r = .035$ ) (see Table 9). These findings suggest that students' feelings towards their school, positive or negative, has no relationship to how well their overall achievement will be at the end of the school year. It is, however, interesting to note that students with high GPAs reported that a student does not have to be in trouble to get attention ( $r = .208$ ,  $p > .05$ ) and that good grades were more likely to lead to a good job ( $r = .155$ ,  $p > .05$ ). These small findings may encourage educational leaders to not abandon attempts to use student identification as a means to improve overall achievement.

*Forth Research Question*

*Relative Impact of EAP and School Identification on Achievement*

Tables 13, 14, and 15 below contain regression data from the analysis of the impact of EAP and School identification on the three measures of student achievement. The first measure addressed by the analysis was student GPA. The results of the regression, evidenced in Table 13, revealed an F ratio of 0.325, which was not significant. This provides evidence that there was a minimal existence of a linear relationship; neither EAP nor School Identification explains significant variance in achievement. The  $R^2$  value ( $R^2 = 0.002$ ) indicates that none of the variation related to GPA is accounted for by School Identification and EAP, acting jointly.

Table 13

*Multiple Regression Analyses of the Relationship of EAP and School Identification on GPA (N=314)*

Independent Variable	B	Beta	<i>t</i>	<i>p</i>
EAP	.010	.040	.706	.480
School Identification	.002	.017	.289	.773

Note:  $R^2 = .002$ ,  $F(2,310) = .325$ ,  $p = .723$ .

The second measure addressed by the analysis was student SOL reading scaled scores. The results of the regression, provided in Table 14, revealed an F ratio of 0.203, which was not significant. This evidence demonstrates a minimal existence of a linear relationship; neither EAP nor School Identification explains significant variance in

reading achievement. The  $R^2$  ( $R^2 = 0.001$ ) value indicates that none of the variation related to SOL reading scaled scores is accounted for by School Identification and EAP.

Table 14

*Multiple Regression Analyses of the relationship of EAP and School Identification on Reading SOL scaled scores (N=314)*

Independent Variable	B	Beta	<i>t</i>	<i>p</i>
EAP	-.883	-.036	-.629	.530
School Identification	-.100	-.001	-.150	.988

Note:  $R^2 = .001$ ,  $F(2,310) = .203$ ,  $p = .817$ .

The third measure addressed by the analysis was student SOL math scaled scores. The results of the regression revealed an F ratio of 0.197, which was not significant. As with the previous measures of achievement, results provided in table 15 provides evidence that there was a minimal existence of a linear relationship. The  $R^2$  ( $R^2 = 0.001$ ) value indicates that none of the variation related to SOL math scaled scores is accounted for by School Identification and EAP.

Table 15

*Multiple Regression Analyses of the relationship of EAP and School Identification on Math SOL scaled scores (N=314)*

Independent Variable	B	Beta	<i>t</i>	<i>p</i>
EAP	.217	.007	.129	.898
School Identification	.459	.034	.592	.554

Note:  $R^2 = .001$ ,  $F(2,306) = .197$ ,  $p = .821$ .

The findings of this study differed from those in the literature that reported that participation in extracurricular activities is an important factor in student achievement. The data also did not support other findings that students' ability to identify with their school plays an important role in student achievement. However, the idea that involvement in extracurricular activities may help students to identify with their school was mildly supported by this study

## CHAPTER V: DISCUSSION, SUMMARY, LIMITATIONS AND RECOMMENDATIONS

This chapter provides a discussion of the research findings, a description of how all data were collected, the limitations of the study, possible explanation of results and an explanation of how these findings could influence the future of education. In addition, the implications for school leaders will be addressed, along with ideas for future research.

### Discussion

This study sought to build on existing research about the effects of Extracurricular Activity Participation (EAP) (e.g., Cooley et al., 1995; Eccles & Barber, 1999; Eccles & Templeton, 2002; Parish, 1985; Woods, 1995) and the importance of students' identification with their educational institution (Burrueta-Clement et al., 1984; Kushman et al., 2000; Newman et al., 1992; Voelkl, 1995). In addition, this study sought to establish a new body of research about the interaction between participation in extracurricular activities and school identification and their effect on student achievement. This study attempted to provide some insights into whether EAP or SIS are related to students' success in school.

### Summary of Findings

The results detailed in chapter 4 revealed a mildly significant relationship ( $r = .135, p < .05$ ) between student involvement in extracurricular activities and school identification. The other proposed relationships: EAP to student achievement and school identification to student achievement were not supported by any of the three academic indicators; GPA, SOL reading and SOL math scaled scores. Participation in extracurricular activities was not related to student achievement as a whole, although one

activity, Junior Beta, showed a significant relationship to all three academic indicators. School identification was also unrelated to student achievement.

This body of research sought to determine if extracurricular activity participation or school identification are related to academic achievement. The findings, however, lead the reader towards the understanding that there is no one answer for all schools. This research concluded that:

1. There was a mild relationship between extracurricular activity participation and school identification. The more the student participated in extracurricular activities, the more likely the student was to identify with their school.
2. There was not a significant relationship between extracurricular activity participation and student achievement. The amount of time a student was engaged in extracurricular activities was not a predictor of how well a student performed on standardized tests in reading or math or their GPA.
3. There was not a significant relationship between school identification and student achievement. A student's overall positive perception on their school, as evidenced by a high total score on the School Identification Survey, was not a predictor of student performance on reading or math standardized tests or their GPA.

What research suggested would correlate to academic achievement (EAP and School Identification) was not supported by this study which focused on a small rural district in Virginia.

## Limitations

Prior to the interpretation of the results, some of this study's methodological and design weaknesses need to be revisited. The first is that the data were not collected at the end of the school year in which the achievement data are being reported. As a result, a small sample of eighth graders participated in the study since all had moved on to high school and the events of the previous year may not have been of much interest. Over 90% of the students surveyed were in grades 6 and 7 and had limited access to extracurricular activities. The second limitation is the assumption that each student was involved in the extracurricular activity long enough to assess its impact on his or her academic performance. A student who joined a club at the end of the year may not have gained the same experiences as a student who joined at the beginning of the year. In either case, a student would have indicated that they were a member of the club regardless of the time spent actually participating. Third, data were collected from students through a self-reported survey and students may be reporting what they believe the principal wants to hear and, due to the delay in survey administration, perceptions may have changed between the spring and fall, especially for 8<sup>th</sup> graders who had moved on to high school. Forth, because the survey depends on student proficiency in reading comprehension, some respondents may not have understood each question. Fifth, a survey may not be the best way to gauge student school identification. Finally, this study was based entirely on a sample of students whose parents completed consent forms. It is likely that the students who returned these forms are less likely to be considered "at risk" than those who did not participate, and the sample used might have been composed of students with more social experiences than the overall population.

### Possible Explanation of Results

After reviewing the literature, one would expect both EAP and school identification to correlate with student achievement. The findings of this study may be a result of the size, the rural description, the overall achievement level of the school, or the statistical understanding that findings will not be the same in 100% of all studies. First, all of the studies discussed in chapter 2 of this document were conducted in districts larger than the district used in this study; in addition, none of the sample sizes used were under 1,000 students. Second, generalizations about the effects of EAP and school identifications were more frequently made about urban schools, all with populations larger than the district used in this study. Third, the achievement levels of schools, as evidenced by SOL results, have improved dramatically over the past 13 years since the adoption of standardized achievement testing and severe consequences for not meeting expectations. Examples include, but are not limited to, loss of school accreditation, failure to meet AYP, parents' choice of school, and negative perception caused by those in the media who publicize school results and comparisons each year. Expectations for schools and students have increased, and the focus on achievement has improved the quality and focus of instruction. In other words, there is not much variation in test scores because most of the students are doing well.

Both schools involved in this study demonstrated overall pass rates in the 90th percentile range. Fewer than 100 students of the combined 930 students in both schools failed the math or reading SOL test. In addition, school achievement measures are very different from those used 10 years ago, and pass rates have improved dramatically. In other words, a student who struggled to connect with his or her school and demonstrated

low academic achievement may not have received the attention that schools now place on these students. Some examples include the Title 1 Program, tutoring programs, school watch list, parent development workshops, and teacher staff development. Finally, the nature of statistics is such that, no matter how small, some margin exists where some studies do not support the findings of previous research.

### Implications for Practice

Today's educational leaders have been given a great task of meeting a mandate, that in two years (2013-2014 school year), 100% of all students will pass their end of year Standards of Learning assessment. All students will be required to pass regardless of race, gender, disability, or socioeconomic status. It is more important now than ever that leaders look to educational scholars to provide insight on how to successfully meet this goal.

#### *EAP and School Identification*

This study contributes to an expanding literature suggesting that participation in extracurricular activities can help students to better identify with their school setting. Those looking to expand extracurricular activity opportunities to their students can argue that research supports the efficacy of participation. Based on the results of this study, it appears that EAP offerings, regardless of duration or type, may help students to better identify with their school. It cannot be assumed that EAP will positively transform the way students feels about their school. Rather, EAP may be considered as one factor in addressing school identification.

The unanswered question remains how these activities should best be structured in order to have the greatest impact. Although this study has not conclusively shown that

EAP will help students to identify with their school, it suggests that any program or activity is related to a student's sense of connection. Social interaction created by EAP can positively shape a student's view of school. Further research needs to be conducted that evaluates which activity and methods are most likely to encourage school identification.

Newman (1981) recommended six strategies for improving a student's sense of connection to his or her school (i.e., school identification): (a) voluntary choice (i.e., having options available to help students exert some control over learning and environmental circumstances), (b) clear and consistent goals (i.e., having students understand and accept that school's goals), (c) small size (i.e., having smaller settings for learning), (d) participation (i.e., having students participate in all aspects of schooling), (e) extended and cooperative roles (i.e., involving students in roles that allow them to assist teachers and staff in the instructional process), and (f) integrated work (i.e., having students involved with projects that they feel are important and meaningful).

The recommendations listed above will not guarantee that students will better identify with their schools, as school connection is a complex developmental phenomenon. Each student has individual characteristics and attributes that shape their development and understanding of their school environment. Thus, a youth's sense of identification is reflective of the school environment, but is also shaped by his or her experiences. Kuh and Love (2000) suggested that the most important factor is a student's interaction with the faculty and staff. Their research indicated that adults who treat students with respect and show genuine interest in them, as individuals, are the most effective in creating a school environment that encourages school connection.

*Student Achievement*

Reichert and Kuriloff's (2003) research indicated that a positive relationship exist between GPA and school identification. This relationship was not supported by this study. That is, students' feelings about school were not correlated to GPA.

The correlation between GPA and standardized test scores within this study showed that a student's GPA is related to his or her overall understanding of the information presented to him or her over the course of the school year and as a result should continue to be used in discussions about student achievement.

Although not supported by this study, other research has suggested that students who are unable to identify with their school achieve lower grades, attend school less, have more discipline problems, and behave more antisocially; none of these variables were addressed by this study. Future research should continue to explore middle school students' participation in extracurricular activities and their relationship to school identification and achievement. Researchers should also seek to gain a better understanding of the impact other variables such as age, grade level, socioeconomic status, and structure and duration of EAP.

## References

- Abelson, R. P. (1976). A script theory of understanding, attitude, and behavior. In J. Carroll & T. Payne (Eds.), *Cognition and social behavior*. Hillsdale, NJ: Lawrence Erlbaum.
- Ainslie, B., Andersen, L., Colby, B., Hoffman, M., Meserve, K., O'Conner, C., et al. (1976). Predictive value of selected admission criteria for graduate nursing education. *Nursing Research*, 25(4), 296-299.
- Ames, C. (1992). Classrooms: Goals, structures, and student motivation. *Journal of Educational Psychology*, 84(3), 261-271.
- Anderman, L. H., & Midgley, C. (1998). *Motivation and middle school students* (ERIC Digest). Champaign, IL: ERIC Clearinghouse on Elementary and Early Childhood Education. (ERIC Document Reproduction Service No. ED 421 281)
- Baier, A. (1986). Trust and antitrust. *Ethics*, 96(2), 231-260.
- Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist*, 28(2), 117-148.
- Berndt, T. (1979). Developmental changes in conforming to parents and peers. *Developmental Psychology*, 15, 608-616.
- Berndt, T. J., Hawkins, J. A., & Jiao, Z. (1999). Influences of friends and friendships on adjustment to junior high school. *Merrill-Palmer Quarterly*, 45, 13-41.
- Boersma, F. J., & Chapman, J. W. (1992). *Manual for the perception of ability scale for students*. Los Angeles: Western Psychology Services.

- Bridges, K. R. (2001). *Using attributional style to predict academic performance: how does it compare to traditional methods?* University Park: Pennsylvania State University, Department of Psychology.
- Brofenbrenner, U. (1974). The origins of alienation. *Scientific American*, 261, 53-61.
- Brookhart, S. M. (1991). Grading practices and validity. *Educational Measurement: Issues and Practice*, 10(1), 35-36.
- Brookhart, S. M. (2004). *Grading*. Upper Saddle River, NJ: Prentice-Hall.
- Brown, B. (1988). The vital agenda for research on extracurricular influences: A reply to Holland and Andre. *Review of Educational Research*, 58, 107-111.
- Bryk, A. S., & Schneider, B. (1996). *Social trust: A moral resource for school improvement* (Report No. R117Q00005-95). Wisconsin Center for Education Research, Center on Organization and Restructuring of Schools.
- Bryk, A. S., & Schneider, B. (2002). *Trust in schools: A core resource for improvement*. New York: Russell Sage Foundation.
- Burbach, H. (1978). The development of a contextual measure of alienation. *Pacific Sociological Review*, 15, 225-234.
- Burrueta-Clement, J. R., Schweinhart, L. J., Barnett, W. W., Epstein, A. S., & Weikart, D. P. (1984). *Changed lives: The effects of the Perry preschool program on youths through age 19*. Ypsilanti, MI: High/Scope Press.
- Calabrese, R. (1987). The development of a contextual measure of alienation. *Pacific Sociological Review*, 15, 225-234.
- Calabrese, R., & Adams, J. (1990). Alienation: A cause of juvenile delinquency. *Adolescence*, 98, 435-439.

- Cliffordson, C. (2008). Differential prediction of study success across academic programs in the Swedish context: The validity of grades and tests as selection instruments for higher education. *Educational Assessment, 13*(1), 56–75.
- Cooley, V., Henreksen, L., Nelson, C., & Thompson, J. (1995). A study to determine the effect of extracurricular participation on student alcohol and drug use in secondary schools. *Journal of Alcohol and Drug Education, 40*, 71-87.
- Cornell, J., & Klem, A. (2004, March). *Relationships matter: Linking teacher support to student engagement and achievement*. Paper presented at the biennial meeting of the Society for Research on Adolescence, Baltimore, MD.
- Cornell, J., & Wellborn, J. (1990). Competence, autonomy, and relatedness: A motivational analysis of self-esteem processes. In M. Gunnar & A. Sroufe (Eds.), *Minnesota symposium of child psychology: Vol. 23* (pp. 43-77). Hillsdale, NJ: Lawrence Erlbaum.
- Crocker, L., & Algina, J. (1986). *Introduction to classical and modern test theory*. New York: Holt, Rinehart, & Winston.
- Currie, J. (2000). *Early childhood intervention programs: What do we know?* Washington, DC: The Children's Roundtable.
- Deci, E., Vallerand, R., Pelletier, L., & Ryan, R. R. (1991). Motivation and education: The self determination perspective. *Educational Psychologist, 26*, 753-758.
- Denise, J. (1973). The concept of alienation and some historical notices. In F. Johnson (Ed.), *Alienation: Concept, term, and meaning* (pp. 555-589). New York: Seminar Press.

- Dweck, C., & Licht, B. (1980). Learned helplessness and intellectual achievement. In J. Garber & M. E. P. Seligman (Eds.), *Human helplessness: Theory and applications* (pp. 197-221). New York: Academic Press.
- Dworkin, A. (1987). *Teacher burnout in the public schools*. Albany: State University of New York Press.
- Eccles, J., & Barber, B. (1999). Student council, volunteering, basketball, or marching-band: What kind of extracurricular involvement matters? *Journal of Adolescent Research, 14*, 10-43.
- Eccles, J., & Jacobs, E. (1986). Social forces shape math attitudes and performance. *Signs, 11*, 367-389.
- Eccles, J., Midgley, C., & Adler, T. (1984). Grade-related changes in the school environment: Effects on achievement motivation. In J. Nicholls (Ed.), *The development of achievement motivation* (Vol. 3, pp. 282-331). Greenwich, CT: JAI Press.
- Eccles, J., & Templeton, J. (2002). Extracurricular and other after-school activities for youth. *Review of Educational Research, 26*, 113-180
- Elley, W. B. (Ed.). (1992). *How in the world do students read?* Hamburg: Grindeldruck GMBH.
- Feltz, D., & Weiss, M. (1984). The impact of girls' interscholastic sport participation on academic orientation. *Research Quarterly for Exercise and Sport, 55*, 332-339.
- Fennema, E., & Leder, G. (1990). *Mathematics and gender*. New York: Teachers College Press.

- Fetro, J. (1987). *Adolescent alienation: Verifying a web of causation through path analysis*. Unpublished doctoral dissertation, Southern Illinois University at Carbondale.
- Finger, J. A., & Silverman, M. (1966). Changes in academic performance in the junior high school. *Personnel and Guidance Journal*, 45, 157-164.
- Finn, J. (1989). Withdrawing from school. *Review of Educational Research*, 59, 117-142.
- Finn, J. D., & Voelkl, K. E. (1993). School characteristics related to student engagement. *Journal of Negro Education*, 62, 249-268.
- Ford, D. L., & Lerner, R. M. (1992). *Developmental systems theory: An integrative approach*. Newbury Park, CA: Sage.
- Fordham, S. (1996). *Blacked out dilemmas of race, identity, and success at Capital High*. Chicago: University of Chicago Press.
- Forsyth, P., & Mitchell, R. (2004, November). *Trust, the principal, and student identification*. UCEA Conference Proceedings for Convention 2004. The Changing Face(s) of educational leadership: UCEA at the Crossroads. Kansas City, MO.
- Fuchs, P., Young, A., & Zweidler-McKay, A. (1998). New approach to strategy dynamic alignment of strategy and execution. In J. Gattorna (Ed.), *Strategic supply chain alignment: Best practice in supply chain management*. Burlington, VT: Gower.
- Gardner, H., & Hatch, T. (1989). Multiple intelligences go to school: Educational implications of the theory of multiple intelligences. *Educational Researcher*, 18(8), 4-9.

- Geiser, S., & Santelices, M. (2007). *Validity of high-school grades in predicting student success beyond the freshman year: High-school record vs. standardized tests as indicators of four-year college outcomes*. Retrieved September 12, 2010, from <http://cshe.berkeley.edu/publications/publications.php?id=265>
- Gerber, S. (1996). Extracurricular activities and academic achievement. *Journal of Research and Development in Education, 30*, 42-50.
- Goddard, R. D., Tschannen-Moran, M. & Hoy, W. K. (2001). A multilevel examination of the distribution and effects of teacher trust in students and parents in urban elementary schools. *Elementary School Journal, 102* (1), 3-17.
- Goodenow, C. (1993a). Classroom belonging among early adolescent students: Relationships to motivation and achievement. *Journal of Early Adolescence, 13*, 21-43.
- Goodenow, C. (1993b). The psychological sense of school membership among adolescents: Scale development and educational correlates. *Psychology in the Schools, 30*, 79-90.
- Greaney, B., & Hegarty, M. (1987). Correlates of leisure-time reading. *Journal of Research in Reading, 10*(1), 3-20.
- Guthrie, J. T., & Greaney, B. (1991). Literacy acts. In R. Barr, M. L. Kamil, P. Mosenthal, & P. D. Pearson (Eds.), *Handbook of reading research* (Vol. II). New York: Longman.
- Haensly, P., Lupkowski, A., & Edlind, E. (1986). The role of extracurricular activities in education. *High School Journal, 82*, 110-119.

- Hamachek, D. (1995). Self-concept and school achievement: Interaction dynamics and a tool for assessing the self-concept component. *Journal of Counseling and Development, 73*, 419-425.
- Hanks, M., & Eckland, B. (1976). Athletes and social participation in the educational attainment process. *Sociology of Education, 49*, 271-294.
- Harter, S. (1990). Processes underlying adolescent self-concept formulation. In R. Montemayor, G. Adams, & T. Gullotta (Eds.), *From childhood to adolescence: A transitional period?* (Vol. 2, pp. 205-239). Newbury Park, CA: Sage.
- Hawkins, J., & Weis, J. (1985). The social development model: An integrated approach to delinquency prevention. *Journal of Primary Prevention, 6*, 73-97.
- Hines, L. (1988). *An analysis of enrollment patterns in required general education courses and the related success, as measured by grade point average, of technical-occupational students in a multi-campus urban community college.* Unpublished doctoral dissertation, University of North Texas, Denton.
- Hirsch, B. J., & Rapkin, B. D. (1987). The transition to junior high school: A longitudinal study of self-esteem, psychological symptomatology, school life, and social support. *Child Development, 58*, 1235-1243.
- Hirschi, T. (1969). *Causes of delinquency.* Berkeley, CA: University of California Press.
- Holland, A., & Andre, T. (1987). Participation in extracurricular activities in secondary school: What is known, what needs to be known? *Review of Educational Research, 57*, 434-466.

- Hoy, W. K., & Tschannen-Moran, M. (1999). Five faces of trust: An empirical confirmation in urban elementary schools. *Journal of School Leadership, 9*, 184-208.
- Huang, D., Coordt, A., La Torre, D., Leon, S., Miyoshi, J., Perez, P., et al. (2007). *The afterschool hours: Examining the relationship between afterschool staff-based social capital and student engagement in LA's BEST* (CSE Tech. Rep. No. 12). Los Angeles: University of California-Los Angeles, National Center for Research on Evaluation, Standards, and Student Testing.
- Huang, D., Harven, A., Huber, L., Jiang, L., Leon, S., LaTorre, D., et al. (2008). Identification of key indicators of quality in afterschool programs. (CRESST Rep. No. 748). Los Angeles: University of California-Los Angeles, National Center for Research on Evaluation, Standards, and Student Testing.
- Kane, T. J. (2004). *The impact of after-school programs: Interpreting the results of four recent evaluations*. New York: W. T. Grant Foundation.
- Keating, D. (1990). Adolescent thinking. In S. S. Feldman & G. R. Elliott (Eds.), *At the threshold: The developing adolescent* (pp. 54-89). Cambridge, MA: Harvard University Press.
- Klem, A. M., & Connell, J. P. (2004). Relationships matter: Linking teacher support to student engagement and achievement. *Journal of School Health, 74*(7), 262-273.
- Kuh, G. & Love, P. (2000). A cultural perspective on student departure. In J. M. Braxton (Ed.), *Reworking the student departure puzzle* (pp. 196-212). Nashville, TN: Vanderbilt University Press.

- Kuhn, T. (1970). *The structures of scientific revolutions* (3rd ed.). Chicago: University of Chicago Press.
- Kurango, R. (1979). The concepts of alienation and involvement revisited. *Psychological Bulletin*, 86, 119-138.
- Kush, J., Watkins, M., & Brookhard, S. (2005). The temporal-interactive influence of reading achievement and reading attitude. *Educational Research and Evaluation*, 11(1), 29-44.
- Kushman, J. W., Sieber, C., & Heariold-Kinney, P. (2000). This isn't the place for me: School dropout. In D. Capuzzi & D. R. Gross (Eds.), *Youth at risk: A prevention resource for counselors, teachers, and parents* (3rd ed., pp. 471-507). Alexandria, VA: American Counseling Association.
- Landers, D., Feltz, D., Obermeier, G., & Brouse, T. (1978). Socialization via interscholastic athletics: Its affect on attainment. *Research Quarterly*, 49, 474-483.
- Landers, D., & Landers, D. (1978). Socialization via interscholastic athletics: Its effect on delinquency. *Sociology of Education*, 51, 229-303.
- Lindsay, P. (1984). High school size, participation in activities, and young adult social participation: Some enduring effects of schooling. *Educational Evaluations and Policy Analysis*, 6, 73-83.
- Maehr, M., & Braskamp, L. (1986). *The motivation factor: A theory of personal investment*. Lexington, MA: Lexington Books.
- Mahoney, J., & Cairns, R. (1997). Do extracurricular activities protect against early school dropout? *Developmental Psychology*, 33, 241-253.

- Marsh, H. (1992). Extracurricular activities: Beneficial extension of the traditional curriculum or subversion of academic goals? *Journal of Educational Psychology*, 84, 553-562.
- Marsh, H., & Yeung, A. (1997). Causal effects of academic self-concept on academic achievement: Structural equation models of longitudinal data. *Journal of Educational Psychology*, 89, 41-54
- McNeal, R. (1995). Extracurricular activities and high school dropouts. *Sociology of Education*, 68, 62-81.
- Meier, D. (2004). Creating schools we can trust. In C. Glickman (Ed.), *Letters to the next president* (pp. 18-26). New York, NY: Teachers College Press
- Meyer, M. R., & Koehler, M. S. (1990). Internal influences on gender differences in mathematics. In E. Fennema & G. C. Leder (Eds.), *Mathematics and gender* (pp. 60-95). New York: Teachers College Press.
- Multon, K. D., Brown, S. D., & Lent, R. W. (1991). Relation of self-efficacy beliefs to academic outcomes: A meta-analytic investigation. *Journal of Counseling Psychology*, 38, 30-38.
- Newman, F. (1981). Reducing student alienation in high schools: Implications of theory. *Harvard Educational Review*, 31, p. 63.
- Newman, F., Wehlage, G., & Lamborn, S. (1992). *The significance and sources of student engagement*. In F. Newman (Ed), *Student engagement and achievement in American secondary schools*. (pp. 11-39). New York, NY: Teachers College Press.

No Child Left Behind. (2002). *Sourcebook of No Child Left Behind policy*. Retrieved April 15, 2009, from <http://www.ed.gov>

Nover, M. (1981). *Student involvement and the psychological experience of the high school*. A paper presented at the Annual Convention of the APA, Los Angeles, California, August 21-24, 1981.

Nunnally, J. & Bernstein, I. (1994). Psychometric theory. *Psychometric Theory*, by 1994, McGraw-Hill Higher Education.

Ogbu, J. U., & Simons, H. D. (1998). Voluntary and involuntary minorities: A cultural-ecological theory of school performance with some implications for education. *Anthropology & Education Quarterly*, 29, 155-188.

Osborne, J. W. (1995). Academics, self-esteem, and race: A look at the underlying assumptions of the disidentification hypothesis. *Personality & Social Psychology Bulletin*, 21, 449-455.

Osborne, J. W. (1997). Race and academic disidentification. *Journal of Educational Psychology*, 89, 728-735.

Otto, L. (1975). Extracurricular activities in the educational attainment process. *Rural Sociology*, 40, 162-176.

Otto, L., & Alwin, D. (1977). Athletics, aspirations, and attainments. *Sociology of Education*, 42, 102-113.

Parish, E. (1985). Participation in junior high school extracurricular activities and its relationship to academic performance and educational aspirations. *Dissertation Abstracts International*, 46, 319-320.

- Patton, C. (1980). *The effect of a special orientation program for entering freshmen on attrition, satisfaction, and grade point average*. Unpublished doctoral dissertation, University of North Texas, Denton.
- Rabinowitz, S., & Hall, D. (1977). Organizational research on job involvement. *Psychological Bulletin*, 84, 265-288.
- Reichert, M. & Kuriloff, P. (2003). Boys' selves: forging identities in the looking glass of school life. *Teachers' College Record*, 106 (3), 547-576.
- Reyes, L. H. (1984). Affective variables and mathematics education. *Elementary School Journal*, 84, 558-581.
- Ross, E. W. (2000). Alienation, exploitation, and connected citizenship. *Theory and Research in Social Education*, 28, 306-310.
- Ryan, R., Stiller, J., & Lynch, J. (1990). *Representations of relationships to teachers, parents, and friends as predictors of academic motivation and self-esteem*. Unpublished manuscript, University of Rochester, NY.
- Schafer, W. E. (1969). Participation in interscholastic athletics and delinquency: A preliminary study. *Social Problems*, 17, 40-49.
- Schunk, D. (1989). Self-efficacy and cognitive skills learning. In C. Ames & R. Ames (Eds.), *Research on motivation in education* (Vol. 3, pp. 13-4). New York: Academic Press.
- Seeman, M. (1975). Alienation studies. *Annual Review of Sociology*, 1, 91-123.
- Shapiro, J., & Whitney, P. (1997). Factors involved in the leisure reading of upper elementary school students. *Reading Psychology*, 18(4), 343-370.

- Shilts, L. (1991). The relationship of early adolescent substance use to extracurricular activities, peer influence, and personal attitudes. *Adolescence, 26*, 613-617.
- Simmons, R. G., & Blyth, D. A. (1987). *Moving into adolescence: The impact of pubertal change and school context*. Hawthorne, NY: Aldine de Gruyter.
- Slavin, R. (1990). *Cooperative learning: Theory, research, and practice*. Englewood Cliffs, NJ: Prentice Hall.
- Smith, P. A., Hoy, W. K., & Sweetland, S. R. (2001). Organizational health of high schools and dimensions of faculty trust. *Journal of School Leadership, 12*, 135-150.
- Snyder, E. (1975). Athletic team involvement, educational plans, and the coach-player relationship. *Adolescence, 10*, 191-200.
- Spady, W. (1970). Lament for the letterman: Effects of peer status and extracurricular activities on goals and achievement. *American Journal of Sociology, 75*, 680-702.
- Sprinthall, N. A. (1985). Early adolescents and opportunities for growth in the 1980s. *Journal of Adolescence, 5*, 533-547.
- Steele, C. M. (1992). Race and the schooling of black Americans. *The Atlantic, 269*, 68-78.
- Steinberg, L., Cider, M., Kaczmarek, N., & Lazzavo, C. (1988). *Noninstructional influences on high school students' achievement: The contributions of parents, peers, extracurricular activities, and part-time work*. (ERIC Document Reproduction Service No. ED307509)
- Stiggins, R. (1999). Assessment, student confidence and school success. *Phi Delta Kappa, 81*, 191-198.

- The No Child Left Behind Act of 2001: Executive summary.* (n.d.). Retrieved June 26, 2010, from <http://www.ed.gov/nclb/overview/intro/index.html>
- Trusty, J., & Dooley-Dickey, K. (1993). Alienation from school: An exploratory analysis of elementary and middle school student's perceptions. *Journal of Research and Development in Education, 19*, 1-12.
- Tschannen-Moran, M. (2004). *Trust matters: Leadership for successful schools*. San Francisco: Jossey-Bass.
- U.S. Department of Education. (2002). *No Child Left Behind: A desktop reference*. Washington, DC: Author.
- Virginia Department of Education. (2010). Retrieved August 26, 2010, from <https://p1pe.doe.virginia.gov/reportcard/>
- Voelkl, K. (1995). School warmth, student participation, and achievement. *Journal of Experimental Education, 63*, 127-138.
- Voelkl, K. (1996). Measuring students' identification with school. *Educational and Psychological Measurement, 56*, 760-770.
- Voelkl, K. (1997). Identification with school. *American Journal of Education, 105*, 294-318.
- Vredeveld, G. (2010, January 3). Quality education yields big returns. *The Enquirer*, p. G2.
- Ward, B. A., Mergendoller, J. R., & Tikunoff, W. J. (1982). Introduction to the Junior High School Transition Study. *Journal of Early Adolescence, 4*, 311-317.

- Wehlage, G. G. (1989). Dropping out: Can schools be expected to prevent it? In L. Weis, E. Farrar, & H. Petrie (Eds.), *Dropouts from school: Issues, dilemmas and solutions* (pp. 1-22). New York: SUNY.
- Wehlage, G., Rutter, R., Smith, G., Lesko, N., & Fernandez, R. (1989). *Reducing the risk: Schools as communities of support*. Philadelphia: Falmer.
- Weiner, B. (1992). *Human motivation: Metaphors, theories, and research*. Newbury Park, CA: Sage Publications.
- Wilkinson, I. (1998). Dealing with diversity: Achievement gaps in reading literacy among New Zealand students. *Reading Research Quarterly*, 33(2), 144-167.
- Williams, M. (2001). In whom we trust: Group membership as an affective context for trust development. *Academy of Management Review*, 26(3), 377-396.
- Wlodkowski, R., & Jaynes, J. (1990). *Eager to learn: Helping children become motivated and love learning*. San Francisco: Jossey-Bass.
- Woessmann, L. (2001). Why students in some countries do better: International evidence on the importance of education policy. *Education Matters*, 1, 67-74.
- Woods, E. G. (1995). *Reducing the dropout rate*. Retrieved October 2, 2000, from <http://www.nwrel.org/scpd/sirs/9/c017.html>

## APPENDIX A

## STUDENT EAP AND SCHOOL IDENTIFICATION SURVEY INSTRUCTIONS

Survey administration script:

Hello my name is \_\_\_\_\_ and I am from \_\_\_\_\_. Today you will be asked to help your school administration learn more about its students. This survey will seek to make school a better place for you, the students. We are interested in hearing your opinion. Only middle school students in this county who have their parent's permission will have the opportunity to take this survey, so your opinion is very important to us.

Although you will be asked to enter your name, the contents of this survey will be kept confidential so please be as truthful as possible. This is not a test; as a result, there are no right or wrong answers. Part of this survey will ask you to select activities that you participated in during the 2009 – 2010 school year. The list will only contain activities that are considered extracurricular (before or afterschool) and take place within the school setting.

I am now going to ask you to turn to your computer and press the start button. If there is something that you do not understand, please raise your hand and I will come to help. If you finish while others are still working you may read or do other work. Please do not disturb those still working on the survey.

To the administrator:

If a question is asked, please assist students without directly telling them what to answer. If a student is slow in completing the survey, they may be having difficulty. If a student generally received an accommodation such as "read aloud" or "clarify directions", the same protocol should be followed. Also, make sure students are not sharing answers or looking at others computer screen.

## APPENDIX B

## STUDENT EAP SURVEY

## Part 1 (Extracurricular Activities Participation)

NAME \_\_\_\_\_

Please check all of the following activities that you've participated in outside of regular class hours during the 2009-2010 school year (Check all that apply).

If you have not participated in any school sponsored Extracurricular Activity this year, please check the box below.

- |  |                       |
|--|-----------------------|
| JV Sports – Football                   | <input type="radio"/> |
| JV Sports – Volleyball                 | <input type="radio"/> |
| JV Sports - Cross Country              | <input type="radio"/> |
| JV Sports – Golf                       | <input type="radio"/> |
| JV Sports – Sailing                    | <input type="radio"/> |
| JV Sports – Basketball                 | <input type="radio"/> |
| JV Sports – Wrestling                  | <input type="radio"/> |
| JV Sports - Track & Field              | <input type="radio"/> |
| JV Sports – Cheerleading               | <input type="radio"/> |
| JV Sports - Swim Team                  | <input type="radio"/> |
| JV Sports - Baseball/Softball          | <input type="radio"/> |
| JV Sports – Tennis                     | <input type="radio"/> |
| JV Sports – Soccer                     | <input type="radio"/> |
| JV Sports - Weightlifting/Conditioning | <input type="radio"/> |
| Morning News Crew / TOPS Club          | <input type="radio"/> |
| Sign Language                          | <input type="radio"/> |
| Yearbook                               | <input type="radio"/> |
| Chrome                                 | <input type="radio"/> |
| Readers Café /Book Café                | <input type="radio"/> |
| Rock Club                              | <input type="radio"/> |
| Jr. Beta Club                          | <input type="radio"/> |
| Great Computer Challenge               | <input type="radio"/> |
| Majorettes, Flags, and Ribbons         | <input type="radio"/> |
| Drama Club                             | <input type="radio"/> |
| Basketball Club                        | <input type="radio"/> |
| Future Problem Solvers                 | <input type="radio"/> |
| TSA - Technology Student Association   | <input type="radio"/> |
| Racquetball Club                       | <input type="radio"/> |

I did not participate in any school sponsored Extracurricular Activity this year	<input type="radio"/>
--	-----------------------

## APPENDIX C

## STUDENT SCHOOL IDENTIFICATION SURVEY

## Part 2 (School Identification)

Instructions: Please indicate your level of agreement by selecting one of the options below for each statement.

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1.	I feel proud of being a part of my school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.	The only time I get attention at school is when I cause trouble.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3.	School is one of my favorite places to be.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4.	School is more important than most people think.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5.	There are adults at school who are interested in me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6.	Most of the things we learn in school are worthless.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7.	I can get a good job even if my grades are bad.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8.	Going to school is a waste of time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9.	I am responsible for what I learn.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10.	I enjoy coming to school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11.	I feel like I am a part of my school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12.	I fit in with the students at this school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

APPENDIX D

PARENT SURVEY PARTICIPATION REQUEST

Dear Parent or Guardian;

As a doctoral candidate in Educational Leadership at The College of William and Mary, I am in the process of collecting data for a research study. This study will focus on the impact of middle school students' participation in extracurricular activities, their identification with their school, and their academic achievement. I am requesting that you provide written permission for your daughter or son to participate in the school identification and extracurricular activity survey. It will be administered to your child during their exploratory class in order to not disrupt core classroom instruction.

This survey should take no longer than 10 minutes and there are no foreseeable risks or discomforts to the participants in this study. All information collected will be kept confidential.

Participation in this study is completely voluntary. Your decision whether or not to allow your child to participate will in no way affect your child's standing in his or her class or school. At the conclusion of the study, a summary of group results will be available to all interested parents and teachers. Should you have any questions or desire further information, please call me at 242-4193.

Thank you in advance for your cooperation and support.

Sincerely,

Stenette Byrd III  
Principal  
Windsor Elementary School  
757-242-4193

THIS PROJECT WAS APPROVED BY THE COLLEGE OF WILLIAM & MARY PROTECTION OF HUMAN SUBJECTS COMMITTEE (Phone: 757-221-3901) ON [JUNE 11, 2010] AND EXPIRES ON [JUNE 11, 2011].

-----  
Parent/Guardian,

Please indicate whether or not you wish to have your child participate in this project, by checking a statement below and returning this letter to your child's teacher as quickly as possible.

I do grant permission for my child, \_\_\_\_\_ to participate in this project.

I do not grant permission for my child, \_\_\_\_\_ to participate in this project.

\_\_\_\_\_  
Parent/Guardian's signature

Persons performing the procedures –  
Stenette Byrd III, Principal of Windsor Elementary School.

APPENDIX E

STUDENT SURVEY PARTICIPATION REQUEST

Dear Student;

As a doctoral candidate in Educational Leadership at The College of William and Mary, I am in the process of collecting data for a research study. This study will focus on the impact of middle school students' participation in extracurricular activities, their identification with their school, and their academic achievement. I am requesting that you provide written permission to participate in the school identification and extracurricular activity survey.

This survey should take no longer than 10 minutes and there are no foreseeable risks or discomforts to the participants in this study. All information collected will be kept confidential.

Participation in this study is completely voluntary. Your decision whether or not to participate will in no way affect your standing in your class or school. At the conclusion of the study, a summary of group results will be available to all interested parents and teachers. Should you have any questions or desire further information, please call me at 242-4193.

Thank you in advance for your cooperation and support.

Sincerely,

Stenette Byrd III  
Principal  
Windsor Elementary School  
757-242-4193

THIS PROJECT WAS APPROVED BY THE COLLEGE OF WILLIAM & MARY PROTECTION OF HUMAN SUBJECTS COMMITTEE (Phone: 757-221-3901) ON [JUNE 10, 2010] AND EXPIRES ON [JUNE 10, 2011].

-----  
Please indicate whether or not you wish to participate in this project, by checking a statement below and returning this letter to your teacher as quickly as possible.

\_\_\_ I, \_\_\_\_\_, wish to participate in this project.  
\_\_\_ I, \_\_\_\_\_, do not wish to participate in this project.

\_\_\_\_\_ Student's Signature

Persons performing the procedures –  
Stenette Byrd III, Principal of Windsor Elementary School.

APPENDIX F  
DOCUMENTATION REGARDING HUMAN SUBJECTS

Email

[https://compliance.wm.edu/printer\\_friendly\\_email.html](https://compliance.wm.edu/printer_friendly_email.html)

**View Email**

**From:**

compli@wm.edu

**To:**

mfdipa@wm.edu, sxbyrd@wm.edu, phsc-l@wm.edu,

**Cc:**

**Date Sent:**

2010-06-21 11:18:04

**Subject:**

Status of protocol PHSC-2010-05-26-6733-mfdipa set to active

**Message:**

This is to notify you on behalf of the Protection of Human Subjects Committee (PHSC) that protocol PHSC-2010-05-26-6733-mfdipa titled Middle School Students' Participation in Extracurricular Activities: Relationships to School Identification and Achievement has been approved through the EXPEDITED review process with a start date of 2010-06-21.

**This protocol will expire on 2011-06-21 at which time work must discontinue.**

Should there be any changes to this protocol during the project period or if you wish to continue the protocol after this expiration date, please submit your request to the committee for review using the Protocol and Compliance Management channel on the Service tab within myWM ( <http://my.wm.edu/> ).

Please add the following statement to the footer of all consent forms, cover letters, etc.:

THIS PROJECT WAS APPROVED BY THE COLLEGE OF WILLIAM AND MARY PROTECTION OF HUMAN SUBJECTS COMMITTEE (Phone 757-221-3941) ON 2010-06-21 AND EXPIRES ON 2011-06-21.

You are required to notify Dr. Deschenes, chair of the PHSC at 757-221-2778 (PHSC-L@wm.edu) if any issues arise with participants during this study.

Good luck with your study.